
[All ETDs from UAB](#)

[UAB Theses & Dissertations](#)

1979

Behaviors Of First-Time Fathers At The Time Of Their Initial Acquaintance With Their Infants.

Janice Templeton Gay
University of Alabama at Birmingham

Follow this and additional works at: <https://digitalcommons.library.uab.edu/etd-collection>



Part of the [Nursing Commons](#)

Recommended Citation

Gay, Janice Templeton, "Behaviors Of First-Time Fathers At The Time Of Their Initial Acquaintance With Their Infants." (1979). *All ETDs from UAB*. 4066.
<https://digitalcommons.library.uab.edu/etd-collection/4066>

This content has been accepted for inclusion by an authorized administrator of the UAB Digital Commons, and is provided as a free open access item. All inquiries regarding this item or the UAB Digital Commons should be directed to the [UAB Libraries Office of Scholarly Communication](#).

INFORMATION TO USERS

This was produced from a copy of a document sent to us for microfilming. While the most advanced technological means to photograph and reproduce this document have been used, the quality is heavily dependent upon the quality of the material submitted.

The following explanation of techniques is provided to help you understand markings or notations which may appear on this reproduction.

1. The sign or "target" for pages apparently lacking from the document photographed is "Missing Page(s)". If it was possible to obtain the missing page(s) or section, they are spliced into the film along with adjacent pages. This may have necessitated cutting through an image and duplicating adjacent pages to assure you of complete continuity.
2. When an image on the film is obliterated with a round black mark it is an indication that the film inspector noticed either blurred copy because of movement during exposure, or duplicate copy. Unless we meant to delete copyrighted materials that should not have been filmed, you will find a good image of the page in the adjacent frame.
3. When a map, drawing or chart, etc., is part of the material being photographed the photographer has followed a definite method in "sectioning" the material. It is customary to begin filming at the upper left hand corner of a large sheet and to continue from left to right in equal sections with small overlaps. If necessary, sectioning is continued again—beginning below the first row and continuing on until complete.
4. For any illustrations that cannot be reproduced satisfactorily by xerography, photographic prints can be purchased at additional cost and tipped into your xerographic copy. Requests can be made to our Dissertations Customer Services Department.
5. Some pages in any document may have indistinct print. In all cases we have filmed the best available copy.

University
Microfilms
International

300 N. ZEEB ROAD, ANN ARBOR, MI 48106
18 BEDFORD ROW, LONDON WC1R 4EJ, ENGLAND

8007877

GAY, JANICE TEMPLETON

BEHAVIORS OF FIRST-TIME FATHERS AT THE TIME OF THEIR
INITIAL ACQUAINTANCE WITH THEIR INFANTS

The University of Alabama in Birmingham Medical Center

University

D.S.N.

1979

Microfilms

International

300 N. Zeeb Road, Ann Arbor, MI 48106

18 Bedford Row, London WC1R 4EJ, England

Copyright 1980

by

GAY, JANICE TEMPLETON

All Rights Reserved

BEHAVIORS OF FIRST-TIME FATHERS AT THE
TIME OF THEIR INITIAL ACQUAINTANCE
WITH THEIR INFANTS

by

JANICE TEMPLETON GAY

A DISSERTATION

Submitted in partial fulfillment of the requirements for the
degree of Doctor of Science in Nursing in the
Graduate School of The University of
Alabama in Birmingham

BIRMINGHAM, ALABAMA

1979

GRADUATE SCHOOL
UNIVERSITY OF ALABAMA IN BIRMINGHAM
DISSERTATION APPROVAL FORM

Name of Candidate Janice T. Gay
Major Subject Nursing
Title of Dissertation Behaviors of First-Time Fathers at the Time of
Their Initial Acquaintance with Their Infants

Dissertation Committee:

Kathleen Goldblatt, Chairman
Dr. Kathleen Goldblatt
Jean Kelley
Dr. Jean Kelley
Kitty Daniel
Dr. Kitty Daniel
Martha Hedley
Dr. Martha Hedley

Robert Goldenberg
Dr. Robert Goldenberg

Director of Graduate Program Kenneth Roizen

Dean, UAB Graduate School Kenneth Roizen

Date July 12, 1979

ACKNOWLEDGMENTS

No work of this nature is completed in isolation but requires the support of many significant others. My gratitude is extended to each member of my Graduate Research Committee; the Co-Chairmen Dr. Jean Kelley and Dr. Kathleen Goldblatt, Dr. Kathryn Daniel, Dr. Robert Goldenberg, and Dr. Martha Hedley. Each will always be remembered as demanding scholars who provided support to the research endeavor and exploded the myth of education by intimidation.

Special recognition must be made of Dr. Kathleen Goldblatt who began this endeavor as my friend. More importantly, this friendship endured the stress of doctoral education and taught me the real meaning of a role model.

My husband Herbert Gay and daughter Jennifer must be commended for their support of and defense for a wife and mother who was so consistently different from others. Their willingness to tolerate and explain my behavior will never be forgotten.

My appreciation is also extended to Ann Edgil and Velma Denson who so patiently categorized the paternal behaviors and provided validity to the study. Also, Velma Denson should be recognized as the person who provided the initial irritant for the investigation. Her comment, "Why doesn't someone look at fathers?" provided an added dimension to my professional life.

Additionally, my deepest gratitude goes to the anonymous, but never forgotten, couples who permitted my presence during such an important time in their lives. Without their cooperation, this study would not have been possible.

ABSTRACT OF DISSERTATION

GRADUATE SCHOOL, UNIVERSITY OF ALABAMA IN BIRMINGHAM

Degree D.S.N. Major Subject Nursing
Name of Candidate Janice Templeton Gay
Title Behaviors of First-time Fathers at the Time of Their
Initial Acquaintance with Their Infants

Studies have shown that mothers exhibit specific behaviors during their acquaintance with their infants and that the delay of the opportunity to perform these behaviors may adversely affect the subsequent maternal-child relationship. Although speculation exists that the initial paternal-infant acquaintance period influences the paternal-child relationship, there had been no systematic description of paternal behaviors at the time of their initial acquaintance with their infants. The purpose of the study was to identify the behaviors of first-time fathers at the time of their initial acquaintance with their infants.

Data were obtained through the use of participant observation. The investigator observed musculoskeletal behaviors of 20 first-time fathers during the first fifteen seconds of each minute for fifteen observations. Written recordings of the behaviors were made within the 45 seconds after each observation. Verbal behaviors were recorded on audiotape throughout the acquaintance period.

The written and taped recordings were later correlated to permit a written reconstruction of the acquaintance period.

The written account of the acquaintance period was analyzed according to the conceptual framework developed for the study. Paternal behaviors, considered to be indicative of acquaintance, were categorized according to gaining information, assessing the infants' attitudes, and seeking or maintaining proximity to the infants. A category of other behaviors was included to permit an accurate reconstruction of the acquaintance period.

One thousand and ninety-four behaviors were recorded on the 20 married Caucasian males in the study. The most frequently occurring paternal behaviors were those considered to be gaining information and were exhibited most often through visual, verbal, and tactile behaviors. The category which contained the second most frequent recording was that of other behaviors, however, 34.35 percent of these behaviors were infant related. The behaviors classified as proximity-seeking/maintaining occurred third most frequently while those categorized as assessing the infants' attitudes were recorded the least frequently.

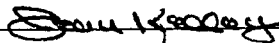
From the findings of this study, it was concluded that during the initial paternal-infant acquaintance period fathers exhibit infant-directed behaviors. Fathers had an intense interest in seeing their infants and directed these behaviors to the infants' heads, especially their eyes.

It was concluded that, although fathers spoke to others in their environment more frequently than to their infants, the infant

was the topic of conversation. It was also concluded that the en face position stimulated paternal comments to their infants.

Further conclusions were that fathers referred appropriately to the sex of their infants and focused their attention on the aesthetic characteristics of their infants. Although it was concluded that tactile behaviors were exhibited less frequently than visual and verbal behaviors, specific touching behaviors occurred. Fathers directed fingertip stroking to relatively large surface areas of the infants' bodies such as the sternum and extremities. It was further concluded that fathers seek and/or maintain proximity to their infants and will cradle immediately when given an opportunity to do so.

It was recommended that the study should be replicated in a sample of fathers who are representative of different racial and socioeconomic groups. Another recommendation was for a comparative descriptive study to be conducted on maternal acquaintance behaviors, to provide information regarding differences and similarities in parental behaviors. Additional recommendations were for further studies to identify differences in paternal behaviors when the initial opportunity for acquaintance with their infants' is early and delayed.

Abstract Approved by: Committee Chairman 

Program Director 

Date 8/17/79

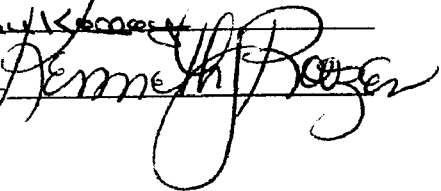
Dean of Graduate School 

TABLE OF CONTENTS

| | PAGE |
|--|------|
| ACKNOWLEDGMENTS..... | ii |
| ABSTRACT..... | iv |
| LIST OF TABLES..... | ix |
| LIST OF FIGURES..... | x |
| CHAPTER | |
| I. THE PROBLEM..... | 1 |
| Introduction to the Problem..... | 1 |
| Statement of the Problem..... | 2 |
| Purpose of the Study..... | 3 |
| Need for the Study..... | 3 |
| Definition of Terms..... | 5 |
| Study Question..... | 6 |
| Assumptions..... | 6 |
| Procedures..... | 6 |
| Source and Selection of Sample..... | 6 |
| Collection of Data..... | 7 |
| Conceptual Framework of the Research | |
| Design..... | 7 |
| Contributions of the Dissertation..... | 11 |
| Limitations..... | 12 |
| Instrumentation..... | 12 |
| Organization of the Dissertation..... | 13 |
| Summary..... | 14 |
| II. REVIEW OF LITERATURE..... | 15 |
| Parental Roles..... | 15 |
| Traditional Roles..... | 16 |
| Contemporary Roles..... | 18 |
| Future Roles..... | 21 |

TABLE OF CONTENTS (Continued)

| | PAGE |
|---|------|
| The Concepts of Acquaintance, Attachment and Bonding..... | 23 |
| Acquaintance..... | 24 |
| Attachment..... | 31 |
| Bonding..... | 38 |
| Summary..... | 40 |
| III. THE METHODOLOGY OF THE STUDY..... | 41 |
| Selection and Source of Sample..... | 41 |
| Data Collection Procedure..... | 42 |
| Categorization Framework..... | 46 |
| Categorization Procedure..... | 48 |
| Summary..... | 49 |
| IV. PRESENTATION AND ANALYSIS OF DATA..... | 50 |
| Description of the Sample..... | 50 |
| Analysis of Data..... | 52 |
| Gaining Information..... | 53 |
| Other Behaviors..... | 60 |
| Proximity Seeking/Maintaining..... | 62 |
| Assessing the Infant's Attitude..... | 65 |
| Summary..... | 66 |
| V. CONCLUSIONS, DISCUSSION, RECOMMENDATIONS AND SUMMARY..... | 68 |
| Conclusions..... | 68 |
| Discussion..... | 70 |
| Recommendations..... | 72 |
| Summary..... | 73 |
| REFERENCE NOTES..... | 75 |
| REFERENCES..... | 76 |
| BIBLIOGRAPHY..... | 81 |
| APPENDICES..... | 83 |
| Appendix A Institutional Review Board Approval..... | 84 |
| Appendix B Letter for Institutional Consent..... | 85 |
| Appendix C Observation Checklist..... | 86 |
| Appendix D Demographic Data..... | 87 |
| Appendix E Criteria for Categorization..... | 88 |

LIST OF TABLES

| TABLE | PAGE |
|---|------|
| 1 Categorized Paternal Behaviors..... | 54 |
| 2 Categorized Paternal Gaining-Information Behaviors..... | 54 |
| 3 Categorized Paternal Gaining-Information Visual Behaviors..... | 55 |
| 4 Categorized Paternal Gaining-Information Verbal Behaviors..... | 56 |
| 5 Categorized Paternal Gaining-Information Tactile Behaviors..... | 59 |
| 6 Categorized Affective Emotional Behaviors..... | 61 |
| 7 Categorized Paternal Proximity Seeking/Maintaining Behaviors..... | 62 |

LIST OF FIGURES

| FIGURE | PAGE |
|-----------------------------|------|
| 1 Model of Bonding..... | 9 |

CHAPTER I

THE PROBLEM

Introduction to the Problem

Today's trend of family-centered maternity care reflects a growing awareness of the father during the childbearing period. Many hospitals are allowing fathers to participate in the delivery process and are providing fathers with opportunities for acquaintance with their infants during the hospitalization period. Fathers are also being included in discussions of parental attachment and bonding.

The inclusion of the father in the childbearing process is significant but equally important is the notable absence of research related to the paternal-infant acquaintance process. Cronenwett and Newmark (1974) noted "there is a severe dearth of objective data concerning the father, particularly with respect to childbirth and his acquisition of new roles" (p. 210). Parke and O'Leary (1976) also commented "little empirical data is available concerning the father's behavior toward his infant in the early days of life" (p. 653).

Fathers are currently permitted varying opportunities for acquaintance with their infants. Such opportunities range from complete exclusion of the father until the time of infant discharge

all the way to the expectation that they will behave as mothers. Midway between these extremes are the fathers whose opportunities for acquaintance with their infants are based on various factors such as the father's assertiveness, his prior attendance at childbirth preparation classes, or the decision of a nurse or physician to permit the father's presence. No scientific rationale supports any one of these practices.

Statement of the Problem

Maternal behaviors during the initial maternal-infant acquaintance period have been studied by Rubin (1961,1963), Robson (1967), and Klaus et al. (1970). These studies provided a foundation for further investigations to determine the effects of the timing and the extent of the first maternal-infant contact on later maternal-child relationships (Greenberg, Rosenberg and Lind, 1973; Kennell et al., 1974; Klaus et al., 1972; Leifer et al., 1972). Data gained from these subsequent studies have provided a scientific rationale for changing nursing, medical, and hospital practices that separated the mother and her infant.

Although Parke and Sawin (1976) speculated " . . . initial interactions with the newborn may serve as the basis for the subsequent formation of strong attachment bonds between father and infant" (p. 370), there has been no systematic description of paternal behaviors during the initial acquaintance period with their newborn. Therefore, the statement of the problem was: What are

the behaviors of first-time fathers at the time of their initial acquaintance with their infant?

If data were available regarding paternal behaviors at the time of their initial acquaintance with their infants, such data could influence changes in practices which separate the father and his infant. The lack of data results in inconsistent practices that provide opportunities for paternal-infant acquaintance, hinders scientific exploration of subsequent paternal-child relationships and also encourages what Kiernan and Scolovino (1977), referred to as "extensions of interpretations about mothers" (p. 484) to be applied to fathers.

Purpose of the Study

The purpose of this descriptive study was to identify the behaviors of first-time fathers at the time of their initial acquaintance with their infants.

Need for the Study

Research of the 1960's focused on maternal behaviors at the time of contact with their infants. These early studies indicated there is an orderly sequence of maternal touching behaviors and a maternal interest in eye-to-eye contact with their infants (Klaus et al., 1970; Robson, 1967; Rubin, 1961,1963).

Investigations of the 1970's suggested the denial of a maternal opportunity to perform specific acquaintance behaviors adversely affected the subsequent maternal-child relationship (Greenberg,

Rosenberg and Lind, 1973; Kennell et al., 1974; Klaus et al., 1970; Leifer et al., 1972). These studies provided a scientific rationale for the modification of nursing, medical, and hospital practices which separated the maternal-infant dyad.

In contrast to the empirical data available regarding maternal behaviors, similar investigations have not focused on paternal behaviors. The paucity of studies directed at fathers has been attributed to the unavailability of fathers for study, the secondary position assigned to them by culture and psychologists (Nash, 1965; Parke and O'Leary, 1976; Rebelsky and Hanks, 1971), and the fact that " . . . mothers are the primary caregivers for most infants . . ." (Lozoff et al., 1977, p. 3).

According to Pedersen and Robson (1969) and Swerdloff (1975), evidence is available which suggests that fathers are assuming more nurturant child-centered behaviors than in the past. Although fathers have been studied in attempts to identify their responses to childbirth (Cronenwett and Newmark, 1974), their feelings toward their infants (Leonard, 1976), and their needs (Marquart, 1976), specific paternal behaviors at the time of their initial acquaintance with their infants have not been identified.

It was anticipated that if descriptive data were available regarding paternal behaviors at the time of their initial acquaintance period with their infants, specific paternal needs during this period could be identified. Additionally, the identification of paternal behaviors could provide a foundation for further

investigations of paternal-infant acquaintance and subsequent paternal-infant/child relationships.

Definition of Terms

For the purposes of clarity and comprehension, the following terms were defined:

Acquaintance process--An observable interaction in which one gains information about and assesses the attitude of another individual. Continuation or termination of the relationship is dependent on data obtained.

Apgar score--A scoring system used for immediate evaluation of the infant after delivery. Scores range from zero to ten and are derived from points assigned to the infant's heart rate, respiratory effort, muscle tone, reflex activity and color. The higher the score, the better the condition of the infant.

Attachment--A gradual, continuing process, evolving from acquaintance, in which an individual attains preeminent status to another as a love object and occupies a central position in their life.

Bond--A gradual, continuing, reciprocal process that incorporates the processes of acquaintance and attachment and links two individuals in a coordinated, constructive, social relationship.

En face--Eye-to-eye contact of the father and infant.

First-time fathers--A man who had not fathered previous children and whose sexual partner had experienced an uncomplicated delivery of a single infant.

Infant--A human product of a 38 to 42 week gestation period, described as normal by a nursing examination, whose Apgar score at one and five minutes after delivery was seven or more.

Paternal behaviors--A father's observable responses, through language and action, to the stimulus provided by the presence of his infant.

Staring--Paternal attempts to make eye contact with an infant whose eyes are closed.

Study Question

In accordance with the study purpose the following question was posed: What are the behaviors of first-time fathers at the time of their initial acquaintance with their infant?

Assumptions

For the purpose of the study it was assumed that:

1. Fathers respond to stimuli provided by their infants.
2. Fathers exhibit observable responses to their infants through language and actions.

Procedures

Source and Selection of Sample

Included in the sample selection were 20 fathers whose infants were delivered by private physicians in a hospital in the South. In determining the sample, the first 20 fathers who met specific,

predetermined criteria were selected. Study criteria included the following:

1. They had not fathered previous children.
2. Their sexual partner experienced an uncomplicated vaginal delivery of a single, viable infant whose gestational age was 38 to 42 weeks.
3. The infant had an Apgar score of seven or more at one and five minutes after delivery.
4. The infant was described as normal by a nursing assessment.
5. Both parents consented to participate in the study.

Collection of Data

A time-sampling technique was utilized to observe each father during the first 15 minutes of the initial acquaintance period with his infant. Observations were made for 15 seconds of each minute and then written recordings were made of the paternal behaviors. Additionally, tape recordings were made of all verbal comments. The data were then analyzed according to categories of verbal behaviors and musculoskeletal responses.

Conceptual Framework of the Research Design

A conceptual framework was developed to connect interrelated data regarding the concepts of acquaintance, attachment and bonding. Findings of nurse, physician and behavioral science investigators were synthesized to identify activities of and influences

pertinent to each concept within the bonding process. Schematically, the conceptual framework was envisioned in terms of the following Figure 1.

Acquaintance, attachment, and bonding are similar concepts and all are dependent on gaining information about another person, assessing their attitude, and continuing to collect data to terminate or further develop the relationship. Differentiation of each concept is influenced by varying degrees of reciprocity, duration, and proximity of those involved. The behaviors of those involved within each concept differ from the behaviors the individuals exhibit to others. Also, specific affective associations, as perceived by the persons involved, influence the development of the relationship.

As depicted in the model, two persons who are not acquainted serve as reciprocal stimuli to initiate acquaintance. The reciprocal responses of each reinforce the stimulus and permit progression in the acquaintance process. Although it may be possible for acquaintance to occur between an individual and more than one other person, the reciprocal responses required for continuing the relationship may limit the focus of activities to a few specific individuals. Despite this constraint, it is possible to initiate information-gaining and assessment activities while continuing to collect data from others.

Positive affect, as determined by the individuals involved, is required to continue the relationship. The perception of negative affect by either of the persons involved will serve as a stimulus

MODEL OF BONDING

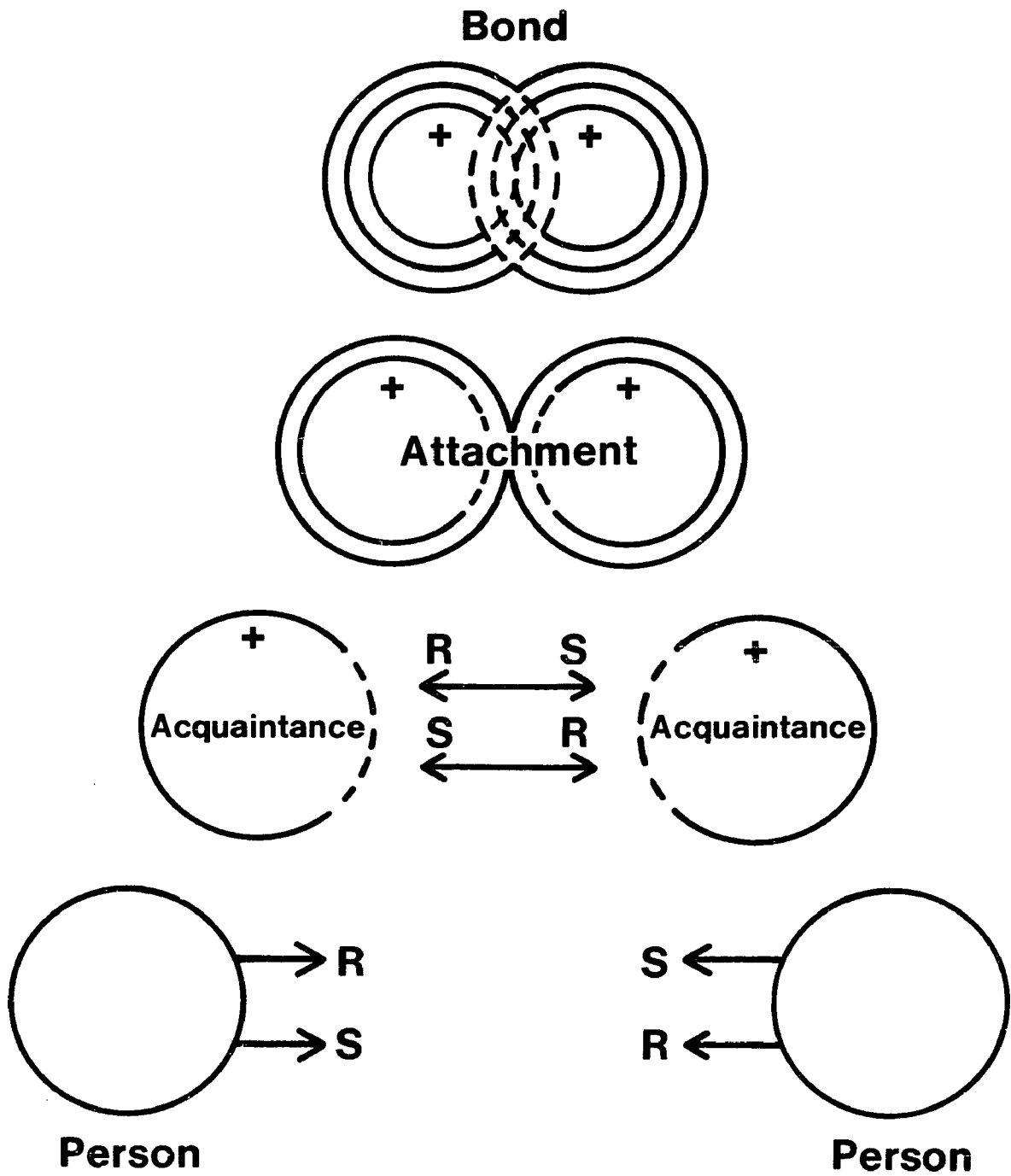


FIGURE 1

to terminate the acquaintance process and prohibits progression to the attachment process. Also, the acquaintance process is facilitated by the proximity of the subjects and requires a varying, but undetermined, time period to develop.

Continued data collection over a period of time, facilitated by proximity of the acquainting persons and perceived as mutually positive by the dyad, permits progression of the acquaintance process to the attachment process. All acquaintances do not become attachments but all attachments are preceded by and dependent on prior acquaintance to the object of attachment.

Attachment, depicted as a relationship that incorporates the acquaintance process, is dependent on the activities of gaining information, assessing the other's attitude and continuing to collect data to further develop the relationship. Attachments require a longer time to develop and more cognitive development, but once formed, attachments are more enduring than acquaintances.

Attachment is more specific than acquaintance; although persons become acquainted with many individuals during a lifetime, only a few acquaintances become attachments. Like acquaintance, attachment is dependent on reciprocity of responses and requires more proximity to the attachment object. Stronger affect is associated with attachment than with acquaintance, however, the assignment of positive or negative emotions is dependent only on the perceptions of the persons involved. Mutually positive affect permits continuation of the attachment relationship.

Bonds occur only after the development of attachments and require an even greater time period and more cognitive development than attachments. Unlike acquaintance and attachment, bonds do not require the degree of proximity to the object of the bond. Once established, bonds permit strong affective associations to exist during long periods of separation from the object of the bond. Also, the processes of acquaintance and attachment may result in perceptions of negative affect that result in termination of the processes, but bonds permit only positive affect and are not terminated.

Contributions of the Dissertation

Findings of the dissertation were likely to provide a description of common paternal behaviors at the time of the initial paternal opportunity for acquaintance with his infant. The identification of expected paternal behaviors could assist in identifying specific paternal needs during the acquaintance period. A knowledge of common behavioral patterns may assist in planning nursing actions to promote the acquaintance process. These behavioral patterns may also provide a foundation for modifications in nursing, medical, and hospital practices which inhibit the acquaintance process.

The identification of deviant paternal behaviors could provide cues to infants and fathers at risk for child abuse. Such cases could alert nurses and pediatricians to plan actions to promote a positive paternal-infant relationship.

Additionally, an important part of the study is to provide a base for further studies to determine the effects of early, delayed, brief, and extended paternal-infant acquaintance periods on the subsequent paternal-infant/child relationship. Comparative, longitudinal studies, based on expected and deviant paternal behaviors, could produce additional data regarding paternal-infant/child attachment and bonding. Implications for adoptive and temporarily absent fathers could be identified.

Limitations

This study was limited to a description of verbal and observable musculoskeletal behaviors during the first 15 minutes of the paternal-infant acquaintance of Caucasian dyads. No attempt was made to account for other people in the environment or their comments, for the father's ordinal position within his family, nor his previous experience with infants.

The observations were limited to the father-to-infant acquaintance opportunity. No attempt was made to investigate infant-to-father acquaintance. Furthermore, all subjects in the study were obtained from a sample of participants who delivered at one hospital.

Instrumentation

The anthropological method of data collection known as participant observation was utilized for this investigation. More specifically the investigator assumed the role of observer-as-

participant in recording paternal behaviors in writing and on audiotape cassettes. The method of co-observation was utilized to establish investigator observation reliability. Seventy percent or greater agreement between co-observers for all observations of paternal behavior was utilized to establish observation reliability. Two graduate students majoring in maternal-infant nursing participated as co-observers with the investigator to establish reliability. A total of 217 paternal behaviors were co-observed on four occasions to establish a 91.71 percent agreement between co-observers.

Organization of the Dissertation

The study is composed of five sections. Presented in Chapter I is the specific problem to be investigated and the need for the study. Stipulated definitions and assumptions basic to the study are identified. Also, a conceptual framework of bonding as a process is presented. Additionally, limitations and possible contributions of the study are presented. In Chapter II, a review of literature pertinent to the father and to the concepts of acquaintance, attachment and bonding is presented. The design of the study, procedures used, source and selection of the sample and data collection is presented in Chapter III. Chapter IV consists of presentation and analysis of the data. Presented in Chapter V are the conclusions, a discussion of nursing interventions to promote paternal-infant acquaintance, recommendations and a summary of the study.

Summary

Presented in Chapter I is the essence of the study and the identification of the specific problem to be studied. Additionally, a need for the investigation is presented, definitions are stipulated and assumptions basic to the study are identified. The chapter also includes a conceptual framework of bonding, delineated limitations and possible contributions of the study. The organization of the study is also presented.

CHAPTER II

REVIEW OF THE LITERATURE

The purpose of this chapter is to present a synthesis of the literature relative to examination of paternal behaviors as part of the paternal-infant bonding process. Discussed in the first section is the evolution of parental roles in recent American history as well as some of the social sanctions that have influenced paternal behaviors. A documented framework for viewing bonding as a process that incorporates the concepts of acquaintance and attachment is presented in the second session.

Parental Roles

Emphasis in this discussion is on the parental role although, as pointed out by Rubin (1964), any role expresses only one-half of a relationship and requires a complementary reciprocal role. Implicit in the discussion is the assumption that the role of the father requires a paired relationship with his infant because "without a paired relationship there is no possibility of role actualization" (Rubin, 1964, p. 36).

Additionally, father's role is accompanied and influenced by the role of the mother. According to Biddle and Thomas (1966),

individuals in society occupy positions and their role performance in these positions. . . result from the behavior and prescription of others (p. 41).

The maternal influence on paternal role performance is supported by Benson (1968) who commented:

Father's role is only meaningful as a reciprocal of mother's role, especially in modern societies which place so much emphasis on emotional interaction between married couples (p. 68).

Thus, to explore adequately the paternal behaviors exhibited by today's fathers, it was necessary to examine behavior

in terms of how it is shaped by the demands and rules of others; by their sanctions for his conforming and non-conforming behavior, and by the individual's own understanding and conception of what his behavior should be (Biddle and Thomas, 1966, p. 4).

An understanding of societal sanctions for paternal behavior can be facilitated by tracing evolutionary changes in the last century which have influenced parental role performance.

Traditional Roles

The American family at the turn-of-the 19th century was no exception to Benedek's (1970) tenet that "all significant cultures have developed on the basis that the husband-father is the chief protector and provider of the family" (p. 179). The traditional

concept of parental roles required sharply defined, dichotomous behaviors.

Described as authoritarian (Benedek, 1970) or traditional (Hines, 1971), the father was the head of the household. His parental responsibility was to provide economically for his family and to serve as a disciplinarian. The complementary maternal role required the traditional mother to accept her husband's decisions, perform daily household tasks and to rear the children.

Rigid parental role delineations were attributed to the economic system of 19th century society which was structured around the family cooperative (Gollober, 1976). Adams (1975) noted "when the father headed the family's economic division of labor in an agrarian society, his responsibilities were clear" (p. 263). According to Nash (1965),

such economic systems and their concomitant divisions of labor give [gave] rise to a whole system of values which emphasized social maleness and femaleness (p. 265).

Complementary parental roles were well-defined; the male was dominant over and superior to women. Woman, socially assigned to caretaking behaviors, demonstrated femininity by gentleness, responsiveness and expressiveness. Maintenance of his dominance and superiority required the male to demonstrate masculinity in behaviors indicative of physical courage, aggression and competitiveness (Turner, 1970; Balswick and Peek, 1976). These behaviors, socially

designed to be opposite of feminine behaviors, were just as socially assigned as maternal behaviors.

Although exceptions to role performance of 19th century Americans probably existed, parental behaviors in general centered on specific divisions of parental roles. Mothers were caretakers of the children; fathers were providers and disciplinarians (Gollober, 1976; Hines, 1971; Nash, 1965). These role assignments, transmitted for generations from mother to daughter and father to son, were socially prescribed and permitted no role confusion. Such role assignments also permitted no display of feminine behaviors by men.

Contemporary Roles

The feminist's movement of the 1930's began the trend away from fixed roles for family members, especially the female (Cavan, 1956). Just as the initial fervor of the feminists was subsiding, World War II occurred. Women started working out of the home as men were drafted into the armed forces. The movement of women to work away from home was seen as a patriotic effort and was generally accepted by American society. Additionally, the movement of women into the work force became more acceptable as "experience during World War II showed that women could indeed still perform both familial and extrafamilial functions well" (Boocock, 1976, p. 263).

Women gradually obtained broader role choices through legal, political, educational and economic means after World War II (Adams, 1975). Moreover, women developed a new attitude toward marriage,

work and family responsibilities as they gained a choice of role(s) and greater economic power. Concurrently, adaptive changes were required in the male role as dramatic changes occurred in the female role (Turner, 1970) and were ". . . reflected by shifts in the behavior of men" (Sverdloff, 1975, p. 153).

Despite the changes that have occurred in parental roles, parental behaviors continue to be influenced by social prescriptions of the past. Childrearing practices in Western society remain mother centered (Nash, 1965). The matricentric focus of child care is particularly evident in literature. Greenacre (1960) based support for the maternal focus on body build and commented:

The father may play a role as a substitute for the mother but his more muscular body is a less acceptable cushion than that of a nurse or other female helper (p. 579).

Yarrow (1963) proposed to discuss problems of methods in parent-child research but limited the discussion of parent to a discussion of the mother. Similarly Winnicott (1960) purported to discuss the theory of parent-infant relationship but divided the relationship into infant concerns and maternal care. Fathers were not mentioned in any of these discussions. Yarrow (1972), in a comparison of attachment and dependency, mentioned "some other responsive person" (p. 83) but the father was not specifically identified.

The feminine emphasis pervades even when fathers are included. Klaus and Kennell (1976) included fathers in their discussion of a

sensitive period for the formation of parent-infant attachments but labeled this period "the maternal sensitive period" (p. 51).

Rendina and Dickerschied (1976) commented:

knowledge of how fathers behave toward infants in the home can provide needed information for helping men learn skills for parenting and substitutive caregiving (p. 373).

Discussions such as these continue the feminine focus and imply that infant/child care provided by a father is merely a substitute for the real care that is provided by a mother.

The assignment of fathers to a secondary position as a parent cannot be attributed just to a matricentric emphasis on childcare; the stereotyping of tender, expressive behaviors as indicators of femininity must also be considered. The American male has been socially conditioned to repress any feminine behaviors. Josselyn (1956) noted, "to fulfill his biological heritage of being a man, he must repress that which he sees in himself that he has experienced chiefly in relation to women" (p. 268). Cavan (1956) suggested that the primary experience of today's man with tenderness was gained through his relationship with women; this experience was due partly to a childhood which was dominated by women, and also due to his father's lack of expressiveness. Men have been taught since childhood that masculinity is inconsistent with tender expressiveness (Balswick and Peek, 1976).

According to Fasteau (1976), the masculine personality is the most serious obstacle to an individual father in developing a rewarding relationship with his child:

Being a father in the sense of having sired and having children is part of the masculine image; but fathering, the actual care of children, is not (p. 60).

Tender, solicitous care of an infant is viewed as mothering and "carries the implication that such behavior by men is not masculine" (Howells, 1970, p. 46).

A variety of behaviors have been utilized by men to protect themselves from directly relating to infants and children in an affectional manner. Ill-at-ease, embarrassed, or removed behaviors may be exhibited in the presence of infants; rough-housing and sarcasm may be used to protect masculinity when relating to older children (Fasteau, 1976; Hines, 1971).

Ample evidence exists in the literature to document the influences of traditional parental roles on the behaviors of today's fathers. Additionally, there are indications that paternal behaviors are changing to reflect changes in parental roles.

Future Roles

The authoritarian paternal role of the past is inconsistent with today's father role and can be expected to become inadequate in the future. As noted by Fasteau (1976):

The role traditionally assigned to fathers and most compatible with the masculine ideal--the benevolent but

authoritarian naysayer--is no longer viable in our permissive culture (p. 61).

Growing sexual equality has diminished the protector/provider focus of paternal role performance, but is currently providing the father with opportunities to assume some of the nurturant functions of parenting that were formerly associated with only the maternal role. Benson (1968) viewed current changes occurring in the masculine role as an opportunity for fathers to contribute more to "the real quality in family life" (p. 384). According to Biller and Meredith (1975),

Women's Lib, less rigid definitions of masculinity and femininity, a question of materialism and easier and better working conditions are all putting the father in a position to enter into family life more positively than ever (p. 10).

Bernstein and Cyr (1957) studied fathers in a parental and child health program and concluded that some fathers ". . . showed a particular aptitude in what might be referred to as the feminine aspects of parenthood" (p. 477). Swerdloff (1975) believed changing paternal behaviors are widespread but just are not well publicized.

In summary, it can be concluded that parental behaviors are changing as American society has begun to redefine parental roles. As parental behaviors are modified, it can be anticipated that

today's trend of paternal involvement during pregnancy, childbearing and childrearing will continue.

The Concepts of Acquaintance, Attachment and Bonding

Although the nursing and medical literature is replete with discussions of attachment and bonding, these concepts have been only tentatively explored. Much of the evidence for the opinions offered and the few studies conducted was derived from investigations reported in psychological literature. Data derived from studies of non-human infant-to-mother attachment have been extrapolated to permit exploration of the human infant-to-mother attachment/bonding processes.

Further research has been directed at studies of the development of mother-to-infant attachment. Conclusions from investigations of mother-to-infant attachment have been used to discuss "the development of attachment in the opposite direction, from parent to infant" (Klaus and Kennell, 1976, p. 1), although few studies have focused on the father-to-infant attachment process.

Conceptual clarity is prohibited by the frequent interchange of the terms attachment and bonding and the descriptive use of "attachment bonds" (Ainsworth, 1972; Klaus and Kennell, 1976; Parke and Sawin, 1976). Also, in psychological literature, attachment has been "tangled in definitional confusion" (Cairns, 1972, p. 1) with the concept of dependency.

A recent policy statement by the Committee on Maternal and Child Care of the American Medical Association reflects the current interest, as well as the current confusion, that exists regarding the bonding process. While urging health professionals to ". . . encourage immediate parent-newborn bonding" (Bulletin, Note 1, p. 7), a major component of the bonding process was limited to eye contact between the mother and infant.

In accordance with the conceptual framework of the researcher's study, one must ask, What is the relationship of the acquaintance, attachment and bonding processes? Presented in the following section is a documented analysis of these concepts.

Acquaintance

Limited empirical data are available regarding the concept of acquaintance although Robson (1967) commented:

There is general agreement that the character and quality of one's earliest relationship will contribute to and even predict the nature of many later behaviors (p. 13).

Investigations of parental behaviors exhibited during the acquaintance process with their infants have focused primarily on the mother-infant dyad. The term contact is frequently used to discuss initial parental opportunities for acquaintance with their infant.

According to Newcomb (1961), the acquaintance process forms the basis of subsequent human relationships and involves a two-way interaction between responding individuals. Between adults, the

acquaintance process consists of three components: gaining information about the other, assessing the other's attitude, and continuing to collect data to develop further feelings about the individual.

Data indicate an infant actively participates in the acquaintance process. Infant activities such as moving, opening the eyes, turning the head to the human voice, preferring humanoid sounds to pure tones, moving in rhythm to the parent's speech, and the grasp reflex have been identified as infant contributions to the acquaintance process (Brazelton, 1976; Greenberg and Morris, 1974; Klaus and Kennell, 1976). However, it was not the intent of the present study to describe infant-to-parent acquaintance. Instead, the focus was to present paternal behaviors during their beginning acquaintance with their infant and to present the acquaintance process as a prerequisite to the formation of attachment and bonds.

Although Newcomb's (1961) conclusions were based on adults, there is preliminary evidence to indicate the same components can apply to parent-infant acquaintance. Each component of the acquaintance process is discussed separately.

Gaining information about the other. Rubin (1961), in an initial description of maternal acquaintance behaviors, reported observations of "an orderly sequence of and progression from one phase of handling and touch to another" (p. 683). This investigator later suggested the course of the development of the mother-child relationship could be followed by using observations "of the nature and kinds of maternal touch" (Rubin, 1963, p. 829).

Robson (1967), in a study directed at maternal-infant attachment, discussed eye-to-eye contact as an "innate 'releaser' of maternal caretaking responses" (p. 13). Later, Robson and Moss (1970) suggested eye-to-eye contact as ". . . an interchange that mediates a substantial part of the non-verbal transactions between human beings" (p. 976).

Klaus et al. (1970) analyzed photographs taken during early maternal-infant contacts and also observed an orderly progression of touching behaviors and a strong maternal interest in eye-to-eye contact with the infant. These investigators also found that mothers of premature infants, whose acquaintance with their infants was delayed for three to five days after delivery, behaved similarly to mothers of full-term infants who touched their infants soon after delivery but the sequence of behaviors occurred at a much slower rate.

Data provided by Gottlieb's (1978) study of eleven primiparous mothers as they transformed "a baby to my baby" (p. 40) were consistent with Newcomb's (1961) description of acquaintance. Termed "discovery process" (Gottlieb, 1978, p. 40), the mothers' used their sensory apparatus to discover or become acquainted with their infants. Information about their infant was gained from maternal visual, olfactory, tactile, auditory and verbal senses. Maternal assessment of the information about her infant included identifying, relating and interpreting behaviors.

Identifying behaviors included maternal identification of the infant's actions and characteristics ". . . in other words, what

her child looks like and what her baby can do" (Gottlieb, 1978, p. 40). Relating behaviors referred ". . . to an identified behavior which is related to a familiar event, person, object or fantasized child" (Gottlieb, 1978, p. 41).

Assessing the other's attitude. Kennedy (1973), in an investigation of the early acquaintance of ten mother-infant couples, found some mothers developed a negative, stressful relationship with their infants while others experienced the acquaintance process as positive and enjoyable. Negative acquaintance, produced a negative attitude of the mother to the infant. Infant communications to the mother were viewed as negative infant attitudes and resulted in maternal feelings of annoyance and irritation and also in diminished maternal motivation to gain realistic information about the baby.

Conversely, positive maternal-infant acquaintance occurred when the mother had an opportunity to acquire realistic information about ". . . what her baby was really like. . . ." (Kennedy, 1973, p. 552). These mothers perceived their infant's attitudes toward them as positive and, in turn, felt positive toward the infants. The positive acquaintance resulted in maternal efforts to continue observation and interaction with the infant.

Similarly, interpreting behaviors discussed by Gottlieb (1978) referred ". . . to the infused meaning that the mother gives to the baby's actions and needs" (p. 41). Gottlieb (1978) identified three types of interpretative statements that predominated following the identifying and relating periods. First, the infant's

behavior was identified and interpreted to evoke positive maternal feeling. Second, characteristics common to any infant were interpreted by the mother as a unique characteristic of her specific infant. Last, the mothers in this study interpreted infant responses ". . . as signs of recognition and acknowledgement of the mother's presence" (Gottlieb, 1978, p. 41).

Continuing/terminating the relationship. Only Gottlieb's (1978) investigation addressed the on-going nature of the maternal-infant acquaintance process. From this study, she concluded the acquaintance/discovery process begins in the delivery room and continues through the third or fourth week after delivery.

Information gained by visual, tactile and olfactory mediators on the first postpartum day preceded relating statements. Also, the mothers emphasized their ". . . need for getting to know. . ." (Gottlieb, 1978, p. 41) and forming ties with their infant. Four or five days postpartally there was a decrease in visual exploration but an increase in maternal comments to the infant as well as an increase in tactile exploration of the infant's entire body. Additionally, there was an increase in interpreting statements. From this study, Gottlieb (1978) concluded:

it is the mother's ability to perceive and to interpret the behavior which is essential. It is this point which illustrates the interrelationship between mothering and bonding. These techniques give rise in the mother to positive feelings toward her infant . . . They serve to reinforce the mother's mothering behavior (p. 41).

Few scientific studies directed to the paternal-infant acquaintance process have been reported although Lamb and Lamb (1976) noted there is a growing interest in the father. They attributed the increased interest in fathers to a backlash effect of the previous paternal assignment to a secondary position in the infant's world, to the interest of social scientists in the disintegration of the American family and to the social scientists' interest in the infant's social interaction.

Greenberg and Morris (1974) introduced the term engrossment to describe characteristics of the developing relationship between a father and his infant. These investigators administered a written questionnaire to two groups of fathers 48 to 72 hours after delivery of the infant. Group one was composed of 15 fathers ". . . whose first contact with their newborn occurred at the birth" (p. 521). Group two was described as 15 fathers ". . . whose first contact with the newborn occurred after the birth when it (the newborn) was shown to them by nursing personnel" (p. 521). Although the term contact was not defined, Greenberg and Morris (1974) did discuss the importance of providing an opportunity for the father to hold the infant. The investigators did not identify specific behaviors of each father during the initial acquaintance with the infant; however, they concluded:

there are indications in this research
that the early contact by the father
with the newborn seems to be significant
in releasing engrossment (p. 526).

Dodson (1974) warned fathers they ". . . cannot develop strong feelings for a child with whom you have never had physical contact" (p. 10). Green (1976) commented that if a period similar to imprinting is missed ". . . neither the child nor the father will be as receptive to the same sort of experience later" (p. 68). Neither of these authors provided sources of investigations upon which their conclusions were based, however, it should be noted that these references were directed primarily to lay readers.

Parke and O'Leary (1976) and Parke and Sawin (1976) reported two observational studies conducted to compare paternal and maternal behaviors during dyadic and triadic interactions with their infants. Observations were made between six and 48 hours after delivery and parental behaviors recorded included: looking, smiling, verbalizing, holding, kissing, touching, imitating, exploring, feeding, and handing over to the other parent. The data indicated fathers do become involved with their infants when provided with an opportunity to do so; paternal interactions with the infant were just as nurturant as maternal interactions, and fathers were capable and competent in executing caretaking activities although they engaged in less caretaking than the mothers. Additionally, the high degree of parental involvement was not limited to highly educated, middle class groups but was related to the sex and ordinal position of the infant.

Although scientific investigations of parent-infant acquaintance are limited in number, evidence has been accumulated which indicates parents initiate the acquaintance process early in the

infant's life. Furthermore, data indicate success in the acquaintance process influences the successful development of subsequent parent-infant relationships.

Attachment

The term attachment was originally introduced into psychological literature by Bowlby in 1958, when he proposed a new approach to the study of a child's tie to the mother (Ainsworth, 1972). This perspective promoted a unidirectional focus to study how and when infants form attachments to their main caretaker. Since the mother is generally assumed to be the main caretaker of infants, initial investigations were focused on infant-to-mother attachment.

Attachment, according to Ainsworth (cited in Bell, 1970) is:

an ongoing condition of an organism and refers to it's propensity to behave in ways characteristic of that organism, which serve to maintain proximity to or interaction with a particular figure - the object of attachment (p. 292).

Six crucial components of the attachment process were discussed by Ainsworth (1972) in her comparison of attachment and dependency. These components were derived from observational data obtained by investigations focused on identifying the behaviors of infants and children when separated from their mothers.

Specificity. Attachment is a relationship that forms between one person and another specific individual. Attachment requires the behaviors of those involved to differ from the behaviors

directed toward others in the same setting (Maccoby and Masters, 1970).

Duration. Attachments may be of varying duration but they are enduring, not transient; once well consolidated, they are not easily abandoned. Evidence from non-human primate investigations indicates the enduring nature of attachment relationships is the foundation of subsequent social groupings.

Level of maturity. Although research has focused almost exclusively on the infant-to-mother attachment, such relationships are considered to be characteristic of all ages. Other significant attachments, influenced by the level of maturity of those involved, include marital partners, parents to child, and peer to peer.

Affective implications. Attachments imply strong affect within significant relationships although not all companions are attachment figures. "It does not seem too strong . . . to use the word 'love' to characterize any attachment relationship" (Ainsworth, 1972, p. 102); however, attachments are not limited just to positive emotions. Anger and jealousy may also occur when proximity, contact, or interaction with the object of attachment is prevented.

Proximity-seeking and contact-maintaining behaviors. According to Maccoby and Masters (1970), Bowlby used the term attachment to ". . . refer to behavior that maintains proximity to another individual or restores that proximity when it has been impaired" (p. 74). Although the degree of proximity sought may vary with situations, "the behavioral hallmark of attachment is the seeking

of proximity to or contact with the attachment figure" (Ainsworth, 1972, p. 102).

Learning. Attachments are learned. Although it is not predetermined to whom one will form attachments, the selection of an attachment figure by a child is influenced by the initial characteristics of the caretaker. Concurrently, the initial characteristics of the caretaker are influenced by the responses of the infant (Bowlby, 1969). Additionally, the discrimination and recognition of an individual person is essential for a child to develop a specific attachment (Maccoby and Masters, 1970). Yarrow (1972) viewed attachment as ". . . part of a chain of social and cognitive developmental changes" (p. 83) and warned against conceptualizing the process as an end-point in human relationships. Further support for the learned component of attachment was provided by Ainsworth (1972) who stated:

the human cannot form an attachment before a certain essential amount of cognitive development has taken place, development in which learning is clearly indicated (p. 102).

In summary, six crucial components pertinent to the attachment process have been identified in psychological literature. Investigations of infant-to-mother attachment indicate the attachment process is specific and is characteristic of all ages, although a certain amount of learning is required. Additionally, strong affect is implied. Behaviors designed to promote or maintain proximity to

the object of attachment are utilized as indicators of attachment behaviors by juveniles.

Although Bowlby (1958) did not specifically investigate parent-to-infant attachment, he considered parental caretaking behaviors as the reciprocal of juvenile attachment behaviors. Mothering behaviors have come to be acquainted with attachment behaviors. That is, behaviors such as holding, smiling, feeding, talking, prolonged gazing, eye-to-eye contact, fondling and cuddling have been used as indicators of maternal attachment to the infant (Barnett et al., 1970; Funke and Irby, 1978; Klaus and Kennell, 1976; Moss, 1965; Parke and O'Leary, 1976; Rebelsky and Hanks, 1971; Seashore et al., 1973; Yarrow, 1970). Studies based on maternal caretaking behaviors have produced varying but similar definitions of attachment.

Robson and Moss (1970) viewed attachment as the "extent to which a mother feels her infant occupies an essential position in her life" (p. 977). According to these investigators, the components of maternal attachment include feelings of warmth, love and protectiveness; ". . . a positive anticipation of prolonged contact; and a need for and pleasure in continuing transactions" (p. 977) with the infant.

Leifer et al. (1972) defined maternal attachment as "the degree to which a mother is attentive to and maintains physical contact with her infant" (p. 1205). According to Klaus and Kennell (1976), attachment is "a unique relationship between two people

that is specific and endures through time" (p. 2). Again, behaviors used to maintain contact and exhibit affection were used as indicators of attachment.

Harlow and Harlow (1965) discussed attachment as a stage of the infant-mother and mother-infant affectional patterns of Rhesus monkeys. Attachment in both the infant and mother was characterized by behaviors that maintained close proximity to each other. For example, the stage of maternal attachment was:

characterized by responses which are (were) almost totally protective, including cradling, nursing, bodily exploration, restraining the infant when it attempts to leave, and retrieving the infant when it does escape (Harlow and Harlow, 1965, p. 300).

Difficulties are encountered in the study of paternal behavior in non-human primates. According to Simond (1974), "the very nature of sexual relationships in primate society insures the difficulty if not the impossibility of determining physiological paternity" (p. 128). Harlow and Harlow (1965) regarded male monkeys in the wild as generalized fathers and did not discuss attachment as a separate stage of the paternal-infant affectional systems, however, they commented, that the:

paternal affectional system involves care and protection of the female and her offspring and frequently intimate relationships with the male's own children or substitute children (p. 330).

Specific infant care exhibited by non-human male primates, reported by Hrdy (1976), included holding, grooming, carrying and protecting the infant.

Howells (1970) viewed fathering in non-humans as distinctly defined as mothering but warned "the main lesson to be found from the care given to young animals is that nature is flexible" (p. 47). Mitchell (1969), in a review of field and laboratory data of interactions between adult male and infant non-human primates, supported the flexibility of nature and concluded:

the range of paternalistic behavior among prosimian primates is great indeed. Infant directed behavior of adult male prosimians ranges from infanticide. . . through nest building. . . to playing with infants. . . and finally to holding and cuddling of the infant (p. 400).

Despite the problems encountered in the study of male care in non-human primates, Rypma (1976) noted "examples of paternal behavior in animals may guide our definition and understanding of paternal responses in man and facilitate insights that cannot be gained otherwise" (p. 335).

Identification of behaviors indicative of attachment have promoted speculation concerning a sensitive period crucial to the formation of attachment. Essential to this critical period are infant behaviors such as crying, smiling, following, clinging, sucking and eye-to-eye contact, viewed as "innate releasers of maternal care-taking responses" (Robson, 1967, p. 13). Seashore et al. (1973) cited several:

studies of behavior in non-human mammals (which) suggest that restriction of interaction between mother and infant in the early postpartum period influence subsequent maternal performance and may, in fact, produce early incompetent mothering (p. 369).

Klaus and Kennell (1976) speculated that:

there is a sensitive period in the first minutes and hours of life during which it is necessary that the mother and father have close contact with their neonate for later development to be optional (p. 14).

Interestingly, these investigators emphasized their focus on the parent-to-infant attachment process; however, they continued the matricentric approach to attachment by naming this time the "maternal sensitive period" (Klaus and Kennell, 1976, p. 51). Additionally, earlier discussions of the maternal sensitive period were described ". . . as that time, following delivery, in which the mother forms, or begins to form, an attachment to her infant" (Kennell, Note 2, p. 39).

Conclusions of parent-to-infant attachment are based primarily on investigations of infant-to-parent, specifically infant-to-mother attachment and more recently, on mother-to-infant attachment. Despite these limitations, data indicate successful parent-to-infant attachment requires the opportunity for early parent-infant acquaintance. Additionally, there is evidence to indicate parental behaviors during early maternal-infant contact may affect

subsequent maternal-infant attachment. Preliminary evidence is also available which indicates ". . . formation of the father-infant attachment is generally similar to the mother-infant attachment" (Biller, 1976, p. 72).

Bonding

Although the term bond permeates literature directed at maternity nursing, an exploration of the concept, distinct from attachment, has not been reported in nursing or medical literature. Sociological and psychological literature has provided discussions implying a bond forms following acquaintance and attachment.

According to Harlow (1960),

the affectional life of primates--monkeys, apes and man--is encompassed by four or five relatively separable affectional systems: the affectional pattern of infant for mother. . . , peer for peer, the heterosexual affectional pattern, the maternal affectional pattern, and probably a paternal affectional pattern (p. 676).

Harlow and Harlow (1965) viewed affectional systems as those ties "which bind together various individuals within a species in coordinated and constructive social relations" (p. 287). These systems develop gradually, but continually, through over-lapping maturational learning stages in which ". . . transition from one stage to another never occurs during any brief critical period" (Harlow, 1960, p. 299).

Although stages of the paternal-infant affectional system have not been identified, investigations of the maternal-infant affectional system in Rhesus monkeys provided guidance in identifying bonds which link human individuals. A stage of maternal attachment and protection begins at or soon after delivery of the infant monkey. Protective maternal responses and prolonged physical contact of the dyad predominate in this stage. Gradually, maternal-initiated physical contact with the infant and her restraining and retrieving responses diminish.

A transitional or ambivalent stage occurs as the attachment and protection stages diminish. During this period, mothers display rejecting responses when the infants attempt to initiate physical contact. The:

nonviolent maternal rejection at an appropriate infant age may be an effective and desirable maternal pattern, helping the infant to develop social relations with age mates (Harlow and Harlow, 1965, p. 308).

The birth of the next baby is the variable most conducive to maternal-infant separation, the third stage of the maternal-infant affectional system. Contact with the new infant predominates even when the older infant remains nearby.

According to Turner (1970), human bonding occurs through social interaction. The purpose of bonds is to bring together group members, keep them together and to promote interaction

between the members. Parent-to-child bonds, viewed as "the expression of benefits that each experience from the parent-child association" (Turner, 1970, p. 41) is a potential that can only be inferred, not measured.

Studies directed at non-human primate behaviors and limited investigations of human bonding preclude generalizations to human-infant bond formation. Despite these limitations, data exist to permit conceptualization of bonding as a process which incorporates the concepts of acquaintance and attachment.

Summary

The review of literature indicates parental roles, and thus, parental behaviors are changing. Additionally, ambiguities exist in the literature regarding the concepts of acquaintance, attachment, and bonding. The changing parental roles and conceptual ambiguities have inhibited the identification of nursing interventions designed to facilitate paternal-infant acquaintance, attachment and bonding.

CHAPTER III

THE METHODOLOGY OF THE STUDY

The purpose of Chapter III is to describe the methods and procedures used to accomplish the purpose of the study. Also included in the discussion are sampling procedures employed and a description of the framework used to categorize behavioral patterns.

Selection and Source of Sample

For the protection of human rights, the research proposal was submitted to the Peer-professional Review Board of the School of Nursing and to the Institutional Review Board for Human Use at the University of Alabama in Birmingham. The protocol was approved as humans involved not at risk (Appendix A) and the use of consent forms was not required for the study.

The study was conducted in a not-for-profit southern metropolitan hospital. A personal explanation of the study and the research technique to be used was provided to the Director of Nursing Service and the Chief of Obstetrics. A letter requesting permission to conduct the investigation in the selected institution followed the personal contact (Appendix B). Written permission was

obtained from the Director of Nursing Service and the Chief of Obstetrics prior to data collection.

The study population was obtained by posting the criteria for sample selection and the investigator's name and telephone number in the labor and delivery unit of the selected hospital. The nursing staff notified the investigator when subjects were available, and on occasion, the investigator identified possible subjects by telephoning the labor and delivery unit. The first 20 expectant fathers who met the study criteria and agreed to participate were admitted to the sample.

Data Collection Procedure

Prior to initiation of the study an observation checklist (Appendix C) and the method of data collection were pilot tested. The observation checklist did not prove to be satisfactory during the pilot test. Use of the checklist seemed to divert the attention of the father from the infant to the observer. Also, the observer was pre-occupied with comparing the actual paternal behaviors to the anticipated behaviors identified on the checklist. Additionally, numerous paternal behaviors during the acquaintance periods were not accounted for on the observation checklist.

The problems encountered in the use of the observation checklist resulted in an attempt to record all paternal behaviors during the observation period. This approach resulted in illegible

note-taking which occurred from attempts to observe and record concurrently the behaviors. The decision was made to utilize a time-sampling technique to collect paternal behaviors.

The method of data collection known as participant observation was used to identify the behaviors of first-time fathers during their initial acquaintance with their infants. The investigator maintained a presence in the acquaintance situation and was the major instrument for data collection. Paternal musculoskeletal behaviors were observed for the first 15 seconds of each minute for a total of 15 observations of each father. These behaviors were recorded in writing during the remaining 45 seconds of each minute.

Audio-tape recordings of paternal verbal behaviors were obtained during the entire 15-minute observation period. Verbal behaviors during the 15-second observation period were partially noted in writing to permit correlation of the written and taped records of all behaviors. A reconstruction of the total behaviors during the 15-second observation period was provided by the investigator who correlated a verbatim transcription of the audio-tape recordings with the written records of non-verbal behaviors.

Observer reliability was established through co-observations made by graduate students in maternal-infant nursing. Two students each co-observed with the investigator for a total of four paternal-infant acquaintance periods. Two of the co-observations were made in the postpartal room, one was made in the delivery room, and one co-observation was initiated in the delivery room and continued in

the postpartal room. The co-observation of 217 paternal behaviors resulted in an agreement of 91.71 percent.

Prior to data collection, the investigator spent two days becoming familiar with nursing and medical personnel and observing deliveries in the labor and delivery unit of the selected hospital without recording paternal behaviors. The nursing and medical staffs were told the investigator was present to identify paternal behaviors during the initial paternal-infant acquaintance and that, except for emergency situations, physical nursing care would not be provided.

The initial approach to the study participants occurred at the time of the labor patient's admission to the labor and delivery unit. The purpose of the study was explained to the expectant parents and their permission was requested for the investigator to be present during the initial paternal-infant acquaintance period.

All parents were told the investigator was a registered nurse and a doctoral student interested in studying paternal behaviors at the time of their initial acquaintance with their infant. It was also explained that written and taped recordings would be obtained and all data would be used for the purpose of dissertation and would possibly be included in papers submitted for professional publications and presentations.

It was further explained that the study was designed to minimize any potential risk of participant identity as measures were taken to assure anonymity. Signed consent forms were not obtained; the written notes and tape recordings were number coded and did not

require the name of the mother, father, infant or hospital. Only the investigator had access to the findings and to a master code of family names. Tape recordings were destroyed after written transcriptions were made: The number coded written data transcripts obtained during the observation periods would be destroyed after one year. The master code of family names was destroyed one month after the final observation period.

Each couple was told that although the study would not cause any harm to them or their infant, they would probably not directly benefit from their participation. The subjects were told they were free to withdraw from the study at any time within one month of the observation. The investigator's name and telephone number was provided to the couples to permit them to contact her if they decided to withdraw their consents. Additionally, no consents were solicited from a mother during labor that had progressed to more than four centimeters of cervical dilatation and/or within four hours after the administration of any amnesic, hypnotic, sedative or analgesic medication. In addition to paternal behaviors recorded, demographic information was obtained which included the mother's estimated date of confinement, the date and time of delivery, the date and time of the initial paternal-infant acquaintance, the sex of the infant and the Apgar scores at one and five minutes after delivery (Appendix D).

When both parents gave verbal consent to participate in the study, the investigator remained with the couple throughout labor. If a father chose to participate in the delivery, the investigator

accompanied the couple to the delivery room. Observations were begun at the time of delivery and continued for 15 minutes. For some subjects, the entire observations were made in the delivery room; for others, the observations were made in the delivery room and the nursery. Additionally, to obtain observations for a total of 15 minutes, some fathers were observed in the delivery room, the nursery and in the recovery or postpartal room.

Fathers who chose not to participate in the delivery were observed for a 15-minute period following delivery in either the recovery or postpartal room. The investigator remained with these fathers during the delivery and at the time of their initial viewing of the infant in the nursery.

Categorization Framework

The conceptualization of acquaintance as a pre-requisite to attachment and the lack of specific boundaries with which to delineate definite behaviors of each process required a combined approach for categorizing the data derived from this study. A descriptive framework for data categorization was developed to incorporate two of Newcomb's (1961) classifications of acquaintance behaviors and Ainsworth's (1972) essential component of attachment. Basically, this approach permitted categorization of specific behaviors by each father toward his infant. Behaviors were categorized in terms of the following criteria:

Gaining information about the infant. Included in this category was the information the fathers obtained through the visual, tactile and verbal modalities. Visual behaviors included when the fathers were staring, maintaining an en face position with the infant, or looking in the direction of the infant when the infant was not positioned toward the father.

Also included in this category were touching behaviors which were limited to poking or stroking the infant with the fingertips. Verbal behaviors for this category included declarative statements or questions directed to the infant or others in the environment that indicated specific information had been obtained or was being sought.

Assessing the infant's attitude. This category included statements or questions the fathers made to their infants or others in the environment that implied meaning to the actions of the infants. Also included were paternal comments that interpreted feelings for their infant.

Proximity seeking/maintaining. Paternal behaviors in this category included all touching with the hands when more than the fingertips were used. Holding the infant with the paternal arms and hands extended from the body was considered to be holding. Holding the infant to the paternal body was considered to be cradling. Also included was paternal touch of the infant with full hands, although the infant was not being held by the father.

Behavior such as standing, leaning toward, moving toward and sitting near the infant were also included in this category.

Additionally, the behaviors of gowning and washing the hands were considered to be indicative of a paternal desire to seek proximity to his infant as these behaviors were requested prior to paternal-infant contact. Also included were paternal comments which indicated the fathers were seeking or maintaining proximity to their infant.

Other behaviors. A category for depicting behaviors other than those described as gaining information about the infant, assessing the infant's attitude, or proximity seeking/maintaining was included to permit a more complete reconstruction of the observation period. Visual, tactile and verbal behaviors directed at others in the environment were included, however, verbal behaviors after the 15-second observation period were categorized only when the comments pertained to the infant.

Categorization Procedure

The parameters established for categorization of paternal behaviors were established by the investigator and were based on behaviors identified in the conceptual framework of the study. Validity of the categorization was established by a doctoral student in maternal-child nursing and a member of the graduate faculty for maternal-infant nursing. The doctoral student evaluated the categorization of behaviors of the first ten subjects in the study; the graduate faculty member evaluated the categorization of all behaviors of all subjects in the study. Both evaluators used

criteria that had been established by the investigator for the categorization of paternal behaviors (Appendix E) and reached complete agreement regarding the behaviors.

The frequency of paternal behaviors within each category was determined but the data were not statistically analyzed. All results were presented as percentages and were rounded to two decimal places.

Summary

Included in this chapter was a description of the selection and source of sample and a description of the data collection procedure used for the purpose of the study. Also presented were the measures taken for the protection of human rights and the framework and procedure used for the categorization of data.

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

Presented in this chapter is a description of fathers who participated in the study and the data generated from observations of their behaviors. The data depict a description of sampled paternal behaviors during the first 15 minutes of the initial paternal-infant acquaintance period. Also presented is a discussion of behaviors according to the categorization developed from the conceptual framework of this study.

Description of the Sample

The study sample was comprised of 20 first-time fathers. Observational data obtained, in addition to paternal behaviors, revealed information from which to describe the study participants. All participants in the study were Caucasian and all were present during labor. Sixteen of the fathers chose to participate in the delivery.

Conversations of the fathers with the investigator and unit personnel provided information with respect to paternal occupations and paternal participation in childbirth preparation classes although these data were not deliberately solicited. Paternal

occupations represented by the study sample included: three coal miners, three policemen, two steel workers, two salesmen, two utility company employees, two hospital technicians, one banker, one physician, one fireman, one architect, one refuse collector and one microbiologist.

Paternal attendance at preparation for childbirth classes was not a prerequisite for paternal participation in the delivery. Seven fathers in the study sample had attended childbirth preparation classes and all of these fathers elected to participate in the delivery. Of the 13 fathers who had not attended preparation for childbirth classes, nine chose to participate in the delivery.

The 16 fathers who chose to participate in the delivery were requested to sit on a stool at the head of the delivery table and were able to see the delivery through a mirror. After the umbilical cord was cut, the infant was placed in a warmer while identification procedures were administered. The warmer was positioned so the parents could see their infant during the identification procedure.

All fathers who participated in the delivery were invited to transfer their infants to the nursery. Fifteen of the 16 fathers who participated in the delivery elected to carry their infant to the nursery. The one father who chose to have a nurse transfer his infant to the nursery repeatedly denied maternal requests for him to carry the infant to the nursery.

The four fathers who chose not to participate in the delivery saw the nurse transfer their infant to the nursery. The time of

the opportunity for the initial father-infant acquaintance was determined by the infant's temperature. Once an infant's temperature was considered stable, the infant was taken to the parents for a visit. At the time of the infants' visit to the parents, the fathers were requested to gown and wash their hands prior to any contact with the infant. Three of the four fathers who did not observe the delivery complied with this request; one father gowned but did not wash his hands prior to contact with his infant.

In accordance with the study criteria, data collected on the infants of the study subjects revealed that the approximate gestational age of the infants ranged from 38 to 41 weeks. All infants of the study participants were assigned Apgar scores of seven or more at one and five minutes after delivery. One minute Apgar scores ranged from seven to nine; five minute scores ranged from eight to ten. Infant age at the time of the father's initial opportunity for acquaintance ranged from one minute to three hours. Thirteen infants of the subjects observed were female; seven of the infants were male.

Analysis of Data

In analyzing the data, the investigator first reviewed the written and audiotape recordings in their entirety. A written description of the acquaintance period was reconstructed by correlating the verbal and non-verbal behaviors in their sequence of occurrence. Non-verbal behaviors were recorded only during the

15-second observation period of each minute. Verbal behaviors were recorded throughout the 15-minute observation period and were correlated to the non-verbal behaviors by the use of a stopwatch and the written recordings.

A total of 1,094 paternal behaviors were recorded during the 15-minute observation periods of the 20 subjects. The frequency of behavior within each category is presented in Table 1. All results presented as percentages were rounded to two decimal places.

Gaining Information

The behaviors that occurred most frequently were those categorized as gaining-information. More specifically, these data were sub-categorized according to visual, verbal and tactile behaviors. Sub-groupings of the gaining-information behaviors are revealed in Table 2.

Visual behaviors were used most frequently by the fathers in this study to gain information about their infants. Sub-categories, grouped according to the direction of the visual behaviors, are revealed in Table 3.

The most frequently recorded visual behavior was staring at the infant. The fathers were observed staring even when touching the mothers or talking to the mothers and/or others in the environment. One father became uncomfortable during the delivery and was required to place his head between his knees. This father

TABLE 1
Categorized Paternal Behaviors

| Categories | Frequency | % of Total Behaviors |
|-----------------------------------|-----------|----------------------|
| Gaining-Information | 470 | 42.96 |
| Other | 294 | 26.87 |
| Miscellaneous | 193 | 17.64 |
| Affective/Emotional | 101 | 9.23 |
| Proximity Seeking/ Maintaining | 282 | 25.78 |
| Assessing Infant Attitude | 48 | 4.39 |
| N | 1,094 | 100.00 |

TABLE 2
Categorized Paternal Gaining-Information Behaviors

| Categories | Frequency | % of Behaviors Within Sub-category | % of Total Behaviors |
|------------|-----------|---------------------------------------|-------------------------|
| Visual | 265 | 56.38 | 24.22 |
| Verbal | 157 | 33.40 | 14.35 |
| Tactile | 48 | 10.22 | 4.39 |
| N | 470 | 100.00 | 42.96 |

TABLE 3
Categorized Paternal Gaining-Information Visual Behaviors

| Categories | Frequency | % of Behaviors Within Sub-category | % of Total Behaviors |
|----------------------|-----------|---------------------------------------|-------------------------|
| Staring at Infant | 190 | 71.70 | 17.37 |
| En Face | 42 | 15.85 | 3.84 |
| All Others | 33 | 12.45 | 3.02 |
| N | 265 | 100.00 | 24.23 |

continued to attempt to look at his infant although the infant was in a warmer several inches above the father's head.

The second most frequently observed paternal visual behavior was the en face position. This behavior, defined as eye-to-eye contact of the father and infant, was dependent on infant activity.

Visual behavior of watching admission procedures, looking in the direction of the infant, looking at others intermittently and looking at others in the environment were grouped as all others. These behaviors were recorded in a combined total of 33 times.

Verbal behaviors were the second most frequently recorded sub-category of paternal behaviors within the gaining-information category. Sub-categories of these behaviors are presented in Table 4.

TABLE 4
Categorized Paternal Gaining-Information Verbal Behaviors

| Categories | Frequency | % of Behaviors Within Sub-category | % of Total Behaviors |
|---------------------------|-----------|---------------------------------------|-------------------------|
| Not Directed to Infant | 124 | 78.98 | 11.33 |
| Directed to Infant | 33 | 21.02 | 3.02 |
| N | 157 | 100.00 | 14.35 |

An analysis of the specific topics of the paternal comments revealed that fathers frequently combined the topics to include claiming statements and references to size, sex, and characteristics of the infants. For example, "Got me a little girl baby that needs to be weighed" was considered to be a claiming statement which also referred to the sex and size of the infant.

Other examples of multi-topic comments include: "That's my big girl," "I got me a little girl too, that's my daughter," "Here's my young'n, its a little girl," and "I'd take a little baldheaded baby." One father stated, "She's got a little bit of the D_____ (his family name) features around the face." Another father commented, "She looks just like you, that sure doesn't prove she's mine."

Some paternal comments combined appropriate references to the sex of the infant and the size of the infant. Most fathers referred appropriately to their infant as "he" or "she". Some did, at times, refer to their infant as "it" or "that" but such comments were interspersed with appropriate sex identification. Written reports of paternal verbal behaviors would not always indicate the appropriateness of gender designation. For example, it was not uncommon for the fathers in this study to preface their comments to or about the infant with the term "boy". Remarks such as "Boy, she's got a lot of hair" or "Boy, she's pretty" were viewed as common slang expressions and do not necessarily reflect contradictions in gender identification.

The most frequent topic which included appropriate sex reference concerned the size of the infant. Included were comments such as: "She's so little," "She's a fine little girl," "Little girl," "Little boy," and "A big old boy."

Other paternal comments categorized as gaining-information combined appropriate references to the sex of the infant and the infants' aesthetic characteristics. This category included comments such as, "He ain't too cute right now," "I want you to look at that thing, ain't he pretty?" and "She's as pretty as Mama."

The infant's eyes and body function were also combined with appropriate sex references. Examples of these comments include: "Her got blue eyes," "Did they say what color her eyes are?" and "Can he see?"

Additionally, the infants' body functions were combined with appropriate sex references. "She's over there kicking," "She's sucking on her fist," and "She smiled," are examples of these gaining-information behaviors.

Not all paternal comments were accompanied by reference to the sex of the infant. The most frequent topic of the comments, not associated with sex reference, was the size of the infant. Examples of these behaviors include: "So big," "Six pounds, five ounces" and "Big old rat."

The aesthetic characteristics of the infants were the second most frequent topics of paternal comments, which were not accompanied by references to sex that were recorded in the sub-category of verbal behaviors within the gaining-information category. Most fathers described their infants as "pretty" or "beautiful". "You're so pretty" and "Prettiest baby in the world" are examples of these behaviors.

Also, when sex was not referred to, body functioning was the third most frequent topic of paternal comments. Examples of these statements include, "Just yawned" and "Natural sucker".

It should be noted that, regardless of reference to the sex of the infant, the two most frequent topics of conversation were the size and aesthetic characteristics of the infant. Although some fathers did refer to their infants as "Ugly" or "Not too cute right now", most commented that their infants were "beautiful".

Some fathers, while still in the delivery room asked how much their infants weighed although they had been present and had had

the opportunity to see that the infants had not been weighed. Additionally, some fathers who were present during the weighing of their infants in the nursery, said and repeated after the nurse, the infant's weights.

The tactile behaviors of gaining-information were used the least frequently of the three behaviors categorized as gaining-information. All tactile behaviors included in this category were limited to fingertip touch. More specifically, these behaviors were limited to stroking, stimulating the infants' grasp reflexes, pinching and/or poking the infants. The frequency of these sub-categories of tactile behaviors is presented in Table 5.

TABLE 5
Categorized Paternal Gaining-Information Tactile Behaviors

| Categories | Frequency | % of Behaviors Within Sub-category | % of Total Behaviors |
|------------|-----------|---------------------------------------|-------------------------|
| Stroke | 39 | 81.25 | 3.56 |
| Grasp | 5 | 10.42 | .46 |
| Pinch | 2 | 4.17 | .18 |
| Poke | 2 | 4.17 | .18 |
| N | 48 | 100.00 | 4.39 |

As depicted in Table 5, stroking behaviors were recorded a total of 39 times; the area of the infant stroked most frequently was the sternum. Other areas of stroking included the forearms,

the hands and the fingers; the legs and the toes; the hairlines, the cheeks and the lips. Paternal stroking of an infants' chin, eyebrows and nose was observed only once.

Other Behaviors

The category which contained the second most frequently occurring behaviors was that of other behaviors. The category was developed to permit the inclusion of paternal behaviors that were not considered to be indicative of gaining information about the infant, assessing the infant's attitude or maintaining proximity to the infant. This category of other behaviors was sub-categorized to permit analysis of miscellaneous behaviors and those behaviors that were considered to be affective/emotional paternal behaviors.

A variety of unclassified behaviors were recorded and included: looking and talking to others, pointing to the infant, pointing to I.V. fluids, walking around the room, putting the hands in the pocket, offering water to the mother, transferring the infant, wringing the hands, taking the mother's blood pressure, listening to the infant's chest, suctioning the infant, talking on the telephone, puckering the lips, posing for pictures, whispering to the mother, and placing the head between the knees. Although many of these behaviors were recorded infrequently, their inclusion was necessary to permit accuracy in reconstructing the paternal-infant acquaintance period.

One hundred and one of the 294 behaviors recorded in this category were considered to be affective/emotional behaviors.

Sub-groupings of these behaviors and their frequency of occurrence are revealed in Table 6.

TABLE 6
Categorized Affective Emotional Behaviors

| Categories | Frequency | % of Behaviors Within Category | % of Total Behaviors |
|-------------------------------|-----------|-----------------------------------|-------------------------|
| Smiling | 39 | 38.61 | 3.56 |
| Laughing | 39 | 38.61 | 3.56 |
| Tearing | 11 | 10.89 | 1.01 |
| Imitating Infant Behaviors | 6 | 5.94 | .55 |
| Cooing | 6 | 5.94 | .55 |
| N | 101 | 100.00 | 9.23 |

As presented in Table 6, smiling and laughter were frequent paternal behaviors which were included in the category of affective/emotional responses to the infant. Smiling may have occurred more frequently; however, the masks required in the delivery room prevented the observation of this behavior since all smiling behaviors were recorded only when no masks were worn.

Tearing was recorded in the majority of the fathers who witnessed the deliveries. In contrast to this observation, only one father who did not participate in the delivery was observed to have tears in his eyes during the acquaintance period.

Paternal imitations of infant verbal behaviors were centered on the infants cry. For example, the fathers in this study would comment, "Wah, wah," "Oww" and "Ahh" when the infants cried. Additionally, some fathers would imitate their infants yawn.

Another behavior sub-categorized as affective/emotional behaviors within the category of other paternal behaviors was that of cooing to the infant. Four fathers were recorded as making cooing sounds to their infants on six occasions.

Proximity Seeking/Maintaining

The paternal behaviors that were included in this category were recorded the third most frequently of all behaviors. Sub-categorizations of these behaviors are presented in Table 7.

TABLE 7
Categorized Paternal Proximity Seeking/Maintaining Behaviors

| Categories | Frequency | % of Category | % of Total Behavior |
|-----------------|-----------|---------------|---------------------|
| Leaning | 79 | 28.01 | 7.22 |
| Standing | 77 | 27.30 | 7.04 |
| Cradling | 69 | 24.47 | 6.31 |
| Holding | 25 | 8.87 | 2.29 |
| Verbal Comments | 11 | 3.90 | 1.01 |
| Other Touching | 9 | 3.19 | .82 |
| Sitting Near | 7 | 2.48 | .64 |
| Moving Toward | 5 | 1.77 | .46 |
| N | 282 | 100.00 | 25.79 |

The behavior recorded most frequently in the category of proximity/maintaining behaviors was leaning toward the infant. Even when the fathers' bodies were positioned in directions other than toward their infants, they tended to lean their heads and upper bodies toward the infant. Ten of the 16 fathers who participated in the delivery were observed leaning toward the infant as the physician held the infant up for viewing.

The second most frequently recorded behavior in this category was standing. Three fathers who were sitting at the time of the delivery stood as the infant was held up by the physician. Three of the four fathers who did not participate in the delivery stood when the infant was brought into the mothers' rooms. The fourth father, who did not participate in the delivery, was out of the room when his infant was brought in; yet, when he entered the room he walked immediately to and stood near the infant.

Cradling was the behavior recorded third most frequently in the proximity-seeking/maintaining category. Eighteen of the 20 fathers in this study were observed cradling their infants within the fifteen-minute observation period. Cradling was the initial touching behavior of nine fathers. Additionally, cradling after fingertip touching (categorized as gaining-information) was recorded on seven fathers. One father cradled his infant following stroking, full-hand touch and holding; one father cradled his infant after stroking and full-hand touch. Two fathers were not observed cradling their infants at any time during the observation period.

Holding the infant was the fourth most frequently recorded paternal behavior categorized in the proximity seeking/maintaining category. This behavior was the initial touching behavior of four fathers in this study. These four fathers did not participate in the deliveries of their infants. Additionally, the infants were not handed to the fathers by nursing personnel but were picked up from the bed by the fathers. Sixteen of the 25 holding observations were recorded on the four fathers who did not participate in the delivery.

Verbal comments which indicated the fathers were seeking or wanting to maintain proximity to their infants was the fifth most frequently recorded behavior in this category. For example, one father commented, while holding his infant, "show me how to get him close". The investigator made no comment but placed her hand on the infant's head; the father immediately cradled the infant to his chest.

Another father was holding his infant in the presence of the nursery nurse. Without touching the infant, the nurse instructed the father to hold the infant closer. "Closer?" inquired the father and he immediately cradled the infant to his chest.

Other paternal behaviors included in the proximity seeking/maintaining category and their frequencies of occurrence included: Washing the hands, a prerequisite for touching or holding the infant (3); extending the hands toward the infant (1); and raising the infant to the paternal face (1). Also included was full-hand

touching of the infants' bodies (4). Moving toward and sitting near the infants were behaviors that were recorded infrequently.

Assessing the Infant's Attitude

The behaviors that were recorded the least frequently were those categorized as assessing the infants' attitudes; however, it should be noted that the identification of these behaviors required paternal comments. Included in this category were statements or questions made by the fathers that indicated they implied meaning to the infants' actions and/or expressed feelings for them.

Seven of the paternal comments focused on the infants' crying. One father stated his infant was "screaming about her bath" and then spoke for the infant by saying, "I don't like my bath."

Additional paternal comments that implied meaning to the infants' actions were dependent on the infants' eyes. Closed eyes were interpreted as "tired" or "sleepy" and were often accompanied by comments such as "Oh, a sleepy little thing," "she's kind of sleepy" and "she's sleepy". Open infant eyes stimulated paternal comments regarding who the infants' recognized and liked. For example, "You know daddy, don't you," "wants to see her father" and "I told you she'd like me" were included in this category.

Fourteen fathers conducted conversations with their infants. Examples of this behavior included comments such as: "Yes, you might say I am particularly nervous," "Why don't you like mommy?", "How do you like William Robert and forget Phil?" During the conversations, it was not unusual for the fathers to express

feelings from the infants' viewpoint. For example, "wants to see her father," "you know what he thought right now...." and "uh huh, you know your daddy" were considered to be paternal expressions of infant feelings.

In conclusion, a total of 335 paternal comments were recorded throughout the 20 observation periods; 272 of all comments, regardless of categorization, were infant-related and represented 81.19 percent of all paternal verbal behaviors. Comments not related to the infant were recorded 63 times and account for 18.81 percent of all paternal comments.

An interesting observation concerned the frequency of paternal comments to or about their infants when the en face position was assumed. During the 42 recordings of en face, the fathers spoke to their infants 24 times and about their infants seven times, for a total of 31 infant related comments. This figure, obtained from paternal comments in all categories, indicates that the en face position was accompanied by infant-related paternal comments in 73.81 percent of the position. More specifically, the fathers spoke to their infants in 57.14 percent of the en face position and about their infants in 16.66 percent of the en face position.

Summary

This chapter contained the results of data analysis as it related to the study question. One thousand and ninety-four paternal behaviors were recorded from sampled observations of 20

subjects during their initial acquaintance situation with their infants. These behaviors were then categorized according to the conceptual framework developed for the study.

The behaviors of first-time fathers at the time of their initial acquaintance with their infants that were observed most frequently were those categorized as gaining-information. More specifically, the fathers in this study gained information about their infants through visual, verbal and tactile means.

The category which contained the second most frequent recording was that of other behaviors, however, 34.35 percent of these behaviors were considered to be affective/emotional responses to the stimulus provided by the infants. The category in which paternal behaviors were recorded the third most frequently was that of proximity seeking/maintaining. Behaviors classified as assessing the infants' attitude occurred the least frequently.

CHAPTER V
CONCLUSIONS, DISCUSSION, RECOMMENDATIONS
AND SUMMARY

The purpose of this study was to describe the behaviors of first-time fathers at the time of their initial acquaintance with their infants. One thousand and ninety-four sampled paternal behaviors were recorded during the first 15 minutes of the paternal-infant acquaintance period of 20 subjects.

Each observation period was reconstructed by correlating written and audio-tape recordings. From these reconstructions of the acquaintance period, specific paternal behaviors were categorized as gaining-information, assessing the infants attitude and proximity seeking/maintaining. A category for other behaviors was included to permit the analysis of paternal behaviors that did not meet the criteria for placement in the first three categories.

Conclusions

Several conclusions have emerged from the findings of this study. The findings support the conclusion that fathers center their visual and verbal attention to their infants. Fathers speak to others in the environment more often than they speak to their

infants but the infant is the topic of conversation and the focus of paternal visual behaviors. It is further concluded that the en face position stimulates paternal comments to and about their infants.

Analysis of paternal comments permit the conclusion that the size and aesthetic characteristics of the infant are equally frequent topics of paternal comments. It is also concluded that fathers refer appropriately to the sex of their infants and describe their infants as "beautiful." Paternal comments also support the conclusion that fathers focus their visual behavior to the infants' heads, in particular, their eyes.

Another conclusion is that fathers tend to touch less than they view and speak, but specific touching behaviors were identified. Fathers use fingertip touch, specifically stroking on large surface areas of the infants' bodies. The selection of the sternum as a frequent site of initial touch prohibits concluding directionality of the touch from the periphery to the center; likewise, the selection of the extremities as the frequent site of initial touch prohibits the conclusion that paternal touch progresses from the center to the periphery of the infants' bodies.

It is further concluded that fathers seek proximity to their infants and, when given an opportunity to do so, will cradle. Additionally, it is concluded that stroking, by the paternal fingertips, and holding of the infant are not necessarily prerequisite behaviors for cradling.

An additional conclusion concerns the affective/emotional behaviors recorded on the fathers in this study. The frequent smiles, laughter and tears exhibited by the fathers who participated in this investigation permit one to conclude that the initial paternal-infant acquaintance period is an emotional experience for a new father.

Discussion

The paucity of investigations of paternal acquaintance behaviors limits a comparison of the paternal behaviors identified in this study. In the following section, the findings of the study are discussed in relation to similar investigations of parent-infant, particularly maternal-infant, acquaintance.

The paternal interest in the eyes of the infant is consistent with the reports of Klaus et al., (1970), Robson (1967), and Rubin (1961,1963) regarding a maternal interest in the eyes. Although the intense parental staring at their infants has not been reported, this behavior is consistent with parental attempts to establish an en face position.

Paternal touching behaviors of the fathers in this study are not consistent with reports of maternal touching behaviors. Maternal touching behaviors have been described as progressing from fingertip touch, to hands ". . . and then much later, her (mother's) whole arms as an extension of her body" (Rubin, 1963, p. 829). Rubin's (1963) report did not identify the time involved in

"much later" (p. 829), however Klaus and Kennell (1976), in a discussion of the study reported ". . . mothers usually took about three days to complete the sequence . . . " (p. 69).

Klaus et al., (1970), in a similar study, reported mothers proceeded from fingertip stroking of the infants' extremities to palm contact on the infants' trunks within eight minutes. In a discussion of these two studies by Klaus and Kennell (1976), the authors speculated that mothers may progress more rapidly in the sequence of touching behaviors when the infants are nude.

All fathers in this study immediately cradled their infants when handed the infant by a nurse. The infants, all nude, were wrapped in blankets at the time of immediate cradling. All the fathers who cradled immediately were either sitting or standing; they were the only support for the infants' bodies. The reports of maternal touching behaviors do not provide information regarding maternal position during the initial touching situations. Additionally, data are not provided regarding whether the infants were handed to or picked up by the mothers. It seems plausible that either parent might exhibit various touching behaviors, depending on their own position.

The initial touching site selected by the fathers in this study is also inconsistent with reports of maternal selection of touching sites. For example, these fathers selected relatively large areas of the infants' bodies, such as the sternum and extremities, to initiate touch. Mothers are reported to begin with ". . . very small areas of contact . . . " (Rubin, 1963, p. 829).

Additionally, Rubin (1963) reported the direction of touch progresses from the periphery to the center of the infants' bodies.

Some fathers in this study did stimulate their infants' grasp reflexes. This behavior is consistent with the investigation of Greenberg and Morris (1974) which indicated "many of the fathers were very impressed by the infant's grasp reflex" (p. 526).

The initial paternal-infant acquaintance period appeared to be an intense emotional experience for the fathers in this study and could best be described as a happy experience for them. Their intense interest in their infants is consistent with Greenberg and Morris' (1974) report of engrossment. However, the behaviors of the fathers in this study are not consistent with the ill-at-ease, embarrassed behaviors of fathers which have been reported by Fasteau (1976) and Hines (1971).

Recommendations

Based on the findings of this study, the following recommendations are made:

Further research is needed to contribute to the body of knowledge regarding paternal behaviors. The study should be replicated in a sample of fathers representative of different racial and socioeconomic groups. Also, the study should be replicated on a sample of fathers who have other children to see if differences in behaviors exist. Although maternal acquaintance behaviors have been identified to some extent, none of the studies reported have

used this particular research design. Comparative-descriptive studies of maternal and paternal behaviors, could provide information regarding differences and similarities in parental behaviors and provide cues to nursing interventions to promote paternal-infant acquaintance.

The study should also be replicated on a sample of fathers whose initial opportunity for acquaintance with their infants is delayed until the time of infant discharge. Further research, directed at identifying behavioral differences when the initial opportunity for acquaintance is early and delayed, could provide a scientific basis for subsequent studies to determine the effect of the time of paternal-infant acquaintance on the developing father-child relationship.

Summary

Presented in this study was a description of paternal behaviors at the time of their initial acquaintance with their infants. Included in Chapter I was the identification of the specific problem to be studied, a need for the investigation, stipulated definitions and assumptions basic to the study. Also included in Chapter I was the conceptual framework developed for the study, the limitations, the possible contributions and the organization of the study.

Presented in Chapter II was a review of literature pertinent to the changing roles and behaviors of today's parents, specifically

the father. Also included in this Chapter was a documented analysis of acquaintance, attachment and bonding.

Discussed in Chapter III was a description of the selection and source of the sample and the data collection procedure used for the purpose of the study. The measures taken for the protection of human rights and the framework and procedure used for data categorization were also presented in Chapter III.

Presented in Chapter IV were the results of data analysis of 1,094 paternal behaviors that were obtained from sampled observations of 20 subjects during their initial acquaintance with their infants. Presented in Chapter V were the conclusions which emerged from the findings of this study. Also included in this Chapter were recommendations for further study and a summary of the investigation.

REFERENCE NOTES

1. AMA encourages bonding and alternative settings in hospital. Bulletin: News of The Nurses Association of The American College of Obstetricians and Gynecologists, 1978, 5(5), 7. The Nurses Association of The American College of Obstetricians and Gynecologists, One East Wacker Drive, Chicago, Illinois, 60601.
2. Kennell, J. Evidence for a sensitive period in the human mother. In M. Klaus and M. Trause (Eds.), Maternal Attachment and Mothering Disorders: A Round Table. Sponsored by Johnson and Johnson Baby Products Company. Sausalito, California, October 18 and 19, 1974.

REFERENCES

- Adams, B. N. The Family: A Sociological Interpretation. Chicago: Rand McNally, 1975.
- Ainsworth, M. D. S. Attachment and dependency: A comparison. In J. L. Gewirtz (Ed.), Attachment and Dependency. Washington, D.C.: V. H. Winston and Sons, 1972.
- Balswick, J., and Peek, C. The inexpressive male: A tragedy of American society. Annual Edition: Readings in Marriage and Family, 1976.
- Barnett, C. R., Leiderman, P. H., Grobstein, R., and Klaus, M. Neonatal separation: The maternal side of interactional deprivation. Pediatrics, 1970, 45, 197-204.
- Bell, S. M. The development of the concept of object as related to infant-mother attachment. Child Development, 1970, 41, 292-311.
- Benedek, T. Fatherhood and providing. In E. Anthony and T. Benedek (Eds.), Parenthood: Its Psychology and Psychopathology. Boston: Little, Brown and Co., 1970.
- Benson, L. Fatherhood: A Sociological Perspective. New York: Random House, 1968.
- Bernstein, R., and Cyr, F. A study of interviews with husbands in a prenatal child-health program. Social Casework, 1957, 38, 473-480.
- Biddle, E. J., and Thomas, B. J. The nature and history of role theory. In E. J. Biddle and B. J. Thomas (Eds.), Role Theory: Concepts and Research. New York: John Wiley and Sons, 1966.
- Biller, H. The father-child relationship: Some crucial issues. In V. C. Vaughn and T. B. Brazelton (Eds.), The Family--Can It be Saved? Chicago: Yearbook Medical Publishers, Inc., 1976.
- Biller, H., and Meredith, D. Father Power. Garden City, New York: Anchor Press/Doubleday, 1975.

- Boocock, S. S. The role of the parent: Problems and prospects. In V. C. Vaughn and T. B. Brazelton (Eds.), The Family--Can It be Saved? Chicago: Yearbook Medical Publishers, Inc., 1976.
- Bowlby, J. Attachment and Loss: Attachment (Vol. I). New York: Basic Books, Inc., 1969.
- Brazelton, T. B. Early parent-infant reciprocity. In V. Vaughn and T. B. Brazelton (Eds.), The Family--Can It be Saved? Chicago: Yearbook Medical Publishers, Inc., 1976.
- Cairns, R. B. Attachment and dependency: A psychobiological and social learning synthesis. In J. L. Gewirtz (Ed.), Attachment and Dependency. Washington, D.C.: V. H. Winston and Sons, 1972.
- Cavan, R. The American Family. New York: Thomas Y. Crowell Co., 1956.
- Cronenwett, L. R., and Newmark, L. L. Fathers' responses to childbirth. Nursing Research, 1974, 23, 210-217.
- Dodson, F. How to Father. New York: The New American Library, Inc., 1974.
- Fasteau, M. Men as parents: The 49% majority. In D. David and R. Brannon (Eds.), The Male Sex Role. Reading, Massachusetts: Addison Wesley Publishing Co., 1976.
- Funke, J., and Irby, T. An instrument to assess the quality maternal behaviors. Journal of Obstetric, Gynecologic and Neonatal Nursing, 1978, 7(5), 19-22.
- Gollob, M. A. A comment on the need for father-infant postpartal interaction. Journal of Obstetric, Gynecologic and Neonatal Nursing, 1976, 5(5), 17-20.
- Gottlieb, L. Maternal attachment in primiparas. Journal of Obstetric, Gynecologic and Neonatal Nursing, 1978, 7(1), 39-44.
- Green, M. Fathering. New York: McGraw-Hill, 1976.
- Greenacre, P. Considerations regarding the parent-infant relationship. The International Journal of Psychoanalysis, 1960, 41, 571-584.
- Greenberg, M., and Morris, J. Engrossment: The newborn's impact upon the father. American Journal of Orthopsychiatry, 1974, 44, 520-531.

- Greenberg, M., Rosenberg, T., and Lind, J. First mothers rooming-in with the newborn: Its impact upon the mother. American Journal of Orthopsychiatry, 1973, 43, 783-788.
- Harlow, H. F. Primary affectional patterns in primates. American Journal of Orthopsychiatry, 1960, 30, 676-684.
- Harlow, H. F., and Harlow, M. K. The affectional systems. In A. M. Schrier, H. F. Harlow and F. Stollnitz (Eds.), Behavior of Non-human Primates: Modern Research Trends (Vol. 2). New York: Academic Press, 1965.
- Hines, J. D. Father: The forgotten man. Nursing Forum, 1971, 10, 176-200.
- Howells, J. G. Fallacies in child care II. That fathering is unimportant. Acta Paedopsychiatrica, 1970, 37, 46-55.
- Hrdy, S. B. Care and exploitation of non-human primate infants by conspecifics other than the mother. In J. S. Rosenblatt, R. A. Hinde, E. Shaw, and C. Beer (Eds.), Advanced in the Study of Behavior (Vol. 6). New York: Academic Press, 1976.
- Josselyn, I. M. Cultural forces, motherliness and fatherliness. American Journal of Orthopsychiatry, 1956, 26, 264-271.
- Kennedy, J. C. The high-risk maternal-infant acquaintance process. Nursing Clinics of North America, 1973, 8, 549-556.
- Kennell, J., Jerauld, R., Wolfe, H., Chesler, D., Kreeger, N., McAlpine, W., Steffa, M., and Klaus, M. Maternal behavior one year after early and extended postpartum contact. Developmental Medicine and Child Neurology, 1974, 16, 172-179.
- Kiernan, B., and Scolovino, M. Fathering. Nursing Clinics of North America, 1977, 12, 481-490.
- Klaus, M. H., Jerauld, R., Kreeger, N., McAlpine, W., Steffa, M., and Kennell, J. H. Maternal attachment: Importance of the first postpartum days. The New England Journal of Medicine, 1972, 286, 460-463.
- Klaus, M. H., and Kennell, J. H. Maternal-infant Bonding. St. Louis: C. V. Mosby, 1976.
- Klaus, M. H., Kennell, J. H., Plumb, N., and Zuehlke, S. Human maternal behavior at the first contact with her young. Pediatrics, 1970, 2, 187-192.
- Lamb, M. E., and Lamb, J. E. The nature and importance of the father-infant relationship. The Family Coordinator, 1976, 4, 379-385.

- Leifer, A., Leiderman, P., Barnett, C., and Williams, J. A. Effects of mother-infant separation on maternal-attachment behavior. Child Development, 1972, 43, 1203-1218.
- Leonard, S. W. How first-time fathers feel about their newborns. The American Journal of Maternal-Child Nursing, 1976, 1, 361-365.
- Lozoff, B., Brittenham, G., Trause, M., Kennell, J., and Klaus, M. The mother-newborn relationship: Limits of adaptability. The Journal of Pediatrics, 1977, 91(1), 112.
- Maccoby, E. E., and Masters, J. C. Attachment and dependency. In P. H. Mussen (Ed.), Carmichael's Manual of Child Psychology (3rd ed.). Vol. II. New York: John Wiley and Sons, 1970.
- Marquart, R. K. Expectant fathers: What are their needs? The American Journal of Maternal-Child Nursing, 1976, 1, 32-36.
- Mitchell, D. Paternalistic behavior in primates. Psychological Bulletin, 1969, 71, 399-417.
- Moss, H. A. Methodological issues in studying mother-infant interaction. American Journal of Orthopsychiatry, 1965, 35, 482-486.
- Nash, J. The father in contemporary culture and current psychological literature. Child Development, 1965, 1, 262-297.
- Newcomb, T. The Acquaintance Process. New York: Holt, Rinehart and Winston, 1961.
- Parke, R. D., and O'Leary, S. E. Family interaction in the newborn period: Some findings, some observations and some unresolved issues. In K. Riegel and J. Meacham (Eds.), The Developing Individual in a Changing World: Social and Environmental Issues (Vol. II). The Hague: Mouton, 1976.
- Parke, R., and Sawin, D. The father's role in infancy: A re-evaluation. The Family Coordinator, 1976, 25, 365-371.
- Pedersen, F., and Robson, K. Father participation in infancy. American Journal of Orthopsychiatry, 1969, 39, 466-472.
- Rebelsky, F., and Hanks, C. Fathers' verbal interaction with infants in the first three months of life. Child Development, 1971, 42, 63-68.
- Rendina, I., and Dickerschied, J. D. Father involvement with first-born infants. The Family Coordinator, 1976, 4, 373-378.

- Robson, K. S. The role of eye-to-eye contact in maternal-infant attachment. Journal of Child Psychology and Psychiatry, 1967, 8, 13-25.
- Robson, K. S., and Moss, H. A. Patterns and determinants of maternal attachment. The Journal of Pediatrics, 1970, 77, 976-985.
- Rubin, R. Basic maternal behavior. Nursing Outlook, 1961, 11, 683-686.
- Rubin, R. Maternal touch. Nursing Outlook, 1963, 13, 828-831.
- Rubin, R. The family-child relationship and nursing care. Nursing Outlook, 1964, 12, 36-39.
- Rypma, C. B. The biological basis of paternal responses. The Family Coordinator, 1976, 25, 335-339.
- Seashore, M. J., Leifer, A. D., Barnett, C. R., and Leiderman, P. H. The effects of denial of early mother-infant interaction on maternal self-confidence. Journal of Personality and Social Psychology, 1973, 26(3), 369-378.
- Simond, P. E. The Social Primates. New York: Harper and Row, 1974.
- Swerdloff, P., and the Editors of Time-Life Books. Human Behavior: Men and Women. Waltham, Massachusetts: Little, Brown and Co., 1975.
- Turner, R. H. Family Interaction. New York: John Wiley and Sons, 1970.
- Winnicott, D. W. The theory of the parent-infant relationship. The International Journal of Psycho-Analysis, 1960, 41, 585-595.
- Yarrow, L. J. Research in dimensions of early maternal care. In T. Spencer and N. Kass (Eds.), Perspectives in Child Psychology: Research and Review. New York: McGraw-Hill, 1970.
- Yarrow, L. J. Attachment and dependency: A developmental perspective. In J. L. Gewirtz (Ed.), Attachment and Dependency. Washington, D.C.: V. H. Winston and Sons, 1972.
- Yarrow, M. R. Problems of methods in parent-child research. Child Development, 1963, 1, 215-226.

BIBLIOGRAPHY

- Ainsworth, M. D. S. Object relations, dependency and attachment: A theoretical review of the infant-mother relationship. Child Development, 1969, 40, 969-1025.
- Ashton, P. T. The role of the attachment bond in effective parenting. In J. H. Stevens, Jr., and M. Mathews (Eds.), Mother/child father/child relationships, The National Association for the Education of Young Children, 1978, 31-50.
- Bell, S. M., and Ainsworth, M. D. S. Infant crying and maternal responsiveness. Child Development, 1972, 43, 1171-1190.
- Brenton, M. The paradox of the American father. In L. K. Howe (Ed.), The Future of the Family. New York: Simon and Shuster, 1972.
- Chamorr, I. L., Davis, M. L., Green, D., and Kramer, M. Development of an instrument to measure premature infant behavior and caretaker activities: Time-sampling methodology. Nursing Research, 1973, 22, 300-309.
- Cox, A. Annotations: The assessment of parental behavior. Journal of Psychology and Psychiatry and Allied Disciplines, 1975, 16, 255-259.
- Jackson, B. J. An experience in participant observation. Nursing Outlook, 1975, 23, 552-555.
- Klaus, M., and Kennell, J. Mothers separated from their newborn infants. Pediatric Clinics of North America, 1970, 17, 1015-1037.
- Kratz, C. R. Participant observation in dyadic and triadic situations. International Journal of Nursing Studies, 1975, 12, 169-174.
- Lamb, M. E. Fathers: Forgotten contributors to child development. Human Development, 1975, 18, 245-266.
- Newton, N., and Newton, M. Mothers' reactions to their newborn babies. Journal of the American Medical Association, 1962, 18(3), 206-210.

- Pearsall, M. E. Participant observation as role and method in behavioral research. Nursing Research, 1965, 14, 37-42.
- Porter, C. P. Maladaptive mothering behaviors. ANA Clinical Sessions. New York: Appleton-Century-Crofts, 1973.
- Poulous, E. S., and McCabe, G. S. The nurse in the role of research observer. Nursing Research, 1960, 9, 137-140.
- Quint, J. C. Delineation of qualitative aspects of nursing care. Nursing Research, 1962, 11, 204-213.
- Wolff, P. H. Current concepts: Mother-infant interactions in the first year. New England Journal of Medicine, 1976, 295, 999-1001.
- Yarrow, L. J., and Goodwin, M. S. Some conceptual issues in the study of mother-infant interaction. American Journal of Orthopsychiatry, 1965, 35, 473-481.

APPENDICES

APPENDIX A

FORM 4

UNIVERSITY OF ALABAMA IN BIRMINGHAM
IDENTIFICATION AND CERTIFICATION OF PUBLIC HEALTH SERVICE APPLICATIONS
FOR SUPPORT OF RESEARCH INVOLVING HUMAN SUBJECTS

THIS FORM IS APPLICABLE TO ALL APPLICATIONS FOR DHEW RESEARCH AND RESEARCH TRAINING GRANTS, PROGRAM PROJECTS AND CENTER GRANTS, DEMONSTRATION GRANTS, FELLOWSHIPS, TRAINEESHIPS, AWARDS, AND OTHER PROGRAMS INVOLVING THE USE OF HUMAN SUBJECTS. THIS FORM IS NOT APPLICABLE TO APPLICATIONS FOR GRANTS LIMITED TO THE SUPPORT OF CONSTRUCTION, ALTERATIONS AND RENOVATIONS, OR RESEARCH RESOURCES.

THE PUBLIC HEALTH SERVICE REQUIRES ASSURANCES FROM GRANTEE INSTITUTIONS SPONSORING RESEARCH, INVESTIGATION AND CARE INVOLVING HUMAN SUBJECTS THAT THEY WILL CARRY OUT REVIEW OF ALL SUCH PROJECTS IN AGREEMENT WITH THE POLICY AND INSTRUCTION PROVIDED IN "THE INSTITUTIONAL GUIDE TO DHEW POLICY ON PROTECTION OF HUMAN SUBJECTS", MARCH 13, 1975, AND PART 46 OF TITLE 45 OF THE CODE OF FEDERAL REGULATIONS, AS AMENDED. THE PUBLIC HEALTH SERVICE ALSO REQUIRES CERTIFICATION OF THE PERFORMANCE OF THE INITIAL REVIEW. THIS REVIEW SHOULD BE COMPLETED PRIOR TO SUBMISSION OF RELEVANT PROPOSALS, BUT IN ANY EVENT, IT MUST BE DONE PRIOR TO AWARD OF FUNDS.

WITH SPECIFIC REFERENCE TO THE PROJECT NUMBERED _____
 ENTITLED " PATERNAL BEHAVIORS EXHIBITED AT THE INITIAL PATERNAL-INFANT CONTACT _____

 UNDER THE DIRECTION OF JANICE TEMPLETON GAY _____

- ☐ 1. THIS APPLICATION DOES NOT INCLUDE RESEARCH INVOLVING HUMAN SUBJECTS, AS DEEINED IN THE FEDERAL REGISTER, MARCH 13, 1975 AND PART 46 OF TITLE 45 OF THE FEDERAL REGULATIONS, AS AMENDED.
- ☒ 2. THIS APPLICATION INCLUDES RESEARCH INVOLVING HUMAN SUBJECTS. OUR INSTITUTIONAL REVIEW BOARD HAS REVIEWED AND APPROVED IT ON 9 FEBRUARY 1978, IN ACCORDANCE WITH OUR ASSURANCE APPROVED BY THE PUBLIC HEALTH SERVICE. THE PROJECT WILL BE SUBJECT TO CONTINUING REVIEW AS PROVIDED FOR IN THAT ASSURANCE.
- ☐ 3. THIS APPLICATION, WHICH INCLUDES RESEARCH INVOLVING HUMAN SUBJECTS, IS PENDING INITIAL REVIEW BY AN INSTITUTIONAL REVIEW BOARD AS PROVIDED BY OUR ASSURANCE. CERTIFICATION OF COMPLETION OF THE REVIEW WILL BE PROVIDED AS SOON AS POSSIBLE. (THIS CERTIFICATION WILL BE IN THE FORM INDICATED IN 2, ABOVE, IDENTIFYING THE APPLICATION BY TITLE, INVESTIGATOR, AND IF KNOWN, BY NUMBER.)

9 FEBRUARY 1978

DATE

S. B. Barker
 SAMUEL B. BARKER, Ph.D.
 CHAIRMAN, INSTITUTIONAL REVIEW BOARD
 UNIVERSITY OF ALABAMA IN BIRMINGHAM

APPENDIX B

Director of Nursing
Chief of Obstetrics
Local Hospital
Birmingham, Alabama

Dear Director/Chief:

I am a graduate student at the University of Alabama in Birmingham. As partial fulfillment for the requirements of the Doctor of Science in Nursing degree I would like to conduct investigations for my dissertation in your hospital. The purpose of the study is to identify the behaviors of first-time fathers at the time of their initial contact with their infants.

I plan for the study to include 20 first-time fathers whose infants have an Apgar score of seven or more at one and five minutes after a single, uncomplicated vaginal delivery. Informed consents will be obtained from all couples who agree to participate in the study. The desire of any couple not to participate will be respected.

Data will be collected by the investigator during the months of May, June and July, 1978. The investigator will utilize participant observation as a method of data collection. No nursing care will be provided. An observational checklist, tape recordings, and written notes of the initial paternal-infant contact will be utilized for data collection. A graduate student in Maternal Infant Nursing at the University of Alabama may be present during some of the observations to serve as a co-observer to provide for observer reliability.

A summary of the findings will be provided to the hospitals that permit the investigator to collect data.

Your immediate response will be appreciated. A stamped, self-addressed envelope is enclosed for your convenience.

Sincerely,

Janice Gay, R.N., M.S.N.

Enclosure

APPENDIX C

Observation Checklist

Code Number _____

A. Visual Behaviors

| | | | |
|-----------|--------------|---------------|------|
| Gazing: | Constant | Intermittent | None |
| Scanning: | Eye movement | Head movement | None |
| En Face: | Constant | Intermittent | None |

B. Verbal Behaviors

Comments directed to infant:

| | | |
|----------------|-----------|-------|
| Open your eyes | Don't Cry | Other |
|----------------|-----------|-------|

Comments directed to self:

Comments directed to others:

| | | | | |
|---------------|--------|-----|---------------|---------------|
| Weight (size) | Length | Sex | Color of Hair | Color of Eyes |
|---------------|--------|-----|---------------|---------------|

| | |
|---------------|-------|
| Color of skin | Other |
|---------------|-------|

Silence

C. Muscular Responses

| | | | |
|---------------------|-------|---------|------|
| Facial expressions: | Smile | Grimace | None |
|---------------------|-------|---------|------|

D. Skeletal Responses

Moving to the infant

Moving from the infant

| | | | |
|-----------|------------|------|--------|
| Touching: | finger-tip | poke | stroke |
| | palm | | stroke |

| | |
|----------|--|
| Holding: | Arms extended, holding infant from body. |
|----------|--|

| | |
|--|---|
| | Arms close to body, cradling infant to body |
|--|---|

E. Other

APPENDIX D

Demographic Data

Code Number:

Date:

Delivery:

Date:

Time:

E.D.C.:

Age of infant at the time of initial contact:

Sex:

Apgar score at one minute:

Five minutes:

APPENDIX E

Criteria for Categorization

I. Gaining Information - Information obtained through visual,
verbal and tactile senses

A. Visual

Staring - Attempting an en face position when the infants' eyes were closed

En Face - Eye-to-eye contact of the father and infant

Looking - Looking in direction of infant when the infant was not positioned toward the father

Intermittently - Looking at infant and others in the environment.

B. Verbal - Paternal statements or questions directed to the infant or others in the environment that indicated specific information had been obtained or was being sought

C. Tactile - Touching behaviors limited to stroking or poking with the fingertips

II. Assessing the Infant's Attitude

Included paternal statements or questions the fathers made to their infants or others in the environment that:

- A. Implied meaning to the infants' actions
- B. Interpreted feelings for the infant

III. Proximity Seeking/Maintaining

Included all paternal touching with the hands when more than the fingertips were used:

- A. Holding - The infant was held in the paternal hands when the paternal arms were extended from the body
- B. Cradling - The infant was held in the paternal hands/arms next to the paternal body
- C. Hands - Paternal touch of the infant with the hand(s) when the father was not holding the infant.
- D. Standing - Standing in the presence of the infant
- E. Leaning - Leaning toward the infant whether in a sitting or standing position
- F. Moving - Toward the infant
- G. Sitting - Sitting near the infant
- H. Gowning and washing the hands - Requested of the fathers by hospital policy prior to paternal-infant contact
- I. Comments - Paternal questions or statements indicating the fathers were seeking or maintaining proximity to their infants.

IV. Other behaviors - Behaviors other than those described in the first three categories. Included visual, verbal, and tactile

behaviors directed to others during the fifteen-second observation period. Verbal behaviors were categorized in the remainder of the observation period only when comments pertained to the infant.