# ATTITUDES OF MOTHERS OF NEWBORN BABIES TOWARD THEIR BIOLOGICAL FEMININE FUNCTIONS: REPLICATION AND EXTENSION OF A 1952 STUDY

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# CHAPTER I

## INTRODUCTION

In 1952, Niles Newton conducted her doctoral research on attitudes of mothers of newborn babies toward their biologically feminine functions. In her monograph, Maternal Emotions, which is a published account of her doctoral study, Newton (1955) described her research concerns as follows:

> Are women's feelings toward menstruation, pregnancy, childbirth, breast feeding, infant care, and the desirability of being a woman related to each other and to other physical, psychological or social phenomena?
>
> What does this mean in terms of helping women to better health and more satisfying lives? (p. 2)

Newton's (1955) basic research question centered around her thesis that statistically measurable relationships existed between a woman's feelings about her various biologically determined feminine functions. Specifically she asked whether a woman's feelings about menstruation were measurably related to her feelings about breastfeeding; or whether her feelings about childbirth were positively or negatively correlated with her feelings about nurturing her newborn baby. Newton argued that a woman's feelings toward menstruation, for example, might be important not only in themselves but also might offer a useful key to understanding the woman's total personality.

In examining Newton's research in the context of present-day social

science research, it is important to discuss the state of the art at the time of Newton's original study. Newton's literature search revealed that women's various biological functions had been studied in great detail, either from a medical or a psycho-sociological point of view, and always in isolation from one another. In other words, Newton cited a plethora of literature which treated menstruation or childbirth or lactation. What was unique about Newton's work was that she concerned herself with women's "feelings" about these feminine processes and with the "interrelationships" of women's feelings about these processes. Her study attempted an empirical look at the interrelationships of women's feelings about menstruation, pregnancy, childbirth, lactation and nurturing of the newborn.

Newton (1955) designed, pretested, refined, and administered a research instrument which asked women who had given birth during the past three days a series of open-ended questions about their feelings toward menstruation, pregnancy, childbirth, breastfeeding, and early care of the baby. (See Appendix B.) She also gathered selected information from the women's medical charts and included some socio-economic background data.

Among other outcomes, Newton (1955) found that women who said childbirth was "hard" were less likely to express physical affection for their babies; were less likely to breastfeed their babies; and were more likely to feel that men have more satisfying lives. Those women who disliked caring for their newborn babies were also more likely to dislike most other aspects of their female biological roles. Medically, those women who disliked most aspects of their biological and sexual functioning were more likely to have genitourinary difficulties and to

experience longer labors in giving birth the first time.

During the past three decades since Newton conducted her research into women's feelings about their biologically determined role, women have grown demonstrably more assertive and articulate in expressing their feelings about their roles, be they biological or cultural. Increasingly, they have insisted that they be viewed as biologically and psychologically intricate beings, able and willing to assume responsibility for an active role in making decisions regarding those dimensions of their lives which Newton (1955) termed their biologically feminine functions.

The now-established phenomenon of prepared childbirth, also called "natural childbirth," is a salient example of women's participatory involvement in a biologically feminine process. Tanzer (1972) in Why Natural Childbirth? states:

> . . . the increasing demand for natural childbirth is part of the growing 'participatory revolution' in which men and women insist upon their basic right as human beings to help decide their lives . . . it can give women the opportunity to bear their children in dignity and awareness--a goal which is an inextricable part of today's struggle by women for their rights (pp. 249-250).

Newton (1955) premised her research on the theoretical assumption that mind and body should be studied together. Today's medical literature reflects continued interest in the integration of mind and body. Emotions, attitudes, and feelings are often considered an integral part of the body's physical functioning. For example, there is good evidence to suggest that a woman suffering menstrual dysfunction today is diagnosed and treated physically and emotionally (Clausen, Ford, and Flook, 1977).

Another related trend which has emerged since Newton conducted her

research in the early fifties is the expanded role of health care providers who increasingly view themselves as responsible for assessing and intervening in domains beyond the strictly medical. Funke-Furber (1978) in her research paper "The Four Trimesters Assessment of Maternal Behavior" summarizes the current position:

> Today's goal in health care of families is no longer directed toward merely survival of its members, but is directed toward increasing the health potential of all family members. This goal has become more important in our society where many of the usual social and psychological systems that were available to families 50 years ago are no longer available. In order to meet the health needs of the family today and in the future, a high quality of primary care is necessary. This objective involves a purposeful, conscious effort directed toward systematic appraisal, which will ultimately lead to a practice of care based on a sound knowledge base (p. 138).

Newton's (1955) monograph, Maternal Emotions, is currently in its ninth printing and is still widely cited in maternal and child health literature (Funke-Furber, 1978, Clark and Affonso, 1976; Chertok, 1969). Among the present investigator's colleagues, Newton's monograph is commonly included in the books loaned to students in childbirth education classes. In fact, this researcher's introduction to Newton's study occurred when she borrowed the book from her childbirth education instructor in 1973. A search of the relevant literature revealed no replications of Newton's study. Nor was Newton aware of any replications of her doctoral study when this researcher sought permission to use Newton's research instrument. (See Appendix A.)

Given the continued interest in Newton's study and the current emphasis placed on holistic medicine and preventive interventions on the behalf of family welfare, Newton's research interests remain current today. Three decades of social science development since Newton

conducted her exploratory study invite the opportunity to contemporize her research. Replication provides such an opportunity.

## Purpose and Objectives

The purpose of this study is to take a current look at Newton's research findings concerning women's feelings about their biological roles. Newton (1955) focused her study on the relation of one emotion to another emotion in the same woman. The focus of the present study is likewise centered on the relationship of one expressed feeling to another expressed feeling in the same woman. The dimensions to be explored in this study are the same major dimensions Newton looked at in 1952; namely, women's expressed feelings about menstruation, pregnancy, childbirth, breastfeeding and care of the baby. These five dimensions comprised what Newton called women's biologically-determined feminine roles. The present study explores three primary research concerns. The first concern is whether the attitudinal associations Newton found in 1952 still hold for a different sample of postpartum women living in a different region of the country and in a different era (i.e., 28 years after Newton examined her sample). To quote Scott and Wertheimer (1962, p. 64) in their Introduction to Psychological Research: ". . . in the last analysis, it is replication of findings in slightly altered contexts that lends confidence to conclusions based on empirical studies."

A second research concern of this study is whether the attitudinal measure Newton employed with a postpartum sample (i.e., women who had recently given birth) can be applied to a prepartum sample (i.e., women who are soon to give birth).

As was stated earlier in this chapter, health care delivery as practiced today frequently includes holistic assessments of patients with "timely intervention" as an accepted means toward achieving individual and familial well-being (Funke-Furber, 1978). Within the arena of maternal and child health, the orientation toward assessment and preventive intervention is demonstrated in the growing body of literature on child abuse and maternal-infant bonding (Lynch and Roberts, 1977; Klaus and Kennell, 1976; Funke-Furber, 1978). Illustrative of this genre of applied research is Kempe and Helfer's work on assessment of laboring women's conversation and behavior in the delivery room to screen for potential mothering problems (Kempe and Helfer, 1972). In light of the current emphasis on early detection of potential child abusers or child neglecters, it seems useful to determine whether Newton's research design can be extended to include the assessment of maternal attitudes among prepartum women.

The third research concern of this study centers on methodology. As in the case of the Monday-morning quarterback, it is easy to look back on an earlier piece of research and cite its flaws. Duncan (1969, p. 28) concisely states the dilemma faced by replicators of earlier research: "When a study has become old enough to be interesting as a base-line for change measurement, it is likely also to have used techniques considered outmoded in some respect."

Newton's study was by her own definition exploratory (1955, p. 130). Her research instrument employed single item questions to determine if the variables she was interested in were related at all. She did not ground her research in a theoretical framework; thus she made no predictions about the direction or strength of the relationships. As Scott

and Wertheimer (1962, p. 130) point out, much present-day psychological research does not go beyond examining for the existence of related variables; "for these less refined aims, it is often quite appropriate to make do with fairly crude instruments."

One methodological problem not centered in the exploratory nature of Newton's (1952) research concerns her treatment of data for statistical analysis. Newton collected verbatim responses and categorized these responses into sometimes five and sometimes three categories: either Very Positive, Positive, Mixed, Negative and Very Negative; or Positive, Mixed, and Negative. Newton states:

> After some statistical exploration, using all the categories that were easily distinguishable on the verbal level, it was decided to condense the material so that all the data were placed in dichotomous categories [which] allowed uniform methods of determining relationship and statistical significance to be applied to all the data (p. 37).

Newton explains that all very positive expressions of feeling were put into the positive group and that very negative expressions of feelings were put into the negative group. Mixed feelings were also classified for statistical purposes as negative "since mothers expressing mixed feelings appeared to be more like mothers expressing negative feelings than like mothers expressing positive feelings" (p. 38).

It can be argued that Newton lacked empirical grounds for including mixed responses with negative responses. A debate as to whether mixed or ambivalent expressions of feelings are more positive or more negative is beyond the scope of the present study. What is explored in this study is the possibility that Newton introduced statistical bias in her data analyses by comparing a Positive response category comprised of two groups (Very Positive and Positive) with a Negative response

category comprised of three groups (Very Negative, Negative, and Mixed), thus loading the data in favor of negative responses.

The focus of the present study is a current look at women's expressed feelings toward five dimensions of their biological role; namely, menstruation, pregnancy, childbirth, breastfeeding, and care of the baby.

The research objectives which guide this study may be stated as follows:

1. To retest Newton's hypothesis that a woman's expressed feelings about one aspect of her feminine biological role are measurably related to other aspects of that role, using Newton's original research instrument with a current sample of postpartum women.
2. To explore whether Newton's research instrument can be applied to a current sample of prepartum women.
3. To test for the possibility of statistical bias when three response categories are collapsed into two categories.

## Assumptions and Limitations

The assumptions upon which this research rests can be categorized as theoretical and operational. Newton (1955) included three theoretical assumptions in her study:

1. Human feelings can be fruitfully studied by controlled, statistical methods.
2. Generalizations from extremes to normal should be avoided whenever possible.
3. Mind and body are an interacting unit and should be studied together whenever possible.

The operational assumptions which guide the research methodology include the following:

1. The use of telephone interviews encourages respondents' sense of anonymity and decreases the likelihood of responder bias for items containing a socially desirable answer (Greenstein and Polsby, 1975).
2. Verbally transmitted interview questions and responses require that both interviewer and respondent share the same native language.
3. Modifications of interview items to reflect proper verb tense in usage with prepartum women yet to experience childbirth does not alter the substance nor intended meaning of the original question.
4. Expressed feelings toward childbirth and related biologically feminine functions are not biased by interviews timed six weeks or less before or after experiencing childbirth (Newton and Paschall, 1976).
5. The present researcher assumes the reliability and validity of the original research instrument which was pretested and measured for validity in the original study (Newton, 1955).

Newton's study was based on responses from a purposive sample and in replicating the study, a purposive sample is used also, albeit one from a different time, a different geographic location and a shorter period of data collection. Therefore, the following limitations must be applied to the research outcomes of the present study:

1. Research findings are limited in applicability to the population sampled.
2. Findings resulting from a comparison between the original sample and the present sample will be limited to these two groups.

## Definitions

The definitions which follow clarify certain key concepts used in this study:

1. Biological femininity - "behavior in women which is active, productive and capable of concerted effort as they carry out the female biological roles of childbearing and child nurturing" (Newton, 1955, pp. 98-99).
2. Maternal emotions - "feelings women have toward menstruation, pregnancy, childbirth, breastfeeding, infant care, and other aspects of their femininity" (Newton, 1955, p. 9).
3. Parity - the status of giving birth. Primiparous women are those women giving birth for the first time. Multiparous women are those women giving birth again after a previous birth or births.
4. Perinatal period - the period of time surrounding childbirth.
5. Prepartum women - for purposes of this study, women who are due to give birth within the next six weeks.
6. Postpartum women - for purposes of this study, women who have given birth no more than six weeks ago.

This chapter has defined a research problem related to the interrelationships of women's feelings about their biologically feminine role. It has traced several current trends in applied research and maternal and child health care which support the need for a re-examination of research on this topic conducted in the early fifties. It has identified a further application of the research design to another population and has suggested a closer look at a possible methodological problem

encountered in the earlier research. Finally, this chapter has elaborated specific research questions, assumptions, limitations and definitions which guide the study.

# CHAPTER II

## REVIEW OF LITERATURE

In preparing the research study, the investigator conducted a review of Newton's original research as well as psychological, medical and sociological literature. The following objectives guided the literature review:

1. to ascertain whether there was current authoritative support that Newton's original research concerns are significant today;
2. to update research findings that might have a bearing on the problem of women's feelings toward their biologically determined role;
3. to examine research methods that might meet the needs of the research objectives;
4. to seek a theoretical base on which to ground future related research.

### Significance of the Problem

Newton's research concerns in 1952 stemmed from the premise that our society has tended to ignore or actively disparage women's feelings about their unique biological functions. In support of her premise, she cited the widespread marketing of devices to hide menstruation, the frequent use of potent drugs to render a woman unconscious during

childbirth and to suppress the secretion of her breast milk. She described the common practice of removing the baby from its mother following birth, thus allocating its care to others for the first several days of its life.

During the past three decades, at least one trend has emerged that relates directly to Newton's research concerns: prepared or natural childbirth. The concept of preparing for childbirth appeared in the United States during the early sixties (Bing, 1967). Its proponents were primarily motivated by the desire to reduce pain during childbirth thought to be caused by the woman's lack of knowledge concerning the process, her socially-conditioned fear of birth and inadequate coping techniques that would encourage her to work "with" rather than "against" her body's functioning (Tanzer, 1972). Ten years later, research was being conducted to assess the benefits of prepared childbirth. Variables now included psychological benefits to the mother and father as well as obstetric considerations. Tanzer (1972, p. 248) summarized the expanded philosophy as follows: ". . . Natural childbirth plays a role in social progress in two main ways. For a woman it allows choice and control over her life in terms of use of her body and achievement of selfhood."

Contemporary maternity nursing texts (Clark and Affonso, 1976; Clausen et al., 1977) reflect a professional orientation which considers the feelings of the childbearing woman and her family and which encourages institutional flexibility that allows a woman to give birth with dignity.

The current attention directed toward maternal feelings implies an ongoing research opportunity. The following section examines recent

research related to Newton's study.

## Research Update

A review of recent medical psychological and sociological literature revealed that pain management during childbirth and factors that can influence pain continue to receive research attention (Chertok, 1969; Block, Block and Shrock, 1975). Not surprisingly, much of the literature devoted to pain management in childbirth attempts to assess the relationship between preparation for childbirth and pain management (Doering and Entwhistle, 1975; Scott and Rose, 1976). Yet the salient subject for research related to maternal emotions is that of maternal-infant interaction (deChateau, 1976; Klaus and Kennell, 1976; Sugarman, 1977).

The basic premise of the current research emphasis on maternal-infant interaction is that certain major influences on maternal behavior are fixed (e.g., mother's care by her own mother, practices of the culture, experience with previous pregnancy) and certain influences are alterable (e.g., behavior of medical personnel; separation of the mother and infant in the first days of life, and hospital practices). Potential outcomes following birth range between effective caretaking and attachment on the mother's part and disturbed mother/child relations which might be manifested in the failure-to-thrive syndrome or the battered child syndrome (Klaus and Kennell, 1976). Professionals in the fields of family relations and child development, social welfare, neonatology, and psychology are focusing increased attention on the factors which contribute to child abuse and on the means for intervening to prevent the process (Funke-Furber, 1978).

Current research tends to reconfirm Newton's original concern for the associations among women's attitudes regarding their biological functions and the potential impact these attitudes might have on maternal behavior (Klaus and Kennell, 1976; Lynch and Roberts, 1977; Sugarman, 1977).

Newton's own recent research continues to examine maternalism and women's sexuality. Her 1973 paper presented at the sixty-first annual meeting of the American Psychopathological Association was titled "Interrelationships Between Sexual Responsiveness, Birth and Breast Feeding." Newton describes the paper's focus as follows:

> Adult females . . . have at least three acts of interpersonal reproductive behavior--all three involving the participation of two human beings. . . . In practical terms, this implies that what occurs on the delivery table is very pertinent to what will transpire later in the marital bed and that mother-baby relationship without enjoyable lactation is in a somewhat similar psychophysiologic position as a marriage without enjoyable coitus (pp. 77-78).

In another more recent collaborative research effort, Newton examined maternal behavior and attitudes regarding the decision to "room-in" with the baby following birth rather than have the baby cared for by others in the hospital nursery (Newton, Paschall, Melamed, and Ryan, 1974). Newton and her colleagues employed an attitude and feeling survey designed to be filled out by the childbearing women "to rate their feelings in regard to their female biological and social roles, work and family relationships, and the physical discomforts and social stress of the childbearing period" (p. 390).

Newton's present research reflects her earlier work on maternal emotions. She continues to employ similar methodology: face-to-face interviews, attitudinal survey questions, collection of selected social

and medical background data, and the use of the Chi square test to calculate probability (Newton et al., 1974).

## Methodological Considerations

Controversies in attitudinal research abound. The reliability of attitude measures in light of the sensitivity of responses to slight changes in item wording, the degree to which people's behavior conforms to attitudes expressed in interviews, and the degree to which responses to many items may be said to measure actual attitudes are continuing subjects of controversy (Greenstein and Polsby, 1975). The literature suggests no easy solution to the problem. Greenstein and Polsby (1975) advise measuring a concept, whenever possible, with as many different items as practicable, and analyzing separately the relationships of these multiple indicators to other variables.

Newton (1955, p. 6) realistically acknowledged the methodological difficulties encountered in the study of emotions: "The greatest challenge that lies before the emotional scientist is the invention of more adequate tools and methods." She described her single-item measures of women's attitudes as "crude" (Newton, 1952) and invited subsequent refinement of her research design.

The use of multiple-item indicators to measure a complex concept solves only a portion of a larger research problem. It is possible to show that associations exist between the dimensions Newton was examining and yet not show that the particular measures she employed adequately represented the intended concepts.

Chertok (1969), acknowledging his own methodological difficulties in the study of pain perception for women who have been prepared for

childbirth and those who have not, critized Newton's methodology. Based on her assumption that human emotions can be fruitfully studied by statistical methods, Newton (1955) worked for objectivity by recording desires, fears, and other emotions which were then strictly classified according to pre-defined criteria by a judge unacquainted with the subjects. Chertok (1969) argued that emotions are not so simple and cites the major limitation of Newton's method as the inability to provide explanatory hypotheses once it has established relationships among seemingly uncorrelated data. This limitation may result from Newton's lack of theoretical grounding.

## Theoretical Considerations

Theory serves research by providing a logical framework for organizing data. It also helps the investigator move beyond empirical data to suggest relationships and implications not evident by analysis of any single datum. It may lead to predictions about events not yet observed. Thus, theory guides research and seeks to explain, predict and control phenomena (Clark and Affonso, 1976).

A review of the literature suggested several possible theoretical approaches to the study of maternal emotions. Of the theories reviewed, role theory, which is more properly considered a conceptual framework, provided a means of assessing women's attitudes about the roles they perform in the context of their individual and societal expectations for performing certain functions (Clark and Affonso, 1976; Funke-Furber, 1978).

Newton (1955) suggested that societal attitudes toward women's biological functions tended to be negative. Although her study did not

use the language of role theory, it addressed such role theory concepts as role expectations, role performance, role conflict, and role learning.

Using role theory terminology, it is possible to speculate about a relationship between a woman's satisfaction or dissatisfaction with her biologically feminine role and her mothering behavior. Newton (1955) asked whether a relationship existed between a woman's envy of men's roles and her disparaging of women's feminine roles. She also asked what affect there might be on women's satisfaction with their maternal roles if society placed low value on these roles. Such questions are interesting but Newton suggests no framework for examining them. There are no ties between her speculations about the impact of societal valuing of maternal roles and the specific questions she asked the mothers of newborn babies.

Lacking a theoretical framework to guide the research, we are hard-pressed to determine the adequacy of the measures Newton used in her research design. There are no expressed criteria for including or excluding specific interview items; nor is there a basis for interpreting the findings.

Newton looked at a constellation of attitudes centered around five biologically feminine functions. Converse (1964, p. 207), in his classic article "The Nature of Belief Systems in Mass Publics," defined a belief system in terms of what he called "constraint or functional interdependence" among a person's attitudes. Converse distinguishes two types of constraint, static and dynamic. By static constraint he means "the success we would have in predicting, given initial knowledge that an individual holds a specified attitude, that he holds certain further

ideas and attitudes" (p. 207). In constrast, dynamic constraint refers to the "probability that a change in the perceived status (truth, desirability, and so forth) of one idea-element would psychologically require, from the point of view of the actor, some compensating change(s) in the status of idea-elements elsewhere in the configuration" (p. 208). The present study offers no operationalization of a theoretical framework; rather it suggests some possible approaches.

# CHAPTER III

## RESEARCH DESIGN

This chapter examines the research design of Newton's original study of the attitudes of women toward menstruation, pregnancy, childbirth, breastfeeding, infant care, and other aspects of their femininity. It details the design of the present investigator's replication of selected aspects of the original study and the extension of the research to include a prepartum as well as a postpartum sample. The chapter defines the type of research, explains its choice, and describes the population, research samples, instrumentation, data collection procedures, and finally the statistical methods selected for data analysis.

### Type of Research

The present study is a partial replication and extension of Newton's 1952 research. The type of research, in keeping with the research objectives, is descriptive.

Best (1977, p. 145) defines the use of descriptive research as appropriate "to find the answers to questions through the analysis of variable relationships." It allows the researcher to identify those factors which seem to be systematically related and to investigate the relative importance of these factors.

Newton's study (1955) sought to answer questions concerning the existence of relationships between such variables as a woman's feelings

toward childbirth and her feelings toward care of her infant. She sought to investigate the significance of such factors as envy of men, feelings toward menstruation, sexual intercourse and other feminine biological functions.

The present investigator seeks to re-examine the relationship between selected factors identified by Newton and compares Newton's findings with findings from the present study of a sample of postpartum women. The research question related to this objective may be stated as follows:

Research Question I: Do the women in this sample and those in Newton's sample differ in expressed feelings toward menstruation, pregnancy, childbirth, breastfeeding and care of the baby?

A second research objective of the present study is the application of Newton's research design to a population of prepartum women. The research questions which follow are directed at this objective:

Research Question II: Do the prepartum and postpartum women in this sample differ with respect to age, parity, and the number of weeks from delivery?

Research Question III: Do the prepartum and postpartum women in this sample differ in expressed feelings toward menstruation, pregnancy, childbirth, breastfeeding and care of the baby?

The third consideration of the present study is the examination of Newton's treatment of the data whereby three response categories were collapsed into dichotomous categories. The research question is specified as follows:

Research Question IV: Does the use of a complex 3 x 3 $X^2$ (Chi square) which includes positive, negative, and mixed response categories produce different results than those obtained using a 2 x 2 $X^2$ (Chi square) which includes

dichotomous positive and negative categories when both treatments are applied to data from this sample?

## Population and Sample

Best (1977, p. 267) defines a population as "any group of individuals that have one or more characteristics in common that are of interest to the researcher." Newton's population was mothers of newborn babies; obviously a large population. Newton (1955) narrowed the population to include only mothers who had no known psychiatric disorder in keeping with her research assumption that generalizations from extremes to normal should be avoided whenever possible in order to avoid the danger of drawing extreme or inaccurate conclusions. Thus, her population included only non-volunteer women not known to have sought psychological help.

Newton's sample drawn from the population was purposive. The final research group consisted of 123 mothers who were interviewed in the rooming-in wards of Jefferson Hospital in Philadelphia. The majority of the women were married Protestant Negro multiparas (women who had given birth before). The group included 28 unmarried or separated mothers, 35 primiparas (mothers of first babies), 20 white women, and 23 Catholic women. About half of the women had been born in the South and half in the North. In categorizing the sample according to occupational groups, 22 were classified as dependents, 37 as unskilled, 26 as semi-skilled and 23 as skilled, white collar or professional; there were 15 with unknown occupations. Newton clarified that no significant differences were found between white and black mothers in their expressed feelings; however, there were significant differences between

different age groups and socio-economic groups.

The sample for the present study consisted of 190 prepartum and postpartum women, all of whom resided in Northcentral and Northeastern Oklahoma. For purposes of the study, prepartum women were defined as pregnant women who were expected to give birth within six weeks from the time the data were collected from them, i.e., they were interviewed. Postpartum women, in keeping with Newton's original research (1955) and with current medical and psycho-social literature (Clark and Affonso, 1976; Newton et al., 1974), were defined as women who had given birth no more than six weeks before the time data were collected from them in an interview. Thus, the entire research sample consisted of women who fell within a twelve week period with childbirth as the nexus: they were either pregnant women with expected dates of confinement ("due dates" in common usage) six weeks or less away, or mothers who had given birth at some time during the past six weeks. The twelve-week framework is consistent with the current definition of the perinatal period which means the period surrounding childbirth (Clark and Affonso, 1976).

A homogeneous population of women who were within six weeks of delivery and had participated in preparation for childbirth classes was chosen at Newton's suggestion. In a telephone conversation with the present investigator during the early formulations of this study, Newton (1955) advised that many of her findings were reported as "trends" since few of the measurements of association reached the .05 level of significance and thus she suggested use of a more homogeneous sample in replicating her research. In an effort to enhance any relationships present in a research situation which constrained the size of sample, the investigator controlled for the factors of time from delivery and

prenatal educational experience.

In her capacity as a certified childbirth educator, the present investigator had professional contact with virtually all childbirth organizations in Northern Oklahoma. Childbirth educators in two centralized locations, from which there would be adequate numbers of perinatal women to draw, were asked to provide the names, addresses, and phone numbers of all women on their class rolls who met the following criteria: in the case of prepartum women, they were presently within six weeks of their expected date of confinement ("due date"); in the case of postpartum women, they had given birth not more than six weeks ago. In keeping with Newton's assumption that "generalizations from extremes to normal should be avoided whenever possible" (Newton, 1955, p. 5), the investigator asked that names of women who were seriously ill or who had given birth to a seriously ill or stillborn baby be excluded from the list. In compliance with the same assumption, any woman with emotional difficulties severe enough to have come to the attention of the childbirth instructor was also excluded. In all, three cases were identified in which either the woman was seriously ill or her infant was born prematurely and was determined to be "at risk"; these three women were not included in the research sample.

In keeping with the present investigator's research assumption that respondents must have a clear command of the language medium being used to convey research items designed to measure attitudinal responses, the childbirth teachers were asked to include only those women who were native speakers of English. Seven women were excluded from the sample because they were not native English speakers.

The final sample included those women whose names appeared on the

class rolls of the teachers who were contacted and who met the criteria outlined above. The sample represented students of the major childbirth organizations in the area. These organizations provided the names and phone numbers of professional childbirth educators in their ranks who were currently teaching. The investigator randomly called from among the list of teachers who then provided the names, addresses and phone numbers of subjects meeting the previously defined criteria until an N of 190 had been reached.

All teachers contacted taught what is commonly referred to as the Lamaze Method of prepared childbirth. It is interesting to note that the Lamaze Method used with the present sample was strikingly similar to the method presented to Newton's research sample in the early 1950s: both educational programs stressed informing the pregnant woman of the process of childbirth and teaching her how to relax her body in order to work with her labor contractions (Newton, 1955). A major difference between the two approaches to childbirth preparation was that women in the present sample were encouraged to share preparation for childbirth and the actual childbirth experience with their male partners (i.e., the fathers of the babies). The design of the present replication of Newton's research did not include a means of measuring the significance of the male partner's inclusion in the childbirth experience on the associations being measured between a woman's expressed attitudes towards menstruation, pregnancy, childbirth, lactation and infant care.

In summary, the research sample was comprised of 190 women who fell within the twelve-week parameters of the study (i.e., no more than six weeks pre- or postpartum), who were native English speakers, who were not seriously ill nor emotionally distraught and, in the case of

postpartum women, whose infants were not gravely ill nor deceased. The research sample included only those women for whom a complete address and phone number were provided.

## Data Collection

In keeping with the present investigator's research assumption that the use of telephone interviews encourages respondents' sense of anonymity and decreases the likelihood of responder bias (Greenstein and Polsby, 1975), and in order to expedite data collection while curbing expense, it was decided to use Newton's instrument with a telephone interview format. Newton herself suggested that telephone interviews could be productively used with her type of attitudinal research (Newton and Paschall, 1976).

To enhance the probability of participation by a large number of the sample, a personalized letter was sent to each woman in the sample. The advance letter explained the purpose of the study and the value of her contribution to it by sharing her feelings about childbirth and related topics with us. (See Appendix B for text of the letter.) The letter identified the approximate time required for the interview and our willingness to return the call if we reached the respondent at an inconvenient time. Also included in the advance letter were the credentials of the investigator, the manner in which the respondent's name had been received, and the means whereby the respondent's confidentiality would be guaranteed.

To control the interview load, the advance letters were mailed in two waves, one week apart. Each wave included both prepartum and postpartum women. Women who were soon to exceed the twelve-week parameters

of the study were contacted in the initial wave so that they might be included in the sample. The first wave totalled 100 women; the second wave, 90 women.

Simultaneously, the interview schedule and instructions were prepared. (See Appendix B.) The interviewing team was selected and trained. Given the subject matter of the study and the all-female research sample, it was decided that women interviewers were appropriate. The interview team consisted of four women interviewers, two substitutes and one coordinator. Each interviewer was familiarized with the study, the interview schedules, suggested answers to possible questions asked by the respondents, and the procedures for recording interview data. (See Appendix B.) Prior to the onset of actual data collection, each interviewer conducted at least one "dry run" interview by calling women whose names were on the master list and who exceeded the twelve-week parameters by the time we were able to begin the interviews. Thus each interviewer had some practice with a potential respondent although data collected in these trial interviews were not included in the study.

The interviews were conducted over a three-week period during July and August, 1979. Interviews were completed on 145 women: 85 postpartum women and 60 prepartum women. Included in the postpartum group were 13 women originally included as prepartum but who had given birth by the time they were contacted and interviewed.

## Instrumentation

The portions of Newton's interview schedule relating to the five dimensions being investigated in the present study were used verbatim.

(See Appendix B for Newton's complete questionnaire and the modified version used for this research.) For use with the prepartum sample, the same questions were asked and appropriate verb tense and usage changes were made so that the questions made grammatical sense to women who had not as yet given birth, and thus were not postpartum women. (See Appendix B for the interview schedule used on the prepartum sample.)

The data collected consisted of the women's verbatim responses to questions asked about their feelings toward menstruation, pregnancy, childbirth, breastfeeding and care of the baby. Several control questions were asked which included information regarding the woman's age, weeks from delivery, parity (whether this was her first or a subsequent childbirth), and the type of delivery she experienced or anticipated (a vaginal or Cesarean delivery).

Data obtained from the interviews were codified and tabulated according to procedures developed by Newton (1955, pp. 113-122). A case number was assigned to each subject. A packet of cards bearing a woman's case number and her verbatim responses to questions about each dimension and the control questions were compiled during the interview. Each card contained the information gathered for one dimension; it also bore the case number for the woman being interviewed. Thus it was possible to group all responses to the interview item about breastfeeding, all responses to the childbirth item, etc.

Using Newton's definitions, each response for each dimension was categorized as Positive, Negative, or Mixed. Because Newton's final analysis used only Positive and Negative response categories, it was decided not to break out the data into Very Positive and Very Negative categories.

Again using Newton's procedures, a reliability check on the data classification was conducted in the following manner: Three independent judges, who did not know the women and who were not trained to make psychological judgments about innuendos found in the verbatim responses, independently categorized the same 10 randomly-selected responses for each of the five dimensions using Newton's definitions. A 95% rate of agreement was procured using the same procedure. At that point, a single judge continued to make all the remaining classifications and her judgments were the only ones used in this study.

Newton's definitions for classifying the five dimensions explored in this study are presented in Appendix C.

## Data Analysis

Newton (1955, p. 11) emphasized that the research was a study not of "incidence" but rather of "relationships." The research objective to test for relationships mediated the selection of analytical tools. Newton used non-parametric techniques to measure the hypotheses. Phi correlation coefficients were used to test the significance of the relationships. Chi-square was used to test the significance of the differences (Best, 1977, p. 251 and pp. 289-292). The same statistical measures for data analysis were employed in the present study.

Although Newton calculated five different levels of significance to report trends as well as probabilities (p. 123), the present study presents only three levels of significance ($p \leq 0.05$, 0.02, and 0.01) in keeping with current social science practice (Kimbal, 1978).

In summary, this chapter has detailed the methods and procedures used by Newton and by the present investigator to examine expressed

feelings about five biologically feminine dimensions among a sample of prepartum and postpartum women from Northcentral and Northeastern Oklahoma. It has detailed the research questions guiding the study, the instrumentation used, and the collection and statistical treatment of the data.

# CHAPTER IV

# ANALYSIS AND INTERPRETATION

This chapter presents the data, the manipulations of those data and this researcher's interpretations of the findings garnered from Newton's 1952 study and the present study.

## Description of Subjects

Newton's (1955) subjects in her final research group consisted of 123 mothers, the majority of whom were married Protestant Negro multiparas. Of 123 mothers, 35 were mothers of first babies (primaparas), 28 were unmarried or separated, 20 were white women, and 23 were Catholic. Newton reported that "no significant differences were found between Negro and white mothers in their expressed feelings toward their biologically determined role" (p. 8). Significant differences were found between different age groups and socioeconomic groups on some measures. All of Newton's subjects were maternity patients at a large, urban hospital in Philadelphia; they were interviewed in the rooming-in ward, on the first or second day postpartum. Only the first woman to be interviewed in a room was included in the final analysis because "there was a slight difference in the nature of the verbal reply given by women interviewed second in the room . . ." (p. 8).

Newton's interviews were conducted between April, 1950, and March, 1951. "Practical reasons, such as the free time that the investigator

had available, dictated which mother should be interviewed" (p. 8). Although rooming-in was compulsory and natural childbirth was emphasized by the medical staff, Newton suggests that these factors did not seem to influence the group of ward mothers studied in her research: "registration interviews with every mother registering for ward maternity accommodation indicated that the hospital was chosen for such mundane reasons as nearness and its easy payment plan" (p. 8).

The research sample for the present study included 190 women who met the following criteria: they had attended or were attending a preparation for childbirth education course; they were not more than six weeks before their anticipated due date, in the case of prepartum women, or had not given birth more than six weeks before, in the case of postpartum women; they were not known to be emotionally distraught; they were not ill, and in the case of postpartum women, they did not have a sick or deceased baby. Of the 190 women called for a telephone interview, 145 were contacted and all of them agreed to be interviewed and completed the interview schedule; thus, the response rate for this study was 76%.

Of the 45 subjects not contacted, more than half (N = 26) were not at home; in other words, there was no answer in three different attempts to call them on different days and at different times. Other cases included a wrong number with no way to trace (N = 5); disconnected phone (N = 5); too late to include in sample (N = 8); and one call-back situation in which subject was not home during subsequent call-backs. One subject whose number was disconnected did respond to the advance letter which was forwarded to her new address in another state. Her very detailed and poignant letter expressing her feelings is included, with

identifying information deleted, in Appendix A. Her letter reflects an eagerness to share her feelings about her maternal role that was common to many of the women in the sample. Numerous women said to the interviewers that they were disappointed that they were not being asked more because they had more to say!

Subjects in the final research group of the present study consisted of 145 women (85 postpartum and 60 prepartum), all of whom resided in either Northcentral or Northeastern Oklahoma. Using Newton's (1955) findings as the guide, the only background factors controlled for were those which produced significant differences in the variables explored in this study (i.e., the five major dimensions regarding women's expressed feelings about menstruation, pregnancy, childbirth, breast-feeding, and care of the baby). Thus, for example, socioeconomic status was not controlled for because it was not related at the levels of significance reported in this research ($p < 0.05$, 0.02, 0.01) to any of the five variables examined in the present study (Newton, 1955).

With levels of significance at $p < 0.05$, 0.02, and 0.01 as the criterion, three background factors were controlled: age (<30 yrs of age; >30 years of age); parity (primipara; multipara); and weeks from delivery (<3 weeks; >3 weeks). These controls were applied to both the prepartum and postpartum sub-samples. Table I reflects the findings on the controlled background variables for the total sample, including the prepartum and postpartum sub-samples.

## Analysis of Factors

Newton (1955, p. 11) made very clear the point that her research was "not a study of incidence but a study of relationship. Her findings

TABLE I

BACKGROUND VARIABLES AND FINDINGS IN TOTAL SAMPLE
AND PREPARTUM AND POSTPARTUM SUBSAMPLES

| Background Variables | Total Sample | | Prepartum SubSample | | Postpartum Sample | |
|---|---|---|---|---|---|---|
| | N | % | N | % | N | % |
| Age | | | | | | |
| Under 30 | 126 | 87 | 55 | 92 | 71 | 84 |
| 30 or Over | 19 | 13 | 5 | 8 | 14 | 16 |
| | 145 | 100 | 60 | 100 | 85 | 100 |
| Parity | | | | | | |
| Primiparas | 94 | 65 | 37 | 62 | 57 | 67 |
| Multiparas | 51 | 35 | 23 | 38 | 28 | 33 |
| | 145 | 100 | 60 | 100 | 85 | 100 |
| Weeks from Delivery | | | | | | |
| Less than 3 weeks | 72 | 49 | 30 | 50 | 42 | 49 |
| 3 weeks or more | 72 | 49 | 29 | 48 | 43 | 51 |
| | 144* | 98** | 59* | 98** | 85 | 100 |

*N = 1 Unclassified

**% = 1 Unclassified

were never presented in terms of the percentage of women who had positive feelings and the percentage who had negative feelings. Rather, Newton centered her analysis on the relation of one emotion to another emotion in the same woman. She explained her rationale as follows:

> . . . the number of women who found childbirth horrible and disliked the care of their babies might be quite different in a group of rich women from the number in the group used in this research. Nevertheless, in both groups the women who found childbirth horrible might also tend to be the ones who disliked the care of their babies (p. 11).

Newton's research objective to examine relationships mediated her selection of analytic tools. Phi correlation coefficients were used as a measure of the degree of relationship between each two items studied. The magnitude of the phi correlation coefficient ranges from 1.00 through zero to -1.00. A phi coefficient of .00 means that there is no relationship. As Newton explained:

> It means that how mothers measured on one item had nothing to do with how mothers measured on the other item. Plus one would mean a perfect positive relationship with all positive mothers remaining positive on the second item and all negative mothers remaining negative on the second item. Minus one would mean a perfect negative relationship with all positive mothers becoming negative on the second item and all negative mothers becoming positive on the second item (p. 123).

For purposes of the present study, phi correlation coefficients were calculated. It was decided not to try to increase the order of measurement in order to use more powerful tests because the kinds of questions asked could not be treated defensibly as ordinal data (Klugh, 1974). As in Newton's study, the present data were treated nominally.

The tables which follow present the phi correlation coefficients showing the relationship of feelings toward one biologically determined feminine role with feelings toward another. The format of the data presentation replicates that used by Newton (1952) in reporting her

TABLE II

FEELINGS ABOUT MENSTRUATION: THEIR RELATION TO OTHER BIOLOGICALLY DETERMINED ROLES

| | Phi Coefficients Showing Relationship of Feelings Toward Menstruation to Other Factors (Newton's Sample) | Phi Coefficients Showing Relationship of Feelings Toward Menstruation to Other Factors (Present Sample) |
|---|---|---|
| Feelings About Pregnancy | .10 | .03 |
| Feelings About Childbirth | .03 | .20 ($p < .02$) |
| Feelings About Breastfeeding | -.02 | -.04 |
| Feelings About Care of Baby | .20 ($p < .05$) | .03 |

TABLE III

FEELINGS ABOUT PREGNANCY: THEIR RELATION TO OTHER BIOLOGICALLY DETERMINED ROLES

| | Phi Coefficients Showing Relationship of Feelings Toward Pregnancy to Other Factors (Newton's Sample) | Phi Coefficients Showing Relationship of Feelings Toward Pregnancy to Other Factors (Present Sample) |
|---|---|---|
| Feelings About Menstruation | .10 | .03 |
| Feelings About Childbirth | .02 | .03 |
| Feelings About Breastfeeding | .06 | .10 |
| Feelings About Care of Baby | .16 | .01 |

TABLE IV

FEELINGS ABOUT CHILDBIRTH: THEIR RELATION TO OTHER BIOLOGICALLY DETERMINED ROLES

| | Phi Coefficients Showing Relationship of Feelings Toward Childbirth to Other Factors (Newton's Sample) | Phi Coefficients Showing Relationship of Feelings Toward Childbirth to Other Factors (Present Sample) |
|---|---|---|
| Feelings About Menstruation | .03 | .20 ($p<.02$) |
| Feelings About Pregnancy | .02 | .03 |
| Feelings About Breastfeeding | .28 ($p<.01$) | -.04 |
| Feelings About Care of Baby | .25 ($p<.01$) | .001 |

TABLE V

FEELINGS ABOUT BREASTFEEDING: THEIR RELATION TO OTHER BIOLOGICALLY DETERMINED ROLES

| | Phi Coefficients Showing Relationship of Feelings Toward Breastfeeding to Other Factors (Newton's Sample) | Phi Coefficients Showing Relationship of Feelings Toward Breastfeeding to Other Factors (Present Sample) |
|---|---|---|
| Feelings About Menstruation | -.02 | -.04 |
| Feelings About Pregnancy | .06 | .10 |
| Feelings About Childbirth | .28 ($p<.01$) | -.04 |
| Feelings About Care of Baby | .16 | .17 ($p<.05$) |

TABLE VI

FEELINGS ABOUT CARE OF BABY: THEIR RELATION TO OTHER BIOLOGICALLY DETERMINED ROLES

| | Phi Coefficients Showing Relationship of Feelings Toward Care of Baby to Other Factors (Newton's Sample) | Phi Coefficients Showing Relationship of Feelings Toward Care of Baby to Other Factors (Present Sample) |
|---|---|---|
| Feelings About Menstruation | .20 ($p < .05$) | .03 |
| Feelings About Pregnancy | .16 | .01 |
| Feelings About Childbirth | .25 ($p < .01$) | .001 |
| Feelings About Breastfeeding | .16 | .17 ($p < .05$) |

findings. As with Newton's data, Chi squares were calculated to determine the level of significance or probability. Those relationships reported by Newton or by the present investigator to be significant at the .05 level or more are identified with the probability level in parentheses.

## Discussion

### Dimension I - Feelings About Menstruation

Newton (1955) found that the expressed feelings of the women in her sample about menstruation were significantly related to only one other dimension examined in this study; namely, feelings about care of the baby (N = 121; $\emptyset$ = .20; $p < .05$). In the present study, feelings about menstruation were related significantly only to feelings about childbirth (N = 145; $\emptyset$ = .20; $p < .02$). In both Newton's sample and the present sample, there was a tendency toward a negative relationship between feelings toward menstruation and feelings toward breastfeeding (Newton: $\emptyset$ = -.02; 1979 sample: $\emptyset$ = -.04) but in neither case did the association reach the 0.05 level of significance.

### Dimension II - Feelings About Pregnancy

None of the bivariate relationships in either Newton's sample or the present sample demonstrated a significant level of association between feelings about pregnancy and feelings about menstruation, childbirth, breastfeeding, or care of the baby. For the two samples examined in this research, feelings about pregnancy showed almost no relationship to feelings about the other four biologically feminine roles.

Dimension III - Feelings About Childbirth

Newton (1955) found feelings about childbirth significantly related to two other variables. Feelings about childbirth were related to feelings about breastfeeding at the .01 level ($N = 108$; $\emptyset = .28$ $p < .01$). Feelings about childbirth were related to feelings about care of the baby at the 0.01 level ($N = 112$; $\emptyset = .25$ $p < .01$). Interestingly, findings for the present research sample did not corroborate Newton's findings. In the present sample, the phi coefficient for childbirth and breastfeeding was -.04; the phi coefficient for childbirth and care of the baby was .001. There was one significant association in the present sample on this dimension. Feelings toward childbirth were associated with feelings toward menstruation at the 0.02 level of significance ($N = 145$; $\emptyset = .20$ $p < .02$).

Dimension IV - Feelings About Breastfeeding

In Newton's sample (1955), feelings about breastfeeding were significantly associated only with feelings about childbirth ($N = 108$; $\emptyset = .28$; $p < .01$). That same measure in the present sample showed a negative correlation ($N = 145$; $\emptyset = -.04$). The present sample did report a significant association between feelings toward breastfeeding and care of the baby ($N = 145$; $\emptyset = .17$; $p < .05$). This finding is interesting in light of Newton's more recent research on rooming-in as a behavioral choice related to a mother's attitude toward breastfeeding (Newton and Paschall, 1973).

Dimension V - Feelings About Care of the Baby

Newton (1955) reported two significant associations on this measure. Feelings about care of the baby and menstruation had a phi coefficient of .20 ($p < .05$). The phi coefficient for feelings about care of the baby and childbirth was .25 ($p < .01$). The findings on this measure in the present sample did not support the association (N = 145; $\emptyset$ = .001). The present finding on this measure suggests the need for further research in view of the studies conducted on maternal behavior and attitudes expressed during childbirth as an indicator for potential mothering problems (Kempe and Helfer, 1972; Lynch and Roberts, 1977).

Research question I asked if Newton's (1955) sample and the present sample would differ in expressed feelings toward menstruation, pregnancy, childbirth, breastfeeding, and care of the baby. Of the 10 comparisons of dimensions, 5 (50%) were different in the two samples. The differences may be summarized as follows:

Birth x Menstruation - Newton found no association; present study found negative menstruation feelings associated with negative birth feelings ($p < .02$).

Birth x Breastfeeding - Newton found negative birth feelings associated with negative breastfeeding ($p < .01$); present study found no association.

Birth x Care of Baby - Newton found negative birth feelings associated with negative care of the baby feelings ($p < .01$); the present study found no association.

Menstruation x Care of Baby - Newton found negative menstruation feelings associated with negative care of the baby ($p < .05$);

the present study found no association.

Breastfeeding x Care of Baby - Newton found no association; the present study found positive feelings about breastfeeding associated with positive feelings about rooming-in ($p < .05$).

The differences between Newton's sample and the present sample are difficult to interpret. The two samples may have responded differently due to changes in sampling and data collection techniques or the differences may be reflected in more broadly-based societal changes which have in some way influenced the attitudes expressed in the present sample.

Again, it bears noting that the findings of the present research are restricted by the same kinds of research design problems Newton faced. Lacking a theoretical framework in which to view the two sets of data, one can suggest explanations, but none which are convincingly grounded (Chertok, 1969).

The confidence that can be placed in the findings of the two samples is limited by virtue of the ambiguity engendered in using a single item measure for each dimension. As Babbie (1973) points out:

> . . . despite the care taken in constructing questionnaires, the researcher is seldom able to arrive at a single question that adequately represents a complex variable. Any single item is likely to misrepresent some of the respondents in the study (p. 253).

A multivariate approach to measuring a concept as complex as that of maternal emotions seems imperative in designing future research to tap Newton's defined dimensions.

The research questions related to the extension of Newton's (1955) research design to a prepartum sample fared well in the present study. Prepartum and postpartum women in this sample were found not to differ

with respect to age (<30 vs. 30+), parity (primipara vs. multipara), or weeks from delivery. Prepartum and postpartum women in this sample did not differ in expressed feelings toward menstruation, pregnancy, breast-feeding, or care of the baby. They did differ significantly in expressed feelings toward childbirth ($p < .02$). This difference was not a function of time from delivery (N = 10 <than 3 weeks; N = 8, 3 weeks +). However, it should be noted that of the 18 negative responses for the postpartum sample (as compared with 3 negative responses for the prepartum group), 16 of them were primiparas (i.e., first-time mothers). Parity would thus seem to be suggested as an intervening variable. Possibly, the primiparous women had higher expectations for childbirth than did the multiparas who had experienced birth before. Given the current concern on the part of maternal and child health care providers with the rising rate of Cesarean deliveries, it is interesting to note that all women in the sample who had Cesarean deliveries (N = 5) reported negative feelings about childbirth.

The prepartum and postpartum women in this sample did not differ in associations between feelings on all measures except that of pregnancy and childbirth ($p < .05$). Because the two groups did not differ on 9 of 10 comparisons, the decision was made to combine the prepartum and postpartum responses for the final analyses. The research objective which sought to extend the application of Newton's research design to a prepartum group would appear to have been met. The assessment of maternal attitudes in prepartum women lends itself to the current focus on timely intervention and holistic treatment of childbearing families to improve their well-being (Funke-Furber, 1978).

The final research question explored the possibility of

statistically biasing the findings by collapsing two positive response categories into one, and two negative and one mixed response categories into one. Newton (1955) condensed five response categories into two by adding the mixed responses from her interviews to the negative responses. It was hypothesized that use of a complex 3 x 3 Chi square test which retained the mixed response category would produce different results than those obtained by using a 2 x 2 Chi square on the same data.

Examination of the measures of association for the five dimensions through use of a complex Chi square produced only one association (between negative feelings about menstruation and negative feelings about birth) which held at $p < .02$ for both Ø and the 3 x 3 Chi square. Methodological implications of comparing Ø and 3 x 3 Chi square suggest that Ø may be indicating a stronger association than the use of complex Chi square would support. If one wishes to interpret findings conservatively, it would seem expedient to gather responses from a more broadly-based sample and in sufficient numbers to make using complex Chi square appropriate. In certain instances, N = 145 was insufficient to provide an expected frequency of 5 or more in 8 of 9 cells.

A crude measure of the possibility of statistical bias postulated above can be demonstrated in Table VII. Table VII compares the frequencies in the present research sample using Newton's dichotomous categories and a trichotomous categorization of this study. It appears that the arbitrary collapsing of mixed and negative responses into a single "Negative" category, as applied by Newton in 1955, negates the significance of the mixed responses. This weights the findings in favor of the negative responses.

TABLE VII

TABULATIONS BY RESPONSE CATEGORY OF DATA FROM PRESENT STUDY

| Variable | Positive Responses (Newton's Positive) | | Mixed Responses | | Negative Responses | | Mixed and Negative Responses (Newton's Negative) | |
|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % |
| Birth (N = 145) | 55 | 38 | 69 | 48 | 21 | 14 | 90 | 62 |
| Breastfeeding (N = 145) | 85 | 59 | 41 | 28 | 19 | 13 | 60 | 41 |
| Care of Baby (N = 145) | 65 | 45 | 60 | 41 | 20 | 14 | 80 | 55 |
| Menstruation (N = 143)* | 60 | 42 | 59 | 41 | 24 | 17 | 83 | 58 |

*2 unclassified responses

# CHAPTER V

## SUMMARY AND CONCLUSIONS

This study has taken a current look at Newton's 1952 research of the interrelationships between women's expressed feelings toward five maternal dimensions: menstruation, pregnancy, childbirth, breastfeeding, and care of the baby.

Subjects in the present study were prepartum and postpartum women who resided in Northcentral and Northeastern Oklahoma. Data on selected background factors and verbatim responses to questionnaire items from Newton's original research were collected through telephone interviews conducted during July and August, 1979.

The study was guided by several research objectives. In operationally comparing the associations between dimensions that Newton found in 1952 with those associations found in the present sample, it was discovered that on 50% of the dimensions measured in both studies there was no agreement between the two samples. A 50% rate of disagreement does not invalidate Newton's 1952 findings, but conservative research methodology suggests the need for further replication.

A second research objective of this study was to determine the applicability of Newton's research design for a prepartum population in addition to its intended postpartum population. It was felt that caregivers interested in family health and welfare might benefit from an instrument which measured maternal emotions and the potential for

positive or negative mothering prior to childbirth. Phi correlation coefficients and $X^2$ were calculated on all measures for both the prepartum and the postpartum groups. On the control measures and on 9 of 10 comparisons of the five dimensions, there were no significant differences between the two groups. Thus, it has been concluded that Newton's research design can be applied to prepartum women like those in this sample. In light of current research (Kempe and Helfer, 1972; Lynch and Roberts, 1977; Funke-Furber, 1978) which seeks to predict potential mothering problems before child abuse occurs, the present study's support for applying Newton's (1955) instrument to measure women's maternal attitudes prenatally is probably the most significant finding of this research. This finding implies the need for further research to determine how early and how successfully women's expressed feelings toward their biologically feminine functions can be measured. Further research is needed to elaborate the relationships between women's expressed feelings toward their maternal roles and their subsequent maternal behavior.

A third research concern centered on the possibility of a methodological error in Newton's research which resulted in the weighting of the two response categories used by Newton in favor of one category. It was postulated that the collapsing of Newton's three original response categories into two may have introduced a statistical bias. Calculation of complex $X^2$ retaining a mixed response category as well as a positive and negative response category produced inconclusive results when compared with calculations of $X^2$ with only positive and negative response categories. However, comparison of the raw data frequencies using both statistical treatments suggests evidence of the hypothesized

bias. A more proper test of this research hypothesis is required using a more broadly-based and larger sample than that possible for the present study.

Current literature and the findings of the present study support the continued relevance of Newton's research topic. Childbearing women have become increasingly involved in actively preparing for and participating in various maternal roles. They have been joined by health care providers who are adopting a more holistic approach toward treatment of families.

Recent applied research reflects a growing concern with parental/child bonds that protect a child from abuse or neglect. Much emphasis has been placed on assessing and enhancing mothering capabilities, and on intervening early when potential mothering problems are identified. Newton's research instrument can yield information on a broad spectrum of maternal attitudes. Given the currently expanded role of health caregivers, and their predilection for "timely intervention," it seems imperative that future research include a means of measuring the impact of such interventions on women's expressed feelings toward their biologically feminine functions and their maternal behavior.

Social science is forever evolving. Yesterday's research tools are replaced by newer technologies. The techniques for a more sophisticated approach to the subject of maternal emotions certainly exist. As an immediate future research endeavor, this investigator would encourage the development of a multivariate research design that could point out the direction and the strength of the associations Newton explored. This investigator would also suggest that a theoretical or conceptual framework be applied which is designed to examine the constellation of

attitudes Newton postulated were biologically and psychologically defined as maternal.

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# APPENDICES

# APPENDIX A

# CORRESPONDENCE

Text of Letter to Niles Newton Following
Telephone Conversation with
Present Investigator

15 May 1979

Dear Dr. Newton,

Thank you very much for your time and attention to my questions during our phone conversation this morning. I appreciate your giving me permission to use your interview questionnaire for my replication of your doctoral study. Your suggestions have been most helpful. It has done me a world of good to be able to talk over some of the details of the study with you.

As we discussed this morning, the subject matter remains relevant and fascinating to this day and I am thoroughly enjoying taking another look at what you were observing in 1950.

I shall be happy to send you my completed study and I look forward to reading your more recent work in the field.

Thank you once again for your help.

Sincerely,

Sherrie Shumavon

# Text of Letter from Niles Newton to Present Investigator, May, 1979

NORTHWESTERN UNIVERSITY MEDICAL SCHOOL
Department of Psychiatry and Behavioral Sciences

May 30, 1979

Mrs. Sherrie Shumavon
132 S. Orchard Lane
Stillwater, OK 74074

Dear Mrs. Shumavon,

I am delighted you are going to use my research design on your sample. Please keep me informed about your results. Enclosed are some pertinent new papers.

Cordially,

Niles Newton

Niles Newton, Ph.D.
Professor

NN/mh

A member of
The McGaw Medical Center
of Northwestern University

Text of Letter Received in Response to Advance Letter Mailed to Research Sample*

July 19, 1979

Dear Sherrie,

I received your letter about how I feel about pregnancy and childbirth. Since May we have moved to Kansas so you wouldn't be able to reach me by phone unless you called long distance. I will try to tell you some things in this letter and will include our birth story but if I'm not clear or you wanted different information feel free to write or call me and I'll be glad to help.

My husband and I both graduated . . . this past May. I found out I was pregnant in October while I was student teaching. It was totally unplanned and unexpected. I guess it took me until December or so to get used to the idea of having a baby. I wanted to have a career for awhile before a family. Yet I wanted to stay at home when we did have children. All my plans changed. Plus I was sick until January (morning sickness all day long!). It helped my spirits after hearing the baby's heartbeat and soon after it started to move.

My mood got more drastic and I had a lot of nightmares the first 5 months. I was really jumpy and didn't have much patience for reading groups at school (1st grade). I feel a lot of this was because I was always feeling nauseated.

I didn't show very much at all, so I didn't feel fat or like the 'goodyear blimp' until my 9th month.

Toward my 8th month I was so anxious for the baby to be here. I felt so much in limbo, just waiting for May--graduation, moving, and the baby.

La Maz [sic] classes helped a lot because we learned so much and I felt like I was doing something to help the baby and getting ready for its arrival.

I was sure I would have the baby before its due date (May 22). The reasoning--it began moving really early (about Thanksgiving) and I guess I just wanted it that way (!!!). Well, one week before it was due Dr. J. said it would be born in June and every visit after that it was always 2 more weeks away. Needless to say, my husband and I got

---

*Text of letter presented verbatim, except that identifying characteristics have been deleted to protect respondent's anonymity.

really discouraged. The baby hadn't started dropping at all.

Because we were moving to Kansas and it's only a 3 hour drive from S., we went ahead and moved to H. R. [my husband] started his job. I guess it was a blessing in disguise because I doubt I'd have ever made the move and unpacking after S. [the baby] came. Plus it gave me something to do.

I also felt labor couldn't be all that bad. I figured it would hurt at the end (so naive). Well I'm probably the worst person [the] hospital ever had in their labor and delivery rooms! My husband held up very well considering all he went through. At one point he was so tired and discouraged and I was in so much pain, he cried (he also shed a few tears when S. was born).

During labor I just couldn't believe what I was going through and I honestly didn't think I'd ever get through it. The worst time was while I had the urge to push and was still only 5 [centimeters dilated]. I couldn't understand how I could vary so much from the charts!

When S. was born I was so excited and relieved and tired. I just wanted to look at her and make sure it was all real and all over. I felt so close to R. and so much of a family all ready.

I never had any depression so to speak after she was born. Some days I'd be so tired and she'd cry and cry and I wouldn't know what to do--then I'd cry with her and I'd be ok. As long as I got plenty of sleep I was ok.

R. and I thought S. was so beautiful (we still do!). Last week we got the hospital's first picture--boy was that a shock! How we ever thought she was so beautiful I'll never know!

When S. was a month old she had to go into the hospital for observation (everything turned out ok). But that night she was gone was so lonely. I don't know how we ever got along without her! It's kind of like its been forever yet its only been yesterday--ya' know what I mean?

It's been hard not to have sex. Sometimes I just feel so happy and so much in love I just want to express it in the fullest way. But it has enabled us (forced us!) to broaden our ways of expressing our love, joy and closeness with each other.

When S. came home I didn't have anyone to help me and R. works really long hours (farmer). I didn't think I'd be as tired and easily rundown as I was. But he understood which enabled me to sleep all day and let the house go without any guilts or regret. He was (and is) so supportive of me and understanding when I'm tired or frustrated.

Gosh, I feel like I've just rambled on and on. I don't know if I've helped or not but you are welcome to question me further. I apologize for misspellings, etc.--it's late and I couldn't sleep. Hope this helps!

A.

# APPENDIX B

# INSTRUMENTATION

Text of Advance Letter Mailed to Sample Subjects

July __, 1979

Dear _____,

As a certified childbirth teacher and a mother of two young children, I am interested in women's feelings toward childbirth, pregnancy and related topics. We need more understanding of how women feel about pregnancy and childbirth; not how someone else thinks women feel about them. You are in an ideal position to help me get that information.

Within the next few days I will telephone you from Stillwater to ask you a few questions. The phone call should take only a few minutes of your time. May I assure you that I have complete respect for your privacy. You and all others who participate will do so anonymously. Your name is one of over 200 gathered from childbirth educators from various parts of the state.

If you have any questions, please feel free to ask me when I call you, or you may contact me by phone at (405) 372-1349. I look forward to talking with you soon. If I happen to catch you at an inconvenient time, please let me know. I would be happy to call you again at another time.

Cordially,

Dr. Frances Stromberg
Advisor

Sherrie Shumavon
A.S.P.O. Certified
Childbirth Educator

Graduate Student, Dept. of
Family Relations and Child
Development

Newton's Research Instrument, 1952

1. How would you like to feed your baby when you get out of the hospital?

   Would you like to breast feed or bottle feed your baby? _____
   Any particular reason you feel that way? _____
   How long would you like to nurse your baby? _____

2. How did you feel during your pregnancy?

   Did you ever have an upset stomach or vomiting? _____

3. Before you got pregnant, how did you feel during your menstrual period?

   Did you ever have any pain or other discomfort? _____

4. Did you have a hard time or did you have an easy time giving birth to this baby?

5. Are you pleased you have a little _____ or would you rather have a little _____?

6. Do you think men or do you think women have a more satisfying time in life?

   Is there any particular reason you feel that way? _____

7. A lot of women have told me they sometimes wished they were a man. Have you ever wished you were a man?

8. How do you feel about having the baby in the same room with you here in the hospital?

   Is there any particular reason you feel that way? _____

9. Did you have your last baby at home or in the hospital? Home _____ Hospital _____ At the hospital was the baby kept in the nursery or was it in the same room with you? _____

10. What do you think is the ideal size for a family - how many children?

11. Did you ever read or heard about relaxing as a way of stopping the pain of childbirth?

    Did you try relaxing? _____
    Do you feel it helped you? _____

12. Did you attend the mother's classes? Yes ____ No ____

Prepartum Sample Questionnaire, 1979

Hello. This is _____ calling from Oklahoma State University in Stillwater. May I please speak with (first and last name)?

NO - IF WRONG NUMBER, SAY: I'm sorry to have bothered you.

IF NOT HOME OR OCCUPIED, SAY: What would be a good time to call her back?

IF REFUSAL, TRY SUGGESTED RESPONSES IN RULE BOOK; IF STILL NO, SAY: Well, I think I can understand how you feel. Thank you anyway.

YES - WHEN RESPONDENT IS ON LINE, CONTINUE INTRODUCTION.

Have you received our letter asking if we could talk with you for a few minutes?

NO - SAY: Oh, that's too bad. We mailed it a few days ago. The letter explained that we have gathered the names of more than 200 women from childbirth teachers in various parts of Oklahoma. We would like to ask women who have recently given birth or who are soon to give birth a few brief questions about their feelings toward pregnancy and childbirth and some other related topics.

YES - SAY: Good. As was mentioned in the letter, we are calling women who have recently given birth or who will very soon give birth so that we can ask them a few questions about pregnancy and childbirth.

You're expecting a baby pretty soon, isn't that right? O.K. That's what I thought. Do you have a couple of minutes so I could ask you a few questions?

NO - SAY: When would be a good time to call you back?

IF REFUSAL, TRY SUGGESTED RESPONSES IN RULE BOOK; IF STILL NO, SAY: Well, I appreciate what you're saying. Thank you anyway.

IF QUESTIONS, ANSWER HER QUESTIONS USING "What the Respondent Might Like to Know About This Study."

YES - Great! [START QUESTIONS]

1. We would like to begin by asking you approximately when is your baby due? [CLARIFY, E.G.: Let's see, is that more or less than three weeks away?]

LESS THAN THREE WEEKS -- 1
MORE THAN THREE WEEKS -- 2

2. How have you felt during your pregnancy? [PROBE OR CLARIFY IF NECESSARY, E.G.: Have you ever had an upset stomach or vomiting?]

3. Before you got pregnant, how did you feel during your menstrual period? [PROBE OR CLARIFY IF NECESSARY, E.G.: Did you ever have any pain or other discomfort?]

4. Now let's go on to the topic of giving birth. Do you think you will have a hard time or an easy time giving birth to this baby?

5. Here's another question. As you may know, in some hospitals the baby stays in the same room with the mother. How would you feel about having the baby in the same room with you in the hospital? [PROBE IF NECESSARY, E.G.: Any particular reason you feel that way?]

6. All right. How do you plan to feed your baby when you get out of the hospital? [PROBE OR CLARIFY IF NECESSARY, E.G.: Do you plan to breast feed or bottle feed your baby?]

    6a. IF BOTTLE FEED: Any particular reason you feel that way?

    6b. IF BREAST FEED: How long do you plan to nurse your baby?

All right. I have just a couple more quick questions. I need you to indicate only which category applies to you.

7. Is this your first baby or have you given birth before?

    FIRST BABY ---------- 1
    GIVEN BIRTH BEFORE --- 2

8. Is your baby scheduled to be born by Cesarean or do you expect to have this baby born vaginally (through the birth canal)?

    CESAREAN BIRTH ------- 1
    VAGINAL BIRTH -------- 2

9. And finally, is your age 29 or under or 30 or over?

That ends my questions. Do you have any questions?

NO - SAY: Then thank you very much for your help. We appreciate your participation and your time. We feel sure that the information you and the other women have shared with us will help us learn more about women who are experiencing pregnancy and childbirth so that we can meet their needs with more understanding. Thank you again. Goodbye.

YES - SAY: Let me try to answer your question(s). [ANSWER HER QUESTIONS USING "What the Respondent Might Like To Know About This Study."] Thank you very much for your help. Goodbye.

Postpartum Sample Questionnaire, 1979

Hello. This is _____ calling from Oklahoma State University in Stillwater. May I please speak with (first and last name)?

NO - IF WRONG NUMBER, SAY: I'm sorry to have bothered you.

IF NOT HOME OR OCCUPIED, SAY: What would be a good time to call her back?

IF REFUSAL, TRY SUGGESTED RESPONSES IN RULE BOOK; IF STILL NO, SAY: Well, I think I can understand how you feel. Thank you anyway.

YES - WHEN RESPONDENT IS ON LINE, CONTINUE INTRODUCTION.

Have you received our letter asking if we could talk with you for a few minutes?

NO - SAY: Oh, that's too bad. We mailed it a few days ago. The letter explained that we have gathered the names of more than 200 women from childbirth teachers in various parts of Oklahoma. We would like to ask women who have recently given birth or who are soon to give birth a few brief questions about their feelings toward pregnancy and childbirth and some other related topics.

YES - SAY: Good. As was mentioned in the letter, we are calling women who have recently given birth or who will very soon give birth so that we can ask them a few questions about pregnancy and childbirth.

You recently had a baby, isn't that right? O.K. That's what I thought. Do you have a couple of minutes so I could ask you a few questions?

NO - SAY: When would be a good time to call you back?

IF REFUSAL, TRY SUGGESTED RESPONSES IN RULE BOOK; IF STILL NO, SAY: Well, I appreciate what you're saying. Thank you anyway.

IF QUESTIONS, ANSWER HER QUESTIONS USING "What the Respondent Might Like to Know About This Study."

YES - Great! [START QUESTIONS]

1. We would like to begin by asking you how long have you been home from the hospital?

LESS THAN THREE WEEKS -- 1
MORE THAN THREE WEEKS -- 2

2. How did you plan to feed your baby when you got out of the hospital? [PROBE OR CLARIFY IF NECESSARY, E.G.: Did you plan to breast feed or bottle feed your baby?]

   2a. IF BOTTLE FEED: Any particular reason you feel that way?

   2b. IF BREAST FEED: How long did you plan to nurse your baby?

3. Okay. How did you feel during your pregnancy? [PROBE OR CLARIFY IF NECESSARY, E.G.: Did you ever have an upset stomach or vomiting?]

4. Before you got pregnant, how did you feel during your menstrual period? [PROBE OR CLARIFY IF NECESSARY, E.G.: Did you ever have any pain or other discomfort?]

5. Now let's go on to the topic of giving birth. Did you have a hard time or an easy time giving birth to this baby?

6. Here's another question. As you may know, in some hospitals the baby stays in the same room with the mother. How do you feel about that policy? [PROBE IF NECESSARY, E.G.: Any particular reason you feel that way?]

All right. I have just a couple more quick questions. I need you to indicate only which category applies to you.

7. Is this your first baby or have you given birth before?

   FIRST BABY ---------- 1
   GIVEN BIRTH BEFORE ----- 2

8. Was your baby born by Cesarean (surgically) or was your baby born vaginally (through the birth canal)?

   CESAREAN BIRTH --------- 1
   VAGINAL BIRTH ---------- 2

   → 8a. Was your vaginal birth unexpected or were you planning to have your baby that way? [CLARIFY IF NECESSARY, E.G.: Were you scheduled to have a Cesarean birth and then did not?]

   UNEXPECTED ---------- 1
   PLANNED ---------- 2

   → 8b. Was your Cesarean birth unexpected or was it planned (scheduled)?

   UNEXPECTED ---------- 1
   PLANNED ---------- 2

9. Is your age 29 or under or 30 or over?

29 OR UNDER ---------- 1
30 OR OVER ---------- 2

That ends my questions. Do you have any questions?

NO - SAY: Then thank you very much for your help. We appreciate your participation and your time. We feel sure that the information you and the other women have shared with us will help us learn more about women who are experiencing pregnancy and childbirth so that we can meet their needs with more understanding. Thank you again. Goodbye.

YES - SAY: Let me try to answer your question(s). [ANSWER HER QUESTIONS USING "What the Respondent Might Like To Know About This Study."] Thank you very much for your help. Goodbye.

# Rule Book

A. Before you start, be sure . . .

1. Arrange all materials conveniently in front of you: board with questionnaires, rules, what respondents might want to know, etc. placed upright; list of 10 respondents; 10 stacks of response cards; 3 sharpened pencils with erasers; telephone.

2. Read through list of names.

   a. If you know any of the women on your list, ask for a new list.

   b. Check to see if your list is a Prepartum or a Postpartum list; then, post the corresponding questionnaire in front of you on your board.

   c. Those women who have given birth furthest from today's date should be called first since they may be beyond the parameters of 6-weeks postpartum if called next week.

3. Once you have identified the first woman you will call from your list, take a stack of response cards and fill in on the top card in the appropriate spaces her name, phone number, city and ID#.

   a. Each response card MUST CARRY the ID# assigned to that woman's name on your list. Write them on each card in the stack BEFORE you place the call.

   b. The cover card (top card) log should have today's date, the time you place the call, your name and the results of the call using the abbreviations on the cover card.

   c. Include any helpful information that might help the next interviewer if a recall is necessary.

   d. Mentally pronounce the woman's name. Ask for help if necessary.

B. The interview: Be sure . . .

1. To mark the time the interview starts.

2. To use the correct questionnaire form (Prepartum or Postpartum).

3. To read the questions precisely as written.

   As you know, even a single word can drastically change the meaning of a question for respondents. Attempts to interpret the question in response to a respondent's query frequently does the same thing. Key phrases you might use to respond to the question of "What do you mean?"

I'm sorry, I don't have that information.

It's important that the question be answered as best you can in terms of the way it's stated; maybe I could read it to you again.

I will write down the concern (qualification) you just mentioned so it will be taken into consideration in the analysis.

4. The respondent misunderstands the question.

If is very easy for respondents to miss a word or two that is crucial to the meaning of the question. Sometimes they are embarrassed to admit that they didn't quite understand. If you suspect a question has been misunderstood do not tell the respondent that you think she misunderstood--these responses may be of help:

Could I reread the question and the answer I've written down just to be sure I have everything you wanted to say?

I think I may not have read the question correctly, so, may I read it again?

5. Use neutral probes as needed.

When you are in doubt about how to interpret the respondent's answer or what it means, the coder will be in even greater doubt. Probe, until you are sure. But, do it NEUTRALLY. A statement like, "Then what you really mean is . . ." does not convey neutrality.

Before accepting an answer of "I don't know," be sure to probe. Respondents frequently use that phrase in a way that says, "I'm thinking!"

Some examples of probes you might use:

Yes, I see (or) Uh-huh, stated in an expectant manner and followed by a pause.

Could you be a little more specific?

I'm not sure I am entirely clear what you mean. Could you explain it a little more?

Could I read back what I have written down to be sure I have exactly what you wanted to say?

6. Write down everything.

If a respondent qualifies an answer, or if a comment (probe)

you offer stimulates a new response, write it down. Attempt to get it in verbatim form. WRITE LEGIBLY. Note on the response card which part of the response is an answer to a probe.

7. If you need help, call me.

C. When you hang up:

1. Immediately record the time and calculate the length of interview.

2. Immediately go over every single answer to make sure it was done correctly. Rewrite anything you suspect might be illegible.

3. Answers to each question on Page 2 of the questionnaire(s) must be written on a separate response card which you have identified with the correct question number and the ID# from your list. Questions on Page 3 may be written on one card.

4. Group all the cards for the interview, placing the cover card on top. Secure them with a large paper clip and set them aside to be picked up by the coordinator.

D. When you are done for the night:

1. Alert the coordinator to any special instructions for call-backs.

2. Make sure you take none of the materials with you. Give everything back to the coordinator.

E. After you have left:

We have an obligation to respondents to keep their interviews confidential. Therefore, please do not tell anyone the substance of any interview or part of an interview, no matter how fascinating it was. Also, please avoid giving a summary of findings from your respondents. Just because 90% of your people feel a certain way does not mean that 90% of everyone else's feel that way. Confidentiality is essential. Please help us by protecting the anonymity of the respondents and by honestly analyzing and reporting data. You will be given a summary of results of this study as soon as they are available.

# What Respondents Might Like To Know About This Study

## ABOUT THE STUDY

What is the purpose of the study? What's it for?

In the early 50s, a woman researcher did a study to find out more about women's feelings toward their biological functions--like menstruation, pregnancy and childbirth. She thought it was important to hear these feelings from women themselves.

We think the questions she asked are still important. We hope the information we get from each of you will help doctors, nurses, and childbirth teachers become more responsive to women's feelings about these aspects of their lives.

Who is the person responsible for the study? May I talk to her?

The person is Sherrie Shumavon. She is a childbirth educator and is also a graduate student in the Department of Family Relations and Child Development at Oklahoma State University. She is here right now and would be happy to speak with you.

## ABOUT THE RESPONDENTS ROLE IN THE STUDY

How did you get my name (telephone number)?

Approximately two hundred names were gathered from childbirth teachers in various parts of Oklahoma. Each teacher was told the purpose of the study and how we were guaranteeing the privacy of the participants. Without exception, the teachers we contacted saw the value of this kind of study and all of them provided us lists of names to be used only for this study and only as a means of making contact with you.

Is this confidential?

Yes, most definitely. After the interview is completed, the answers are put onto computer cards without names, addresses or phone numbers. Then the lists of names are thrown away. All the information we gather will be put into percentages--in other words, a certain percent felt this way and a certain percent felt that way. In this form, no individual response can ever be singled out and identified.

The university and all graduate students are bound by federal laws to protect your right to privacy. So we are very careful to make sure we have protected your anonymity.

Can I get a copy of the results?

Yes. Each of the childbirth education groups who helped us with compiling the lists of names will be sent a summary of the results. We hope to have the results ready in about three months and your childbirth teacher will have the information to share with you at that time.

## POSSIBLE ANSWERS TO REASONS FOR REFUSALS

| REASONS FOR REFUSING | . . . . AND POSSIBLE RESPONSES |
|---|---|
| TOO BUSY | This should take only a few minutes. I'm sorry we caught you at a bad time. We would be happy to call you back. When would be a good time for us to call you in the next day or two? |
| BAD HEALTH (MOTHER OR BABY) | I'm sorry to hear that. Have you (the baby) been sick long? I would be happy to call back in a day or two if that would be all right with you.<br><br>[IF LENGTHY OR SERIOUS ILLNESS, EXCUSE YOURSELF AND INDICATE THEY WILL NOT BE CALLED AGAIN.] |
| FEEL INADEQUATE: DON'T KNOW ENOUGH TO ANSWER | The questions really are not difficult. They mostly concern your feelings and experiences related to pregnancy, childbirth and some other topics. Some of the other women we talked with had the very same concerns you do but after we got started, they didn't have any difficulty answering the questions. Maybe I could read a couple of the questions to you so you could see what they are like. |
| NOT INTERESTED | It's very important that we get responses from everyone we call; otherwise the results won't be very useful. So I hope you'll reconsider; I'd really like to talk with you. |
| NO ONE ELSE'S BUSINESS WHAT I THINK | I can certainly understand your feelings, that's why all of our interviews are confidential. Protecting people's privacy is one of our major concerns and to do it people's names are separated from the answers just as soon as the interview is over. And, all the results are reported |

| | |
|---|---|
| | in a way that no single individual can ever be identified |
| OBJECTS TO SURVEYS | We think this particular survey is very important because your answers to these questions can help doctors, nurses and childbirth teachers learn more about women experiencing pregnancy and childbirth so that they can provide better care. We would really like to include your feelings and experiences too. |
| OBJECTS TO TELEPHONE SURVEYS | We have just recently started using the telephone for studies like this because this way is so much faster and costs much less, especially when there are so few questions like in this study. |

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Adapted from D. Dillman, Mail and Telphone Surveys (New York: J. Wiley and Sons, 1964).

# APPENDIX C

## RESPONSE CODES

Newton's Definitions for Coding Responses

Feelings About Menstruation*

POSITIVE - Those who said "good" or "fine" with no modifying statements.

Those who said "all right," "same as usual," "no trouble at all," "pretty good," "natural," "normal," "regular," and who mentioned no complaints.

NEGATIVE - Those who used the words "terrible" or "suffering."

Those who spoke of pain, cramps, weakness, backache, sick on stomach with no accompanying positive expression of feeling.

MIXED - Those who expressed some positive feelings plus some complaints using phrases like "all right but . . . ," "normal but."

Also those who expressed mild complaints like "sleepy" or modified their complaint by saying things like "occasionally a little," "only slighty," "used to but not recently," "never much," "sometimes."

Feelings About Pregnancy**

POSITIVE - Those who said "swell," "wonderful," "good," "fine," "real well," or expressed other purely positive sentiments.

Those who said "all right," "pretty good," "fairly good," "no complaints," "no trouble" without modifying remarks.

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*Menstrual feelings are to be judged by the reply only to the first question concerning feelings during menstruation. Thus a woman would be put in the positive group if she said she felt fine although later she reported some pain or discomfort when asked about these specifically.

**Pregnancy feelings are to be judged by the answer to question about pregnancy question in general. Thus a mother is considered positive when she said she felt swell, but later reported vomiting when specifically asked about it. Mothers' quotations of what doctors said about their pregnancy are not to be considered to express their feelings unless agreement with the doctor was shown.

NEGATIVE - Those who made extreme statements like "terrible," "miserable," "sick all the time," "very sick."

Those who had nothing but unmodified negative things to say about pregnancy but did not make extreme statements.

MIXED - Those who said things like "not too good," "all right but . . . ," "not so bad," "good but . . . ," expressing neither strongly negative nor strongly positive feelings.

Feelings About Childbirth*

POSITIVE - Those who said birth was "very easy."

Those who said birth was "easy," "pretty easy," or "pretty good."

NEGATIVE - Those who showed extreme feelings, swearing or said "terrible," "awful," "terrific" [WITH CLEARLY NEGATIVE CONNOTATION].

Those who said birth was "hard," "pretty hard," or talked of suffering.

MIXED - Those who expressed no strong unqualified feelings saying things like "rather easy," "kind of hard," "hard till . . . ," "pretty good until . . . ," "bad but . . . ," "not so hard," "little hard," "not so easy."

Feelings About Breast Feeding**

POSITIVE - Those who stated they intended to breast feed for five or more months and did not express any mixed feelings.

Those who stated they wished to, would like to, didn't mind, breast feeding between two to five months or as long as they could and did not express any mixed feelings; also those who stated they wanted to breast feed but did

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*In judging feelings about childbirth physical data about hours of labor and mothers' quotations of doctors' opinions are not to be considered.

**If the length of desired breast feeding was not stated for the new baby, the length of desired breast feeding is to be judged by how long the mother breast fed her last baby if she volunteered this information instead.

not know how long was customary and did not express any mixed feelings.

NEGATIVE - Those who did not put the baby to the breast although there was no great physical impediment.

Those who said they would prefer or like to use bottles or had nothing but negative things to say about breast feeding.

MIXED - Those who expressed mixed feelings by talking of breast and bottle feeding at the same time; by planning to breast feed only a month or two; indicating their desire to save money or bother; by giving contradictory answers or stating they hadn't made up their minds; by speculating about not having enough milk in imminent terms although stating the desire to breast feed.

Feelings About Care of the Baby

POSITIVE - Those who had nothing but positive things to say about rooming-in, or who felt it was all right without expressing any objections.

NEGATIVE - Those who had only criticisms or negative things to say about rooming-in.

MIXED - Those who had mixed feelings saying rooming-in was "all right but . . ." or saying they did not want their babies so soon after birth.

# VITA

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Candidate for the Degree of

Master of Science

Thesis: ATTITUDES OF MOTHERS OF NEWBORN BABIES TOWARD THEIR BIOLOGICAL FEMININE FUNCTIONS: REPLICATION AND EXTENSION OF A 1952 STUDY

Major Field: Family Relations and Child Development

Biographical:

Personal Data: Born in Long Beach, California, June 19, 1942, the daughter of Joseph and Eloise Pomeroy.

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Professional Experience: Peace Corps Volunteer, Colombia, South America, 1966-1968; bilingual teacher in East Los Angeles, California and Washington, D.C., 1968-1972; certified childbirth educator, California and Oklahoma, 1975-1979; Administrative Assistant for Program Development, Family Service of Butler County Ohio, 1979-1980; Research Project Manager, Scripps Foundation Gerontology Center, Miami University, Oxford, Ohio, 1980.