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A Q-Analysis Of Stressors In The Primipara During The Immediate Postpartal Period.

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The University of Alabama at Birmingham D.S.N. 1985

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A Q-ANALYSIS OF STRESSORS IN THE PRIMIPARA DURING THE IMMEDIATE POSTPARTAL PERIOD

by

BONNIE ELIZABETH THORNHILL

A DISSERTATION

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

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ABSTRACT OF DISSERTATION
GRADUATE SCHOOL, UNIVERSITY OF ALABAMA IN BIRMINGHAM

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Title A Q-Analysis of Stressors in the Primipara During the Immediate Postpartal Period

The majority of new mothers regard the transition to parenthood as a crisis. Stressors are perceived as inherent in this adaptation process. The process of attainment of the maternal role has been described in terms of maternal tasks. The perception of stressors by the primipara may be a result of the conflict between societal and personal expectations versus the reality of the postpartal period. The purpose of this research was to identify maternal perceptions of common stressors reported by primiparous women during the immediate postpartal period. The conceptual framework was derived from Neuman's (1982) Systems Model and Gruis' (1977) maternal tasks.

Content validity was established by an initial analysis of literature on postpartal concerns by noted experts as well as through the use of two panels of experts in the area of maternal-child nursing, research, and Q methodology. Reliability was determined by the test-retest method using a related sample of 10 subjects.

The final Q-sort was administered to 20 subjects. A Q-type factor analysis of the data revealed two person types. The subject's assignment to types was influenced by negatively perceived stressors. ANOVA procedures were used to assess different patterns of response within

persons. The sorts of all subjects were significant at the .01 level. Post hoc procedures revealed different response patterns for person types. One-tailed tests of significance on the Typal Z scores further confirmed the results of the post hoc procedure. Most of the stressors common to the normal primipara are perceived as positive in nature. Type 1 persons were more likely to be characterized as distressed by their physical shortcomings on the first postpartal day. Type 2 persons, while they are concerned about physical restoration, are also concerned about infant care skills as well as life-style changes.

It was recommended that the use of Q methodology determining stressors should be extended by use in other postpartal populations as well as during other time frames. Postpartal care should be based upon the presence of particular stressors.

Abstract Approved by: Committee Chairman Janice Day

Program Director

Date 9/13/85 Dean of Graduate School

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CHAPTER I

Introduction

Relatively little nursing research has been done on the transition to motherhood following a normal vaginal delivery. Society expects the mother to respond to this event in a predetermined fashion. If she is unable to accomplish this role transition, she is considered to be lacking in maternal qualities.

LeMasters (1965) and Dyer (1979) found the majority of couples considered the first experience of parenthood to be an extensive or severe crisis. The focus of this study is limited to the mother in an effort to improve postpartal nursing care. Also, rather than consider crisis to be a factor of this study, the investigator chose to study the stressors inherent in crisis. The concept of stressors as utilized by Neuman (1982) and McCubbin et al. (1980) were used as a framework for the study.

Neuman visualizes a stressor as a disrupting force in any system. In a study by McCubbin et al. (1980), stress was not viewed as inherent in the event itself but conceptualized as a function of the response of the person to the stressor. In this context, stress refers to the residue of unmanaged tensions generated by the stressor. Stressors may best be measured by determining perceptions of being bothered, being unhappy, or having problems coping. The perception of stressors by the primipara may be a result of the conflict between societal and personal expectations and the reality of the postpartal period.

Although the role of mother has not been succinctly described in the nursing literature, a number of studies have dealt with the process of adaptation to the maternal role. More recently, the process of attainment of the maternal role has been described in terms of maternal tasks (Curry, 1983; Gruis, 1977; Mercer, 1981). Shereshefsky and Yarrow (1974) describe the first pregnancy as an intrapsychic experience in which the woman responds primarily to immediate physiological and emotional development.

Psychological needs, however, may be overlooked by the postpartal nurse under the impression that this is a normal experience and that most mothers happily adjust to the new role. The purpose of this research was to identify maternal perceptions of common stressors reported by primiparous women during the immediate postpartal period.

Significance of the Problem

Little nursing research has focused on women who appear to have uncomplicated pregnancies and deliveries and who give birth to normal, healthy infants. Although some studies include the effects of the first normal vaginal delivery on both father and mother (Shereshefsky & Yarrow, 1974), this research focuses only on the newly delivered mother.

The study sought to establish the factors related to stressors in the postpartal period. It was assumed that the primipara's perception of stress is related to the assumption of maternal tasks (Gruis, 1977; Mercer, 1981) and that maternal role adaptation is related to the primipara's perception of her ability to assume these tasks (Sheehan, 1981; Shereshefsky & Yarrow, 1974).

To date, both of these concepts are widely noted in the literature; however, there has been no study found which combines the two concepts. By means of Q-sort methodology, the correlation of the common stressors

with the assumption of maternal tasks was possible. If the presence of common stressors is routinely perceived as associated with maternal tasks, nursing strategies to assist the new mother in the attainment of these tasks should assume a greater role in the nursing care plan during the immediate postpartal period.

Study Question

What common stressors are reported by the primipara during the immediate postpartal period?

Definition of Terms

For the purpose of this study, the following definitions were applied:

Primipara - A woman 18 years of age or older who has delivered her first infant by means of a normal vaginal delivery.

Stressor - Stressors are indicated by the response of the person to an event resulting in the generation of unmanaged tensions which can be described as a feeling of happiness or a feeling of being upset. In the immediate postpartal period, events are related to the following maternal tasks: (a) physical restoration, (b) learning to care for and meet the needs of a dependent infant, (c) establishment of a relationship with the infant, and (d) alteration of life-style and relationships to accommodate a new family member (Gruis, 1977). The events in this study are identified in the Q-sort instrument.

Immediate Postpartal Period - A time span between 24 hours and 48 hours after delivery.

Conceptual Framework

Stressor Concept

The Neuman Systems Model purports that when a stressor, from whatever source, breaches the flexible and normal lines of defense there is

a reaction, the nature and extent of which is determined by the lines of resistance encountered by the stressor. "Depending on the resources of the basic structure, the individual may attempt to alter the stressor so that it is no longer noxious, adapt to the stressor in a way which permits continuous function, or both" (Neuman, 1982, p. 3). Fitzpatrick and Whall (1983) view Neuman's Model as a conceptualization of the basic phenomena in such a way that a patient reacts to, or potentially reacts to, various stressors.

Neuman (1982) bases her concept of stress on that of Selye, who believes stress is a necessary and inherent part of life. Selye (1982) purports that stressors are tension-producing stimuli with the potential of causing disequilibrium, situational or maturational crisis, or the experience of stress within an individual's life. The Health Care Systems Model (Neuman, 1982) represents an individual who is subject to the impact of stressors (Appendix A).

The birth of a child subjects the primipara to such stress. Yet, health professionals do not treat the postpartal period as a critical phase in the healthy development of the family. This gap in health care led Gruis (1977) to investigate the needs and resources of normal uncomplicated mothers which she categorized into four maternal tasks.

The first maternal task is called physical restoration. During this phase the woman undergoes involution. According to Gruis (1977), fatigue causes vulnerability to emotional stress in 80% of all postpartal women. The second of the four tasks identified by Gruis, learning infant needs, may cause the new mother to feel awkward. Curry (1983) found that primiparas without previous experience in taking care of an infant have more difficulty adapting to the maternal role. The third task reflects the developing relationship with the newborn. The

mother needs to learn about and understand her infant's normal growth and development. She is also required to learn her child's unique patterns of crying, sleeping, feeding, and other behaviors. Mothers are seldom prepared for the changes in life-style demanded by parenthood.

Forty mothers were studied by Gruis (1977) to determine significant concerns and resources during the first month after delivery. According to Gruis, the major concern of 26 out of 40 mothers was the return of their figures to normal. As a whole, the concerns the mothers related most frequently were physical restoration and incorporation of a new family member. "Mothers did not seek help for 22% of identified concerns, probably because help was not readily available" (Gruis, 1977, p. 187).

Gruis (1977) asserts that assumption of maternal tasks represents societal expectations of the new mother. The use of Neuman's (1982) Systems Model as an investigative framework to relate stressors to maternal tasks represents a correlation between societal expectations and stress. No precedent for this correlation has been noted in the literature. Investigators have not used Neuman's Systems Model as a framework to study obstetrical practice even though it considers the phenomena of man in a manner compatible with the discipline of nursing. However, according to Harty (1982), Neuman's model could be utilized as a unifying framework for managing the stressor sources common to adults.

The model speaks to each of the four essential components of the nursing paradigm: people, environment, health, and nursing (Thibodeau, 1983). Neuman (1982) views the person as in a state of wellness and/or illness and as a dynamic composite between psychological, physiological, sociocultural, and developmental factors. In adapting to its environment, an open system attempts to cope with external stressors by

ingesting or acquiring control over them. Health is inferred to be a state of equilibrium and is in a dynamic state of flux. In Neuman's view, nursing is concerned with all potential stressors; therefore, the way in which all the data regarding stressors and reaction to stressors may be organized is very important. Adapting Neuman's Model for this purpose provided a framework for postpartal evaluation of stress that appears to be more systematic, yet congruent with previous studies. In addition, existing literature identifies stressors common to the postpartal period.

Common Stressors

Defense mechanisms described by Neuman (1982) consist of the flexible line of defense, the normal line of defense, and the lines of resistance. Neuman asserts that when the accordion-like effect of the flexible line of defense is no longer capable of protecting the individual, the stressor breaks through the normal line of defense. When this occurs, internal factors, called lines of resistance, attempt to stabilize the person and foster a return to the normal line of defense.

A review of literature substantiates that certain stressors are commonly perceived by the individual in postpartal period (Bull, 1981; Carlson, 1976; Curry, 1983; Gruis, 1977; Roberts, 1983). These stressors interfere with or preclude the adjustment of the individual in the accomplishment of maternal tasks. According to Neuman (1982), it is important to find out from the client how one perceives or experiences a particular situation or condition. Clarification of perceptions involve determining the degree of disruption of stability or equilibrium. Neuman's Systems Model provides a format for assessment of stressors in both the primary and secondary prevention/intervention mode (Appendix B).

Physical

Carlson (1976) and Gruis (1977) both emphasize the effect of body changes upon the individual after delivery. The slowness of the involution process seems to be an unexpected detail of this period that acts as a stressor in the postpartal client. The clients are surprised by the physical discomfort of breast engorgement, hemorrhoids, constipation, uterine drainage, the episiotomy, and continued abdominal contractions that often occur in this period (Bennett, 1980; Carlson, 1976; Donaldson, 1981). Knowledge of the immediate postpartal period seems to be an area that is not included in prenatal preparation. The common feelings of faintness or dizziness also appear to be unexpected.

Concern with body image after delivery is also a common postpartal reaction (Bull, 1981; Curry, 1983; Roberts, 1983; Shereshefsky & Yarrow, 1974). Changes from the ponderous pregnant figure to the pre-pregnant figure are expected to be immediate regardless of the amount of weight gain, the size of the baby, or the lack of exercise and muscle tone during the 9 months of pregnancy. The postpartal client is dismayed by the flabby abdomen that is a sequela of the pregnancy.

The third most common physical complaint of the postpartal woman is that of fatigue (Gruis, 1977). She fails to take into account the amount of physical and psychic energy required to withstand the labor process.

Development of a Relationship

Stress may relate to prior feelings about the baby. A source of stress may be the birth of a baby of the wrong sex (Carlson, 1976). Fantasizing a pretty little girl and ending up with a husky little boy may require a fair amount of adjustment on the part of the new parent.

Newborn behavior is often baffling (Bennett, 1980; Roberts, 1983). The parent may experience a feeling of failure when the infant does not communicate as expected.

Mothers also respond differently to the establishment of a maternal routine (Bennett, 1980; Nock, 1981). This response ranges from ecstasy to boredom. Factors such as age, maturity, readiness for the role, and self-concept are mentioned in the literature as contributing to this range of responses. The differing maternal response may be related to her perception of the additional responsibility represented by the infant (McKenzie, Canaday, & Carroll, 1982). According to Avant (1981), the differing responses of the individual to the maternal routine are evident in the relief of some mothers versus the dispair of others when a nurse comes to take the baby back to the nursery. Curry (1983) and Bennett (1980) both assert that the support of significant others may encourage the mother's relationship with the infant.

Child Care

The actual care of the infant is facilitated by prior experience and/or association with children (Bennett, 1980; Darling, 1979; Gruis, 1977; Shereshefsky & Yarrow, 1974). Babysitting, caring for younger siblings, and parenting classes are the most common sources of preparation for this role. Experts within the family or neighborhood can be helpful as long as they do not contradict one another. Contradiction about child care seems to be very stressful to the mother (Bennett, 1980).

Some infant characteristics also contribute to a mother's confidence in child care. A crying infant may be perceived as one who does not like mother. An infant who eats and sleeps well tells the mother she is doing a good job at being a mother.

Role Change

According to Gruis (1977), the fourth maternal task is alteration of life-style and change to accommodate a new family member. Bennett (1980) and McKenzie et al. (1982) propose that there is a certain amount of status and prestige associated with pregnancy that is lost upon delivery of the child. In addition to this loss of prestige, there are changes in life-style which will occur after the child is born (Avant, 1981; Bennett, 1980). The marital dyad is lost (Donaldson, 1981) and a more restrictive social life must be adopted (Bennett, 1980).

This transition is smooth if the woman feels confident in her ability to assume the maternal role (Curry, 1983; Roberts, 1982; Sheehan, 1981). Support from the husband is associated with the interest he shows to the new mother and baby. Although the research shows that the husband's social support is most important, the support of significant others is also necessary (Ascher, 1978; Raphael, 1981; Stichler, Bowden, & Reimer, 1978). The husband who helps with the housework and baby tasks and who is loving, patient, and understanding smooths the adjustment to the maternal role (Bennett, 1980). In addition to social support, lack of financial pressure smooths the adjustment for both the husband and the wife (Avant, 1981; Bennett, 1980). The recommendations of these experts were used in concert with Neuman's concept of stress and adaptation.

Maternal Tasks

According to Gruis (1977), all mothers have needs during the postpartal period which relate to the following four tasks: physical restoration, learning to care for and meet the needs of a dependent infant, establishment of a relationship with the infant, and alteration of lifestyles and relationships to accommodate a new family member. Gruis

charges that little attention is given to the postpartal needs of the woman relevant to these changes. At the same time, women interviewed 4 weeks after delivery listed physical discomfort and fatigue a primary concern,

"Fatigue and tension in the puerperium are also caused in part by the incessant care demanded by an infant" (Gruis, 1977, p. 184). Even though this task is considered to be extremely important to the survival of the family structure, modern society offers few opportunities to learn about infant care.

One of the most important relationships in the infant's lifetime is the one the mother must establish in the postpartal period. According to Gruis (1977), a mother needs information about normal growth and development, and knowledge about the unique patterns of behavior which are common to infants.

The final essential task facing the new mother upon delivery is to accommodate the new member into the family structure. "Stress occurs when the 'new parents' attempt to add on to their usual life the responsibilities of the newborn rather than incorporating the child into the system" (Gruis, 1977, p. 184).

Gruis (1977) studied 40 normal, married women with uncomplicated vaginal deliveries and well infants; ages of the women ranged from 18 to 36 years with educational levels ranging from 10th grade to 2 years' post-baccalaureate study. Even though postpartal teaching is traditional, little thought is given to readiness to learn. Gruis (1977) believes that the immediate teaching should relate to physical discomforts, postpartal exercises and diet, family planning, and resumption of sexual relations. In the immediate puerperium the new mother may not be receptive to learning about infant care.

Assumptions

For the purpose of this study the following assumptions were made:

1. The process of transition to motherhood begins at childbirth.

2. The woman can identify the stressors related to the transitional process.

Limitation

For the purpose of this study the following limitation was identified: Factors known to mediate the effects of stress, such as social support, personality factors, and prior experience with children, were not controlled for in this sample.

CHAPTER II

Review of the Literature

Theoretical Approaches

Most cultures put great value on the bearing of children. In particular, tremendous societal expectations are placed upon the woman bearing the child. Yet, rather than being instinctive, maternal behavior is now recognized as a learned process and the transition to motherhood is seen as being highly stressful (LeMasters, 1965; Rubin, 1967a).

The review of literature suggests that there are at least two popular theoretical approaches used to study the transition into parenthood. One approach uses small group therapy to explain the effects on parents and children of the addition of a child to the family. Another approach utilizes what is known about roles and role transitions to explain parental reactions to the transition into parenthood.

Contemporary role theory regards human conduct as the product of the interaction of self and role. Earlier theorists considered role as the unit of socialization, or a pattern of behaviors which a person takes in social situations. Role is the conceptual cultural unit, the actions performed by a person to validate his occupancy of the position. Behaviors and actions of a role are acquired, conditioned, reinforced learnings and are culturally determined (Biddle, 1979). Some substance is given to three theories by Curry (1983). A descriptive study by Curry noted that of 20 normal primiparas, 25% experienced a very difficult adaptation to motherhood. Women in this group had little

previous experience with infants, did not have any help at home with the newborn, admitted to experiencing loneliness, and with the husband gone for long hours they had little assistance from their husband in their attempt to assume the maternal role.

Attainment of the maternal role was studied by Rubin (1967a) using primiparas and multiparas. The data suggested that multiparas had a higher commitment to the maternal role than did the primiparas. Rubin considered the assumption of the maternal role to have three relevant dimensions: the self-system or self-concept, the process of method as mode, and model or referrant as the subject. In the study, she determined that the self-concept or self-system serves to determine what it will admit by selective perceptions. The process of taking-in of the maternal role was considered to be continuous but not passive. Five distinct operations of taking-in were elicited. Mimicry and role-play were found to be early, tentative forms of taking-on the role. Fantasy and a circular process of introjection-projection-rejection were found to be later and more discriminating processes. Grief work appeared as a catalyst for other role-taking operations and a sixth operation, identity, was used for purposes of completeness. Rubin admitted to experiencing difficulty in analyzing her data from this study, however, since only the beginning point (delivery) was ascertained. Comparable measurement of operations or process within and between individuals was not noted.

Rossi (1968) suggests that role cycle changes occur in parenting and describes four broad stages: anticipatory stage, honeymoon stage, plateau stage, and the disengagement-termination stage. Pregnancy is considered the anticipatory stage and the actual parenting process immediately after childbirth is considered the honeymoon stage. During

the honeymoon stage, an attachment between parent and child is established. The middle period or plateau stage is described as that period of time in which the role is fully exercised. The disengagement-termination stage is not clearly marked by any specific act but is an attenuated process of termination with little cultural prescription about when the authority and obligations of a parent end.

However, the most useful research relating to maternal expectations found by this investigator was conducted by Gruis (1977) in which four maternal tasks were defined as part of the assumption of the maternal role. Mercer (1981) also relates the development of the maternal role to certain maternal tasks which must be accomplished by the new mother.

Because of the type of change inherent in the transition to parenthood, many studies have used Hill's (1965) concept of crisis which is "any sharp or decisive change for which old patterns are inadequate" (p. 353). LeMasters' (1965) study was one of the first to use Hill's concept. He reported the 83% of his sample of 36 middle-class couples felt that they had experienced "extensive" or "severe" crisis in adjusting to the first child. A series of studies attempted to replicate his findings, or redesign the method of measuring parents' feelings (Dyer, 1963; Hobbs, 1965, 1968, 1976; Jacoby, 1969; Russell, 1974). None of the studies reported findings as strong as LeMasters'; however, they did report that significant proportions of their samples admitted some feelings of crisis during the transition into parenthood.

Studies which included babies under 1 years of age (Hobbs, 1968; Russell, 1974) have reported lower crisis scores than studies which included a broader range of babies' ages (Dyer, 1979; LeMasters, 1965). This suggests a positive relationship between the childbirth event and parents' difficulty in adjusting to the change. Yet Hobbs and Russell

found no relationship within their samples between babies' ages and degree of crisis, and Dyer found a negative relationship between age of baby and crisis.

In addition, studies which used exclusively middle-class respondents (Dyer, 1963; LeMasters, 1965) reported higher crisis scores than studies which drew upon a more representative sample (Hobbs, 1968; Russell, 1974). This would suggest that social class is positively related to stress during the transition to parenthood. Yet neither Hobbs nor Russell found this to be true within their samples. Data from the Russell study do suggest, however, that middle-class parents may experience fewer gratifications from the initial experiences of parenthood than lower-class parents.

The studies completed by Rubin (1967c) have formed the basis for postpartal nursing care for many years. Greater strength is lent to these studies by the fact that Curry (1983), Gruis (1977), and Mercer (1981) reported similar maternal reactions to childbirth. However, the many variables relating to self and situation and the components of role theory have made it difficult to prove relationships and provide defensible correlations.

Conversely, crisis theory has been very weakly related to childbirth. Those studies which indicate that childbirth is a stressful life event offer differing explanations for the discrepancy. Discrepancy in results of the crisis studies may even be explained on the basis of the samples employed and methods of data collection. The interview method has been associated with higher crisis scores than the questionnaire method (Hobbs, 1968). For example, the follow-up of nonrespondents in Hobbs' study suggested that the response pattern to a questionnaire study may underrepresent young couples who were

premaritally pregnant and possibly experiencing relatively more stress. Perhaps these couples would have been more responsive to supportive interview techniques.

In spite of the limitations of and disagreements about both the crisis and role theory studies, these theories served to bring research attention to the time period surrounding childbirth, especially the birth of the first child. From this began the efforts to identify factors associated with the ease of the transition into parenthood.

Stress-Stressors

A real requirement for future accession research includes a clear differentiation between the changes and adjustments required by parenthood and the perception of these changes as affectively positive, neutral, or negative on the part of the parent. Jacoby (1969) suggests that future research on the adjustment of parents to their children include: (a) a distinction between objective behavioral changes required by parenthood and the subjective interpretation of these changes by the parents; (b) the use of standard, reliable, and valid instruments for measuring both the rewards and difficulties of parenthood; (c) larger and more representative samples; and (d) a continuing attempt to identify the structural variables related to degree of ease in making the transition to parenthood.

The majority of the literature relating to transition to parenthood is a continuing attempt to identify the structural variables. Since 1970, investigators have carried on family stress research in an effort to render clarity and empirical support to these original conceptualizations. Usually, studies done on stress associate stress with coping strategies (Baldree, Murphy, & Powers, 1983; Jalowiec & Powers, 1980) or relate stress to self-concept or illness-proneness (Lee, 1982; Sullivan et al., 1980).

Another indication of stress often utilized as a study theory is adaptation to parenting (Sheehan, 1981). Others (Curry, 1983; Roberts, 1983; Tentoni & High, 1980) have more commonly concentrated their efforts on such salient issues as definition and measurement of variables; elaboration of components of stress, resources, etc.; possible interaction effects; and the role of intervening and controlling variables. The body of this review will be organized around some of these issues.

Tentoni and High (1980) reported that nearly 40% of primigravidas (n = 49) experienced a loss of self-esteem, which resulted from changes in physical appearance; changes in social lives; and anticipatory fears of labor, delivery, and childbearing, resulting in at least a transitory depression. In the early postpartal period, symptoms such as fearfulness, despondency, poor concentration, forgetfulness, and anxiety were commonly expressed.

Avant (1981) conducted a study of normal primigravidas (n = 30) to determine anxiety as a potential factor affecting maternal attachment. Analysis of the data from this study revealed that, as anxiety levels rose, attachment scores fell. However, the mean anxiety scores for both day 1 and day 3 were higher than the testing standard. Even though these indicators may relate to stress, it was the opinion of the investigator that they fail to capture the real essence of the situation.

The present research acknowledges the fact that childbirth represents a stressful life event and that crisis is inherent in some of these cases. Also acknowledged is that many changes in roles are required in a stressful life event. Most commonly stressors are defined as those life events or occurrences of sufficient magnitude to bring about change

in the family system (Hill, 1965). Stress is not seen as inherent in the event itself, but rather is conceptualized as a function of the response of the distressed family to the stressor and refers to the residue of tensions generated by the stressor which remain unmanaged (Burr, 1973; Hill, 1965).

Stress or crisis is defined as the interaction of a particular type of event with its perception. Burr (1973) tends to utilize family perception of an event as an indicator of its inherent hardship. Drawing from the fields of psychosomatic medicine, researchers have classified stressor events and stress by the valence and intensity of these events. The intensity of various life events is recorded by inquiring about family perceptions of being bothered or unhappy or having problems coping to arrive at strain scores (McCubbin et al., 1980).

The preponderance of studies of normative life events has focused on the later years of the family cycle, with the greatest emphasis on transitions into: (a) child launching, (b) postparenthood, (c) retirement, (d) widowhood, and (e) relocation and institutionalization (Jacoby, 1969; Russell, 1974). No recent literature on the childbearing period was identified. Rather than becoming embroiled in either crisis or role theory, however, the present study focused on stressors which new mothers associate with this life event.

Gruis (1977), whose study included both primiparas and multiparas ($\underline{N}$ = 40), reported that 1 month after delivery the greatest concerns of her subjects ($\underline{n}$ = 23) were return of the figure to normal (95%), regulating the demands of the household (90%), emotional tension (88%), fatigue (83%), and infant behaviors (80%).

Moss (1981) reported that multiparas ($\underline{N}$ = 56) still expressed many interests (27%) and worries (14%) on the third postpartal day. The

highest ranking interests and worries were categorized as: how children at home will act toward the baby (n = 55), meeting the needs of everyone at home (n = 43), being a good mother (n = 43), baby's safety (n = 42), how children at home will act toward me (n = 36), my weight (n = 36), and baby's weight (n = 34).

Many components relative to stress have been related in the review of literature. Concepts which appear at once to be able to identify stress have been studied with little satisfaction. Included in these indicators of stress have been self-concept or self-esteem, coping, illness-proneness, and anxiety. Another difficulty in the identification of stress is the inadequacy of tools for this purpose relative to the postpartal period.

The study of stressors conducted by Burr (1973) revealed that stressors can be identified by measuring the perception of the event. According to McCubbin et al. (1980), even the intensity of these events can be determined by inquiring about perceptions of being happy. The studies of Gruis (1977) and Moss (1981) reported that women did express concerns in regard to certain events following childbirth.

Maternal Stressor Concept

Maternal behavior is a learned behavior, evolving and changing, largely dependent on the nature and kinds of intimate interpersonal experiences and on the individual mothers' evolving self-concept. There appears to be, however, a set of developmental tasks which must be addressed during the postpartal period in order to achieve successful adaptation to the maternal role (Leifer, 1977). However, the categories of developmental tasks are not mutually exclusive, and perceptions in one area can affect perceptions in another.

According to Carlson (1976), the newborn, by his very existence, represents to the new mother a lifelong commitment and awesome responsibility. In the beginning maternal relationship, there is a definite progression and orderly sequence in the nature and amount of contact a mother makes with her child. The rate of progression from one predominating in touch or contact to another is dependent on how she feels about herself in the role of mother, how she perceives her infant's response to her, and the character of the relationship (Rubin, 1963).

The process of identifying the infant as an individual is long and complicated. The first and most involved process of identifying the infant is that of association. The mother needs to associate with the infant on the basis of particular features such as appetite, sex, bodily functions, bodily intactness, and likeness to family members (Rubin, 1961).

On the level of cultural values, men have no freedom of choice where work is concerned. They work to secure their status as adult men. The equivalent for women has been maternity. Generous amounts of social approval of her baby as enchanting and desirable provide the new mother with more effective narcissistic elaborations of her ego (Rubin, 1967b).

Expectations and realities of the role of parent can result in confusion and conflict within the family. In the early postpartal period, husbands and wives must cope with reduced privacy and personal freedom as well as expand the previously dyadic relationship to a triadic one (Donaldson, 1981). According to Rossi (1968), the addition of maternal responsibilities has the consequence of a fundamental and undesired change in both their relationships to their husbands and their involvements outside the family.

For some mothers, the body trauma of labor and delivery seems gross enough to almost totally incapacitate her for a period of time (Carlson, 1976). Primiparas frequently express surprise at the trauma and discomforts that are sequelae of the birthing process. Carlson quotes one primipara tearfully expressing these feelings: "It's so different from what I expected. All the pictures show new mothers walking around, holding their babies, and I can't even turn over" (Carlson, 1976, p. 29). Some mothers must cope with unexpected painful, large hemorrhoids; others with voiding or bowel problems; most with the painful episiotomy; others with burgeoning, engorged breasts; and all with dramatic change in body volume and metabolism (Carlson, 1976).

Bull (1981) studied first time mothers (N = 30) and correlated intensity and frequency of concerns 3 days after delivery to concerns after 1 week at home with the baby. In this study, both the frequency and intensity of concerns related to physical discomfort decreased after 1 week at home; however, there still remained moderate to much concern related to physiological changes. In the same study, the intensity and frequency of concerns related to the emotional self increased. In addition, infant behavior continued to be of moderate to much concern after 1 week at home, but concerns related to the physical care of the baby decreased.

Donaldson (1981) suggests common physical stressors in the postpartal period include physiological shifts as the result of involution, body image, and fatigue. According to Donaldson involution includes perineal healing, uterine drainage, mild abdominal contractions, the onset or inhibition of lactation, bowel and bladder functioning, and assorted neuromuscular discomforts. The involutional changes in the

postpartal woman also create body image changes. Stretch marks, protruding abdomen, and leaking breasts conflict with the return to normal that the woman expects postpartally.

Another major physical stressor mentioned by Donaldson (1981), universally experienced by postpartal women, is fatigue. The fatigue is due to excess energy drain during the laboring and delivering process, interference with sleep in response to the wakening child, and borderline anemia from intrapartum blood loss. Postpartal fatigue is intense and may often influence the woman's entire internal milieu. According to Donaldson (1981) the postpartal woman, assaulted by these assorted common stressors, experiences resulting disequilibrium.

Four factors must be considered as added stressors in this area: paucity of preparation, limited learning during pregnancy, abruptness of transition, and lack of guidelines to successful pregnancy (Rossi, 1968). The new mother starts out immediately on a 24-hour duty, with responsibility for a fragile and mysterious infant totally dependent on her care. The birth of a child is not followed by any gradual taking on of responsibility. In the face of multiple stressors, the women are challenged to cope with the rhythms and needs of the newborn. While the infant's need for its mother is absolute, the need for an adult woman to mother is relative. The discrepancy between the needs of the infant and the needs of the mother can be a source of stress (Donaldson, 1981).

Resolution of bewilderment, disruption, and disorientation is surely not accomplished during the brief postpartal period in the hospital (Carlson, 1976). Therefore, it seems important to analyze and understand the extent of the demands on a new mother during this critical period. Although the literature is replete with assumptions of

of what new parents need to know in order to adequately care for their newborn, the identification of specific needs would be very helpful to the postpartal nurse.

The present study attempted to determine the actual stressors of a normal primipara during the first postpartal day. The study was based upon the belief that stressors are perceived as a result of the primipara's effort to fulfill society's expectations upon childbirth. Assumption of the maternal role requires that certain tasks be satisfactorily achieved. These tasks consist of physical restoration, learning infant needs, relating with the newborn, and accommodating a new member into the family (Gruis, 1977). The stressors that are perceived while in the process of assuming the maternal role are, in fact, maternal stressors.

Summary

A review of the literature revealed that the two most common theoretical approaches used to study the primipara were role theory and crisis theory. Studies utilizing the role theory (Curry, 1983; Gruis, 1977; Mercer, 1981; Rossi, 1968; Rubin, 1967c) considered the childbirth process as a normal life event which required certain changes based upon the assumption of a different role in society. Conversely, other investigators (Dyer, 1963; Hobbs, 1965, 1968, 1976; Jacoby, 1969; LeMasters, 1965; Russell, 1974) approached childbirth as a stressful life event because of the many changes required in such a rapid period of time.

Other researchers attempted to establish the variables which surround the role change incurred in becoming a new mother. Studies were done which associated stress with coping stragegies (Baldree et al., 1982; Jalowiec & Powers, 1980), self-concept (Lee, 1982; Sullivan et al.,

1980), and adaptation to the role change (Sheehan, 1981). Tentoni and High (1980) reported factors which resulted in loss of self-esteem whereas Avant (1981) determined that anxiety itself inhibits maternal attachment.

Even though all the studies appraise childbirth from the viewpoint of a life event, normative or stressful, little research has been focused on the fact that it is a life event. Studies relating to stress and stressors have established that stressor events can be classified (Burr, 1973; Hill, 1965; McCubbin et al., 1980).

Both Gruis (1977) and Moss (1981) reported that multiparas as well as primiparas relate many concerns following childbirth, that are positive, neutral, and negative in nature. Studies (Bull 1981; Carlson, 1976; Donaldson, 1981; Rossi, 1968; Rubin, 1967c) have reported physical, educational, and psychologic events which mothers have identified as stressors.

CHAPTER III

Methodology

Q-methodology was used to permit the identification of common stressors as perceived by primiparas in the immediate postpartal period. The Q-sort instrument was designed to enable the woman to express her thoughts, beliefs, and feelings about the types and degree of stress during the postpartal period.

Prior research tools have focused on indicators of stress such as self-concept, anxiety, nurturance, or support system. The investigator wanted to identify the actual stressors perceived by the postpartal primipara. Even though stress has been referenced as a common concern of the postpartal period, no research has been found to identify the stressors per se.

"The fact that patients' reactions to illness and therapies have to date not been systematically observed and recorded, illustrates clearly the paucity of our current knowledge" (Schlottfeldt, 1962, p. 211). The documentation of perception of stressors is central to Neuman's (1982) Systems Model. Q-methodology was selected for this research endeavor because of its focus on individual measurement of the perception of stress.

According to Hasselmeyer (1962), the origin of scientific investigation must be given significance by relating the problem to other thoughts, by placing it in its proper perspective to previous knowledge and past experiences, and by identifying underlying principles which may

serve as a foundation for future growth. Q-methodology established a foundation for the research, the direction to be followed, adherence to the research course, and adequacy of data collection.

Q-methodology's greatest strength lies in building theory into the Q-sort (Kerlinger, 1965). The relationship between postpartal stress and the components of maternal tasks has not been specified by Neuman (1982). According to Neuman, each person is a composite of known behaviors that respond to stimuli within a normal range of responses. Although these responses are dependent upon past and present behaviors and experiences, all persons have a range of commonalities.

Q-methodology was developed by Stephenson (1953) for the study of such apparently diverse areas as preferences, self-descriptions, aesthetic judgments, and personality dimensions. Central to Stephenson's position is the greater importance of making comparisons among different responses within persons than between persons. Stephenson sought to represent the self abstractly in spatial terms and mathematical language through the application of factor-analytic methods. Stephenson believed that comparisons among different responses within persons was more important than responses between people. "Inner experience and observable behavior are seen as like matters for objective operational definition and study" (Stullenbarger, 1984, p. 10). The technique of Q centers around sorting cards called Q-sorts and the correlation among different individuals to the Q-sorts (Kerlinger, 1965).

Kerlinger (1965) and Nunnally (1978) assert that Q-methodology has both the power and value to obtain complex descriptions within individuals. "The correlative nature of Q makes possible the comparison of whole sets of scores among individuals. Rather than obtaining an absolute score for each person, a relative score for each stimuli or content

item is derived" (Stullenbarger, 1984, p. 10). This method reflects all possible degrees of relationship within persons relative to the items in question.

Purpose

The purpose of this study was to describe the perceived stressors of primiparas in the immediate postpartal period.

Study Question

What common stressors are reported by the primipara during the immediate postpartal period?

Scope and Setting

The present study focused on the normal adult primipara who had delivered a normal infant by vaginal delivery. The data were collected within the hospital setting between 24 and 48 hours after the delivery. The time frame allowed the subject to be fully recovered from any type of anesthesia and to have seen the baby and her family after delivery. Also, this time frame permitted data collection prior to discharge from the hospital.

The study was conducted in the postpartal units of two hospitals located in two southeastern cities with populations of approximately 100,000. The hospitals are community and teaching institutions which serve clinic and private patients. Both hospitals have 20 to 24 beds on the maternity unit and both have approximately 40 deliveries per week.

Sample

The sample included normal primiparas who vaginally delivered a normal infant. The data collection period was between 24 and 48 hours after delivery. The sample included only those patients on the postpartal unit who were over 18 years of age. Additional criteria for the

study were that the subjects had no medically significant complications in the prepartal, intrapartal, or postpartal period and that the gestational age of the pregnancy was greater than 37 weeks. The normal infant was defined as one who had no apparent congenital anomaly and had an Apgar score of seven or above.

The subjects were selected from the census books of the delivery room on the basis of availability and conformity to study criteria with no attempt at randomization. The medical charts were reviewed to determine if they met the sampling requirements.

Twenty subjects were selected for this study. In Q-methodology, this is a large number of subjects (Stephenson, 1953); however, it was thought that this number would more easily facilitate sorting of person factors in the factor array, thereby presenting more definitive data. Q-methodology is not suited to testing hypotheses over large numbers of individuals. One can rarely generalize to populations from Q person samples; rather, the methodology is used to test theories on small sets of individuals carefully chosen for their presumed possession of some significant characteristic or characteristics (Rummel, 1970).

It should, therefore, be noted that demographic data were not a consideration in establishment of the criteria for this study. The criteria were established to define persons who represented what is considered to be a normal vaginal delivery within a hospital setting in the southeastern region of the United States.

When using the Q-methodology, primary importance is placed upon the sampling of stimuli or test items rather than the sampling of people. One must ensure that all stimuli are from a common frame of reference. This approach is counterpart to defining the population in the sampling of people. It is important to realize that sampling materials is rather

different than sampling people. In sampling materials, the materials are constructed or borrowed from an available source. Two types of content samples are employed with the Q-sort: random samples and structured samples. "The structured sample is one in which the researcher stipulates the kinds of stimuli that will be included in the content sample in terms of an experimental design" (Nunnally, 1978, p. 617). This sample was structured to test for stressors in the normal primipara.

Instrument Development

A Q-sort deck was developed for this study. The deck, consisting of 60 cards each containing words or descriptive phrases, represented the commonly perceived stressors of the primipara during the immediate postpartal period. The primipara was asked to indicate whether she perceived any of the card situations to be stressors, and, if so, to rate the strength and nature of that stressor.

Several steps were necessary in the process of developing a description of common stressors related to the development of maternal tasks. These steps are delineated as follows:

1. A framework consistent with the assumptions regarding this study was identified. Neuman's (1982) Systems Model was chosen as a framework for viewing the relationship of stress to the individual. In this study, the perception of stress was viewed as a maternal reaction to events which have penetrated the individual's lines of defense resulting in a feeling of disequilibrium. The framework was further supplemented by use of maternal tasks (Gruis, 1977) which the investigator views as representative of societal and personal goals of the immediate postpartal period.

2. Analysis of the literature provided groups of words or phrases representative of maternal experiences which have been noted to have

caused problems or concerns in the postpartal period. By considering both the nature of stress as represented by Neuman's (1982) Systems Model and the nature of needs, problems, and concerns representative of Gruis' (1977) maternal tasks, common stressors were identified.

3. Sample items for each of the four maternal tasks were generated, resulting initially in 80 descriptive words or phrases determined by the investigator to be appropriate to represent the stressful events of the postpartal period. Support for use of these stressors was sought from a review by a panel of experts.

4. The panel of experts consisted of four persons familiar with maternal child nursing. They were given a summary of the proposed study along with the sample items for each of the four tasks and asked to indicate whether they: (a) agreed that the items were common stressors, and (b) agreed that the items were representative of the maternal tasks. From this review, 80 items were selected for inclusion in the research tool.

5. Compilation of items into a Q-sort instrument was accomplished and the study was piloted in order to further determine the effectiveness of the tool. Based upon this pilot and in conjunction with three more experts in maternal child nursing and in the development of the Q-sort methodology, the tool was further refined.

This refinement primarily consisted of removing bias from the items. According to Neuman (1982), the perception of the subject should determine whether the item is a positive or negative stressor. Slight rephrasing was also necessary in some cases in order to clarify meanings of the items. This refinement reduced the number of items to 60. The number of cards in a Q distribution should be determined by convenience

and statistical demands (Rummel, 1970). However, an acceptable range is from 60 to 90 cards (Kerlinger, 1965).

6. The final tool used in the study consisted of 60 items of a neutral nature, 15 from each of the four maternal tasks.

Validation

Content validity for the instrument was empirically supported by an exhaustive analysis of the literature written by noted authorities in the maternal infant field. The tool was also subjected to a review by a panel of experts on two occasions as well as to a pilot study to determine subject response. According to this methodology, a universe of items can be defined which is appropriate to the traits under study. The traits under study related stressors in the immediate postpartal period to the assumption of maternal tasks.

From this universe, a sample was drawn on a priori grounds, resulting in 60 items representative of the universe to be studied (Nunnally, 1978). The universe consisted of factors which could be used to describe or delineate stressors to the postpartal woman with respect to maternal tasks.

The universe was restricted for sampling purposes by the structure of the model, which specified those stressors commonly related to accomplishment of the maternal tasks. It was also restricted by use of Neuman's (1982) Systems Model as a device to determine perception of stressors and degrees of stressfulness. An additional consideration imposed further restrictions on the item universe. The model was seeking to determine that stressors are related to the maternal tasks. Therefore, only items which might relate to the first childbearing experience were selected. This effort was meant to eliminate differing sources of stressors relating to other factors, for instance, siblings.

These considerations required that the universe of items be restricted in order to accommodate a range of stressors common to the primipara. Items selected for the assessment of stressors commonly associated with physical restoration, development of mother-infant relationship, development of child-care skills, and with family integration were chosen to permit characterization of the stressor along a continuum from very stressful to those resulting in no real perception of stress. This scheme allowed a broad range of items since each of the item categories could be related to positive as well as negative stressors. The actual selection of these common stressors was based upon a review of the literature and the contributions of a panel of four experts in maternal child nursing which reviewed the tool.

Content validation experts were chosen on the basis of their knowledge about postpartal nursing care, Gruis' (1977) maternal tasks, and the Neuman (1982) Systems Model. These reviewers independently rated each item on the accuracy with which it characterized the maternal task. The panel members were asked whether they agreed or disagreed that the items were stressors encountered by postpartal patients. Also, the panel responded to whether the stressors were representative of the maternal task under which they had been placed by the investigator. In addition, they were asked to relate these items to the Neuman Systems Model.

Gruis' (1977) maternal tasks provided the primary structure for deciding the stimuli sampling of stressors. Some items were deleted and additional items were added on the basis of their recommendations. The review yielded 80 items evenly divided into 20 items for each of the maternal tasks. These items were then piloted in order to determine clarity of items, ease of administration, and content validity.

A second panel of experts in nursing research, maternal child nursing, and Q-methodology reviewed the final items and the results of the pilot. All references to positive or negative stress were removed from the tool. The remaining items numbered 60 items evenly divided into 15 items for each of the maternal tasks (Appendix C).

Pilot Study

A pilot study was completed on the test items. The pilot study sample consisted of five subjects. The investigator followed the sampling criteria and obtained the sample by utilizing the census book and patients' charts. The subjects were asked to participate; if they consented, they were asked to read and sign the consent form. The investigator placed the large cards indicating the nine sorting stacks on the overbed table and handed the item cards to the subject, asking her to place the items on the stack that she felt best signified her feelings about the item. After the subject finished the sorting, the investigator placed the cards in the matching manila envelopes, thanked the client for her participation, and left the room. The card item information was then transferred to the subject data sheet.

The study was undertaken in order to determine the clarity of items and ease of administration of the tool within the clinical practice area. The objective of piloting was to establish individual consistency and relative homogeneity within groups. Further objectives related to determining whether the subjects sorted items that belonged together in a similar fashion and to determing the number of possible discriminations subjects could make. Minor modifications which were made as a result of this pilot are described in item six in the section under instrument development.

Reliability

An additional study was done to establish reliability of the items using a related sample of subjects. The related sample consisted of 10 women who had vaginally delivered a normal, term, first child within the last year. The subjects were asked to complete the sorting procedure recalling their feelings in the immediate postpartal period. This procedure was repeated in 2 weeks.

The sample was obtained from the well child files of a public health clinic. The subjects were selected using the same criteria as described previously. The clients were contacted and asked if they would agree to participate in a research study about how new mothers feel about situations which occur after the delivery of their first child.

At the first meeting, the subjects were given the consent form to read and sign. The rating scale for the cards was put on a table and the item cards were handed to the client. She was asked to place the item cards in the stack that she felt best represented her feelings the day after delivery. After completion of the first test administration, the investigator collected the cards, placed them in the manila envelopes, and set the date for the 2-week retest.

The Subject Data Sheet was completed, marking the subject code number for the first testing as A and the code number of the second testing as B. A Spearman rho rank ordering of the data indicated that the instrument was reliable (r 20 = .72, $p < .001$).

Structure

For the purpose of this study, a one-way structured sort was developed. In a structured Q-sort, the theory one seeks to test is built into the items of the Q-sort (Rummel, 1970). Items were selected from

various sources and specifically written to represent the stressor relationship to maternal tasks. A one-way structured sort permits variable classification (Rummel, 1970).

The structure of the deck was developed to minimize ambiguity and to simplify data analysis. In an attempt to demonstrate the stressor relationship to maternal tasks, 15 items for each of the tasks identified by Gruis (1977) were selected. The entire deck of cards totalled 60 items. The format for rating the stressors was of Likert-type with a nine-point scale. It was constructed so that each card could be rated according to whether the subject considered the item to be a stressor, either positive or negative. In addition, gradients of stress could be demonstrated by the rating scale.

Nunnally (1978) recommends that a relatively large number of stacks be used for the distribution of cards or items. This procedure allows the subjects to make finer discriminations among stimuli and tends to increase the reliability of ratings.

Each subject was asked to sort the cards into one of nine stacks depending upon how they made her feel: (1) very happy, (2) somewhat happy, (3) only a little happy, (4) have not thought about it, (5) unsure of my feelings, (6) my feelings change, (7) only a little upset, (8) somewhat upset, and (9) very upset. Stack number one (1) and number nine (9) represent the strongest perception of positive and negative stressors. Gradients in degrees of stress may be indicated in stack numbers two (2), three (3), seven (7), and eight (8). If the individual has ambivalent feelings about the subject, she is instructed to place the card in stack four (4), five (5), or six (6).

Gradients of stressors were determined by asking the subject to sort the cards into nine stacks on a free sort basis. The stacks

represented a range of degrees of stress varying from a great deal of stress to no real perception of stress. Ambivalent feelings about the subject represent no real perception of stress.

Procedure for Data Collection

An Institutional Review Board (IRB) application was completed and submitted for approval to the chairman of the Institutional Review Board at the University of Alabama at Birmingham. The rights and welfare of all subjects were protected by adherence to the human use protocol. Upon IRB approval, a synopsis of the study was submitted to the hospitals, asking for permission to conduct the study. Written consent was requested and received from the vice president of one hospital and the assistant vice president of nursing service of the other hospital (Appendix D). In accordance with hospital procedure, the medical chief of obstetrics and gynecology in one hospital and all the obstetricians in the other hospital were also asked for their permission to conduct the study.

Testing

The investigator selected those clients who had a normal vaginal delivery from the delivery room census book until 20 subjects agreed to participate. The medical record was reviewed for the other sample criteria. Those clients meeting sample criteria were asked to participate in the study.

It is important to note that the subjects did remain free to arrange the items during the sorting procedure in ways which represented their personal reactions. These reactions formed the basis for correlation of subjects and comparison of correlational groupings with degree of stressfulness.

Each woman was individually tested under a standard set of conditions. The investigator greeted each woman in her own room in the hospital and introduced herself as a doctoral student at the University of Alabama School of Nursing, the University of Alabama at Birmingham. The study was explained as a study about the transition of women from non-parent to parent. The items were represented to the subject as illustrating how she might feel about the new experiences that are associated with childbirth.

A consent form was given to each woman to review. The form reviewed each of the points previously discussed. If the woman consented to participate in the study, she was asked to sign the consent form (Appendix E). The investigator then explained that the card selection required approximately 20 minutes for completion.

Nine large cards were arranged from left to right on the overbed table. These large cards were labeled with the following indications of degrees of stress as follows: very happy, somewhat happy, only a little happy, have not thought about it, unsure of my feelings, my feelings change, only a little upset, somewhat upset, and very upset. The subject was instructed to place each card on the pile which best represented her reactions to the words or phrases on each of these cards (the investigator, at this time, handed her the 60-item card deck). The subject was allowed an uninterrupted period of time to complete the sorting procedure.

Coded alphanumeric labels on the back of the card identified the category of the item. Once the subject sorted the cards in the respective piles, the cards were placed in an envelope labeled in the same fashion as the large cards indicating degrees of stress. The material was transferred from the cards to a subject data sheet (Appendix F).

The subject's perception of the type and degree of postpartal stressors was gathered with the use of the Q-sort methodology.

Scoring

Physical devices for the collection of data consisted of subject identification sheets, subject data sheets, Q sort cards, large score cards indicating perception of stress, and sorting envelopes. Subject identification sheets were used to match subjects' names with code numbers used to identify raw data. Subject data sheets were identified by code number with spaces for recording each subject's responses to each of the Q items.

Each item was typed on a separate, white, 3 X 5 inch manila index card. On the reverse of each card was listed an alphanumeric identification for use in scoring. Nine 5 X 8 inch cards were used to construct the scoring pile indicating perception of stress. Typed on each card was one of the following phrases: very happy, somewhat happy, only a little happy, have not thought about it, unsure of my feelings, my feelings change, only a little upset, somewhat upset, and very upset. Envelopes to receive the sorted cards were made of tan manila stock, four inches wide by six inches deep with capacity for 50 cards. Typed on each one of the envelopes was one of the nine sorting categories.

The card data were transferred to a subject data sheet and scored in accordance with where the items were placed by the subject. The scoring procedure took approximately 20 minutes. Items placed in the very happy pile were scored as 1 and an item placed in the very upset pile was scored as 9.

Procedures for Data Analysis

Two types of statistical procedures were used to analyze the results of the Q sort. ANOVA procedures were used to assess the different

patterns of response within persons. According to Stullenbarger (1984), Q-Factor Analysis is a method of intercorrelating the responses of people to the Q-sort and thus producing factors which describe types of people. Stephenson (1953) maintains that mean levels of item responses between partitions in the structured sort can be tested for significance in this manner. "The two sets of results, ANOVA and Q-Factor Analysis, should agree if the theoretical framework of the Q sort is valid" (Stullenbarger, 1984, p. 74).

Factor Array is a related technique in Q-Factor Analysis. After the factors have been derived by use of factor analysis, the weighted averages of the responses of the individuals loaded on a factor are used to determine the items most associated with the factor. Therefore, a typical Q-sort for each person factor is derived that expresses the nature of the factor. Usually, only the highest and lowest items describing the factor are of interest.

Data from this investigation were analyzed via two computer packages. The Statistical Package for the Social Sciences (SPSS) (Norusis, 1982) was used for the analysis of variance procedures within individuals. SPSS was also used to obtain the reliability estimates. Data from the Q-sort were analyzed by Quanal, a program specifically designed for Q methodology (Van Tubergen, 1980). Program capabilities included item means and standard deviations, correlation matrices, several tests for determining the optimum number of factors, unrotated and rotated factor solutions, factor weights for each item, and typal Z values. Typal Z values for each factor are analogous to the term Factor Array. The purpose of the analyses was threefold: (a) determining how

postpartal women cluster together on items, (b) obtaining typal Z scores for each factor, and (c) comparing results from the analyses of variance to the factor solution.

The researcher recognizes that the use of parametric statistics with ipsative measures is subject to controversy. Cronbach and Glesner (1954) advocate conservatism in establishing significance via raising the level of significance. Stullenbarger (1984) suggests criteria including establishment of .01 level of significance, increasing the number of items in the sort, analyzing the factors in terms of postulated framework, and establishing a pretest and posttest measure of the reliability.

CHAPTER IV

Presentation and Analysis of Data

Purpose

The purpose of this study was to describe the perceived stressors of primiparas in the immediate postpartal period.

Description of the Subjects

A total of 37 primiparas who vaginally delivered a normal infant were selected from the labor and delivery census book of the respective hospitals. Twenty of these primiparas met the criteria for sample selection and were chosen for data analysis. As previously noted, data for this study were collected on the first postpartal day after delivery. Additional criteria for the study were that the subjects had no medically significant complications in the prepartal, intrapartal, or postpartal period and the gestational age of the pregnancy was greater than 37 weeks. The normal infant was defined as one who had no apparent congenital anomaly and who had an Apgar Score of seven or above. The ages of the sample ranged from 18 years of age to 30 years of age with a mean age of 22 years old. The data for this study were collected between May 15 and July 1, 1985.

Since one can rarely generalize to populations from Q person samples, the methodology is used to test theories on small sets of individuals. The criteria were established to define persons who represented

what is considered to be a normal vaginal delivery within a hospital setting in the southeastern region of the United States. This sample was structured to test for stressors in the normal primipara.

Study Question

In this study the following question was explored:

What common stressors are reported by the primipara during the immediate postpartal period?

Pattern of Common Stressors

Q-type factor analysis was used to determine the shared patterns of stressors among the primiparas. Data from the 60-item Q-sort for the 20 subjects were factored through the use of Quanal (Van Tubergen, 1980). Quanal is a factor analytic program with special capabilities for Q research. The data matrix was transformed to a correlation matrix through use of Pearson product-moment coefficients. The squared multiple correlations of the variables (SMC) replaced unity in the diagonals of the correlation matrix.

The principal axis technique was used to determine the initial factor solution. The number of factors chosen for rotation was determined by the eigenvalues of the factors (Cattell, cited in Kim & Mueller, 1978). The eigenvalues of the two factors selected were 10.2977 and 1.0134. There were excessive complex roots for an oblimax rotation; therefore, an orthogonal (varimax) rotation was attempted and completed after five interactions. The matrices for the principal axis solution are depicted in Table 1. A total variance proportion of 57% was explained by the factor solution. The percent of variance within the two-factor solution was 91.

After the factor solution was obtained, behavioral types were formed. Each factor was developed as a single Q-type person. Factor scores or

Table 1

Factor Matrices for the Two Factor Solutions

Variables (Persons)	h^{2a}	Factors 1	2
1	518	.72	.24
2	652	.79	-.16
3	549	.73	.12
4	580	.76	.03
5	311	.50	-.25
6	506	.69	.18
7	525	.69	-.21
8	587	.56	.53
9	616	.75	-.22
10	756	.84	-.24
11	536	.72	.14
12	614	.78	-.05
13	460	.65	-.21
14	664	.60	.60
15	522	.72	.06
16	554	.74	.07
17	679	.82	-.06
18	625	.78	-.11
19	590	.77	-.04
20	466	.68	-.06

a = Communalities

weights were calculated for each subject assigned to a factor. These weights were used to determine how well individual subjects loaded on their assigned factors. Factor scores and variable assignments for the person types are displayed in Table 2. The factor scores are pure, weighted standard (Z) scores. The procedure used to obtain the scores had the effect of cancelling out all but the highest stressor score loadings. The scores only affected weight assignments for one factor type. Additionally, the person with the highest loading on factor type had an exponentially greater effect on the formation of typal patterns than those persons with low loadings.

No sampling differences were noted between the type 1 and type 2 persons. The four type 2 persons ranged from age 19 to age 30, whereas the type 1 persons ranged from age 18 to 30 years. The items most commonly selected by type 1 persons related to physical restoration (group 1, maternal tasks). The type 2 persons most commonly selected stressors related to maternal task groups 1, 2, and 4.

Analysis of Variance of the Q-sorts

The purpose of these analyses was twofold: (a) to examine subjects' results for congruence with the factor solution, and (b) to calculate the measure of internal consistency (reliability) for each subject. The Q-sort of each subject was subjected to a single-factor analysis of variance. This procedure was accomplished by treating each response on the Q-sort instrument as a subject. Each response was placed into groups created by the categories of maternal tasks. A total of four categories of stressors were created: physical restoration, infant need, infant relationship, and lifestyle. These categories became the four levels of the independent variable. The dependent variable was the score on the common stressor items.

Table 2

Subject Assignment with Factor Scores by Type

Type 1 (n = 16)		Type 2 (n = 4)	
Subject	Score[a]	Subject	Score[a]
1	0.8780	6	0.7458
2	1.6696	8	1.6988
3	0.7546	11	0.7212
4	0.9791	14	2.2879
5	0.7959		
7	1.3298		
9	1.6800		
10	2.6126		
12	1.2262		
13	1.1320		
15	0.8210		
16	0.8469		
17	1.4616		
18	1.4330		
19	1.1629		
20	0.7358		

[a] = Pure, weighted Z score

The data were analyzed by subprogram Oneway of the SPSS program (Nie, Hull, Jenkins, Steinbrenner, & Brent, 1975). The intraclass correlation coefficient (R), the measure of internal consistency, was hand-calculated from the output of the Oneway procedure. This coefficient was

used to determine whether subjects had sorted like items together. The question of reliability in Q studies is focused on the consistency of the sorter rather than the test items.

Table 3 contains the results of the Oneway procedure on the individual sorts. Also, the intraclass correlation coefficient and the assignment of subjects to factor types is presented. The F-ratio was used to determine significance for both the analysis of variance and the intraclass correlation coefficient (Haggard, 1957). The Q-sorts of all 20 subjects were significant at the .01 level of significance.

The interpretation of the magnitude of R was based upon interpretations by Haggard (1957) and Kerlinger (1965). Haggard indicated that the distribution of R was asymmetric, with an upper limit of +1.00 and an unknown lower limit. In addition, Kerlinger suggested that any coefficient greater than .40 be designated high, and any coefficient less than .40 low. Application of this criterion produced 13 subjects with high internal consistency: 11 or 69% of type 1 persons and 2 or 50% of type 2 persons.

Post hoc procedures were performed on subjects' Q-sorts that had significant F-ratios. The procedure used was Duncan's Multiple Range Test. The means and standard deviations for each subject are displayed in Table 4.

These data are summarized by the categories of maternal tasks and person type in Table 5. All of the stressors perceived as negative by type 1 persons are found in category one (Physical Restoration). The data for type 2 persons are mixed; stressors perceived as negative were found in categories one and four. In categories two and three, the majority of the items were selected as positive stressors by all of the

Table 3

F-Ratios for Bipolar Categories and Coefficients of Intraclass Correlation

Person	F	R	Person Type
1	14.7970*	.47	1
2	31.9959*	.67	1
3	9.1588*	.35	1
4	15.8035*	.50	1
5	6.2988*	.26	1
6	5.4602*	.23	2
7	16.4956*	.39	1
8	5.0022*	.02	2
9	20.6729*	.57	1
10	22.3668*	.59	1
11	17.5260*	.52	2
12	18.3615*	.54	1
13	10.0113*	.38	1
14	13.2231*	.45	2
15	11.8675*	.42	1
16	11.3522*	.41	1
17	31.0783*	.67	1
18	39.0694*	.72	1
19	19.0942*	.55	1
20	8.4279*	.33	1

*$p < .01$, df 3,57

Table 4

Means and Standard Deviations for Post hoc Tests by Subjects

	Physical		Infant Need		Infant Rel		Life-style	
Subject	Mean	SD	Mean	SD	Mean	SD	Mean	SD
1	5.88	1.93	2.80	2.31	1.80	1.37	2.14	1.92
2	5.88	2.28	1.67	1.11	1.00	.00	2.50	1.61
3	4.81	2.69	2.53	2.13	1.07	.26	2.93	2.02
4	6.00	2.07	3.20	2.04	1.67	1.40	2.93	1.64
5	5.81	2.04	3.40	1.99	2.87	2.29	3.43	1.95
6	3.19	2.29	1.73	1.67	1.00	.00	1.57	1.28
7	3.69	2.27	1.07	.26	1.00	.00	1.36	.84
8	4.13	2.55	2.60	2.03	1.40	1.06	3.14	1.99
9	5.94	2.77	1.07	.26	1.53	1.46	2.64	2.13
10	6.19	2.95	1.87	1.51	1.27	1.03	1.79	1.48
11	6.69	.79	2.93	2.28	2.27	1.67	4.21	2.29
12	2.63	.89	1.27	.46	1.13	.35	1.57	.64
13	5.00	2.45	1.73	1.39	1.80	1.66	2.79	1.93
14	5.13	1.75	2.80	2.18	1.40	.83	3.93	1.82
15	6.06	2.67	3.00	2.30	1.40	1.30	3.21	2.36
16	5.06	2.69	2.33	2.09	1.07	.26	2.35	1.91
17	5.63	2.71	1.20	.56	1.00	.00	1.64	1.28
18	4.06	1.29	1.07	.26	1.00	.00	1.79	1.25
19	5.56	2.83	1.40	.83	1.13	.35	2.36	1.13
20	3.50	1.79	1.53	1.24	1.20	.77	2.07	1.49

$p < .01$

subjects. The total number of significant findings in each category for all subjects is presented in the last column of Table 5.

Table 5

Categorization of Significant Findings by Maternal Task, Person Type, and Category Totals from Post hoc Tests

	Person Type		
Maternal Tasks	1	2	Total
Physical	16 (100)[a]	4 (100)[a]	20
Infant Need	0 (.00)[a]	0 (.00)[a]	0
Infant Relationship	0 (.00)[a]	0 (.00)[a]	0
Life-style	0 (.00)[a]	2 (.50)[a]	2

[a] = Percent of total in category

Q-sort Items

The Q-sort items were scored according to how the subject perceived the item. If the subject placed an item in score pile 1-3, the item was scored as positive. Conversely, if the item was placed in score pile 7-9, the item was scored as negative. Any item placed in piles 4-6 was scored as a neutral stressor, representative of the ambivalent feelings on the part of the subject. Comments made by subjects concerning ambivalent items usually related to the fact that they had not, as yet, had to face these situations. A classification of item selection by stressor is presented in Table 6.

Table 6

Classification of Items by Group and Stressor Selection by Subjects

Item Description	Stressor Selection by Subjects: Happy Positive	Ambivalent Neutral	Upset Negative
Group 1			
1. Breast Sensations	6 (30%)	12 (60%)	2 (10%)
2. Bladder Control	5 (25%)	8 (40%)	7 (35%)
3. Energy Level	14 (70%)	4 (20%)	2 (10%)
4. Dietary Changes	9 (45%)	9 (45%)	2 (10%)
5. Figure	7 (35%)	5 (25%)	8 (40%)
6. Vaginal Bleeding	1 (05%)	7 (35%)	12 (60%)
7. Sleep	11 (55%)	5 (25%)	4 (20%)
8. Stretch Marks	5 (25%)	9 (45%)	6 (30%)
9. Weight	8 (40%)	4 (20%)	8 (40%)
10. Stitches	2 (10%)	5 (25%)	13 (65%)
11. Bowel Control	1 (05%)	7 (35%)	12 (60%)
12. Abdomen	4 (20%)	4 (20%)	12 (60%)
13. Intravenous Needle	2 (10%)	6 (30%)	12 (60%)
14. Hemmorrhoids		8 (40%)	12 (60%)
15. Catheter		12 (60%)	8 (40%)
Group 2			
16. Holding Baby	20 (100%)		
17. Baby at Night	15 (75%)	5 (25%)	
18. Dressing Baby	18 (90%)	2 (10%)	
19. Baby's Crying	10 (50%)	7 (35%)	3 (15%)
20. Bathing Baby	15 (75%)	4 (20%)	1 (05%)
21. Daily Baby Care	18 (90%)	2 (10%)	
22. Feeding Baby	20 (100%)		
23. Baby's Safety	18 (90%)	2 (10%)	
24. Prior Experience with Baby	13 (65%)	4 (20%)	3 (15%)
25. Mother Helps	16 (80%)	4 (20%)	
26. Changing the Baby	15 (75%)	5 (25%)	
27. Time to do Baby Care	15 (75%)	5 (25%)	
28. Mother-in-Law Helps	14 (70%)	5 (25%)	1 (05%)
29. Baby Care Books	13 (65%)	7 (35%)	

Table 6 (continued)

Item Description	Stressor Selection by Subjects: Happy Positive	Ambivalent Neutral	Upset Negative
Group 3			
30. Baby's Weight	19 (95%)		1 (05%)
31. Feelings About Baby	20 (100%)		
32. Baby's Needs	14 (70%)	6 (30%)	
33. Reaction of Friends to Baby	18 (90%)	2 (10%)	
34. Time for Playing with Baby	18 (90%)	2 (10%)	
35. Reaction of Family to Baby	20 (100%)		
36. Baby's Appearance	20 (100%)		
37. Baby's Skin	18 (90%)	2 (10%)	
38. Baby Comes Frist	19 (95%)	1 (05%)	
39. Baby Cooing	18 (90%)	2 (10%)	
40. Baby's Laughing	19 (95%)	1 (05%)	
41. Baby's Behavior	20 (100%)		
42. Baby's Reaction to You	20 (100%)		
43. Sex of Baby	20 (100%)		
44. Baby Looks Like Family Member	17 (85%)	3 (15%)	
45. Baby's Size	17 (85%)	3 (15%)	
Group 4			
46. Family's Activities	18 (90%)	2 (10%)	
47. Time Alone	13 (65%)	7 (35%)	
48. Sexual Relations	11 (55%)	9 (45%)	
49. Housework	6 (30%)	11 (55%)	3 (15%)
50. Spontaneity of Activities	10 (50%)	9 (45%)	1 (05%)
51. Expectations of Others (Family)	14 (70%)	6 (30%)	
52. Being Alone with Infant	16 (80%)	2 (10%)	2 (10%)
53. Responsibility	15 (75%)	3 (15%)	2 (10%)
54. Baby Sitters	9 (45%)	9 (45%)	2 (10%)
55. Birth Control	10 (50%)	9 (45%)	1 (05%)
56. Family Contact	20 (100%)		
57. Time with Friends	14 (70%)	6 (30%)	
58. Clothing Styles	12 (60%)	6 (30%)	2 (10%)
59. Husband's Relationship with You	17 (85%)	2 (10%)	1 (05%)
60. Money	7 (35%)	6 (30%)	7 (35%)

In addition, the Quanal program produces a complete Q-sort (Factor Array) for each person type in a selected factor solution. The typal Z

or pure, weighted standard score is given for each item. These scores are then arrayed from highest to lowest for each type. The highest and lowest items with the accompanying Typal Z scores give the salient characteristics of each person type. These items and the accompanying Z scores are presented in Table 7. A complete list of typal scores for the person types is presented in Appendix G.

Table 7

Items and Typal Z Scores Characteristic of Person Types

Type	Loading	Item	Description	Score[a]
1	Highest	14	Hemmorrhoids	2.49
		11	Bowel Control	2.21
		6	Vaginal Bleeding	2.20
		10	Stitches	2.05
		13	Intravenous Needle	1.94
	Lowest	16	Holding Baby	-0.96
		31	Feelings About Baby	-0.96
		36	Baby's Appearance	-0.96
		42	Baby's Reaction To You	-0.94
		43	Sex of Baby	-0.94
	Highest	10	Stitches	2.47
		13	Intravenous Needle	2.24
		24	Prior Experience with Baby	2.06
		60	Money	1.90
		52	Being Alone with Infant	1.59
	Lowest	28	Mother-in-Law Helps	-1.05
		21	Daily Baby Care	-0.88
		36	Baby's Appearance	-0.81
		5	Figure	-0.75
		45	Baby's Size	-0.75

[a] Typal Z Scores

One-tailed comparisons of typal scores among the Q-sorts of the two types revealed some significant differences. Type 1 persons rated item 5 Figure significantly higher than type 2 persons, Z 2.48, $p < .05$. Although Item 5 was not in the top five items in the descending array of Z scores for type 1 persons, Z 1.73, $p < .05$, in type 2 persons it was found in the lowest loading at Z -0.74, $p < .05$. Type 2 persons rated items significantly higher than type 1 persons in the following areas: (a) Item 52, Being Alone with Infant, Z -2.46, $p < .05$, and (b) Item 24, Prior Experience with Baby, Z -2.48, $p < .05$. Statistically significant items of consensus for both type 1 and type 2 persons were Item 10, Stitches (Z 2.26, $p < .05$), and Item 13, Intravenous Needle (Z 2.09, $p < .05$). The 10 highest loading items of consensus were in the categories of physical restoration and life-style changes.

Information regarding the mean score and variance of each subject's Q-sort is presented in Table 8. The mean score for all the subjects using the Q-sort instrument was 2.78. The mean scores for person types 1 and 2 were 2.73 and 2.97, respectively.

Table 8

Descriptive Statistics for Individual Q-Sorts

Subject	Mean	Standard Deviation
1	3.20	2.46
2	2.82	2.41
3	2.87	2.40
4	3.50	2.38
5	3.95	2.35
6	1.90	1.73

Table 8 (continued)

Subject	Mean	Standard Deviation
7	1.73	1.67
8	2.83	2.17
9	2.83	2.65
10	2.85	2.74
11	4.07	2.48
12	1.67	0.85
13	2.87	2.28
14	3.08	2.13
15	3.47	2.75
16	2.75	2.42
17	2.43	2.45
18	2.02	1.54
19	2.65	2.53
20	2.10	1.61

Summary of the Findings

Q-type factor analysis was used to determine shared patterns of common stressors among primiparas. Data from a 60-item Q-sort for 20 subjects were factor analyzed through the use of Quanal (Van Tubergen, 1980). The obtained factor solution identified two person types. Type 1 persons were largely concerned with items of physical restoration whereas type 2 persons' primary concerns were physical restoration needs and life-style changes.

One-way analysis of variance was performed on the Q-sorts of each subject. The independent variable was maternal tasks with four levels of categories. The scores in these categories were the bipolar common stressor items. The Q-sorts of all 20 of the subjects were significant at greater than the .01 level. The intraclass correlation coefficient was employed as a measure of internal consistency of the Q-sort data for subjects. The Q-sorts of 11 (69%) of Type 1 persons and 2 (50%) of Type 2 persons had high internal consistency. Overall, all 20 of the subjects demonstrated internal consistency as determined by significant F-ratios.

Post hoc procedures on subjects' Q-sorts showed different patterns of response among categories for the person types. Both Type 1 and type 2 persons reported common stressors in the physical restoration category. Type 2 persons, however, also reported common stressors in the life-style changes category.

Factor Arrays or Q-sorts for each person type were generated by the Quanal program. The highest and lowest ranked items in these arrays depicted the salient characteristics of the person types. The application of one-tailed tests revealed some significant differences among the person types. Type 1 persons rated item 5, Figure, significantly higher than Type 2 persons (Z 2.48, $p < .05$). Although Item 5 was not in the top five items in the descending array of Z scores for Type 1 persons (Z 1.73, $p < .05$), in Type 2 persons it was found in the lowest loading (Z -0.75, $p < .05$). Type 2 persons rated items significantly higher than Type 1 persons in the following areas: (a) item 52, Being Alone With Infant (Z -2.46, $p < .05$), and (b) item 24, Prior Experience with Baby (Z -2.48, $p < .05$). The highest loading items of consensus were in the categories of physical restoration and life-style changes.

CHAPTER V

Summary, Conclusions, Discussion and Recommendations

Summary of the Study

The purpose of this study was to describe the perceived stressors of primiparas in the immediate postpartal period. The objective was accomplished through the development and administration of a Q-sort instrument. The conceptual framework for the study was derived from Gruis' maternal tasks (1977), Neuman's Systems Model (1982), and Q methodology (Stephenson, 1953). The Q-sort instrument was developed to address the problem: What common stressors are reported by the primipara during the immediate postpartal period?

Several steps were taken in order to construct the Q-sort instrument. The stress processes identified by Neuman (1982) were examined in relationship to the maternal tasks identified by Gruis (1977) and applied to the immediate postpartal environment of the primipara. Next, an analysis of the literature on transition into parenthood was reviewed in relationship to stress and stressors and Neuman's System Model (1982). Also considered was the nursing literature about maternal concerns and the common stressors were identified. A panel of experts, consisting of four persons familiar with maternal child nursing, reviewed these sample items. Compilation of items into a Q-sort instrument was accomplished. The study was piloted and the instrument was further refined. The final tool consisted of 60 items of a neutral nature, 15

from each of the four maternal tasks. Test-retest method on a related sample of 10 subjects was accomplished to establish reliability. Spearman rho on the test-retest data indicated reliability of the instrument at $r = .72$, $p < .001$.

The final Q-sort instrument was administered to 20 subjects. The data were collected on normal primiparas who had vaginally delivered a normal infant. The data were subjected to Q-type factor analysis. Additionally, the data from each subject's Q-sort were analyzed by single-factor analysis of variance. These analyses served the dual purposes of determining congruence between the sort and the factor solution, and calculating a measure of internal consistency for the subjects. A typical Q-sort (Factor Array) was developed for each person type identified by the factor solution.

Findings

The findings of the study were as follows:

1. The distribution of the pattern of common stressors in normal primiparas in the immediate postpartal period (first postpartal day) was determined by subjecting the data from the subjects' sorts to Q-type factor analyses. The analysis identified 2 person types or factors. A total variance proportion of 57% was explained by the factor solution. The two factor solution produced Type 1 persons ($n = 16$) and Type 2 persons ($n = 4$).

2. The extent of congruence between the factor solution and the analysis of variance procedures was assessed through the use of post hoc procedures. The F value was significant at greater than the .01 level for all 20 subjects. The post hoc tests revealed different patterns of responses for the categories of common stressors among person types. The most common stressors for the Type 1 persons were noted to be in

the physical restoration category whereas the most common stressors for type 2 persons were mixed between the physical restoration and life-style change category. In the post hoc analysis, nine of the type 1 persons (n = 16) reported significant findings and three of the type 2 persons (n = 4) were significant at the $p < .05$ level. All 12 (100%) of the type 1 and type 2 persons reported physical restoration stressors, whereas two out of four (50%) of the type 2 persons chose life-style change stressors.

3. In descending order, overall numbers of items perceived as negative stressors reported by type 1 persons were: Hemorrhoids, 10 (63%); Vaginal Bleeding, 19 (63%); Bowel Control, 9 (56%); Stitches, 9 (56%); and Intravenous Needles, 9 (56%). The most frequent stressors reported by type 2 persons were: Stitches, 4 (100%); Intravenous Needle, 3 (75%); Money, 3 (75%); and Being Alone with Infant, 2 (50%).

4. Overall, 46 consensus items were noted by type 1 and type 2 persons. All 20 of the subjects chose the following items perceived as positive stressors (noted by category): (a) Group 2, Infant Needs - Holding the Baby, Bathing the Baby, Feeding the Baby; (b) Group 3, Infant Relationship-Reaction of Family Members to Baby, Baby's Appearance, Baby's Behavior, Baby's Reactions to You, Sex of Baby; and (c) Group 4, Life-style Changes-Family Contact.

5. Items which commonly were selected by the subjects as causing ambivalent feelings (noted by category) were: (a) Group 1, Physical Restoration-Catheter (12, 60%), Breast Sensations (10, 55%); and (b) Group 4, Life-style Changes-Housework (11, 55%), Birth Control (11, 55%).

6. The coefficient of intraclass correlation was used to assess the internal consistency or reliability of the subjects' Q-sorts. Overall, all 20 subjects had Q-sorts that demonstrated a significant degree

of internal consistency. High internal consistency was demonstrated by 11 of the 16 Type 1 persons (69%) and by 2 of the 4 Type 2 persons (50%).

7. A complete Q-sort or Factor Array for each person type was generated from the factor solution. Rankings from the 60 items were indicated by typal Z scores. Significant differences from item preference were observed among the person types. All tests of significance are one-tailed. Type 1 persons ranked the item Figure significantly higher than Type 2 persons, $Z = 2.48$, $p < .05$. Type 2 persons ranked the items Being Alone with Infant ($Z = 2.46$, $p < .05$) and Prior Experience with Baby ($Z = 2.48$, $p < .05$) significantly higher than Type 1 persons.

Conclusions

Based on the findings of the study, the following conclusions can be drawn subject to the limitation of the study:

1. The person types identified by factor analysis of the subjects' Q-sort data revealed that there are common stressors in the normal primipara in the immediate postpartal period. Most of the stressors common to the normal primipara are perceived as positive in nature. The comparison of the factor solution and the analysis of variance identified 46 out of 60 consensus items (76%). The consensus items were primarily positive stressors located in Group 2, Infant Needs, and Group 3, Infant Relations.

2. Person types were determined by their perception of stressors as negative in nature. Both Type 1 and Type 2 persons perceived negative stressors in Group 1 although Type 2 persons did perceive some stressors as negative in Group 4, Life-style Changes. It was concluded that the stressors perceived as negative in the first postpartal day

were most commonly noted in Group 1, Physical Restoration. Group 4, Life-style Changes, contained items which were perceived differently by the different person types.

3. The highest loading factors for type 1 persons were the following items: Hemorrhoids, Bowel Control, Vaginal Bleeding, Stitches, and Intravenous Needle. The highest loading factors for type 2 persons were the following items: Stitches, Intravenous Needles, Prior Experience with Baby, Money, and Being Alone with Infant. It was concluded that type 1 persons were likely to describe themselves as having only negative physical stressors, whereas type 2 persons also related concerns about being able to meet infant needs and being able to accommodate the baby as a new family member.

4. Thirteen of the 20 subjects had Q-sorts that demonstrated a high degree of internal consistency or reliability. Eleven of these were type 1 persons (n = 16) and two of these were type 2 persons (n = 4). There was no way to determine common traits among the persons who did not display high internal consistency. Type 1 persons had a greater percentage (75) of subjects with higher internal consistency. It was concluded that the majority of subjects sorted like items together. Further, it was concluded that person type 2 had a greater percentage of subjects with high reliability.

5. Significant differences for some items were found among the person types. Type 1 persons rated the item Figure significantly higher than did the type 2 persons, whereas type 2 persons rated items Being Along with Infant and Prior Experience with Infant significantly higher than type 1 persons. It was concluded that type 1 persons were more likely to be characterized as distressed by their physical

shortcomings on the first postpartal day. Type 2 persons, while they are concerned about physical restoration, are also fearful about being able to assume their new mothering role.

Discussion

Transition to Parenthood

For the past two decades, postpartal care has been based upon published nursing literature concerning transition to parenthood done by Rubin (1961, 1963, 1967a, 1967b, 1967c). Although the results of Rubin's studies were logical, they lacked consistency in systematic documentation of methodology. Postpartal care, according to Rubin (1961), should be based upon a taking-in phase, a taking-hold phase, and a letting-go phase. This study seems to contradict part of Rubin's contention in that some of the subjects (type 2 persons) already perceived themselves as negatively stressed by assuming infant care and undergoing life-style changes on the first postpartal day. Studies tending to support Rubin's concept of adaptation to maternal roles were done by Curry (1983), Gruis (1977), and Mercer (1981). These studies had no correlation with Neuman's Systems Model (1982) but were based upon role theory rather than the effects of transition or the stress inherent thereof. In this structure, stressors are related to the assumption of the maternal role as identified by Gruis (1977). The studies by Curry (1983), Gruis (1977), and Mercer (1981) provide support for formulating the approach used in this study.

Curry (1983), in a descriptive study of 20 normal primiparas, found that 25% of them have difficulty adapting to the maternal role. The women in Curry's study reported little previous experience with infants and little support from their husbands. Literature by Gruis (1977) logically separated the difficulties encountered by the new mother into

four maternal tasks. Published accounts by Mercer (1981) also were based upon the relationship of the maternal role to certain maternal tasks.

Several considerations remained. The published accounts relative to postpartal care only considered stress as inherent in role change. There was no published literature which discussed the stressors per se. In addition, there was no standardized tool which sought to determine the postpartal patient's perception of stress. These considerations precluded a definitive approach to the investigation of stress without development of an adequate research design and tool.

Stress-Stressors

In the study, the normal primiparas were asked to describe their perception of situation in relation to stressors. Neuman (1982) considers stress to be both positive and negative in nature. According to Jacoby (1969), perception of stressor changes must be perceived as positive, neutral, or negative. Therefore, the items were couched in neutral terms so that the subjects were required to determine the placement of the items as positive, neutral, or negative. Support exists for the definition of stressor as those life events or occurrences which are of sufficient magnitude to bring about change and which produce a residue of tensions which are unmanaged (Burr, 1973; Hill, 1965). McCubbin et al. (1980) supports the concept that perceptions of being happy or unhappy can be ranked to arrive at an accurate score.

In the current study, all of the subjects reported perceptions of both positive and negative stressors. Also, evidence suggested that the most common negatively perceived stressors during the study time frame were related to physical restoration. Support for this finding was suggested by both Gruis (1977) and Mercer (1981). Also, evidence suggested

that 12 of the 20 primiparas sorted like items together. Further, not all normal primiparas reported themselves as perceiving similar stressors. The factor solution identified two patterns. Both Type 1 persons and Type 2 persons reported most of the negatively perceived stressors to relate to physical restoration, whereas Type 2 persons also seemed to perceive negative stress relative to assuming the role of the new mother. Positive stressors were more frequently related by both person types than negatively perceived stressors.

The findings of this study supported Gruis' findings. The study by Gruis (1977), including both primiparas and multiparas 1 month after delivery, reported some of the same concerns of the subjects (n = 23). The item Figure was a great concern to Gruis' subjects; however, other items relating to fatigue and emotional tension, infant behaviors, and household demands also caused her subjects great concern. The time frame difference between the two studies may account for the differences, since most primiparas have not experienced the new infant responsibilities and household demands on the first postpartal day.

Common factors or stressors were identified by this study. The normal primipara, on the first postpartal day, considered herself to be positively stressed. The data on positively perceived stressors, correlated with groups, suggested the following order of item choices by the normal primipara are: (a) Group 1, Physical Restoration: Energy Level 14 (70%), Sleep 11 (55%); (b) Group 2, Infant Need: Holding Baby 20 (100%), Feeding Baby 20 (100%), Dressing Baby 18 (90%), Daily Baby Care 18 (90%); (c) Group 3, Infant Relations: Feelings About Baby 20 (100%), Reaction of Family to Baby 20 (100%), Baby's Appearance 20 (100%), Baby's Behavior 20 (100%), Baby's Reaction to You 20 (100%),

Sex of Baby 20 (100%); and (d) Group 4, Life-style Changes: Family Contact 20 (100%), Family Activities 18 (90%), Husband's Relationship with You 17 (85%).

Conversely, negatively perceived stressors were less commonly chosen by the normal primiparas. The stressors identified as negative suggest the following order of choices by the normal primiparas: (a) Group 1, Physical Restoration: Stitches 13 (65%), Intravenous Needle 12 (60%), Hemorrhoids 12 (60%), Abdomen 12 (60%), Bowel Control 12 (60%), and Vaginal Bleeding 12 (60%); (b) Group 2, Infant Needs: no items chosen by more than three persons (15%); (c) Group 3, Infant Relations: no item chosen by more than three persons (15%); (d) Group 4, Life-style Changes: Money 7 (35%). As noted above, most of the items considered to be stressors by all normal primiparas in the immediate postpartal period are found in Group 1, Physical Restoration. However, 75% of the type 2 persons chose the item Being Alone with Infant as stressful, and 50% of type 2 persons chose Prior Experience with Baby and Money as being stressors

Maternal Stressor Concept

This study is based upon the belief that stressors are perceived as a result of the primipara's effort to fulfill society's expectations upon childbirth. As previously noted, the conceptual framework was developed by combining the stressor concept advocated by Neuman (1982) and the maternal tasks concept presented by Gruis (1977). The four groups or levels of the independent variable are composed of the four maternal tasks. The following tasks, physical restoration, learning infant needs, relating to the newborn, and accommodating a new member into the family, have some basis in role theory supported by Rossi (1968). Further support viewing childbirth as a stressful life event

was found in early studies of transition into parenthood (Dyer, 1963; Hobbs, 1965, 1968, 1976; Jacoby, 1969; LeMasters, 1965; Russell, 1974).

Implications

Because of the limited generalizability of the findings of this study, only tentative implications are presented. Nurses whose practice involves the immediate postpartal period should recognize perceptions of stressors as both positive and negative. The majority of positively perceived stressors are found in the areas of meeting infant needs (Group 2) and developing infant relationships (Group 3). Group 4, alteration of life-style to accommodate new family member, consisted of items perceived as both positive and negative stressors. Physical restoration, Group 1, had few positively perceived stressors.

Although positively perceived stressors are more frequent, negatively perceived stressors may require more nursing intervention than is presently recognized by postpartal nurses. On the first postpartal day, the majority of stressors identified as negative are related to physical restoration. However, even on the first postpartal day, some persons are stressed by their lack of prior experiences with a newborn. These patients need more nursing support in accomplishing their maternal tasks.

Other studies have been supported by stress or maternal role theories but none have focused on the particular stressors inherent in the immediate postpartal period. The emphasis of this study was to identify the common stressors in this period of time.

These findings suggest several directions for future research. The use of Q methodology to provide in-depth sampling of stressors within the normal primipara at various postpartal time frames could provide insight into a possible transitional process. Also, more studies that

focus on stressors common to the childbirth process for multiparas or the cesarean section patient might gain information about the dimensions of stressors under normal as well as abnormal situations. Further, the effects of variables such as marital status, age, and socioeconomic status on the perception of stressors need exploration since this issue has not been resolved by present research. In addition, information about stressors and postpartal learning needs should be developed in order to provide direction for nursing practice and curricula in schools of nursing.

Recommendations

Recommendations derived from the findings, discussion, and conclusions are as follows:

1. The use of Q methodology in determining postpartal stressors should be extended.

2. This Q-sort instrument should be used with other postpartal populations and during other time frames.

3. Physical postpartal care should be based upon the presence of particular stressors.

4. Postpartal teaching and emotional support should be based upon the presence of particular stressors.

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Appendix A

The Neuman Model: A Total Person Approach

Appendix B

Format for Prevention/Intervention Mode

Appendix B

Format for Prevention/Intervention Mode

Appendix C

The Relationship of Common Stressors to Maternal Tasks

MATERNAL TASK NUMBER I: PHYSICAL RESTORATION STRESSORS

1. breast sensations
2. bladder control
3. energy level
4. dietary changes
5. figure
6. vaginal bleeding
7. sleep
8. stretch marks
9. weight
10. stitches
11. bowel control
12. abdomen
13. intravenous needle
14. hemorrhoids
15. catheter

MATERNAL TASK NUMBER II: LEARNING TO CARE FOR AND MEET THE NEEDS OF THE INFANT STRESSORS

1. holding baby
2. baby at night
3. dressing baby
4. baby's crying
5. bathing baby
6. daily baby care
7. feeding baby
8. baby's safety
9. prior experience with a newborn
10. mother helps
11. changing the baby
12. time to do baby care
13. mother-in-law helps
14. baby care books
15. baby's weight

MATERNAL TASK NUMBER III: ESTABLISH A RELATIONSHIP WITH THE INFANT STRESSORS

1. feelings about the baby
2. baby's needs
3. reaction of friends to baby
4. time for playing with baby
5. reaction of family members to baby
6. baby's appearance
7. baby's skin
8. baby comes first
9. baby cooing
10. baby laughing
11. baby's behavior
12. baby's reactions to you
13. sex of baby
14. baby looks like family member
15. baby's size

MATERNAL TASK NUMBER IV: ALTERATION OF LIFE-STYLE AND REACTIONS TO ACCOMMODATE NEW FAMILY MEMBER STRESSORS

1. family activities
2. time alone
3. sexual relations
4. housework
5. spontaneity of activities
6. expectations of others (related to infant)
7. being alone with infant
8. responsibility
9. baby sitters
10. birth control
11. family contact
12. time with friends
13. clothing styles
14. husband's relationship with you
15. money

Appendix D

Letter of Permission to Conduct Research Study

Dear Assistant Vice President, Nursing Services:

I would like your written permission to conduct a research study at the Regional Medical Center. The study will be submitted in partial fulfillment of the requirements for the degree of Doctorate of Science in Nursing in the School of Nursing in the Graduate School at the Univeristy of Alabama at Birmingham.

The purpose of the study is to determine the perception of stressors by the normal primipara during the immediate postpartal period. Following your approval of this study, I will contact the Chief of Staff of Obstetrics and Gynecology to explain the study and to obtain physician support. Permission has already been received from the Institutional Review Board for Human Use at the University of Alabama at Birmingham.

I have enclosed an abbreviated explanation of the study and time frame as you requested. Interviews will be conducted at the convenience of the client during the first 48 hours after delivery. The session will last approximately 20 minutes.

I would appreciate written notification of your decision by April 15, 1985. I would like to begin the collection of data by May 15, 1985. If you have any further questions regarding the study, I can be reached by calling 435-7807.

Sincerely,

Enclosure

Appendix E

Consent Form

Consent Form

As a doctoral student at The University of Alabama School of Nursing, The University of Alabama at Birmingham (UAB), I am interested in learning about the transition of women from non-parent to parent. I am requesting your participation in a study to determine how you feel about the new experiences you have encountered since childbirth.

Points for you to consider are:

*The UAB Institutional Review Board has approved this study and found that there are no risks to the patient.

*Northeast Alabama Regional Medical Center has approved this study.

*The activity will consist of sorting a group of cards based on how you feel about the postpartal period (after delivery). There are no right or wrong answers.

*Your name will not be used. You will be identified by number only.

*You may withdraw from the study at any time during data collection.

*If you choose not to participate, it will in NO WAY affect your nursing care. You will still receive the nursing care requested by your physician.

Sincerely,

Bonnie Thornhill, RN, MSN
Graduate Student
School of Nursing
University of Alabama

- -

I _____, have read the above information and have discussed my participation in this study with the researcher. I understand that there are no risks, my name will not be used, and I may withdraw from the study at any time during data collection. I will receive the nursing care requested by my physician regardless of whether I participate in the study. I voluntarily consent to participation in this study.

_____ _____
Patient Name Date

_____ _____
Witness Date

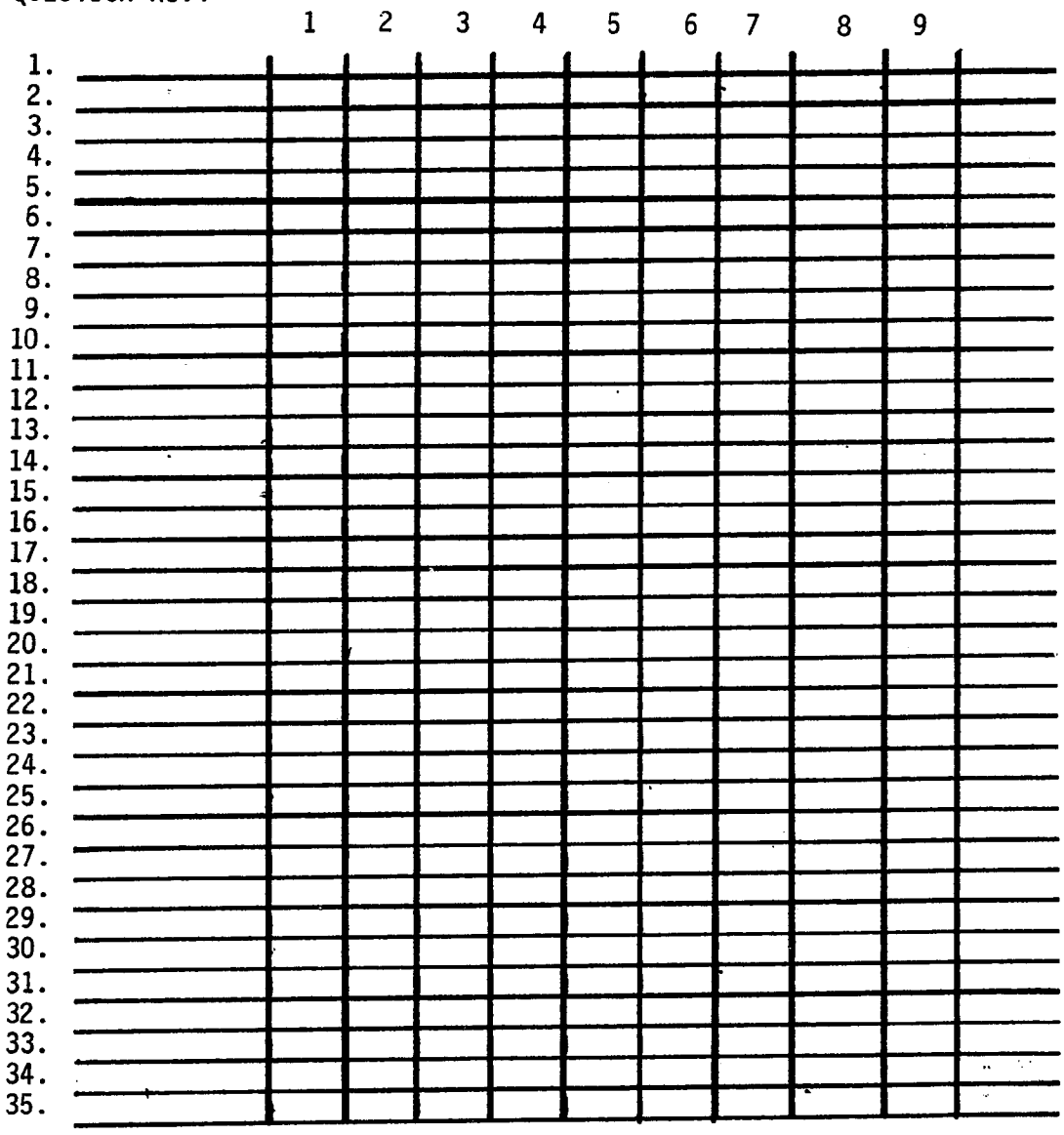
Appendix F

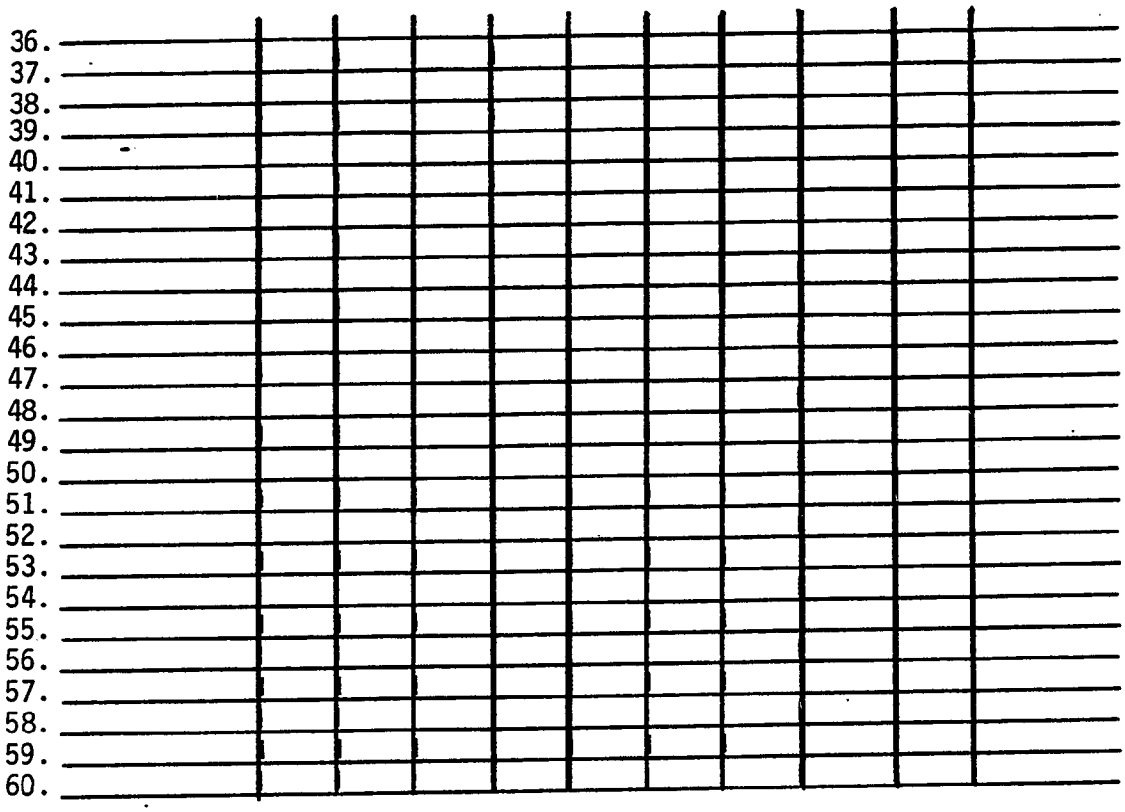
Subject Data and Identification Sheets

SUBJECT DATA SHEET:

Code Number:

QUESTION NO.:

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60.

SUBJECT IDENTIFICATION SHEET:

NAME:	CODE NUMBER:
1. _____	1. _____
2. _____	2. _____
3. _____	3. _____
4. _____	4. _____
5. _____	5. _____
6. _____	6. _____
7. _____	7. _____
8. _____	8. _____
9. _____	9. _____
10. _____	10. _____
11. _____	11. _____
12. _____	12. _____
13. _____	13. _____
14. _____	14. _____
15. _____	15. _____
16. _____	16. _____
17. _____	17. _____
18. _____	18. _____
19. _____	19. _____
20. _____	20. _____

Appendix G

Item Descriptions for Q-sort Instrument

		Typal Z's	
		1	2
	N's for each type are	16	4
1.	Breast Sensations	0.8	1.0
2.	Bladder Control	1.4	-0.1
3.	Energy Level	-0.0	-0.0
4.	Dietary Changes	0.4	0.1
5.	Figure	1.7	-0.7
6.	Vaginal Bleeding	2.2	0.9
7.	Sleep	0.5	-0.7
8.	Stretch Marks	1.2	1.3
9.	Weight	1.6	0.0
10.	Stitches	2.0	2.5
11.	Bowel Control	2.2	1.0
12.	Abdomen	1.8	1.2
13.	Intravenous Needle	1.9	2.2
14.	Hemorrhoids	2.5	0.8
15.	Catheter	1.8	1.3
16.	Holding Baby	-0.0	-1.1
17.	Baby at Night	-0.3	-0.5
18.	Dressing Baby	-0.8	-0.4
19.	Baby's Crying	0.0	1.5
20.	Bathing Baby	-0.6	0.4
21.	Daily Baby Care	-0.6	-0.9
22.	Feeding Baby	-0.9	-1.1
23.	Baby's Safety	-0.6	-1.0
24.	Prior Experience with Baby	-0.4	2.1
25.	Mother Helps	-0.6	-0.3
26.	Changing the Baby	-0.5	-0.1
27.	Time to do Baby Care	-0.2	0.4
28.	Mother-In-Law Helps	0.1	-1.0
29.	Baby Care Books	-0.5	0.1
30.	Baby's Weight	-0.8	-1.0
31.	Feelings About Baby	-1.0	-1.1
32.	Baby's Needs	-0.1	-0.6
33.	Reaction of Friends to Baby	-0.7	-1.1
34.	Time for Playing with Baby	-0.8	-1.0
35.	Reaction of Family to Baby	-0.8	-1.1

36.	Baby's Appearance	-1.0	-0.8
37.	Baby's Skin	-0.8	-0.6
38.	Baby Comes First	-0.8	-0.0
39.	Baby Cooing	-0.8	-0.6
40.	Baby Laughing	-0.9	-0.6
41.	Baby's Behavior	-0.9	-1.0
42.	Baby's Reaction to You	-0.9	-1.1
43.	Sex of Baby	-0.9	-1.0
44.	Baby Looks Like Family Member	-0.5	-0.3
45.	Baby's Size	-0.7	-0.7
46.	Family's Activities	-0.8	-0.5
47.	Time Alone	-0.4	0.9
48.	Sexual Relations	0.0	0.6
49.	Housework	0.5	0.9
50.	Spontaneity of Activities	-0.1	1.2
51.	Expectations of Others (Family)	-0.3	-00
52.	Being Alone With Infant	-0.9	1.6
53.	Responsibility	-0.6	0.5
54.	Baby Sitters	0.4	0.3
55.	Birth Control	0.5	0.8
56.	Family Contact	-0.9	-1.1
57.	Time With Friends	-0.2	-0.4
58.	Clothing Styles	-0.1	-0.3
59.	Husband's Relationship With You	-0.7	-1.0
60.	Money	0.9	1.9

GRADUATE SCHOOL
UNIVERSITY OF ALABAMA AT BIRMINGHAM
DISSERTATION APPROVAL FORM

Name of Candidate Bonnie Elizabeth Thornhill

Major Subject Maternal Child Health Nursing

Title of Dissertation A Q Analysis of Stressors in the Primpara During the Immediate Postpartal Period

Dissertation Committee:

_______________, Chairman

Director of Graduate Program _______________

Dean, UAB Graduate School _______________

Date 9/13/85

PS-1428