STRESSORS, COPING STRATEGIES AND MARITAL ADJUSTMENT OF PARENTS OF FULLTERM AND PRETERM INFANTS IN THE ADJUSTMENT TO PARENTHOOD: A COMPARATIVE STUDY

by

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(ABSTRACT)

The need to compare parenthood adjustment experiences for mothers and fathers of fullterm and preterm infants was identified. Stressors, coping strategies, and marital adjustment were variables examined. It was hypothesized that parents of preterm infants, despite gender category, would indicate experiencing greater stress and would use more emotion-focused coping strategies than parents of fullterm infants. Parents of fullterm infants were hypothesized to use more problem-focused coping strategies than parents of preterm infants. Reports of marital adjustment were expected to be different between the parent groups by infant term category, and marital satisfaction was hypothesized to remain unchanged from the time prior to conception to 0 - 3 months postpartum. A description of the investigation that includes discussion of methodological issues and suggestions for intervention is presented.

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This dissertation is dedicated in loving memory of my grandparents:

, , *and* .

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CHAPTER I

INTRODUCTION

Becoming a parent has been described as one of life's sharpest expected changes (Miller & Sollie, 1980). New tasks are acquired which redefine roles and rules of the family structure. Although researchers have debated the extent to which the family and its individual members are affected by this change, most have come to view the adjustment to parenthood as a normative life event involving difficulties as well as satisfactions (Harriman, 1983; Miller & Sollie, 1980; Russell, 1974).

For some parents, adjustment may be complicated by the premature birth of their infant. Not only have they lost time towards preparing for their new roles, but these parents may also face coping with their infant being at risk for survival due to low birthweight and medical complications.

Advances in medical technology in the past 15 years have significantly increased the survival rate of even the very low birthweight infant (below 3.5 lbs.). Yet this intervention process has created a new set of problems (Desmond, Voderman & Salina, 1980; Minde, 1984). Parents experience immediate separation from their infant in order for life saving procedures to be performed. This may involve transporting the infant to a medical facility specializing in neonatal intensive care that can be several hundred miles away from the parental home. This

distance, in addition to parent work schedules and the possible need for care of other children in the home can make visitation quite difficult. For the mother who remains hospitalized, visitation is impossible. The father is left to act as an intermediary between the family members. The caretaking role normally assumed by the parents must be surrendered to the medical staff attending to the infant's critical status for life. If survival is established, the couple must again prepare for parenthood, followed by what may have been a long and costly hospitalization.

The increased survival rate of preterm infants has led researchers to investigate the effects of prematurity on infants' later behavior. Early studies focused on cognitive, neurological and intellectual development. Later, attention shifted towards emotional consequences for infants and their parents, as several studies identified low birthweight as a factor associated with child abuse and neglect (Hunter, Kilstrom, Kraybill, & Loda, 1978; Klein & Stern, 1971). Other factors examined include parent reactions and concerns, sociodemographic variables, and parent-infant interactions. However, much of this work has been restricted to data collected about the mother. Only recently have fathers been included in a small number of these studies (Benefield, Lieb, Reuter, 1976; Jeffcoate, Humphrey & Lloyd, 1979).

In reviewing the parenthood literature, it was interesting to note that several variables examined regarding adjustment for parents of fullterm infants have not

been addressed for parents of preterm infants. One such variable is marital satisfaction. Studies of parents with fullterm infants have revealed that both husbands and wives are concerned about changes occurring postnatally in their marital relationship. Earlier work documented change in marital satisfaction over time, particularly for mothers. This change was reported to be related to the level of "crisis" the parents perceive with their new role (Harriman, 1983; Miller & Sollie, 1980; Russell, 1974). Although the preterm infant literature has discussed marital satisfaction as being important to specific outcomes measured, few studies, to date, have systematically assessed this variable. It would seem that given the "chaos" following delivery and the anxiety associated with the threat to their infant's survival, parents of preterm infants might be particularly susceptible to strains on their marital relationship. In addition, adjustment within the marriage could be an important resource for coping with parenting a preterm infant.

Another area given recent attention for parents of fullterm infants has been the identification of coping strategies (Ventura, 1982). Although the preterm infant literature discusses parent reactions and concerns, what these parents do to cope has not been examined.

There is also a lack of research that includes parents of both fullterm and preterm infants in its design. For example, although stressors have been identified

for each of these parent groups, examining how the stressors differ between the groups has received little attention.

The purpose of the present study, therefore, was to begin to address these research issues. Both mothers and fathers of fullterm and preterm infants were surveyed, looking specifically at the following questions:

1. Is there a difference in marital satisfaction for mothers and fathers of fullterm and preterm infants prior to conception versus postpartum?
2. Is there a difference in marital adjustment for mothers and fathers of preterm infants versus mothers and fathers of fullterm infants?
3. What are the stressors experienced by mothers and fathers of preterm and fullterm infants in their adjustment to parenthood and how do these parent groups compare?
4. What coping strategies are used by mothers and fathers of preterm and fullterm infants in their adjustment to parenthood and how do these parent groups compare?

CHAPTER II

REVIEW OF THE LITERATURE

In this chapter, the relevant literature pertaining to adjustment to parenthood is reviewed. First, the concepts of preterm and fullterm infants are defined. Secondly, the adjustment to parenthood for parents of fullterm infants is presented, focusing on stressors and methods of coping that have been identified.

In the third section, the adjustment to parenthood for parents of preterm infants is discussed. Attention is be given to the survival intervention procedures for the infant. Parental reactions and concerns are presented, as well as specific variables suggested as contributing to the adjustment of parenting preterm infants. Parent-infant interactions are highlighted.

In the fourth section, the focus shifts towards marital adjustment and the four domains presented by Spanier (1976). Finally, the fifth section covers the Folkman and Lazarus (1980) theory on coping as it will be applied in this study.

Definition of Terms

The terms "preterm" and "fullterm" were used throughout the literature to indicate the degree to which an infant was at risk for survival following birth. Typically, the three criteria used to evaluate the infants included the length of gestation, birthweight and medical complications. It should be noted, however, that few studies focused solely on infants born prior to the normal length of gestation,

thus the terms "high risk" and "low birthweight" infants were often used. Medical complications were not usually detailed, but were rather referred to by the length of the infant's hospitalization (Benefield, Lieb, & Reuter, 1975; Siefert, 1980; Trause & Kramer, 1984), Apgar scores (Benefield, Lieb, & Reuter, 1975) and/or the requirement of ventilation due to respiratory distress (Ross, 1984; Siefert, 1980). One of the few studies reviewed that did detail medical complications made the distinction between three groups of infants being of low, moderate and high risk (White & Dawson, 1981).

Pooling the sample descriptions in the literature, fullterm infants were generally defined as having a gestation of 38 to 42 weeks, a birthweight of at least 5 pounds and were free from medical complications (Jeffcoate, Humphrey & Lloyd, 1979; Trause & Kramer, 1984; White & Dawson, 1981). Preterm infants were identified as having a gestation of 37 weeks or less, a birthweight of 5 pounds or less and having a variety of medical complications (Benefield, Lieb & Reuter, 1975; Brown, 1980; Ross, 1984; Siefert, 1980).

Transition to Parenthood: Fullterm Infants

The transition to parenthood does not always involve the presence of two parents. However, as most of the literature has dealt specifically with the two parent family, this review will be presented in a similar manner.

Most every review of this literature has discussed the discrepancy between earlier and later studies regarding the impact of the event. Based on Hill's theory (1949) suggesting that the addition of a family member would constitute a crisis, early studies were conducted in which white, middle class parents reported experiencing "severe to extreme crisis" with the birth of their infant (LeMasters, 1957; Dyer, 1963). Theorists then argued that the transition could be considered a normal life event (Rappaport, 1963) and the term "crisis" was therefore a misnomer (Rossi, 1968). Later studies gave support to these arguments, finding that much less crisis was indeed experienced among parents of the same population (Hobbs, 1965, 1968; Jacoby, 1969). In fact, researchers have more recently reported that although the behavioral changes are extensive, parents experience only slight to moderate stress as well as gratifications with the birth of their first child(Miller & Myers-Walls, 1983; Russell, 1974; White & Dawson, 1980).

Reasons for the discrepancy have been discussed. Earlier studies used small, unrepresentative samples and, specific to LeMasters' study, there was experimenter contamination. More so, however, it seems that the early researchers tended to focus on examining the behavioral changes rather than the reactions to these

changes and associated coping behaviors as more recent researchers have done (Miller & Myers-Walls, 1983; Ventura, 1982).

Other criticisms of the transition to parenthood literature have included the retrospective nature of these studies, failing to chart both pre- and postnatal feeling over time, and the issue of social desirability. Due to the high social value placed upon parenting, it may be difficult for parents to express negative feelings they may have. Although the literature remains inconclusive, several studies have provided information with regard to understanding the stress and coping processes of some new parents.

Stress

One of the earlier studies of stress (specified as crisis) also looked at gratifications for new parents (Russell, 1974). Using the Hobbs Checklist (1968), the Locke-Wallace Marital Adjustment Scale (Wallace & Locke, 1959) and a Gratification Checklist (Russell, 1974), data were collected from a large Midwestern sample. Separate data analyses were performed for husbands and wives, in addition to comparative analyses for the two spouse groups. Results indicated a significantly greater report of crisis for wives than for husbands. Differences were also found between the spouses with regard to problem items most frequently checked. Russell reported that wives indicated stress centered on the emotional or physical self, with husbands including items that were external to emotions or the physical self. Some

specific items for wives were: 1) worry about my personal appearance, 2) physical fitness and fatigue, 3) baby interrupting sleep and rest, 4) worry over loss of figure, and 5) additional amount of work required by baby. For husbands, items included: 1) baby interrupting sleep or rest, 2) suggestions from in-laws, 3) baby increased money problems, 4) birth of the baby made it necessary to change some plans, and 5) additional amount of work required by baby (Russell, 1974).

In looking at the variables associated with crisis, marital adjustment was one of the most significant for both husbands and wives. The greater the adjustment, the less crisis was reported. The child being planned was negatively related to crisis for both spouses, particularly for wives who reported working prior to the infant's birth. Conception of the infant before marriage was positively correlated with stress for both spouses. Wanting more children was negatively associated with crisis for husbands but unrelated for wives. The number of months married was not associated with crisis for husbands and had a weak association for wives. Age was negatively related to crisis for husbands but unrelated for wives. Role perception was not significant in predicting the degree of crisis for wives, but was significant for husbands. The lower the role of father the husband perceived, the greater the crisis. This relationship was even stronger among men with low scores for marital adjustment.

Finally, with regard to the baby's temperament, a significant relationship was found for husbands that reported more "active" babies. The relationship was not significant for wives, but was in the same positive direction. Both husbands and wives who reported having "quiet" babies were less likely to experience crisis. Variables that were not related to crisis were reported as the parents' education, previous employment, preparation for parenthood, income, husband's health, baby's sex and bedtime.

Gratifications included items that Russell indicated were "personal" rather than benefitting the spousal or outside relationships. A majority of the parents reported their marriage had either improved or stayed the same. "Only 7.5% of the wives and 5.5% of the husbands felt their marriage had deteriorated since the baby's birth" (Russell, 1974, p. 229). Variables associated with gratifications were specified. Education had an inverse relationship for both husbands and wives. Occupational prestige was negatively correlated for husbands, but not significant for wives. The length of the marriage interacted with the wife's age. Wives under 23 reported more gratification the longer they had been married, with wives over 23 less gratified the longer they had been married. The preparation for parenthood was significant for husbands, but not for wives. A positive change in the marriage was significant to gratification for both spouses, with marital adjustment also positively related for wives.

Russell concluded that

> relevant to adapting to the first year of parenthood may be (1) a pattern of communication which has resulted in effective family planning and high marital adjustment, (2) high commitment to the parenthood role, and (3) good maternal health and a calm, nonproblematic baby (p. 229).

A study by Wente and Crockenberg (1976) examined the transition to parenthood specifically for fathers. These researchers hypothesized that fathers might have had more difficulty with adjustment due to their lack of socialization preparing them for their new role, and that they might have a greater likelihood of becoming peripheral to the triadic relationship between the parents and child. This was hypothesized because mothers are typically more directly involved with the infant's caretaking. Considerations of this study were 1) change in the husband-wife relationship, 2) age of the infant in relation to adjustment difficulty, and 3) the father's participation in Lamaze preparation. The sample consisted of 46 Caucasian, middle class men who agreed to complete a questionnaire and participate in semi-structured interviews. Findings of this study revealed strong significant relationships between the questionnaire items specific to the husband-wife relationship and both total adjustment difficulty and perceived change. Lack

of parenting knowledge was found to be predictive of high adjustment difficulty, however, there was no significance between Lamaze preparation and adjustment. This study gave support to marital adjustment improving over time for fathers, identifying only 1 item (wife had less time for me) as an area of stress that increased over time.

The need to chart change over time and identify the specific areas of change was acknowledged in most of the later stress studies of parenthood. The first study that incorporated this methodology was conducted by Miller and Sollie (1980), who specified 3 life "dimensions" to be examined at three points in time: 1) prior to the infant's birth (Time 1), 2) when the infant was 1 month old (Time 2), and 3) again when the infant was 6 to 8 months old (Time 3). Life dimensions were defined as personal well-being (how satisfied the individual was with his or her present life), personal stress (how tied down, how easy or hard life was) and marital stress (feelings about the marital relationship). These researchers investigated whether there was support for the baby "honeymoon" period that had been discussed by Hobbs (1968). This "honeymoon" was suggested as occurring within the first few months after the infant's birth, wherein the parents might not experience the "realities" of their new role, due to their excitement at having given birth. The period would then be followed by crisis, as the parents began facing the day to day tasks of parenting. Some support was indeed found for this experience. Miller and

Sollie reported that both mothers and fathers were higher on personal stress after becoming parents. Mothers were lower than fathers during pregnancy, yet higher after birth. For personal well-being, new mothers were lower at time 3 than at Time 2, with fathers lower at time 3 than Time 1 or 2. Mothers reported marital stress increasing over time, with fathers reporting marital stress remaining essentially the same.

A similar study was conducted by Harriman (1983) that looked at how first time parents differed from parents having later born children. Personal and marital life dimensions were again examined. Findings from this study coincided with those reported by Miller and Sollie (1980). Overall change as well as change in their personal lives was greater for mothers than for fathers. The negative direction of the change, however, was the same for both parents. Within the personal life dimension, physical, emotional and time usage changes were of significant concern for these parents. Changes in the marital relationship were generally felt to be positive by both mothers and fathers, however they agreed that they experienced difficulty with the wife's negative change in her sexual responsiveness. First time parents differed from parents of later born children with regard to their personal lives in two aspects: 1) having routines and plans interrupted, and 2) concern over their physical appearance. Parents of later born children were more concerned with the amount of privacy they had. There was also indication that marital

adjustment was somewhat greater for parents of later born children than for first time parents. Harriman commented that

> as parents become more experienced with their parental role, they may adjust to and accept some changes in their marital life. Possibly, they find new ways to develop a different, though satisfying, relationship with their spouse (p. 393).

The area of marital adjustment was investigated more specifically by Belsky and his colleagues (1983). These researchers found that when marital adjustment was assessed for both primipara and multipara parents, group scores declined over time. However, when individual scores were examined for these parents, change scores were not significant. Those parents indicating high marital adjustment scores reported no change over time, as did parents indicating low marital adjustment scores. By comparing the marital adjustment scores in this study at the 3rd month postpartum and the scores reported by Miller and Sollie (1980) at the first month postpartum, a definition of when the "honeymoon" period ended was implied. Scores in Miller and Sollie's study revealed little change, whereas by the 3rd month in the Belsky study, significant change was noted. Primipara parents scored higher on the Dyadic Adjustment Scale than did multipara parents; however, support was

also found for the hypothesis that as children are added to the family, the parents perceive their marriage less as a romance but more as a partnership. The need for further research is indicated in order to ascertain whether this change is a satisfying one as Harriman (1983) has suggested.

One final study that will be reviewed is a recent update of the stress parents report in the 1980's (Ventura, 1986). The purpose of this study was to provide information regarding stresses of new parents in a decade where more and more mothers were employed outside the home. Descriptive statements were obtained for 58 mothers and 54 fathers regarding the most stressful situation they had experienced during the previous month at both the 3rd and 5th months of their new infant's life. Comparative analyses were performed for mother and father groups, with 4 categories of stress emerging from these qualitative data. These included: 1) role demands of parent, spouse and worker; 2) infant care; 3) interactions with spouse; and 4) interactions with other family members.

In the first category, 35% of the mothers and 64% of the fathers reported stress related to role demands. For mothers, the statements centered around trying to handle both work and home responsibilities and having little time for self. Fathers' responses were in regard to career and work demands, with some mentioning the difficulty of trying to finish take home work or household tasks and

helping with the child care. Within this category, financial concerns were also an issue for both parents, worrying about how or whether the mother could maintain her employment, helping to meet the financial demands. Specific concerns were described as

> lack of money to pay bills, difficulties in purchasing, refinancing or selling a home, and the financial failure of one father's business. Some described the stress entailed in moving to a new home or geographic location with their infant (Ventura, 1986, p.6).

Stress related to direct infant care such as feeding and soothing the infant was reported by 35% of mothers and 20% of fathers in Ventura's study. Both expressed feelings of guilt, frustration, helplessness and anger when caring for their fussy infant. Fathers also described concerns for the infant's physical well-being and the future of the family.

In the category of interaction with spouse, Ventura found that 14% of mothers and 11% of fathers reported being stressed with their spouse. Areas of concern were reported as marital conflicts, lack of spousal support and sexual relations. Unresolved issues of the relationship were reported as surfacing as other stressors came together. Concerns about the sexual relationship were reported only

by the mothers in relation to fatigue and lack of time to be alone with their partners.

Finally, stress related to relations with other family members was reported by 18% of mothers and 5% of fathers in Ventura's study. Typically the concerns were with the loss of a family member, disagreements with in-laws and friends, and mediating between or organizing other family members.

It was interesting to note that although these statements were collected at two different points in time, the data were not analyzed with regard to changes over time. Nevertheless, the areas of stress reported in Ventura's study coincide with findings of earlier researchers. Repeatedly, the physical demands such as the direct caretaking responsibilities of the infant, the role adjustments and time management required to meet these demands have been shown to be primary sources of stress.

Coping

Until recently, the ways in which parents cope with the transition to parenthood have not been addressed. Generally, coping has been examined in family life with regard to loss or separation of a loved one. Ventura, in addition to identifying stressors for new parents, has also worked to gather information on coping patterns. Through the application of the Family Coping Inventory, her work has centered on identifying coping behaviors in relationship to various demographic,

parent functioning and infant temperament variables (Ventura, 1982; Ventura & Boss, 1983).

Ventura found that use of the Family Coping Inventory created a limitation to the research due to the instrument possibly being biased on sex. A total of 17 out of the 28 behavior items were found to be more helpful for mothers than fathers. Only 1 item (involvement in social activities) was found more helpful to fathers. Ventura suggested that, since this instrument was developed based on data collected for females, that it did not contain coping behaviors typically used by males. With that in mind, results of this research indicated three general coping patterns for parents: 1) seeking social support and self-development; 2) maintaining family integrity; and 3) being religious, thankful, and content. Parents functioning more poorly, that is, those who were depressed or anxious, were more likely to use social support and self development. They focused less on maintaining family integrity. These parents also tended to perceive their infants as more distressed and less able to be soothed. Parents perceiving their infant as more content and happy tended to use coping methods aimed at maintaining family integrity and being more religious and thankful.

Clearly, further research is needed in order to understand how new parents cope with the stresses they experience. Such research must incorporate a method of assessment that will be applicable to both mothers and fathers.

Transition to Parenthood: Preterm Infants

Research has revealed that low birthweight and high risk infancy are among factors associated with child abuse and neglect. Much of the preterm parenthood literature has evolved as a result of these findings. There has been a strong interest in understanding why these infants might be particularly vulnerable. One study found that of 255 infants discharged from a Neonatal Intensive Care Unit, a total of ten (3.9%) were reported as being subsequently abused (Hunter, Kilstrom, Kraybill, & Loda, 1978). Yet another study found that of 2,355 infants reported as being abused, 51 were low birthweight infants (Klein & Stern, 1971). These two studies also reported similar characteristics for these infants and their families. They included lower socioeconomic status, social isolation, lower age of parents, family history of child abuse, marital difficultly, and parents having "dependent" or "apathetic" personalities. The infants typically had more congenital difficulties and were hospitalized for a longer period of time at birth. Separation of the parents and infant was usually for a longer period of time at birth, with the parents' visitation of their infant less frequent. Further information has been obtained on these and other variables in order to develop and implement intervention procedures aimed at reducing the incidence of such abusive occurrences.

In order to gain understanding of preterm infant parenthood, it would seem logical that one of the first areas to examine would be what these parents

experience following the delivery of their child. An article written by Desmond, Voderman and Salina (1980) reported on this experience involving the life support intervention procedures. These authors distinguished between the times of the perinatal period, the course after the neonatal intensive care, and discharge from the hospital through the first year. The following is a summary of their report.

Perinatal Period

The premature birth is often unanticipated, thus the event begins in an atmosphere of anxiety. Communication between the parents and physician may be lost as life support is administered if the infant is at risk for survival. This usually means the baby is whisked out of the delivery room and into the nearest intensive care unit. If the hospital is not equipped with such a unit, the infant is transported to another medical facility which can be several hundred miles away. These units are referred to as tertiary care or Level III units, and may be equipped with helicopters to make transporting the infants faster and more efficient. The father generally accompanies the infant to make the necessary arrangements, while the mother is left alone to begin to cope with the event. The first sight of the infant may be shocking as he/she is attached to the life support machines. The sounds and movement in the Neonatal Intensive Care Unit (NICU) may create tension and a sense of helplessness as the caretaking of the infant must be surrendered to the medical staff. The parents are often able to touch their infant only through sterile

gloves from an opening in the incubator. The question of the infant's survival may recur many times within the next several days or weeks. The family members may be separated while the mother remains hospitalized and the father travels between his wife and child. In some hospitals, the mother may remain in the maternity unit where she is able to observe other mothers and fathers interacting with their healthy infants. When she is discharged, she and her husband will leave the hospital without their infant.

Post NICU

The next phase begins when survival of the infant has been established and the infant is then moved to the intermediate care or Level II unit. While the parents are relieved to know their infant will live, they may not anticipate the stress that can occur in adjusting to new parenthood; particularly with an infant that remains quite vulnerable. As what can be a lengthy hospitalization continues on, adjustments are being made in the definitions of roles and anticipation of meeting the financial burden. Intervention procedures that have been implemented in response to this problem will be discussed later.

The First Year

Upon the infant's discharge from the hospital, the intensive support systems provided by the hospital are now withdrawn and direct contact with health personnel is lost. The primary pediatrician that will take over the care of the

infant may be unfamiliar with the family and the infant's course of treatment up to this point. Even if the physician is known, it may be weeks after the discharge date that the infant is seen. The infant may not easily adapt to family schedules, with a regular sleep-wake cycle being absent. There is a possibility of a greater frequency of gastrointestinal or upper or lower respiratory illnesses than for fullterm infants. This may add to the guilt and financial burden the parents may experience.

Parental Reactions

How mothers react to this delivery experience has been well documented. Less attention has been give to fathers. The research incorporating both parents will be included in this presentation.

Beginning as early as the mid 1960's, Caplan (1965) was among the first researchers to identify 4 specific psychological tasks associated with what they termed as "successful mastery of the crises". The first of these tasks is labeled as "anticipatory grief", or a time when the mother hopes that the infant will survive, while preparing for the possible loss. This usually involves a process of withdrawal by the mother from the relationship she formed with the infant while in-utero. The second task centers around the struggle with the feelings of failure at not having given birth to a "normal" fullterm infant. Third and fourth tasks occur once survival of the infant is established. The mother must resume the process of relating to the infant and understand his/her special needs, in addition to realizing that these needs

are typically only temporary. The existence of these tasks has been supported in subsequent research of both mothers and fathers of preterm or "high risk" infants. One study looked specifically at the grief response for over 100 mother-father "pairs" whose critically ill newborn infants had survived after spending time in a Neonatal Intensive Care Unit (NICU--Benefild, Lieb, & Reuter, 1976). An instrument was developed consisting of 7 items that assessed feelings of sadness, loss of appetite, inability to sleep, increased irritability, preoccupational thinking about the baby, guilt and feelings of anger.

Results of this study showed mothers' scores on grief were higher than grief scores for fathers. The authors suggest, however, that careful interpretation must be made of this finding. This difference may be due to fathers' inability to express their feelings as opposed to the grief that they actually experience. Fathers' grief scores were positively related to giving birth by Cesarean delivery. They were negatively related to the mother's age. For mothers, grief scores were positively related to her pleasure with the pregnancy. They were negatively correlated with her age and confidence in her ability to care for her child. Daily concerns were also documented for both parents. Fathers were torn between trying to keep up with work schedules and visitation of the mother and infant. Furthermore, cost of the hospitalization for both the mother and infant were of concern. Mothers were at times left hospitalized on the maternity unit, where they reported feeling anxiety

at watching the other parents interact with their healthy infants. Mothers reported that they could begin to cope with their baby's illness once they were allowed to visit them.

Reactions were reported in a study in which data were collected on 24 Australian mothers having infants born at or transferred to a hospital equipped with an NICU (Silcock, 1984). These mothers were assessed over time, between the birth and discharge of the infant and at two later follow-up visits. The specific purpose of the study was to report on the occurrence and intensity of the psychological tasks, in addition to how the accomplishment of these tasks related to the later mother-infant relationship. Although methodological problems existed for this study, information was obtained that provided insight into the "high risk" infant parent reaction. Based on self-report instruments, half of the mothers reported experiencing intense grief, five reported grief at a moderate level, and for seven mothers, the grief experience was mild. Some of the characteristics of the mothers who experienced intense grief were discussed. A majority were health professionals, possessing full knowledge of the meaning of "high risk" for their infant. Most of them were older in age, giving birth for the first time, perhaps perceiving their chances for parenthood were limited. Three of the women experiencing grief were wives of men having children from previous marriages. Silcock suggested that giving birth prematurely might put these women at a greater

risk of vulnerability for sadness at not having produced a "viable" child as previous wives had done.

Five mothers reported experiencing feelings of failure at a high level and ten mothers at a moderate level. Each of these mothers had experienced reactions of fear and sadness from their spouse and/or extended family members at the birth of the infant. Two women who gave birth to twins experienced the death of one of their infants. Husbands of these women were perceived as unsupportive by the hospital staff, based on their lack of visitation of the surviving infant. The surviving infants were usually hospitalized for a longer period of time than the other premature infants.

The task of resuming the process of relating with the infant was present for all mothers, with only four having more difficulty than the others. The mothers having the most difficulty were either extremely young (adolescent age) or were located geographically a long distance from the hospital, making visitation difficult.

Finally, in understanding the infant's needs, ten of the mothers reported they could not accept their infant's situation. Visitation was lower for these mothers. Interestingly, over half of these mothers gave birth by Cesarean delivery.

Mothers were divided into two categories (successful vs unsuccessful task accomplishment), the basis for which was not detailed. The groups were not analyzed statistically, however, demographic information was provided on these

women. In the successful group, the mothers were married, older in age, well educated and employed. They had wanted children but had problems with infertility. A total of 20% had experienced prior preterm delivery of an infant. The major characteristics of the unsuccessful group was that the infants had lower birth weights and were at higher risk for survival.

Based on Silcock's direct observation of these mother-infant pairs over time, she concluded that the greater the intensity for which the reactions were experienced and the more successful they were in accomplishing these tasks, the healthier their interactions were with their infants. Thus, the more intense the reaction, the more the mother worked to cope.

Similar findings were presented in a study that compared the stresses of parents of preterm infants with parents of fullterm infants (Jeffcoate, Humphrey & Lloyd, 1979). The groups were matched for parity and did not differ in their social, educational or ethnic backgrounds. Qualitative data were gathered through interviews of mothers and most fathers. They were asked to describe their expectations, experiences, feelings and reactions that they experienced during the pregnancy, when the infant was born, during the course of the mother and infant's hospitalization and following the discharge of both. Role perceptions for these parents were investigated, as well as factors that may have influenced the parental attitudes towards the child. Results were broken down into three categories: 1)

emotional disturbance (anxiety and depression), 2) delay in attachment, and 3) management of the problems after the baby's discharge. Problems within these categories were more prominent for the parents of preterm infants than for parents of fullterm infants. Mothers of both parent groups tended to report difficulties to a greater extent than fathers. Stress for mothers was attributed to their feelings of failure in their role, losing self-confidence and self-esteem the longer the infant was hospitalized. A second study was conducted by Jeffcoate and his colleagues using a similar sampling of preterm and fullterm parents (1979). The purpose of this study was to look more closely at the issue of bonding. They found once again, that anxiety was experienced to a greater degree for parents of preterm infants. However, they concluded that the parent-infant separation following birth, alone, does not implicate failure or delay in bonding. The next phase of the preterm infant parenthood literature focused on this issue, looking at the mother-infant interactions.

Mother-Infant Interactions

The study of parent-infant interactions has focused exclusively on the mothers. Many studies have been conducted that go beyond the scope of this review, thus the findings of these studies will be briefly summarized. This summary will be based on a review presented by Magyary (1984).

Mother-infant interactional studies have used observational techniques and have typically incorporated longitudinal designs. The assessments normally occur within the first year of the infant's life. One major finding has been in regard to the "stimulus-response" patterns of these infants (Barnard, Bee, & Hammond, 1984; Goldberg, 1979). Due to the underdevelopment of the nervous system of the preterm infant, attentiveness and alertness may be less than for fullterm infants. They need temporary disengagement periods from the mother during interaction in order to modulate the sensory input that they receive. Mothers on the other had, anxious to receive a response from their infant, may continue to stimulate them without their desired result. Consequently, from this interaction, research has shown that as the infant matures, the mothers begin to behave in one of three ways: 1) to continue in the "hyperactive vs hypoactive" pattern; 2) to eventually approximate toward a mutually responsive pattern, as seen for fullterm mother-infant pairs; or 3) to become more "hypoactive", coupled with a more responsive infant (Magyary, 1984). The differences of these responses may be due to several variables, including health status of the infant, other major life stresses for the parent and limited supportive resources. Further research is needed in order to investigate the relationship of these variables.

Relationship Variables

Recently, a few studies have begun to look at variables such as the family and marital relationships as they are affected by the event of preterm parenthood. White and Dawson (1981) studied what they termed as "family solidarity". They categorized parents of "at risk" infants into what they evaluated to be low, moderate, and high risk infant groups. Family solidarity was specified as consisting of four constructs: 1) togetherness, 2) communication, 3) team performance, and 4) ritual, or affectional dimension. The parents were assessed using self-report questionnaires when the infant was 3 and 6 months of age. Overall, these groups were reported as functioning well in terms of the aspects measured. However it was parents of high risk infants who reported the least amount of closeness in their family relationships. They also reported having more negative features in the areas of agreement on family matters, sexual life, and ritual behaviors. As in earlier studies, these parents tended to be low on socioeconomic status, younger and perceived receiving less support from others as compared to parents of low risk infants. Siefert (1980), in looking at family functioning and social support as predictors for potential abuse among families of "high risk" infants found that family variables were more important predictors of risk than infant morbidity. Specifically, family closeness and anxiety as a result of the infant's hospitalization were the

major predictors or child maltreatment. Scores for mothers and fathers differed somewhat in that these variables appeared to be more significant for mothers.

Only one study has assessed the marital relationship for these parents, in addition to comparing them to parents of fullterm infants. Specifically, the study addressed how the birth experience affected the parents' needs and feelings, their sensitivity to their spouses' needs and feelings and their difficulty in adjusting to having the baby at home. The sample consisted of white, middle class, primipara parents with intact marriages. These researchers developed an instrument referred to as the Parental Perception Inventory with which they assessed four general dimensions: 1) personal feelings, 2) relationships, 3) concerns about the baby, and 4) marital functioning. The degree to which they were sensitive to their spouse was determined by the percentage of agreement between their own self-rating and the rating their partner gave to them. Assessment of their difficulty in having the baby at home was taken from a Likert-type scale consisting of 17 items rating the degree of disturbance they felt (i.e., from the baby's crying). Marital functioning was simply assessed by a follow-up telephone inquiry when the infant was 6 to 8 months of age as to whether the couple was still married. Results of this study indicated that during the first week of having the baby at home, parents of premature infants cried more, felt more helpless and worried more about future pregnancies than parents of fullterm infants. They were concerned about their ability to cope with

the stresses and needed more hospital staff support. Specific to mothers, feelings of guilt were greater and they worried more about losing touch with reality. After one month, the differences were reversed. Fullterm infant mothers reported crying more and not wanting to be left alone. Trause and Kramer suggested that fullterm infant parents had begun to experience postpartum depression to a greater degree and had begun to face the realities of parenthood. With regard to sensitivity to spouse, no significant difference were found at any time between the two groups. However, there was a significant interaction between birth status and time. For parents of preterm infants, the sensitivity to each other increased over time. Parents of fullterm infants demonstrated an increase in sensitivity temporarily, followed by a decline. Mothers and fathers again differed in the intensity of the difficulties they experienced, regardless of parent group. Mothers experienced more difficulty, with fathers more worried about their wives' ability to cope. Mothers' difficulty in adjustment decreased over time, while fathers' difficulty remained the same. Mothers' adjustment difficulty was inversely related to fathers' sensitivity to spouses' needs and feelings. None of the parents in this study were divorced or separated at the time of the follow-up. Quite interestingly, a total of 9 of the 14 preterm infant mothers were pregnant with their second child at this time, compared to none of the fullterm infant mothers.

Intervention

Finally, attention is given to the intervention procedures that have been incorporated for parents of preterm infants. These procedures have focused primarily on facilitating parent involvement with their infant during hospitalization and providing supportive services to them (Goldson, 1981; Nover, Williams, & Ward, 1981; Phillip, 1984). Many hospitals are recognizing the need to assign a primary health professional, such as a nurse or social worker, to follow through with the infant's care and maintain continuity with the family relations. Siblings of the infant are allowed visitation, creating a sense of family unity. Ross (1983) reported on one procedure that was aimed specifically at caring for low-income families in their homes. As discussed in earlier research findings, these families have been identified as being particularly susceptible to stressors. In this procedure, a team of professionals, consisting of a pediatric occupational therapist and a nurse, made home visits twice a month over a 12 month period of time following the infant's discharge from the hospital. The aim of these visits was to teach mothers about infant development and caretaking skills and to instruct them on games and exercises they could use to help facilitate development. To test the effectiveness of the program, measures were taken of the infant's temperament and development. Home environment and maternal attitudes were also assessed. These infants were compared to matched control preterm infants. The infants

receiving the intervention had higher mental ability scores and were judged to have easier temperaments. Furthermore, they were more likely to live in homes that facilitated development than their cohorts. Supportive services are recognized as being instrumental in the transition and subsequent adjustment to parenting preterm infants.

Marital Adjustment

Spanier and his colleagues worked to address conceptual and methodological issues of marital adjustment, developing an assessment tool know as the Dyadic Adjustment Scale (Spanier, 1976; Spanier & Thompson, 1982). After reviewing the marital adjustment literature, these researchers suggested that such a tool must adhere to the following guidelines:

> 1) be distinguishable from other concepts; 2) be operationalizable; 3) account for all criteria thought to be important in the conceptualization of adjustment; 4) not be so abstract as to not be clearly conceptualized and not so specific it could not apply to the study of all marriages; and 5) allow for the investigation of nonmarital dyads (Spanier & Cole, 1974, p.

127).

Furthermore, they came to view dyadic adjustment as,

> A process that continually changes and that can be evaluated at any point in time on a continuum from well-adjusted to maladjusted. The outcome of this process is determined by the degree of (1) troublesome marital differences, (2) interspersed tensions and anxiety, (3) marital satisfaction, (4) dyadic cohesion, and (5) consensus on matters of importance to marital functioning (Spanier & Cole, 1976, pp. 127-128).

Keeping this conceptual model in mind, original items for the DAS were drawn from a pool of 300 items. These items consisted of all of the items ever used in any marital adjustment scale, as well as new items developed to tap areas of adjustment not previously covered. Content validity was tested for these items, yielding 200 remaining items. A total of 25 new items were also added. This scale was administered to a sample of 218 married persons, from which 94 usable scales were returned. Frequency distributions of the items were analyzed and all items

with low variance and high skewness were eliminated. Through further analyses, a total of 32 items remained. These items were factor analyzed revealing 4 domains:

1) Dyadic Consensus (the degree to which the couple agrees on matters of importance to the relationship);

2) Dyadic Cohesion (the degree to which the couple engages in activities together);

3) Dyadic Satisfaction (the degree to which the couple is satisfied with the present state of the relationship and is committed to its continuance); and

4) Affectional Expression (the degree to which the couple is satisfied with the expression of affection and sex in the relationship (Spanier & Filsinger, 1983, p. 157).

A replication study was performed by Spanier & Thompson (1982) in which over 200 separated and divorced individuals completed the DAS. Factor analysis of these data retained the four original domains.

The DAS is scored by summing the responses to all items. The higher the score, the higher the reported adjustment. A total score for dyadic adjustment can

be obtained in addition to a score for each subscale. The ranges of scores for these scales include: Dyadic Adjustment = 0 - 151; Dyadic Consensus = 0 - 65; Dyadic Satisfaction = 0 - 50; and Affectional Expression = 0 - 12 (Spanier & Filsinger, 1983). Scores are typically calculated for the individual's adjustment to the relationship; however, a couple's score can also be obtained. This is performed by adding the individual scores, taking the difference between them and/or averaging them. Empirical support for these methods of measurement have not been established. Internal consistency and reliability of the DAS is high, with reported alpha coefficients of Dyadic Adjustment, .96; Dyadic Consensus, .90; Dyadic Cohesion, . 86; dyadic Satisfaction, .94; and Affectional Expression, .73 (Spanier & Filsinger, 1983). Since its development, the DAS has been used in many studies, establishing content, discriminate and construct validity (Margolin, 1981; Spanier, 1976; Spanier & Thompson, 1982). Results for retest reliability are inconclusive, however a study by Filsinger (1983) found that there was no significant difference between posttest control and posttest study groups on the DAS. No sex differences have been found in the DAS or its subscales (Spanier & Filsinger, 1983).

The DAS has not only been used in research, but as an assessment tool in clinical practice. The authors caution that this type of clinical assessment should be accompanied by other means of obtaining information, including content provided

by the couple and direct observation of their interactions (Spanier & Filsinger, 1983).

Stress, Appraisal and Coping

The theory of stress and coping that will be applied in this study was developed by Lazarus and his colleagues (e.g. Coyne & Lazarus, 1980; Folkman & Lazarus, 1980; Lazarus & DeLongis, 1983). These researchers have described their theory as falling within a cognitive-phenomenological theory of psychological stress (Folkman & Lazarus, 1980, p. 223). The framework is transactional in that individuals and their environment are viewed as being involved in an ongoing reciprocal relationship. The two processes that are identified as mediating stressful person-environment relations and their outcomes are cognitive appraisal and coping. Cognitive appraisal is explained as the person's evaluation of whether a particular situation is stressful and, if so, in what way. There are two components to this evaluation referred to as primary and secondary appraisal. In primary appraisal, the person evaluates whether there is potential for harm or benefit for self or a loved one with regard to such variables as health, self esteem, values and goals. Secondary appraisal involves the person evaluating what, if anything, can be done to improve the benefit or prevent the harm. Coping options are reviewed, such as altering the situation, accepting it, seeking more information or withdrawing from it (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986).

Coping is defined as "the person's constantly changing cognitive and behavioral efforts to manage specific external or internal demands that are appraised as taxing or exceeding the person's resources", (Folkman & Lazarus, 1984, p. 178). Effectiveness of appraisal and coping is assessed in terms of adaptational outcomes. Adaptational outcomes are classified into three major categories: 1) social functioning, 2) morale, and 3) somatic health. Social functioning is defined as "the ways in which an individual fulfills his/her various roles, or satisfaction with interpersonal relationships (Folkman & Lazarus, 1984, p. 223).

Lazarus describes three features as being unique to this coping definition. First, it is process oriented, focusing on what the person actually thinks or does in a specific stressful situation and how these thoughts and behaviors change as the situation unfolds. Secondly, it is contextual, meaning coping is influenced by the actual demands in the situation and the resources that are available for managing them. Both person and the situation variables determine coping efforts. Third, no "a priori" assumptions are made with regard to what constitutes good or bad coping. Coping consists of the efforts that are made to manage the demands (Lazarus & Folkman, 1980).

Coping has two major functions: 1) regulating stressful emotions (emotion-focused coping) and, 2) altering the troubled person-environment relation causing

the stress (problem-focused coping). Research findings support that both of these forms of coping are generally used conjointly and often concurrently in the management of stressful situations (Aldwin, Folkman, Schaefer, Coyne & Lazarus, 1980; Folkman & Lazarus, 1980). This is exemplified in an excerpt provided by Kahn and his colleagues (1964) in which an employee explains what he did when accused of not carrying out a procedure.

> Well, it burned me up...My immediate reaction was to confirm...that what he was saying was not true, that everything [letters] had gone out. There's always a chance you might be wrong, so I checked first. Then I told him, no, everything had gone out. My immediate reaction was to call him on the carpet first. He doesn't have any right to call me on something like this. Then I gave it a second thought and decided that wouldn't help the situation (pp. 301-302).

Morale is generally thought of as the negative or positive emotions generated in a specific encounter. These emotions reflect how well goals were achieved or how satisfied the person was with his/her performance. Stress, emotion and coping

are thought to be causal factors in somatic illness with different styles of coping related to specific health outcomes, for example, the control of anger being implicated by hypertension. Coping can affect health through these three different means: 1) influencing the frequency, intensity, duration and patterning of neurochemical stress reactions; 2) using substances causing injury or carrying out activities that put the person at risk and, 3) impeding adaptive health/illness related behavior (Folkman & Lazarus, 1984). The relationships among social functioning, morale and somatic health are complex. Folkman and Lazarus (1984) emphasize that good functioning in one aspect does not imply good functioning in all others.

Assessment of Appraisal, Coping and Outcome

Appraisal

In early research, Lazarus and his colleagues used quantitative methods to assess primary and secondary appraisal. From their data, they developed a scale consisting of 13 primary and four secondary appraisal items. One study administered the scale five different times to 150 subjects for a total of 750 observations. These data were analyzed, resulting in all but four of the 13 primary appraisal items loading on two factors. The first of these factors included items involving threats to self-esteem such as the "possibility of losing the affection of someone important to you" and "losing your self-respect". The mean coefficient alpha of the five administrations for self-esteem appraisal was .78. The second

factor involved items regarding threats to a loved one's well-being. Such items were "a loved one having difficulty getting along in the world" and "there is harm to a loved one's emotional well-being". The mean coefficient for this scale was .76. The remaining items were the threat of "not achieving an important goal at your job or work"; "harm to your own health, safety of physical well-being"; a strain on your financial resources", and "losing respect for someone else". These items were used individually in analyses.

A total of four secondary appraisal items described coping options that included "something I can change or do something about"; something I need to know more about before I can act"; "something that I have to accept"; and "something that I have to hold myself back from doing that I want to do". These items were also individually discussed.

All items were scored on a 5-point Likert-type scale. Respondents were asked to think of a particular stressful situation and rate the extent to which the item applied to them in that situation. Results of the study will be discussed later.

Coping

The Ways of Coping Checklist (Aldwin, Folkman, Schaefer, Coyne & Lazarus, 1980) was the first structured instrument Lazarus and his colleagues developed to research their theory. The instrument originally consisted of 68 items describing various coping strategies. These items were derived from their

theoretical framework as well as previous suggestions from previous coping literature. They included items from the domains of defensive coping (e.g., avoidance, intellectualization, isolation, supression), information-seeking, problem-solving, palliation, inhibition of action, direct action, and magical thinking. Individuals were asked to respond in a "yes-no" format as to whether each strategy item was used. The items were classified into 2 categories: 1) problem-focused coping, and 2) emotion-focused coping. The problem-focused category (P-Scale) included items that described cognitive problem-solving efforts and behaviors used to alter or manage the situation. Examples of these items are "made a plan of action and followed it" and "stood your ground and fought for what you wanted". The emotion-focused category (E-Scale) included items that described cognitive and behavioral efforts aimed at reducing or managing emotional distress. Such items included "looked for the silver lining"; "try to look on the bright side of things"; and "accept sympathy from someone". Internal consistency analyses using Cronbach's alpha resulted in mean coefficient alphas of .80 and .81 for the P- and E-Scales, respectively.

Through research, the scale was revised--rewording, eliminating and adding items suggested by subjects (Folkman, Lazarus, Dunkel-Schetter, DeLongis & Gruen, 1986). The response format was also changed to a 4-point Likert scale. Respondents were asked to rate the extent to which each strategy item was used

in a particular stressful situation they described (0=does not apply and/or not used; 1=used somewhat; 2=used quite a bit; 3=used a great deal). Three separate factor analyses were completed using the 750 observations described above. These analyses resulted in the elimination of 16 items that did not load consistently on any factors. A fourth factor analysis was run on the remaining 51 items, which loaded on 8 different factors (See Appendix II for coping scales, alphas and their factor loadings). Still viewed in terms of emotional-focused coping, the scales included:

Confrontive coping (Scale 1), which described aggressive efforts to change the situation, also suggesting a degree of hostility and risk-taking;

Distancing (Scale 2), describing efforts to detach oneself, but also could connote a positive outlook, i.e., "looked for the silver lining";

Self-control, (Scale 3), describing the efforts to regulate one's own feelings and actions;

Seeking social support (Scale 4), describing efforts to seek informational and emotional support;

Accepting responsibility (Scale 5), acknowledging one's own role in the situation, also suggesting an attempt to put things right;

Escape-avoidance (Scale 6), describing wishful thinking and behavioral efforts to escape or avoid;

Planful problem-solving (Scale 7), describing deliberate problem-focused efforts to alter the situation, coupled with an analytic approach to the problem; and

Positive reappraisal (Scale 8), describing efforts to create positive meaning by focusing on personal growth and religious beliefs.

Scores were obtained by summing the ratings for each scale. The eight scales accounted for 46.2% of the variance (See Appendix I for the total scale).

Outcome

Outcome items on the WCOP Scale have been specified as: (1) I was inspired to do something creative; (2) Changed or grew as a person in a good way; (3) I came out of the experience better than when I went in; (4) Rediscovered what is important in life; and (5) I changed something about myself. To date, outcome has only been assessed in terms of concluded versus ongoing encounters. Subjects have been asked to indicate the degree of resolution they feel they have experienced with an encounter (Folkman, Lazarus, Dunkel-Schetter, DeLongis & Gruen, 1986).

Research Findings

The instruments used in the previous section have been used by Lazarus and his colleagues to test the tenets of their theory. The results will be presented here by summarizing two pivotal studies. The first study examined the hypothesis that 1) coping involved both problem solving and emotion-focused functions, and 2)

coping is best understood in terms of the relationship between the person and their environment (Folkman & Lazarus, 1980). A total of 100 male and female community residents were sampled. These participants were middle-aged (45-64 yrs.), of lower-middle income and predominantly Protestant. Information about recently experienced stressful encounters was gathered through monthly interviews and self-report questionnaires. Following this procedure, each participant was asked to complete the original 68-item Ways of Coping Checklist regarding each stressful event described. A mean of 13.3 episodes was reported for each participant. The two functions of coping were analyzed with separate measures.

Results indicated that of a total of 1,332 stressful episodes, both problem- and emotion-focused coping were used 98% of the time. Intraindividual analyses revealed that people were more variable than consistent in their coping patterns. The context of the event, who was involved, how it was appraised, age, and gender were examined as potential influences on coping. The person involved in the episode had the least influence on coping strategies. Episodes involving people at work were associated with higher problem-focused coping as compared to episodes involving self or family members. The person involved had no effect on emotion-focused coping. The context and how the event was appraised were the strongest factors associated with coping. Within the context, work was associated greater with emotion-focused versus problem-focused coping. Situations in which persons

felt something constructive could be done or were appraised as requiring more information, favored problem-focused coping. No effects were found to be associated with age, and gender differences were found only for problem-focused coping. Men used more problem-focused coping than women at work and in situations having to be accepted and requiring more information. No gender differences were found on emotion-focused coping (Folkman & Lazarus, 1980).

The second study investigated more specifically the relationships between appraisal, coping and encounter outcomes (Folkman, Lazarus, Dunkel-Schetter, DeLongis & Gruen, 1986). The revised scales of appraisal, the Ways of Coping Checklist, and the method for outcome assessment were used to collect data for persons on six different stressful episodes across a 6 month time period. The sample consisted of 75 middle-aged, well educated, upper-middle class couples. Results were discussed in terms of the relationships between 1) appraisal and coping, 2) coping and encounter outcomes, and 3) appraisal and encounter outcomes.

Primary and secondary appraisal methods were analyzed separately. For primary appraisal and coping, a total of six intraindividual multivariate analyses of variance for repeated measures were conducted (1 for each stake). All six tests were significant. When threat to self-esteem was high, subjects used more confrontive coping, self-control, accepted more responsibility, used more escape-

avoidance and sought less social support than when thee threat was low. When the threat of a loved one's well-being was at stake, more confrontive coping and escape-avoidance strategies were used, as well as less planful problem solving and distancing. The greater the threat of loss to self-respect for someone else, the more confrontive coping and self-control were used. The threat to a goal at work was strongly associated with use of self-control and planful problem solving. Strain on financial resources was strongly associated with confrontive coping and seeking social support. Positive appraisal was not related to any of the stakes. Three strategies tended to be used regardless of the stake, including self-control, escape-avoidance and seeking social support.

Secondary appraisal was analyzed using four intraindividual multivariate analyses for repeated measures (1 for each coping option). The results indicated that for encounters that were perceived as changeable, subjects used more confrontive coping, planful problem solving and positive appraisal. When the encounter was viewed as having to be accepted, more distancing and escape-avoidance strategies were used. For encounters requiring more information, respondents tended to seek more social support, use more self-control and planful problem solving. When subjects perceived they had to hold back from doing what they wanted, more confrontive coping, self-control and escape avoidance was used.

Encounter outcomes were classified in two categories: satisfactory and unsatisfactory. Mean scores for each of the eight coping scales for each outcome group were calculated. Multivariate analysis for each outcome group were calculated. Multivariate analysis for repeated measures was used to determine the significance of difference for coping between the two groups. These groups were found to be significantly different, with satisfactory outcome strongly associated with planful problem solving and positive reappraisal. Unsatisfactory outcome was highly correlated with confrontive coping and distancing strategies.

Finally, the relationship between appraisal and outcome was examined. The difference between satisfactory and unsatisfactory groups was significant overall, both primary and secondary appraisal. The difference in groups on primary appraisal was due to one stake, that being loss of respect for someone else. The greater the stake of losing respect for someone else, the greater the dissatisfaction with outcome. The difference in secondary appraisal was due to two options strongly associated with satisfactory outcome. These were high levels of changeability and low levels of need to hold back from doing what one wanted. These researchers concluded that there is strong evidence for the need to look at what is involved when people utilize or do not utilize coping options (Folkman, Lazarus, Dunkel-Schetter, DeLongis & Gruen, 1986).

Hypotheses

Based on the preceeding review of the literature, this study will examine the following hypotheses:

1. There will be a significant difference for marital adjustment scores between the preterm infant and fullterm infant parent groups that will continue across time.
2. There will be no significant change in marital satisfaction scores for either parents of fullterm or perterm infants across time;
3. Marital adjustment scores will show a significant inverse relationship with stress scores;
4. Marital adjustment will show a significant positive relationship with both emotion-focused and problem-focused coping strategies.
5. Scores for emotion-focused coping strategies will be significantly higher for the preterm infant parent group versus the fullterm infant parent group;
6. Scores for problem-focused coping strategies will be significantly higher for the fullterm infant parent group than for the preterm infant parent group; and,
7. Stress scores for the parents of preterm infants will be significantly higher than stress scores for the parents of fullterm infants group.

CHAPTER III

METHODOLOGY

The proposed methodology for this study involved the administration of questionnaires to two groups of parents: those with fullterm and preterm infants. A sample size of 25 couples whose marriages were intact and who were giving birth to their first child was projected for each group. Participants were to complete a questionnaire within the first month of the baby's delivery (Time I) and again at 3 months postpartum (Time II). Recruitment of participants was to be conducted with the cooperation of 2 urban hospitals on the East Coast. Introduction of the study and distribution of the questionnaires was to be conducted by a health care professional at the hospital having gained rapport with the parents (e.g., nurse, physician, or social worker). This procedure was intended to 1) protect parent identity, 2) reduce intrusiveness of the study and therefore, 3) generate parent participation.

Several methodological problems evolved, including a change in original data collection sites. Changes in hospital staffing resulted in a loss of cooperation with recruitment. Due to the intensity of the work performed in a Neonatal Intensive Care Unit, little time is available to devote to data collection. Data collection using an "outside" investigator is also difficult because of patient confidentiality issues. Careful steps were taken in order to gain assistance with the study. These steps

included taking time to develop a rapport with hospital staff, maintaining communication and adhering to hospital research protocol.

Parents of preterm infants whose marriages were intact were difficult to find. Numbers were not tabulated, but a majority of the parents of preterm infants were found to be very young (typically adolescent) single women, with limited social, emotional and financial resources. Thus, in order to increase the number of participants, married couples having their second child were included in this study. The focus shifted towards looking at parenthood adjustment rather than specifically, the "transition" to parenthood. Data collection sites were also selected that were better suited to access each of the parent group populations.

Although parents showed initial interest in the study, getting them to follow through with completing the questionnaires was quite difficult. Factors that appear to have contributed to this problem include: (1) the time at which initial questionnaires were administered; (2) length of the questionnaire; and (3) the method of administering the questionnaires.

Parents reported being "turned off" by the number of questionnaire items. Concentration was difficult to achieve, especially for parents of preterm infants. Attention was focused on the survival of the infant. Giving parents the opportunity to complete the questionnaires at home to mail back to the study investigator gave

too great a chance for distractions, loss of interest and even loss of the questionnaire.

Another observation about study participants related to the difference in return rate of the questionnaires between the parent groups. Parents of preterm infants appeared to have greater difficulty completing and returning the questionnaires than parents of fullterm infants. In response, an adjustment was made in the time of data collection. To allow parents of preterm infants to pass through the initial crisis period and become better focused, Time I for both parent groups became a window of 0 to 3 months postpartum. Time II would have been extended to 6 - 8 months pospartum. But due to already complex methodological issues, a measure across time was not attempted.

Prior to outlining the actual methodological procedures, acknowledgement must be made of the bias that has resulted from these various changes. The study sampling has been skewed towards highly motivated, well educated parents, having greater overall resources.

Participants

Participants in this study were limited to parents whose marriages were intact and whose infants were 0 - 3 months of age. Fullterm infants were defined as having a gestational age of 38 -42 weeks, a birthweight of at least 5 lbs. and were free from medical complications. Preterm infants had a gestational age of 37 weeks

or less, a birthweight of 5 lbs. or less, and were from low to high risk for survival. Risk level was determined using Table 1, ranking the infant's birthweight and reported medical complications.

Parents volunteered to participate at data collection sites specific to each group. Parents of fullterm infants were recruited with the help of 2 private practitioners: an Ob-Gyn physician and a registered nurse midwife, both located in suburban areas on the East Coast. Parents of preterm infants were recruited from 2 hospitals equipped with Neonatal Intensive Care Units: One located in Southwest Virginia and a second in an urban area on the East Coast. A third resource used for these parents was the process of networking through various "support" groups in a suburban area on the East Coast. Data collection was ongoing for 1 year. A total of 23 couples having fullterm infants completed study questionnaires, 3 of which were multiparas. For two of the couples, only the wife completed a questionnaire, despite follow-up efforts with the husbands. A total of 9 couples having preterm infants completed questionnaires, 8 of which were multiparas.

Instrumentation

Marital Adjustment. The Dyadic Adjustment Scale (DAS--Spanier, 1976) consisted of 32 items developed to measure an individual's adjustment to his/her marital relationship. This instrument was administered within the first 3 months postpartum. The DAS was scored by adding the numbers respondents assigned to

each item. The higher the score, the greater the perceived adjustment. In this study, parents' scores were calculated for the total DAS as well as for each of the subscales: Marital Satisfaction, Affectional Expression, Dyadic Cohesion and Dyadic Consensus. Marital satisfaction prior to conception was also measured using participants' retrospective reports. The DAS was selected for this study due to its sound theoretical and empirical base. It allowed the researcher to examine the reported overall marital adjustment, in addition to specific aspects of the marital relationship for both parent groups.

Stressors. Stressors were defined in this study as the demands on an individual that were appraised as taxing or exceeding his/her resources (Folkman & Lazarus, 1980). Stressors of the participating parents were identified using the Parent Perception Inventory (PPI--Trause & Kramer, 1983). The instrument consisted of 34 items representing stressors that were originally identified from a review of preterm parenthood literature; however these items were also viewed as applicable to fullterm parents. They pertained to four general areas: 1) personal feelings, 2) relationships, 3) spousal relationship, and 4) feelings about the baby. For 30 of these items, participants were asked to read each statement and select one of three response choices provided. Each response was numbered from 1 to 3, ranking the item from the least to greatest level of demand experienced. Each item was analyzed separately in order to identify and compare specific stressors for

preterm and fullterm infant parent groups. The remaining four items provided an open ended response format for parents to express their feelings about their experience and report stressors not covered by the structured items. Responses to these items were not analyzed statistically, but reported according to frequency with which they were identified. The PPI was administered within the first 3 months postpartum.

Coping. Coping was defined as the cognitive and behavioral efforts used to manage or alter stress (Folkman & Lazarus, 1980). The Ways of Coping Checklist (WCOP--Folkman & Lazarus, 1980) consisted of 67 Likert-type items that described various coping strategies. These items were from the domains of defensive coping (e.g., avoidance, intellectualization, isolation, suppression), information-seeking, problem-solving, palliation, inhibition of action, direct action, and magical thinking. Respondents were asked to rate each item on a 4-point scale as to the extent they used the strategy in problem solving since becoming a parent. Items were rank ordered to compare coping strategies used by parents of preterm and fullterm infants within the first 3 months postpartum. The higher the item was rated, the greater the extent it was used. The use of the scale in this study was determined by its applicability to both parent groups and the lack of sex bias.

Those parents meeting the criteria for inclusion in the study were given an explanation into the nature of the investigation and asked to participate by the

health care professionals at the data collection sites. Following this initial contact, the study investigator corresponded with the parents by letter, and when necessary for follow-up, by phone. Packets were then distributed to these parents that contained:

1) a letter of introduction and explanation regarding study protocol;
2) consent forms (1 for each parent);
3) questionnaire booklets consisting of the DAS, WCOP, PPI and Demographic Form (1 for each parent); and
4) a pre-addressed, stamped envelope for return of the questionnaire booklets.

Parents were allowed to take the packets home in order to provide adequate time for completion. Both mothers and fathers were encouraged to complete their booklet and to do so independently. Any discussion of questionnaire items was discouraged until after the return of the booklet to the investigator. The parents were instructed to return the booklets within 1 week of their receipt.
Follow-up was conducted using telephone contact and written correspondence.

To enhance the useability of the outcome of this study, qualitative data were gathered, interviewing parents and health professionals. Semi-structured interviews were conducted with 2 couples whose marriages were intact: one couple having a fullterm infant and one couple having a preterm infant. For both couples,

the infants were their first children and were 14 and 20 months of age, respectively. The age of the infants allowed for retrospective data to be collected regarding adjustment over the first year of the life. Exploration continued around the three variables originally identified for the study: 1) marital adjustment, 2) strategies for coping, and (3) stressors.

Interviews took place prior to any quantitative data analyses procedures. A two hour time period was scheduled for the study investigator to meet with the couples in their homes. Each parent (mother and father) was asked to complete the study questionnaire booklet prior to this home visit. These questionnaires were not used as part of the qualitative analyses, but were used to facilitate discussion with the parents. In addition, questioning was conducted using the format found in Appendix III, discussing experiences across the gestational and postpartum stages.

A total of 5 hours was also spent interviewing a perinatal nurse educator and transport nurse at a Neonatal Intensive Care Hospital in Southwest Virginia. Questioning focused on the role these nurses had with the parents of premature infants, what stressors they perceived the parents experiencing as well as coping strategies they observed the parents using. Furthermore, they were asked for what suggestions they could offer towards facilitating optimal parent adjustment.

CHAPTER IV

RESULTS

Due to the small and unequal sample sizes of the parent groups in this study, data analysis procedures were limited to computing means and frequencies, crosstabulations and simple t-tests. Correlational analyses would not have been statistically meaningful, therefore, hypotheses examining the relationships of variables could not be tested.

All of the data for study parents were analyzed by parent gender and term category of the infant. The data are organized within the following sections: (1) descriptive statistics of the study participants; (2) t-tests comparing marital adjustment scores within the first 3 months postpartum; t-tests comparing marital satisfaction scores prior to conception and 0 - 3 months postpartum; (3) crosstabulation of stressor items; (4) crosstabulation of coping strategies; and, (5) summary of parent and health professional interviews.

Descriptive Statistics

Parents in both groups were primarily Caucasian, well-educated professionals in their early thirties, earning middle to upper middle incomes. Exceptions regarding race involved the participation of one Black couple and one Hispanic couple in the parents of preterm infants group.

Average age of the study parents was 31.9 years (range = 24 - 48 years). Parents of preterm infants were slightly older than parents of fullterm infants (means = 33.3 years versus 31.2 years, respectively), with the greatest difference between study fathers (preterm, mean = 35 years; fullterm, mean = 32 years). Mothers were somewhat closer in age (preterm, mean = 31.9 years; fullterm, mean = 30.5 years). It should be noted that the parents of preterm infants group also had a higher number of multipara couples than the parents of fullterm infants group (preterm = 8 out of 9 couples; fullterm = 3 out of 23 couples). The oldest participating couple, both mother and father at 48 years of age, gave birth to their first child which was fullterm after 15 years of marriage.

Parents of preterm infants were married a greater average number of years than parents of fullterm infants; yet parents of fullterm infants had a greater range for length of marriage (preterm, mean = 4.1 years; range = 1 - 8 years; fullterm, mean = 3.7 years; range = 1 - 15 years). This was the first marriage for 88% of the parents of fullterm infants, compared to 56% of the parents of preterm infants. There was no difference in the number of remarriages for mothers and fathers, with this being their second marriage.

All study parents had at least high school educations, with a majority also having attended and/or completed college (mean = 16.2 years of education, range = 12 - 24 years). This remained true across the parent groups by term of the

infant (preterm, mean = 15.8 years; fullterm, mean = 16.6 years). Fathers had slightly higher educational levels than mothers, with means of 17.0 years and 15.9 years, respectively.

Occupations were classified into five categories: (1) professional (white collar); (2) technical (blue collar/clerical); (3) military; (4) student (fulltime); and (5) previous professional, no longer working outside the home. The latter category was developed for the mothers who reported having worked outside the home prior to the infant's birth, but had elected to stop postpartum. All of these women were previously in professional occupations. A total of 25% of study mothers fell into this category. Of the mothers who continued working postpartum, 56% were in professional occupations. Eighty percent of the fathers held professional positions. Technical positions were held by 19% of the mothers and 10% of the fathers. Only fathers reported being in the military (7%) or enrolled as a fulltime student (3%). When parent groups were examined by term of the infant, distribution of these percentages remained the same.

Annual gross income was reported at category average of $50,000 to $59,000 (range = $20,000 - $90,000). Several of the parents with professional occupations were medical residents who had not yet reached their full earning potential. These were the same parents who reported extremely high numbers of hours worked outside the home (up to 110 hours). Number of hours worked outside the home

at postpartum was greater for fathers (mean = 46 hours; range = 0 - 110 hours) than for mothers (mean = 18.7 hours; range = 0 - 55 hours). This was also true across the parent groups by term of the infant.

Help with child care in the home was reported by 39% of parents of preterm infants and 30% of parents of fullterm infants. These child care providers were either extended family members or close friends.

Conception of infants was typically planned among the fullterm infant group (70%) but over half of the parents of preterm infants reported unplanned conceptions (56%). Difficulty with conception was generally low among the parents, with the greater difficulty being reported by the parents of fullterm infants (preterm = 12%; fullterm = 27%).

Average gestational period for preterm infants was 28.3 weeks (range = 25 to 32 weeks), with a mean birthweight of 2.7 pounds (range = 1.6 - 3.6 pounds). Fullterm infants had a gestational period of 40 weeks, and mean birthweight of 6.4 pounds (range = 6.2 - 8.6 pounds). A total of 67% of the preterm infants were rated at high risk for survival, with risks typically involving very low birthweights combined with severe respiratory and cardiac complications. Cesarian method of delivery was used frequently for both fullterm and preterm infants, slightly higher, however, for preterm infants (preterm = 55% Cesarian; fullterm = 45% Cesarian; - See Table 1 for summary of demographics).

Table 1.

Demographic Information

Number of Participants

	Fullterm	Preterm	Total
Males	N = 21	N = 9	N = 30
Females	N = 23	N = 9	N = 32
Total	N = 44	N = 18	N = 62

Mean Age

	Fullterm	Preterm	Total
Males	32.0	35.0	32.9
Females	30.5	31.9	30.9
Total	31.2	33.3	31.9

Race

White	94%
Black	3%*
Hispanic	3%*

*Both couples parents of preterm infants.

Occupation

Males: 80% Professional
10% Technical
7% Military
3% Student

Females: 56% Professional
25% Previous Professional, no longer working outside the home
19% Technical

Income

Average gross income range for 1988 = $50,000 - $59,000
(Total range = $20,000 - $90,000 and Above)

Average Number of Work Hours Outside The Home

Males: Mean = 46.0 hrs. (Range = 0 - 110 hrs.)
Females: Mean = 18.7 hrs. (Range = 0 - 55 hrs.)

Length of Marriage

Parents of Preterm: Mean = 4.1 yrs. (Range = 1 - 8 yrs.)
Parents of Fullterm: Mean = 3.7 yrs. (Range = 1 - 15 yrs.)

Difficulty With Conception

Parents of Preterm: YES 12%
NO 88%
Parents of Fullterm: YES 27%
NO 73%

Table 1. (Continued)

Demographic Information

Planned Conception

Parents of Preterm:	PLANNED	44%
	UNPLANNED	56%
Parents of Fullterm:	PLANNED	70%
	UNPLANNED	30%

First Marriage?

Parents of Preterm:	YES	56%
	NO	44%
Parents of Fullterm:	YES	87%
	NO	13%

Gestational Age

Preterm: Mean = 28 wks. (Range = 25 - 32 wks.)
Fullterm: 40 wks.

Birthweight

Preterm: Mean = 2 lbs., 7 oz. (Range 1.6 - 3.68 lbs.)
Fullterm: Mean = 6 lbs., 4 oz. (Range = 6.25 - 8.68 lbs.)

Delivery Method

Parents of Preterm:	CESARIAN	55%
	VAGINAL	45%
Parents of Fullterm:	CESARIAN	45%
	VAGINAL	57%

Risk Level Of Preterm Infants

HIGH	67%
MODERATE	12%
LOW	12%

First Pregnancy?

Parents of Preterm:	YES	22%
	NO	78%
Parents of Fullterm:	YES	68%
	NO	32%

Home Care?

Parents of Preterm:	YES	39%
Parents of Fullterm:	YES	30%

Who Care?

Relatives for both groups; to a lesser degree, friends of the family.

Marital Adjustment and Satisfaction

Hypotheses:

1. Marital adjustment will show a significant positive relationship with both emotion-focused and problem-focused coping strategies.
2. Marital Adjustment will show a significant inverse relationship with stressor scores.
3. There will be a significant difference for marital adjustment scores between the preterm infant and fullterm infant parent groups that will continue across time.
4. There will be no significant change in marital satisfaction scores for parents of fullterm or preterm infants across time.

Hypotheses one and two were not examined in this study due to the problem of small and unequal sample sizes. Correlations of these variables would not have been statistically meaningful. With Time II for data collection eliminated from this study, only retrospective changes in marital satisfaction across time could be examined. Results from this analysis must also be interpreted carefully, due to the retrospective measure of marital satisfaction prior to the infant's conception.

Mean scores were computed for the Dyadic Adjustment Scale as well as the Dyadic Consensus, Dyadic Cohesion, Marital Satisfaction and Affectional Expression subscales. Results indicated that parents in this study were generally satisfied and

well adjusted in their marital relationship prior to the infant's conception and 0 - 3 months postpartum (See Tables 2 and 3).

The third hypothesis was not supported, with t-tests showing no significant differences between the parent groups on any of the scales. No significant differences were found between scores for mothers and fathers on any of the satisfaction or marital adjustment scales, even when examined by term of the infant. Finally, scores for marital adjustment and satisfaction were not significantly different between the time prior to conception versus 0 - 3 months postpartum, either by parent gender or term of the infant; thus, hypothesis four was supported.

Stressors

A few of the parent questionnaire booklets contained items on the Parent Perception Inventory (PPI) and the Ways of Coping Checklist (WCOP) that had not been completed. So few, in fact, that given the difficulty with obtaining data, the questionnaires were retained in the study. Mean scores were calculated for the missing data items, running crosstabulation procedures with and without the calculated means. Observed differences for resulting percentages were quite minimal (within 1 to 2 %), therefore, findings reported for these scales will reflect percentages computed without the calculated means.

Table 2.

Mean Scores Of Mothers And Fathers For The Dyadic Adjustment Scale

Scale	Parent	Mean
Marital Satisfaction Prior to Conception	*Mothers*	*41.6*
	Fathers	*42.6*
Marital Satisfaction 0 - 3 Months Postpartum	*Mothers*	*42.1*
	Fathers	*42.9*
Dyadic Cohesion 0 - 3 Months Postpartum	*Mothers*	*18.2*
	Fathers	*18.2*
Affectional Expression 0 - 3 Months Postpartum	*Mothers*	*8.6*
	Fathers	*9.2*
Total Dyadic Adjustment 0 - 3 Months Postpartum	*Mothers*	*116.2*
	Fathers	*119.4*

Table 3.

Mean Scores Of Parent Groups For The Dyadic Adjustment Scale

Scale	Parent	Mean
Marital Satisfaction Prior to Conception	*Preterm*	*42.5*
	Fullterm	*42.2*
Marital Satisfaction 0 - 3 Months Postpartum	*Preterm*	*42.7*
	Fullterm	*42.5*
Dyadic Cohesion 0 - 3 Months Postpartum	*Preterm*	*17.8*
	Fullterm	*18.3*
Dyadic Consensus 0 - 3 Months Postpartum	*Preterm*	*47.6*
	Fullterm	*48.5*
Affectional Expression 0 - 3 Months Postpartum	*Preterm*	*9.2*
	Fullterm	*8.9*
Total Dyadic Adjustment 0 - 3 Months Postpartum	*Preterm*	*117.3*
	Fullterm	*119.2*

Hypothesis:

1. Stress scores for the parents of preterm infants will be significantly higher than stress scores for the parents of fullterm infants group.

A multiple response crosstabulation procedure was applied in order to obtain a rank ordering of structured stressor items on the PPI. Percentages of parents rating the items as stressful were calculated by gender and term of the infant. These items were first ordered using combined parent ratings of "2" (somewhat stressful) and "3" (very stressful). Further discrimination between the groups was achieved by ordering items rated only as "3" (very stressful).

Using the first analysis, seven items were identified as particularly stressful for all study parents. These items were (listed by parent percent):

1. fatigue (87%)
2. need for time alone for self (83.9%)
3. need for time alone with spouse (75.8%)
4. finances (69.4%)
5. worry about baby (66.1)
6. feelings of helplessness (59.7%)
7. ability to care for family (56.5%)

When items were examined by "3" (very stressful) ratings, only three stressors remained common to both parent groups. "Fatigue" remained the highest ranking

stressor; slightly more so for mothers of preterm infants (preterm mothers, 50%; fullterm mothers, 40%; fullterm fathers 43.8%; preterm fathers, 42.9%). "Concern over finances" became the second highest ranking stressor, especially for parents of preterm infants (preterm fathers, 57.1%; preterm mothers, 50%; fullterm fathers, 18.8%; preterm mothers, 20%). Third was the "need for time alone with spouse" which was rated highest by fathers of preterm infants (43%). Mothers of fullterm infants also rated this item high (35%) compared to 18.8% of fathers of fullterm infants, and 12.5% of mothers of preterm infants.

Parents did not generally rate "need for time alone for self" higher than "2" (somewhat stressful). This was true for an equal number of parents across the groups, even by gender (preterm mothers, 89%; preterm fathers, 86%; fullterm mothers, 79%; fullterm fathers, 89%).

The three remaining stressors identified in the first analysis ("worry about baby"; "feelings of helplessness"; and "ability to care for family") were all rated as being more stressful by a greater percentage of parents of preterm infants than parents of fullterm infants. Mothers of preterm infants, reported being especially worried about their infants, compared to other study parents (preterm mothers, 50%; preterm fathers, 28.6%; fullterm mothers, 15%; fullterm fathers, 6.3%). Fathers of preterm infants worried to a greater extent about their ability to care for their family compared to other study parents (preterm fathers, 28.6%; fullterm

fathers, 6.3%; preterm mothers, 10%; fullterm mothers, 12.5%). Although all mothers were quite similar in their reports of feeling helpless, a larger percentage of mothers of preterm infants indicated feeling "somewhat more helpless" than parents of fullterm infants (preterm mothers, 88.9%; preterm fathers, 55.6%; fullterm mothers, 73.9%; fullterm fathers, 33.3%). Only one study parent, a mother of a preterm infant, reported feeling totally helpless.

Sixty-one percent of all study parents indicated they cried occasionally, but mothers of preterm infants reported crying "alot" (38%, compared to 15% of mothers of fullterm infants and 0% of all fathers). One final item specific to parents of preterm infants was "worry over future pregnancies". Seventy-five percent of the mothers of preterm infants and 54% percent of the fathers of preterm infants indicated being very worried about future pregnancies (compared to 5% of mothers and 0% of fathers of fullterm infants).

Items regarding "spousal relationship" were not rated as particularly stressful. In fact, a majority of all study parents felt their marriage was stronger since becoming parents, especially fathers of preterm infants (89%, compared to 78% of mothers of preterm infants; 67% of fathers of fullterm infants; and, 74% of mothers of fullterm infants). Only one father of a fullterm infant reported feeling that his marriage was weaker since becoming a parent.

Interestingly, more fathers of preterm infants reported feeling much closer to their spouses since becoming parents than other study parents (89%, compared to 33% of mothers of preterm infants; 40% of mothers of fullterm infants; and 29% of fathers of fullterm infants). The other parents typically specified feeling "somewhat closer" to their spouses since becoming parents.

Study parents did not report feeling particularly neglected by their spouses, but felt rather that their spouses understood and sympathized with their feelings (fathers of preterm infants, 89%; mothers of preterm infants, 89%; fathers of fullterm infants, 77%; mothers of fullterm infants, 87%). Parents in this study did not indicate being worried about their ability or their spouse's ability to cope, nor did they fear losing touch with reality. However, 33% of the mothers of preterm infants did specify feeling somewhat guilty about their infant's preterm condition (compared to 22% of fathers of preterm infants; 13% of mothers of fullterm infants; and, 0% of fathers of fullterm infants). Parents of preterm infants also questioned more the fate of their infant's future than parents of fullterm infants (mothers of preterm infants, 44.4%; fathers of preterm infants, 33.3%; mothers of fullterm infants, 26.1%; fathers of fullterm infants, 23.8%).

Over 80% of the parents of preterm infants, both mothers and fathers, indicated they perceived the equipment in the nursery as encouraging rather than frightening. Only one father of a preterm infant reported experiencing a great deal

of stress when viewing other babies in the nursery. Generally, study parents indicated feeling that hospital staff were informative and supportive.

Less structured items on the PPI elicited responses from parents that supported the previous findings. For the first question, "How do you feel your baby is doing today?", parents of preterm infants typically used words or phrases such as "better", "stable" or "gaining weight, but still developmentally delayed". One mother of a preterm infant commented that her infant was doing well for being 7 weeks developmentally, but was actually closer to 4 months of age. Parents of fullterm infants generally used words such as "great", "healthy and happy", or "well" to describe their infants.

Question number two asked parents about other major problems or responsibilities that the parents felt. Responses from parents of preterm infants were typically, "money and medical bills", "attending to other children at home", and "managing other life activities". Parents of fullterm infants specified such things as "household tasks", "money", "finding child care", "caring for self", "work", and "getting organized".

The third item questioned parents about their difficulties in the past week. For parents of preterm infants, common answers were, "worrying about the baby's health", "traveling to and from the hospital", "worry over care of other children in

the home", "having to leave the baby at the hospital", and "scheduling time". Fathers of preterm infants specified more frequently having financial concerns.

Parents of fullterm infants had difficulties in getting enough sleep, needing personal time and time with their spouse, and working out household tasks. Mothers commented on their recuperation from delivery and feeling confined to the house. Fathers indicated difficulties in working out relationships with in-laws and parents, and seeing their wives in physical discomfort following delivery.

One father summarized having had the experience of both a 9 pound fullterm and 1. 1 pound preterm infant:

> Having experienced a fullterm baby and a baby born at 25 weeks is very different. The 3 months in the NICU was the hardest time of my life. Not knowing whether [our baby] was going to live or die, whether [our baby] would live a normal life or be handicapped has been and still is very difficult. Since [our baby] seems healthy and we treat [our baby] like a newborn, the time since we've been home (3 days) is very similar to our first child. The exception is [our preterm baby] is on a monitor.

Coping Strategies

Hypotheses

1. Scores for emotion-focused coping strategies will be significantly higher for the preterm infant parent group versus the fullterm infant parent group.

2. Scores for problem-focused coping strategies will be significantly higher for the fullterm infant parent group than for the preterm infant parent group.

A multiple response crosstabulation was conducted in order to obtain a rank ordering of coping items. Responses to the items were collapsed into two categories: "not used" and "used somewhat" became one category; "used quite a bit" and "used a great deal" became the second category. Those strategies used by 50% or more of the parents were interpreted to be of particular significance towards the adjustment to parenthood for this study sample.

All parents reported using a variety of both emotion-focused and problem-focused coping strategies. Some strategies common to the groups were (1) "tried to analyze the situation in order to understand it better" 66%; (2) "concentrated on what I had to do next", 65%; (3) "looked for a silver lining", 60%; (4) "drew on past experiences", 60%;, and (5) "told myself things to help me feel better", 52%.

Also in common were strategies that have been suggested by Folkman and Lazarus (1984) as describing outcome: (1) "grew as a person"; (2) "rediscovered the importance of life"; and (3) "bettered myself" (See Table 4).

Strategies not used by study parents tended to be those classified as "escape-avoidance" ("avoided people; "got away from it") or "distancing" ("went on like nothing happened"; "tried to forget" - See Table 5).

When strategies were examined for parents by term category of the infant, resulting percentages indicated that a greater number of parents of preterm infants used a greater variety of coping strategies (including emotion-focused) to a greater degree. Also, type of emotion-focused strategies were observed to be quite different between these groups.

Emotion-focused strategies used more exclusively by parents of preterm infants included those categorized as "self-control" ("tried to keep others from knowing how bad things were"; and "tried to keep my feelings from interfering too much"). Emotion-focused strategies used by parents of fullterm infants tended to more "expressive", such as "talked with someone about my feelings" and "let my feelings out somehow". "Emotionality" may be important for these parents to control in order to attend to daily living tasks and, again, in their minds, keep their infant alive.

Table 4.

Comparison Of Outcome Coping Strategies For All Parent Groups By Term Of Infant And Parent Gender

	Preterm %				*Fullterm %*			
Strategy	*Mothers*	*(n)*	*Fathers*	*(n)*	*Mothers*	*(n)*	*Fathers*	*(n)*
Bettered Myself	*67%*	*(6)*	*56%*	*(5)*	*65%*	*(15)*	*57%*	*(12)*
Rediscovered the Importance of Life	*67%*	*(6)*	*67%*	*(6)*	*70%*	*(16)*	*57%*	*(12)*
Grew as a Person	*56%*	*(5)*	*56%*	*(5)*	*52%*	*(12)*	*48%*	*(10)*

*Preterm mothers, N=9; Preterm fathers, N=9; Fullterm fathers, N=21; Fullterm mothers, N=23.

Table 5.

Comparison Of Coping Strategies "Not Used" By Parents of Fullterm and Preterm Infants

	*Preterm %		*Fullterm %	
Strategy	Mothers (n)	Fathers (n)	Mothers (n)	Fathers (n)
Avoided People	*11% (1)*	*22% (2)*	*4% (1)*	*5% (1)*
Ate, Drank, and Smoked	*0% (0)*	*11% (1)*	*22% (5)*	*0% (0)*
Got Away From It	*0% (0)*	*22% (2)*	*13% (3)*	*14% (3)*
Tried To Forget	*11% (1)*	*0% (0)*	*9% (2)*	*0% (0)*
Took It Out On Someone	*11% (1)*	*11% (1)*	*0% (0)*	*0% (0)*
Refused To Believe It Happened	*0% (0)*	*11% (1)*	*0% (0)*	*0% (0)*
Went On Like Nothing Happened	*11% (1)*	*0% (0)*	*9% (2)*	*5% (1)*
Just Went With Fate	*11% (1)*	*11% (1)*	*0% (0)*	*5% (1)*
Daydreamed	*0% (0)*	*11% (1)*	*13% (3)*	*10% (2)*

*Preterm mothers, N=9; Preterm fathers, N=9; Fullterm fathers, N=21; Fullterm mothers, N=23.

Other strategies singled out for parents of preterm infants were "prayed"; "had fantasies about how things might turn out"; "hoped for a miracle", and "maintained pride". Interestingly, "accepting sympathy" was not as common a strategy used among parents of preterm infants (mothers, 33%; fathers, 44%), as was for mothers of fullterm infants (65%, compared to 19% of fathers). This was also true for the strategy of "apologized for something", however also used more also by fathers of fullterm infants (mothers of fullterm infants, 52%; fathers of fullterm infants, 43%; mothers of preterm infants, 0%; fathers of preterm infants, 11%). Perhaps for parents of fullterm infants, time home with their infant allowed for the parenthood role to be realized. Apologies might be elicited and sympathy accepted while gaining competencies with new tasks and negotiating new relationships. Parents of preterm infants may choose to reject sympathy, typically equated with loss, during a time when they are struggling to hold on to the survival of their infant.

Parent groups were also compared by gender. Fathers reported using more problem-focused strategies than mothers (typically classified as "seeking social support" or "problem-solving"). When fathers were examined by infant term category, fathers of preterm infants exhibited more problem focused strategies and included emotion-focused items primarily aimed at "self-control" (Tried not to act too hastily"; "maintained pride").

Mothers as a whole used more emotion-focused strategies than fathers; yet, as with fathers of preterm infants, the number of these strategies also increased. Another very noteworthy finding was that, although both mothers and fathers of preterm infants used fewer "expressive strategies", this was especially true for mothers of preterm infants.

Forty-four percent of mothers of preterm infants reported that they "kept feelings to themselves", compared to 8.7% of mothers of fullterm infants, 4.8% of fathers of fullterm infants and 0% of fathers of preterm infants. Sixty-seven percent of mothers of preterm infants reported using the strategy "tried to keep others from knowing how bad things were" compared to 13% of mothers of fullterm infants, 4% of mothers of fullterm infants, 11% of fathers of preterm infants and 19% of fathers of fullterm infants.

Finally, strategies were compared for mothers and fathers within the parent groups (See Tables 6 and 7). Differences for mothers and fathers of preterm infants were, again, observed primarily in the extent to which emotion-focused strategies were used (See Table 7). Although more fathers in this group reported using emotion-focused strategies, percentages were still not as high as for mothers. Additional types of strategies used by mothers to a greater extent were "prayed", "hoped for a miracle", and "fantasized about how things might turn out".

Table 6.

Comparison Of Coping Strategies "Used" By Mothers And Fathers Of Preterm Infants

Strategy	*Mothers % (n)		*Fathers % (n)	
Thought of Worst	89%	(8)	67%	(6)
Talked With Someone	89%	(8)	89%	(8)
Looked For The Silver Lining	89%	(8)	67%	(6)
Asked For Advice	78%	(7)	22%	(2)
Concentrated On The Next Step	78%	(7)	78%	(7)
Used Self-Talk	78%	(7)	67%	(6)
Kept It To Myself	67%	(6)	11%	(1)
Fantasized	67%	(6)	33%	(3)
Prayed	67%	(6)	56%	(5)
Doubled Efforts	67%	(6)	56%	(5)
Only Time Makes A Difference	67%	(6)	33%	(3)
Analyzed The Situation	67%	(6)	89%	(8)
Hoped For A Miracle	56%	(5)	33%	(3)
Went Over In My Mind What I Would Do	56%	(5)	33%	(3)
Wished I Could Change Something	56%	(5)	33%	(3)
Suppressed Feelings	56%	(5)	78%	(7)
Waited Before Doing Anything	56%	(5)	22%	(2)
Stood My Ground, Fought For What I Wanted	56%	(5)	11%	(1)
Talked About Feelings	56%	(5)	22%	(2)
Maintained Pride	44%	(4)	67%	(6)
Tried Not To Burn Bridges	33%	(3)	89%	(8)
Tried Not To Act Too Hastily	33%	(3)	56%	(5)
Devised Different Solutions	33%	(3)	56%	(5)
Followed A Plan Of Action	22%	(2)	67%	(6)
Prepared For The Worst	22%	(2)	56%	(5)

*Preterm mothers, N=9; Preterm fathers, N=9.

Table 7.

Comparison Of Coping Strategies "Used" By Mothers And Fathers Of Fullterm Infants

Strategy	**Mothers % (n)*		**Fathers % (n)*	
Let My Feelings Out Somehow	*83%*	*(19)*	*48%*	*(10)*
Talked With Someone About The Situation	*78%*	*(18)*	*38%*	*(8)*
Talked About Feelings	*70%*	*(16)*	*43%*	*(9)*
Asked For Advice From A Friend Or Relative	*70%*	*(16)*	*38%*	*(2)*
Concentrated On The Next Step	*70%*	*(16)*	*48%*	*(10)*
Accepted Sympathy	*65%*	*(15)*	*19%*	*(4)*
Told Myself Things to Make Myself Feel Better	*61%*	*(14)*	*24%*	*(5)*
Drew On Past Experiences	*61%*	*(14)*	*71%*	*(15)*
Looked For The Silver Lining	*61%*	*(14)*	*43%*	*(9)*
Doubled My Efforts	*57%*	*(13)*	*57%*	*(12)*
Followed A Plan Of Action	*57%*	*(13)*	*48%*	*(10)*
Talked To someone Who Could Do Something About The Situation	*57%*	*(13)*	*24%*	*(5)*
Tried Not To Burn Bridges	*52%*	*(12)*	*43%*	*(9)*
Apologized For Something	*52%*	*(12)*	*43%*	*(9)*
Analyzed The Situation	*52%*	*(12)*	*71%*	*(15)*
Realized Only Time Can Make A Difference	*52%*	*(12)*	*43%*	*(9)*
Devised Different Solutions	*35%*	*(8)*	*53%*	*(11)*

*Fullterm mothers, N=23; Fullterm Fathers, N=21.

It was interesting to note that both mothers and fathers of preterm infants "thought of the worst" (mothers, 89%; fathers, 56%), but more fathers indicated "preparing for the worst" (mothers, 22%; fathers, 56%). Fathers in this study typically were more analytical (89%, compared to 67% of mothers) and "followed through with a plan of action" (56%, compared to 22% of mothers). These strategies were common to all fathers, but for fathers of preterm infants, may have been somewhat reflective of their reported worry over financial matters; feeling responsible to meet financial needs as well as to manage day to day tasks while the mother remains hospitalized.

Both parents of preterm infants indicated working to gain more information ("talked with someone to obtain information about the situation", 89% for mothers and fathers;). Yet only one social support item was used by both parents ("talked with someone who has been there", 78% for mothers and fathers).

Fathers of fullterm infants did not generally rate any of the strategies too highly, but those they did were clearly more oriented towards problem-solving than emotion-focused. The three strategies they rated higher than mothers of fullterm infants were "analyzed the situation" (71% compared to 52% of mothers) "drew on past experiences" (71% compared to 61% of mothers) and "devised different solutions" (53% compared to 35% of mothers).

More mothers of fullterm infants indicated using more emotion-focused strategies, and to a greater extent than fathers of fullterm infants. A total of 83% of the mothers reported letting their feelings out somehow, compared to 48% of fathers. Seventy percent said they "told myself things to make myself feel better" compared to 24% of the fathers. Other items specific to these mothers were those specific to gaining social support, such as "asked for advice from a friend" (mothers, 70%; fathers, 38%), and "talked with someone about how I was feeling" (mothers, 70%; fathers, 38%).

Summary of Parent Interviews

Information gathered from the parent interviews is summarized and presented in the following text. To protect identities, the parents will be referred to as "Mother and Father Fullterm" and "Mother and Father Preterm".

The Fullterm Family. At the time of the interview, Mother Fullterm was 26 years of age and in excellent health. Prior to Baby Fullterm's birth, she had been employed fulltime as a registered nurse in a hospital. Since becoming a parent, she had reduced her work outside the home to approximately 16 hours per week. Both Mother and Father reported feeling very strongly that they wanted Mother to remain the primary daily care provider of Baby Fullterm, and Father would assume the responsibility for the family income.

Father Fullterm was 29 years of age and also in excellent health. He was employed as a physician in private practice, working about 50 hours per week. He stated that he had selected a practice that would not require "on call" duty during weekends in order to have more time with his family. Mother and Father Fullterm had been married 1 year and 9 months, and resided in a suburban area on the East Coast.

Baby Fullterm was 15 months of age and healthy. Baby's conception was planned and occurred rather quickly (3 months from the time the couple began trying to conceive). This was not the first pregnancy for this couple, but was the first live birth. Baby Fullterm was born in the 6th month of the couple's marriage. Baby was delivered vaginally at the time of the anticipated "due date" (40 weeks gestation), without medical complications and weighing 7 pounds and 14 ounces. Baby's development was described by Mother and Father as being quite normal, with only occasional minor illnesses and injuries.

Mother and Father talked first about the discovery of their pregnancy. Both stated they were very happy, but Mother commented that she felt Father was even happier than she. Father agreed with her. When asked to elaborate, Father talked about his pride and sense of fulfillment at having contributed to fertilization and the beginning of a new life. Mother gave her viewpoint that, unlike Father, her joy was mixed with concern about physical changes she would come to experience and

uncertainty as to whether Father could continue to find her attractive. Mother went on to comment that by Father's sexual responsiveness and attentiveness to her, she had felt reassured.

Mother and Father expressed feeling supported by their parents regarding the pregnancy. Mother's parents were both living and resided in the local area. This was their first grandchild. Father's mother was deceased, but his father lived up the Coast in an urban area. Father reported that he had first told the "news" to his brother, and that his father was somewhat disappointed that he was not the first to be informed.

Mother received private prenatal care throughout her pregnancy, and reported that any discomforts she experienced were primarily due to fatigue. Mother and Father attended only a few childbirth preparation classes. Both indicated they felt their professional educations had more than adequately prepared them for the delivery. They identified sources of support as their relationship with each other, their friends, family and co-workers.

Mother and Father, but especially Father, indicated that preparation for their infant in their relationship took the form of what was referred to as "nesting". Time was spent in deciding about child care, specifically deliberating over whether Mother would stop working, what kind of professional practice Father would commit

to and what his work hours be. This was also the time that Mother and Father decided to buy a house, in order to make "room" for Baby.

Mother had worked until the time of her labor. She discussed feeling uncertain about when her labor actually started, having several telephone conversations with Father, her mother and friends to determine if indeed it had begun. Mother and Father remained at home as long as possible before going to the hospital. Mother talked about feeling anxious about delivery and discomforts with enemas and examinations. Father expressed feeling excitement in the anticipation of Baby's arrival and wanting to support Mother. During the last hours of labor, mother requested an epidural, after which both parents watched T.V. and waited for delivery. They indicated feeling that this time without mother in so much pain allowed for a more intimate experience between them.

Mother reported that the epidural did wear off, and that delivery was painful and exhausting. She had difficulty with her vision and had to rely on Father to describe Baby to her. She expressed feeling the need to rest before she could have the time with Baby that she desired.

Mother and Baby stayed in the hospital 1 day. Both parents stated that they had wanted more private time at the hospital with Baby. They were also mildly dissatisfied with the hospital staff, stating they felt staff were overworked and did not respond quickly enough to calls. Mother added that she would have

liked to have had more assistance from staff with her efforts at breast feeding. Both Mother and Father reported Baby's delivery to be one of the most intimate experiences of their relationship.

After arriving home, Mother and Father agreed that they were not prepared for how much Baby would sleep, wondering if everything was O.K.. A couple of weeks later, Baby became "fussier" with both parents stating they then had difficulty getting enough rest. They had decided that Mother would be responsible for attending to Baby at night, due to issues such as breast feeding and Father's work schedule. It appeared that the couple had clearly defined and assigned tasks, taking on more "traditional" roles.

Support continued to come from family and friends through visitation and telephone contact. Mother's mother spent some time in the Family's home assisting with Baby's care soon after they came home from the hospital.

Mother and Father Fullterm discussed the changes in their relationship since becoming parents. Mother indicated feeling that, as a couple, they became more committed to their relationship. Father agreed, being quite expressive in his description of how he felt their relationship became more "solidified". Activities became less "spontaneous" and "carefree", no longer were they "irresponsible lovers". They now were working more towards a common goal of caring for another human being. They summarized the change as moving towards a "partnership" that became

further realized as Baby's development continued. As Baby became older, decisions were centered more around incorporating Baby into their lifestyle as well as adjusting to the lifestyle that came with Baby. Mother had begun to resume more and more "outside" activities. By the time of this interview, Mother and Father had even interviewed someone to assist with child care to allow for more time individually and with each other.

Both Mother and Father commented that life seemed to take on more meaning. That although there were new decisions to make and tasks to accomplish, they felt committed to their responsibility and gratified with their role as parents.

Preterm Family. Mother and Father Preterm had experienced the anticipation of triplets. Not only were the babies born prematurely, but one was delivered stillborn. At the time of the interview, Mother Preterm was 34 years old and in excellent health. Prior to the babies' birth, she had been employed fulltime as an elementary school teacher. She had planned to resume teaching at the end of her maternity leave, however, as a result of the complications with the delivery of the babies, Mother and Father had decided that the financial and emotional costs of having another person care for Baby 1 and Baby 2 would be too great for them. Mother became the daily care provider for the babies.

Father Preterm was a healthy 42 year old, employed as an electrician with the Railroad. He reported working long hours, but expressed feeling grateful for

the job security he was fortunate to have. It provided the Family with the insurance coverage needed to pay for almost all of the cost of the babies' hospitalization (estimated to be about $18,000).

This was the first marriage for Mother Preterm, and the second for Father Preterm. Father had 2 adult children from his previous marriage, one of which resided in the local area. Mother and Father had been married 8 years and resided in a suburban area in Southwest Virginia.

Baby 1 and Baby 2 Preterm were 20 months of age, and suffered periodic respiratory infections. In fact, about a month and a half after this interview, Baby 2 had been hospitalized for the "croup". Although physical and emotional development of the babies had been somewhat delayed in the first few months of life, they had gradually moved on to "schedule".

Conception was planned for these babies, in fact Mother and Father had experienced difficulty with fertility. Mother had been taking medication to stimulate ovulation. When Mother and Father discovered they were pregnant, they expressed being overjoyed. It wasn't until a later sonogram examination was performed that Mother learned she was carrying triplets. Both Mother and Father commented that they felt a sense of shock, being overwhelmed at the thought of having three babies at one time. Mother received specialized medical care for being "at risk" for preterm delivery, but at 34 weeks gestation, her labor began. She delivered two live

babies, and one baby that was stillborn. Mother and Father later learned that Baby 3 had died in-utero at approximately the 4th month of gestation.

Babies Preterm were delivered by Cesarian method, with Baby 1 weighing 4 pounds and 7 ounces and Baby 2 weighing 4 pounds and 14 ounces. Both babies suffered initially from an inability to coordinate suck-swallow reflexes and required nasogastric feedings. No transport of the Babies was necessary since they were delivered at the NICU hospital. Mother was hospitalized 9 days. Baby 1 was hospitalized 28 days and Baby 2 experienced a 16 day hospitalizaiton. After a period of stabilization, Baby 1 experienced a second life threatening medical complication. Mother and Father stated that they were devastated that Baby 1 had been at risk for survival a second time. They also commented that, in retrospect, having time to become accustomed to parenting tasks with one baby at home prior to having to do so with 2 babies might have been an advantage. Yet fatigue and negotiating child care for Baby 2 made their visitation of Baby 1 more complicated.

Grieving regarding Baby 3 was not discussed, only observed through Mother and Father's tears. Mother did offer to say that Baby 3 had been named.

Mother and Father talked about the time of delivery. Due to the anticipation of multiple birth, they were prepared for the possibility of preterm labor. However, they expressed not being prepared for the stillbirth of Baby 3. Mother and Father described their reaction, indicating that they were overwhelmed

and somewhat "numb" with so much to cope with -- attending to the arrangements for Baby 3, the uncertain fate of Babies 1 and 2 and trying to obtain information.

Mother stated feeling that as a result of her confinement to the hospital where the babies also stayed, she was at an advantage for visitation and knowing about their condition. Father reported that he did not worry over tasks to be accomplished, he just did them. Both parents expressed a great deal of satisfaction with the support and information provided by hospital staff and the time they were allowed with the babies.

When both Babies 1 and 2 were finally at home, Mother and Father identified the need for assistance with child care and fatigue as being very stressful for them. Baby 1 and 2 were "colicy" and somewhat difficult to soothe. Extended family members were not geographically close. All lived out of state except for one of Father's adult children and an elderly aunt (It should be noted that the aunt was also being cared for by Mother and Father in their home at this time, prior to her move into a residential nursing care facility). Although Mother's mother came to visit for a period of time after delivery, Mother expressed feeling a particular loss at having her family so far away. Mother's father did not visit, which Mother indicated was difficult for her, but felt that he initially distanced himself out of grief. Father's mother was elderly and described as physically unable to travel. Father's

father was deceased. Father and Mother reported relying a great deal on the Father's adult son for the "extra hands" he provided.

Mother and Father went on to discuss how they relied on each other for emotional support. Friends were supportive, but also worked and were not always available. When asked specifically whether they could have benefitted from talking with other parents of preterm infants, using support groups, they replied that connecting with the parents would have been helpful, but time was not available to seek them out or attend structured meetings.

By the time the Baby 1 and Baby 2 were 3 to 4 months of age, they were reported by Mother and Father to be sleeping better. They indicated feeling the babies were less "vulnerable" and were ready to go on short "outings". Mother and Father began hiring sitters, coming 2 at time, but rarely left them alone with the babies. By 6 months, Mother and Father stated they were able to begin to "enjoy" the babies. Mother took Baby 1 and Baby 2 on a car trip to her parents' house. Both parents stated they began feeling more competent in their ability to care for the babies, and could spend more time away from them. At 9 to 12 months, Mother and Father expressed feeling that life for them began to "normalize". As was described for the Fullterm Family, Mother and Father Preterm reported incorporating Baby 1 and Baby 2 into their lifestyle, resuming their traveling and enjoying more "outside" interests.

Finally, Mother and Father discussed changes in their relationship. Prior to the conception of the babies, Mother and Father reported having a very "free" lifestyle, traveling a great deal. They now had less time for "coupling" and sponteneity, concentrating on day to day managment of caring for 2 infants. Similar to Mother and Father Fullterm, they described their marriage as more of a partnership and a resource for emotional support. They expressed that although their lives had changed, they felt a great sense of fulfillment and personal growth through their experience of becoming parents to these babies.

Interviews of Nurses. The first discussion was with the Pediatric Nurse Educator at a NICU in Southwest Virginia. This nurse's role was twofold: to assist in preterm labor prevention through education and to provide information to parents delivering preterm or "high risk" infants and/or experiencing neonatal death. The conversation centered around the nurse's role in prevention and her observation of parents.

The nurse described her patient population: The NICU was a regional transport facility, serving approximately 15 - 20 counties. About 20% of her patients came from public health clinics, 50% from a clinic associated with the hospital, and 30% from the general population (including private medical facilities). Most of her patients were young, (estimating about 30% being under the age of 20

years), single and had low incomes; Typically considered to be a "high risk" population of parents.

For some parents, as in the case of the Preterm Family that was interviewed, they have advanced warning that they are at risk for preterm delivery. These parents are referred to the Nurse Educator. Goals of her work were discussed.

She first talked of how she explained the "disease process" to the parents. She helped them to understand what, in their particular situation, had placed them "at risk". Given that early identification could mean prevention, she explained how to detect signs and symptoms of preterm labor. Resources for support were offered such as outreach programs and appropriate social services.

If a mother was confined to bed rest, the Nurse Educator would give suggestions as to how to alleviate boredom in order to facilitate compliance.

Finally, the Nurse Educator provided parents with information about what to expect should their baby be born prematurely (e.g., medical complications and procedures). A frustration she discussed was that of getting parents of the high risk population (more frequently the adolescent mothers) to understand the "reality" of the situation. She commented that these parents often interpreted low birthweight to mean an easier delivery for them. She further stated that much of her work focused on facilitating a sense of "empowerment" for the parents. By her observation, parents who had a positive self-esteem and perceived they had a role

in preventing preterm labor or in their baby's care in the NICU, were better able to cope with their experience.

Transport Nurse. The Transport Nurse had several roles. She served as a health care provider to the baby; a liasion between the NICU and hospital where the baby was being transferred from; and a counselor and educator to the baby's parents. However, she stated that she was most frequently remembered by the parents as the person that took their baby away. Her work focused on turning this into a positive rather than negative perception. A total of 12 hospital sites were served by this NICU hospital. The Nurse traveled either by ambulance or helicopter, depending on the distance of the hospital where the baby was located. The only other health professional traveling with her was a respiratory therapist.

The first step was to stabilize the infant. The average time the Nurse spent at the hospital where the baby was being transported from was around 2 hours. She communciated with the parents during this visit at least two different times. Issues covered were: (1) medical complications that had occurred; (2) life support procedures; (3) what the parents could expect with regard to the baby's illness; (4) feeding processes and weight; and the most frequently asked question by the parents, (5) when the baby would go home. The Nurse felt that key factors that helped parents to cope were honesty and not creating false hopes. She reported finding that due to anxiety experienced by the parents, they had difficulty retaining

information. She made a point of repeating important statements to the parents several times. A written copy of the information was also given to them. The Nurse stated that she assessed each situation, but tried to included extended family members in communications to develop a supportive network.

The Nurse said she had observed that most parents perceived transport to the NICU as a positive step toward their baby's survival. She oriented them to the NICU hospital system, discussing intensive care procedures, visitation and who the baby's physician would be. Parents were discouraged from going immediately to the NICU hospital. The next serveral hours would be spent in getting the baby to and settled into the NICU, with little the parents could do. The Nurse stated she encouraged them (father and extended family members) to spend that time with the mother who remained hospitalized.

Two pictures were taken of the baby to give to the parents prior to transport, focusing only on the face. No full body pictures or pictures with equipment were taken. The reason for this was to allow for the most positive image of the baby for the parents to hold on to. If the prognosis for the baby was poor, the parents were encouraged to hold the baby before transport. The Nurse commented observing that Fathers typically had a harder time touching the baby.

The Nurse also stressed the importance of communicating information to parents giving their baby for adoption. In her opinion it allowed for better grief management with these parents.

When asked to talk about her perception of what the parents experienced, she described the inital period for them as a time of shock and disbelief. That despite their need to connect with others, they were too anxious and overwhelmed to concentrate on little else but the survival of their infant. For this reason, the Nurse felt formal support groups would not be successful. She also expressed feeling that the reduced support for the parents following discharge remained an issue that desparately needed attention. She explained that with the adjustment preterm infants must make moving from a loud, bright NICU to a more quiet, sedate home, they could be quite "fussy" and difficult to soothe. Opportunities for parents to achieve "time out" would be important towards optimal adjustment.

CHAPTER V

SUMMARY AND DISCUSSION

This study examined marital adjustment, stressors and coping strategies of parents of fullterm and preterm infants in the adjustment to parenthood. This chapter summarizes the major findings presented in Chapter IV and discusses (1) methodological problems, (2) implications for intervention, and, (3) recommendations for future research.

Summary of Results

The purpose of this study was to work towards a better understanding of how adjustment to parenthood experiences compare for both mothers and fathers of fullterm and preterm infants. The specific variables examined were (1) marital adjustment; (2) stressors, and, (3) coping strategies. It was hypothesized that marital adjustment would differ significantly between the two parent groups by term category of the baby, but that marital satisfaction would not change over time for any of the parents. It was further hypothesized that the more positive the report of marital adjustment, the lower the scores for stressor items would be, and that a greater number of coping strategies would be used. Scores for stressor items were predicted to be higher for mothers and fathers of preterm infants than for mothers and fathers of fullterm infants. Finally, it was predicted that parents of preterm infants would used a greater number of emotion-focused coping strategies compared

to parents of fullterm infants. Parents of fullterm infants would use a greater number of problem-focused coping strategies than parents of preterm infants.

Testing of these hypotheses was restricted due to problems with data collection yielding small and unequal study samples. Data analysis procedures were limited to computing mean scores, frequencies, crosstabulations and simple t-tests. Collection of data for marital adjustment over time was not attempted. Only a retrospective measure of marital satisfaction prior to conception was obtained to compare with marital satisfaction at 0 - 3 months postpartum. Relationships between variables were not examined since correlations would not have had statistical meaning.

Findings of this study were based on data collected from a sampling of parents that were primarily Caucasian, well-educated, in their early thirties, working in professional occupations and earning upper middle to upper incomes. Demographically, the parents of preterm and fullterm infants differed in several ways. First, different cultures were represented in the parents of preterm group, with the participation of one Hispanic couple and one Black couple. All of the participating parents in the fullterm infant group were Caucasian.

The parents of preterm infants group consisted of a larger number of multipara parents who were slightly older, had been married somewhat longer and had a greater number of remarriages than parents in the fullterm infant group.

Conceptions not planned were reported with greater frequency for parents of preterm infants than for parents of fullterm infants. Problems with infertility were not frequently reported by parents of either group, only slightly more so for parents of fullterm infants than parents of preterm infants.

The parents of preterm infants generally experienced very early deliveries (around the 28th week of gestation) with their infants being at high risk for survival. Parents of fullterm infants experienced delivery around the time of the anticipated due date (40 weeks gestation). Their infants had healthy birthweights and were free from medical complications. The number of Cesarian deliveries was high for both parent groups, only slightly higher for parents of preterm infants than for parents of fullterm infants.

Mothers and fathers in this study differed demographically in that fathers were slightly older than mothers. Another difference was with regard to the rate at which mothers compared to fathers stopped working outside the home at postpartum. None of the fathers reported that they quit their work outside the home pospartum, compared to one-fourth of the mothers who did. Of these parents who continued working outside the home postpartum, fathers reported doing so a greater number of hours than mothers.

Assistance with child care in the home was reported somewhat more frequently for parents of preterm infants than parents of fullterm infants. Child care providers were described as either extended family members or close friends.

All study parents reported being satisfied and well adjusted in their marital relationship. Results of t-tests showed no difference with regard to marital adjustment between parent groups by infant term category or parent gender. Supporting results reported by Belsky and his colleagues (1983), scores for marital satisfaction did not change from the time prior to conception to 0 - 3 months postpartum for any of these study parents. Yet according to spousal relationship items on the Parent Perception Inventory, parents, particularly fathers of preterm infants, reported feeling closer to their spouses since becoming parents. This discrepancy is indicative of the need to collect data that is current to the situation. Reports of marital adjustment in this study may reflect what Miller and Sollie (1980) referred to as the "honeymoon period".

Crosstabulations were used to rank order items that were rated as "very stressful" revealed three common stressors for the parents groups. Fatigue was reported as the greatest stressor, especially for mothers of preterm infants. Next were financial worries, even more so for fathers of preterm infants. Time alone with spouse was also needed, and to a greater extent for fathers of preterm infants

and mothers of fullterm infants. A need for time alone for self was common to all study parents, but was only rated as "somewhat stressful".

Other stressors identified using the Parent Perception Inventory were more specific to parents of preterm infants. Examples include "worry about the baby", "worry about my ability to care for my family" (especially for fathers of preterm infants), and "worry about future pregnancies" (primarily for mothers of preterm infants).

Parents did not indicate "worrying about their ability to cope" since becoming parents, but study mothers did report experiencing "feelings of helplessness" to a moderate degree (more so for mothers of preterm infants). Mothers of preterm infants indicated feeling somewhat guilty about their infant's condition, and questioned more the fate of their infant than other study parents. Equipment in the nursery was perceived by parents as encouraging rather than threatening, an observation that was also made of parents by the Transport Nurse that was interviewed.

Substantiating findings reported for the Dyadic Adjustment Scale, study parents did not report being stressed by their marital relationship on the PPI. Regardless of gender or infant term category, parents felt their spouses were sympathetic, understanding and respectful of their needs. Relationships with parents

and friends were identified as resources for support and satisfaction was expressed with regard to information provided by hospital staff.

Stressors identified using structured and less structured items on the PPI were quite similar. Less structured items did, however, allow for more detailed information to be obtained. Fatigue and financial worries were again reported by parents in both groups, regardless of gender. Stressors referred to here as "time management" and "task accomplishment" were added to the list. Unique to parents of preterm infants were stressors such as "getting to and from the hospital" and "having to leave the baby".

When comparing stressors, differences in parity between the parent groups must be considered. Unlike the parents of fullterm infants, almost all of the parents of preterm infants had other children at home. Yet findings of this study were quite similar to those reported in previous studies examining both parents of preterm and fullterm infants (Benefield, Lieb, & Reuter, 1976; Trause & Kramer, 1983). It would appear that parents of preterm infants must not only manage stressors that are experienced by parents of fullterm infants, but additional stressors specific to having their baby hospitalized and at risk for survival, as well.

Crosstabulations ranking coping strategies used by parents in this study revealed findings that were again in keeping with the previous research (Folkman and Lazarus 1986). All of the parents in this study indicated using a variety of

both emotion-focused and problem-focused strategies; somewhat less, however, for fathers of fullterm infants. Report of gender differences were the same with regard to men as was found by Folkman and Lazarus, with study fathers indicating they used a greater number of problem-focused strategies than study mothers. Yet unlike Folkman and Lazarus, gender differences were also found for emotion-focused strategies. Mothers reported using more emotion-focused strategies than fathers.

Comparing parent groups by infant term category, parents of preterm infants used a greater number of both emotion-focused and problem-focused coping strategies to a greater extent than parents of fullterm infants. Perhaps as was suggested by Silcock (1984), the more intense the situation is experienced, the greater the extent to which the parents work to cope.

These parents of preterm infants, especially mothers, used a substantial number of strategies classified as "self control". Self-control strategies were found by Folkman and Lazarus (1986) to be typical of situations needing more information. Nurse and parent interviews indicate that, indeed, a great deal of time is spent in getting updated regarding their infant's condition and medical procedures that are performed. Parents of preterm infants may also feel the need to prevent their emotions from interfering with other daily task accomplishments.

Even more specific to this parent group, again, primarily for mothers, were items such as "praying" and "hoping for a miracle".

Fathers of fullterm infants clearly used less coping strategies, but those they did were aimed at problem solving. Mothers of fullterm infants were generally more expressive and active in gaining social support.

Coping strategies categorized as escape avoidance ("avoided people"; "got away from it") were not generally used across the parent groups. Used to a greater degree were positive appraisal items such as "grew as a person" and "rediscovered the importance of life". Although outcome was not formally addressed in this study, Folkman and Lazarus (1986) have suggested that this combination of fewer escape-avoidance strategies and greater number of positive appraisal strategies used is indicative of a more positive outcome.

Examining information offered by parents who were interviewed, it was reported that both couples had experienced gratifications with becoming parents. But that these gratifications were delayed for the parents of the preterm infants until they had come to feel their infants were less vulnerable and they had achieved a sense of confidence in their ability to care for them. Relationships changes were not reported as being particularly stressful, but rather viewed as a growth into a new aspect of their life together. Mother and Father Preterm indicated that for

them, their relationship had been a resource for support, even more so since a supportive network of family was not as accessible to them.

Nurses interviewed confirmed that by their observation of parent of preterm infants they had worked with, an initial period of "shock" occurs, with a great deal of information needed for better coping. A particular need identified was that of making available a better supportive network for parents of preterm infants at the time the infant is discharged from the hospital.

Methodological Problems

A number of methodological problems were encountered with this study that affected the extent to which results could be interpreted and generalized to other parents.

Participation was voluntary, increasing the probability that a biased sample was achieved. This study was also vulnerable to selection bias, with health professionals tending to recruit only those parents who were motivated to take the time to complete the questionnaire, especially since this questionnaire was somewhat long. Parents who would typically be considered at risk for greater stress and poor coping outcomes (low income, poorly educated, very young single mothers) were not represented.

In fact, the difficulty encountered with identifying parents of preterm infants who met the proposed study criteria (primipara, with intact marriages) to match

with parents of fullterm infants implies that these parent groups are simply not equal.

Data collection for this study relied heavily on the use of self-report measures. Only general observations were made of parents through the use of interviews. Retrospective measure of marital satisfaction at the time considered to be the "honeymoon" during postpartum may have also effected the outcomes observed. Self administration of the questionnaires also became problematic, yielding a smaller sample size and again, possibly biasing the sample towards parents who would be motivated to return a mail questionnaire.

Lacking control over variables such as parity of the parents and time at which the data were collected limited the accuracy for which comparisons could be made between the parent groups. Parents having already experienced parenthood and who may have also previously encountered preterm delivery, could have a much different repertoire of coping strategies established than parents encountering childbirth for the first time. Given that a window of time (0 - 3 months postpartum) was used to collect data, control for parent and infant developmental changes was not achieved. These changes across time could greatly effect the perception of stressors and choice of coping strategies by the parents.

Finally, techniques used to analyze the data were limited to computing means, frequencies, and crosstabulations. If a much larger sample had been

obtained, the investigation of marital adjustment, stressor and coping strategy variables using regression analyses would have greatly enhanced this study.

Although the findings of this study were similar to those reported in previous research of parents of preterm and fullterm infants, careful interpretation must be made of outcomes, due to the small, uncontrolled, "self-selected" and unequal parent samples.

Implications for Intervention

With findings of this study based on a sampling of parents identified as having a substantial number of resources for coping, (e.g., financial, support network of friends and family, and relationship with spouse), what has been presented could be considered baseline data for assessing optimal parenthood adjustment. Of course, further research is needed to formally assess outcome, but even through parent and nurse interviews, it was suggested that resources such as described are needed and used quite frequently to manage parenting experiences, including the level of stress that is perceived. If this is true, then intervention should focus on capitalizing on these resources and facilitating their effective utilization.

An area that could be considered a concern was the extent to which fathers of fullterm infants did not use a variety of coping strategies. However, a theory of "supply and demand" is implied by the use of a greater number of coping strategies by a "matched" sample of fathers of preterm infants. The more demanding the

situation is perceived, the more fathers may have the ability to "supply" the coping strategies needed.

The extent to which parents of preterm infants, especially mothers, suppressed feelings is, however, disconcerting. Although it may be necessary to control "emotionality" to manage the "crisis", should this behavior escalate, especially in the case of parents with fewer outlets for expression, the greater the chance that withdrawal and isolation from supportive services may occur. This lack of expression regarding feelings also has the potential to effect the marriage, with perhaps parents failing to attend to their relationship needs.

Attention must also be give to the report of delayed gratification and anxiety around the ability to feel confident in parenting preterm infants. This, comibined with an infant that is difficult to soothe and few resources for gaining support could place parents at risk for more "reactive" behaviors.

In the NICU, efforts now in place that encourage parent involvement in the infant's care must be continued. Facilitation of communication between parents of preterm infants during periods of visitation could offer strength towards establishing a supportive network. Also helpful might be the sponsorship of parents by a couple having previously experienced a preterm delivery. A tool that could be useful in facilitating expression of feelings could be the "Preterm Baby Book". This book is similar to any other Baby Book, but is geared towards the

development of the preterm infant. Parents could chart development, their feelings and write communications to their infants that could be shared in the years to come with them.

After the infant is discharged from the hospital and little time is available for structured support groups, one means of getting parents together and allowing them "relief time" would be a "Parents of Preemies Day Out". This program would be designed specifically for parents of preterm infants and could be used as a center for continued education with nursing and child development staff offering consultation. Parents could "co-op" giving them the chance to have time with their infants in a supportive atmosphere while connecting and "normalizing" their experiences.

Implications for Future Research

Several suggestions for future research can be made with regard to continued investigation of parenthood adjustment experiences for couples having preterm and fullterm infants. First, with preterm parents experiencing what has been referred to as "shock" and grief reactions, data collection is a sensitive issue. It is for this reason that research investigating early postpartum experiences lends itself to qualitative methods, using more "personalized" techniques such as observation and interviewing versus relying solely on self-report measures. Further research is needed to substantiate findings regarding marital adjustment, perhaps redefined as

"dyadic adjustment" since many of the parents of preterm infants are single. The inclusion of fathers, in these studies is crucial. Exploration into how the relationship between the infant and father is established during these first few weeks of life is needed. These fathers play an important role in the management of family affairs while the mother remains hospitalized.

Variables that have been studied here, stressors, coping strategies, marital adjustment and other demographic indicators, need to be examined with regard to their relationship with each other, and what role they may play in the prediction of preterm labor. For example, with over half of the parents of preterm infants in this study reporting unplanned conceptions of their infants, it would be interesting to investigate what impact this might have regarding the incidence of preterm labor.

The Ways of Coping instrument appears to be useful in identifying coping strategies used by both mothers and fathers, with further studies needed to validate findings of this exploratory study. Other means for identifying stressors are needed in addition to self-report, such as observation, as previously suggested.

Outcome of adjustment experiences need to be assessed for both parents of preterm and fullterm infants using longitudinal studies. One possibility to chart this change would be to conduct an intensive case study, following couples over time.

Finally, it is imperative that future studies focus more on the population of parents suggested as being "at risk" for preterm labor. Parent differences must be identified to continue to understand what can be done to promote prevention and allow for optimal adjustment.

Conclusion

With a substantial number of preterm and low birthweight infants being born across the country, and the increased survival rate of these infants, there is a need to continue to assess what factors lead to better adjustment of these infants and their parents. Although the findings of this study are limited, evidence is presented that parents of preterm infants face a greater number of stressors than parents of fullterm infants, as well as a delayed period for which parenthood is actually established with these infants. It is anticipated that further research will help clarify these issues, and that the suggestions provided for future investigation and intervention will be useful to other researchers, mental health and health practioners.

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APPENDIX I: SCALES

Part I (WAYS OF COPING CHECKLIST)

Thinking of the problem solving you have done since becoming a new parent, please circle the number from 1 to 4 that indicates the extent to which you have used the following coping options.

	Not Used	Used Somewhat	Quite A Bit	Used A Great Deal
1. Just concentrated on what I had to do next--the next step.	1	2	3	4
2. I tried to analyze the situation in order to understand it better.	1	2	3	4
3. Turned to work or substitute activity to take my mind off things.	1	2	3	4
4. I felt that time would make a difference--the only thing to do was to wait.	1	2	3	4
5. Bargained or compromised to get something positive from the situation.	1	2	3	4
6. I did something which I didn't think would work, but at least I was doing something.	1	2	3	4
7. Tried to get the person responsible to change his or her mind.	1	2	3	4
8. Talked to someone about the situation.	1	2	3	4
9. Criticized or lectured myself.	1	2	3	4
10. Tried not to burn my bridges, but leave things open somewhat.	1	2	3	4
11. Hoped a miracle would happen.	1	2	3	4

	Not Used	Used Somewhat	Quite A Bit	Used A Great Deal
12. Went along with fate; sometimes I just have bad luck.	1	2	3	4
13. Went on as if nothing happened.	1	2	3	4
14. I tried to keep my feelings to myself.	1	2	3	4
15. Looked for the silver lining, so to speak; tried to look on the bright side.	1	2	3	4
16. Slept more than usual.	1	2	3	4
17. I expressed anger to the person(s) who caused the problem.	1	2	3	4
18. Accepted sympathy and understanding from someone.	1	2	3	4
19. I told myself things that helped me to feel better.	1	2	3	4
20. I was inspired to something creative.	1	2	3	4
21. I tried to forget the whole thing.	1	2	3	4
22. I got professional help.	1	2	3	4
23. Changed or grew as a person in a good way.	1	2	3	4
24. I waited to see what would happen before doing anything.	1	2	3	4
25. I apologized or did something to make up.	1	2	3	4
26. I made a plan of action and followed it.	1	2	3	4

	Not Used	Used Somewhat	Quite A Bit	Used A Great Deal
27. I accepted the next thing to what I wanted.	1	2	3	4
28. I let my feelings out somehow.	1	2	3	4
29. Realized I brought the situation on myself.	1	2	3	4
30. I came out of the experience better than when I went in.	1	2	3	4
31. Talked to someone who could do something concrete about the situation.	1	2	3	4
32. Got away from it for a while; tried to take a rest or vacation.	1	2	3	4
33. Tried to make myself feel better by eating, drinking, smoking, using drugs or medication, etc.	1	2	3	4
34. Took a big chance or did something very risky.	1	2	3	4
35. I tried not to act too hastily or follow my first instincts.	1	2	3	4
36. Found new faith.	1	2	3	4
37. Maintained my pride and kept a stiff upper lip.	1	2	3	4
38. Rediscovered what is important in life.	1	2	3	4
39. Changed something so things would turn out all right.	1	2	3	4
40. Avoided being with people in general.	1	2	3	4

	Not Used	Used Somewhat	Quite A Bit	Used A Great Deal
27. I accepted the next thing to what I wanted.	1	2	3	4
28. I let my feelings out somehow.	1	2	3	4
29. Realized I brought the situation on myself.	1	2	3	4
30. I came out of the experience better than when I went in.	1	2	3	4
31. Talked to someone who could do something concrete about the situation.	1	2	3	4
32. Got away from it for a while; tried to take a rest or vacation.	1	2	3	4
33. Tried to make myself feel better by eating, drinking, smoking, using drugs or medication, etc.	1	2	3	4
34. Took a big chance or did something very risky.	1	2	3	4
35. I tried not to act too hastily or follow my first instincts.	1	2	3	4
36. Found new faith.	1	2	3	4
37. Maintained my pride and kept a stiff upper lip.	1	2	3	4
38. Rediscovered what is important in life.	1	2	3	4
39. Changed something so things would turn out all right.	1	2	3	4
40. Avoided being with people in general.	1	2	3	4

	Not Used	Used Somewhat	Quite A Bit	Used A Great Deal
41. Didn't let it get to me; refused to think too much about it.	1	2	3	4
42. I asked a relative or friend I respected for advise.	1	2	3	4
43. Kept others from knowing how bad things were.	1	2	3	4
44. Made light of the situation; refused to get too serious about it.	1	2	3	4
45. Talked to someone about how I was feeling.	1	2	3	4
46. Stood my ground and fought for what I wanted.	1	2	3	4
47. Took it out on other people.	1	2	3	4
48. Drew on my past experiences.	1	2	3	4
49. I knew what had to be done so I doubled my efforts to make things work.	1	2	3	4
50. Refused to believe that it had happened.	1	2	3	4
51. I made a promise to myself that things would be different.	1	2	3	4
52. Came up with a couple of different solutions to the situation.	1	2	3	4
53. Accepted it, since nothing could be done.	1	2	3	4
54. I tried to keep my feelings from interfering with other things too much.	1	2	3	4

	Not Used	Used Somewhat	Quite A Bit	Used A Great Deal
55. Wished that I could change what had happened or how I felt.	1	2	3	4
56. I changed something about myself.	1	2	3	4
57. I daydreamed or imagined a better time or place than the one I was in.	1	2	3	4
58. Wished that the situation would go away or somehow be over with.	1	2	3	4
59. Had fantasies or wishes about how things might turn out.	1	2	3	4
60. I prayed.	1	2	3	4
61. I prepared myself for the worst.	1	2	3	4
62. I went over in my mind what I would say or do.	1	2	3	4
63. I thought about how a person I admire would handle this situation and used that as a model.	1	2	3	4
64. I tried to see things from the other person's point of view.	1	2	3	4
65. I reminded myself how much worse things could be.	1	2	3	4
66. I jogged or exercised.	1	2	3	4
67. I tried something entirely different from any of the above (please explain in the space provided below):	1	2	3	4

Part II (PARENT PERCEPTION INVENTORY)

Please complete the following sentences by selecting from the statements provided the one that best fits for you.
(Circle the number):

1. Since our baby's birth, I have

   1 only worried about the baby once in a while
   2 worried about the baby quite a bit
   3 not been able to stop worrying about the baby

2. Since our baby's birth, I have

   1 not cried at all
   2 cried occasionally
   3 cried a lot

3. Since our baby's birth, I have

   1 not wanted to be held
   2 sometimes wanted to be held
   3 frequently wanted to be held

4. Since our baby's birth, I have

   1 not wanted to be alone
   2 sometimes wanted to be alone
   3 frequently wanted to be alone

5. Since our baby's birth, finances have

   1 not been a concern for me
   2 been a concern for me
   3 been a major concern for me

6. Since our baby's birth, I have

   1 not felt I needed more time alone with my spouse
   2 sometimes felt I needed more time alone with my spouse
   3 often felt I needed more time alone with my spouse

7. Since our baby's birth, I feel my parents have

   1 helped get things done and understood our needs
   2 helped get things done but not understood our needs
   3 neither helped get things done nor understood our needs

8. Since our baby's birth, I have

   1 not felt worried about my ability to take care of our family
   2 felt somewhat worried about my ability to take care of our family
   3 felt extremely worried about my ability to take care of my family

9. Since our baby's birth, I have

   1 not felt neglected by my spouse
   2 sometimes felt neglected by my spouse
   3 often felt neglected by my spouse

10. Since our baby's birth I have

   1 been optimistic about our baby's future
   2 had questions about our baby's future
   3 been pessimistic about our baby's future

11. Since our baby's birth, I have

   1 not been very tired
   2 been somewhat tired
   3 been very tired

12. Since our baby's birth, I have felt

   1 much closer to my spouse
   2 somewhat closer to my spouse
   3 as close to my spouse as before

13. Since our baby's birth, I feel most of our close friends

   1 have wanted to support us and done so
   2 have wanted to support us but not known how
   3 have avoided us

14. Since our baby's birth, I have

    1 not felt guilty about our baby's condition
    2 felt somewhat guilty about our baby's condition
    3 felt very guilty about our baby's condition

15. Since our baby's birth, I have

    1 not felt helpless
    2 felt somewhat helpless
    3 felt totally helpless

16. Since our baby's birth, I have

    1 not been worried about future pregnancies
    2 been somewhat worried about future pregnancies
    3 been very worried about future pregnancies

17. Since our baby's birth, I

    1 am not afraid when the telephone rings
    2 am afraid when the telephone rings
    3 panic when the telephone rings

18. When the telephone rings frequently, since our baby's birth, I

    1 am pleased
    2 get annoyed
    3 get angry

19. Since our baby's birth, I have

    1 not feared losing touch with reality
    2 sometimes feared losing touch with reality
    3 often feared losing touch with reality

20. Since our baby's birth, seeing the other babies in the nursery has

    1 been encouraging to me
    2 not particularly affected me
    3 been upsetting to me

27. Since our baby's birth, I have

    1 not been worried about my spouse's ability to cope with the situation
    2 been somewhat worried about my spouse's ability to cope with the situation
    3 been very worried about my spouse's ability to cope with the situation

28. Since our baby's birth, I have

    1 not been worried about my ability to cope with the situation
    2 been somewhat worried about my ability to cope with the situation
    3 been very worried about my ability to cope with the situation

29. Since our baby's birth, I feel I

    1 can share all my thoughts with my spouse
    2 must keep some thoughts to myself so as not to worry my spouse
    3 must keep most thoughts to myself so as not to worry my spouse

30. Since our baby's birth, I feel our marriage is

    1 stronger
    2 the same
    3 weaker

Please write your response to the following questions in the space provided:

31. How do you feel your baby is doing today?

32. Do you have any major problems or responsibilities now other than caring for your child?

33. What has been the most difficult part of this last week for you?

34. A. Do you feel the hospital could improve in meeting your needs?

B. If so, in what ways?

C. What did you find satisfying about your experience with the hospital?

Part III (MARITAL SATISFACTION SUBSCALE)

Thinking of your relationship with your mate prior to the conception of your baby, please give your response to the following items.

Circle one star for each item:

	All The Time	Most Of The Time	More Often Than Not	Occasionally	Rarely	Never
How often did you discuss or did you consider divorce, separation or terminating your relationship?	*	*	*	*	*	*
How often did you or your mate leave the house after a fight?	*	*	*	*	*	*

	All The Time	Most Of The Time	More Often Than Not	Occasionally	Rarely	Never
In general, how often did you think that things between you and your partner were going well?	*	*	*	*	*	*
Did you confide in your mate?	*	*	*	*	*	*
Did you ever regret that you married?	*	*	*	*	*	*
How often did you and your partner quarrel?	*	*	*	*	*	*
How often did you and your partner "get on each other's nerves"?	*	*	*	*	*	*
Did you kiss your mate?	*	*	*	*	*	*

Please check the one statement that best describes how you felt about the future of your marriage:

[ ] I wanted desperately for my marriage to succeed, and would have gone to almost any length to see that it did.

[ ] I wanted very much for my marriage to succeed, and would have done all I could to see that it did.

[ ] I wanted very much for my marriage to succeed, and would have done my fair share to see that it did.

[ ] It would be nice if my marriage succeeded, but I couldn't do much more than I was doing at that time to keep the marriage going.

[ ] It would be nice if my marriage succeeded, but I refused to do anymore than I was doing at that time to keep the marriage going.

[ ] My marriage could never succeed, and there was no more that I could do to keep the relationship going.

The stars on the following line represent different degrees of happiness in your marriage. The middle point, "happy" represents the degree of happiness of most marriages. Please circle the star which best describes the degree of happiness, all things considered, of your marriage.

*	*	*	*	*	*	*
Extremely Unhappy	Fairly Unhappy	A Little Unhappy	Happy	Very Happy	Extremely Happy	Perfect

Part IV (DYADIC ADJUSTMENT SCALE)

Thinking of your relationship with your mate since becoming a parent, please give your response to the following items.

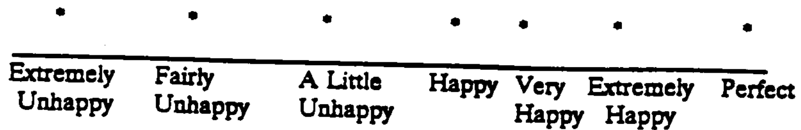
Please circle the number from 0 to 5 that indicates how often the following events occur between you and your mate:

	Never	Less Than Once A Month	Once Or Twice A Month	Once Or Twice A Week	Once A Day	More Often
Have a stimulating exchange of ideas	0	1	2	3	4	5
Laugh together	0	1	2	3	4	5
Calmly discuss something	0	1	2	3	4	5
Work together on a project	0	1	2	3	4	5

These are some things about which couples sometimes agree and sometimes disagree. Indicate if either item below caused differences of opinions or were problems in your marriage during the past few weeks (Circle one number for each item):

	Yes	No
Being too tired for sex	0	1
Not showing love	0	1

The stars on the following line represent different degrees of happiness in your marriage. The middle point, "happy" represents the degree of happiness of most marriages. Please circle the star which best describes the degree of happiness, all things considered, of your marriage.



Please check the one statement that best describes how you feel about the future of your marriage:

[ ] I want desperately for my marriage to succeed, and would go to almost any length to see that it does

[ ] I want very much for my marriage to succeed, and will do all I can to see that it does.

[ ] I want very much for my marriage to succeed, and will do my fair share to see that it does.

[ ] It would be nice if my marriage succeeded, but I can't do much more than I am doing now to keep the marriage going.

[ ] It would be nice if my marriage succeeded, but I refuse to do anymore than I am doing now to keep the marriage going.

[ ] My marriage can never succeed, and there is no more that I can do to keep the relationship going.

Please circle the number from 5 to 0 that indicates the frequency with which you and your mate agree on the following items:

	Always Agree	Almost Always Agree	Occasionally Disagree	Frequently Disagree	Almost Always Disagree	Always Disagree
Handling family finances	5	4	3	2	1	0

	Always Agree	Almost Always Agree	Occasionally Disagree	Frequently Disagree	Almost Always Disagree	Always Disagree
Matters of recreation	5	4	3	2	1	0
Religious matters	5	4	3	2	1	0
Demonstrations of affection	5	4	3	2	1	0
Friends	5	4	3	2	1	0
Sex relations	5	4	3	2	1	0
Conventionality (correct or proper behavior)	5	4	3	2	1	0
Philosophy of life	5	4	3	2	1	0
Ways of dealing with parents or in-laws	5	4	3	2	1	0
Aims, goals, and things believed important	5	4	3	2	1	0
Amount of time spent together	5	4	3	2	1	0
Making major decisions	5	4	3	2	1	0
Household	5	4	3	2	1	0
Leisure time interests	5	4	3	2	1	0
Career decisions	5	4	3	2	1	0

Please circle one star for each item:

	All The Time	Most Of The Time	More Often Than Not	Occasionally	Rarely	Never
How often do you discuss or have you considered divorce, separation or terminating your relationship?	*	*	*	*	*	*
How often do you or your mate leave the house after a fight?	*	*	*	*	*	*
In general, how often do you think that things between you and your partner are going well?	*	*	*	*	*	*
Do you confide in your mate?	*	*	*	*	*	*
Do you ever regret that you married?	*	*	*	*	*	*
How often do you and your partner quarrel?	*	*	*	*	*	*
How often do you and your partner "get on each other's nerves"?	*	*	*	*	*	*
Do you kiss your mate?	*	*	*	*	*	*
How many outside interests do you engage in with your mate?	*	*	*	*	*	*

Part V (DEMOGRAPHIC INFORMATION)

Finally, we would like to request some general information needed to help interpret the results of this survey.

1. What is your age? ________

2. What is your gender? (Circle number):

1 MALE
2 FEMALE

3. What is your race? (Circle number):

1 WHITE
2 BLACK
3 HISPANIC
4 ASIAN
5 OTHER (please specify):

____

4. What is the highest grade of education you have completed?

____

5. What is your occupation?

____

6. What will your family income from all sources be in 1988? (Circle number):

1 $10,000 OR LESS
2 $11,000 - 19,000
3 $20,000 - 29,000
4 $30,000 - 39,000
5 $40,000 - 49,000
6 $50,000 - 59,000
7 $60,000 - 69,000
8 $70,000 - 79,000
9 $80,000 - 89,000
10 $90,000 OR ABOVE

7. Please indicate the **approximate** number of hours you typically work a week outside your home:

____

8. How long have you been married?

________ year(s) ________ month(s)

9. Is this your first marriage? (Circle number):

1 NO
2 YES

If NO, please indicate the number of your current marriage:

____

10. Did you and your mate experience difficulty in conceiving your child? (Circle number):

1 NO
2 YES

11. Was your baby's conception planned? (Circle number):

1 NO
2 YES

12. Was this your first pregnancy? (Circle number):

1 NO
2 YES

If NO, please give the number of this pregnancy:

____

13. Was your baby born (Circle number):

1 PREMATURELY
2 FULLTERM

If PREMATURE, how far along in your pregnancy were you when your baby was delivered?

__________ months __________ weeks

14. What was your baby's birthweight?

__________ pound(s) __________ ounces

15. How was your baby delivered? (Circle number):

1 CESARIAN
2 VAGINALLY

16. Did your child experience medical complications at birth? (Circle number):

    1 NO
    2 YES

If YES, please explain:

____

17. Will there be someone in your home other than your spouse to help you care for your child? (Circle number):

    1 NO
    2 YES

If YES, please explain:

____

Please provide an address and telephone number where you can be contacted to receive the final questionnaire in 3 months:

c/o RESIDENTS at:

____

____

____

(_ _ _) _ _ _ - _ _ _ _

Do you have further information regarding your experience of becoming a new parent that you feel you have not had a chance to share? Please take the space left in this booklet to do so. Any comments you have regarding this survey would also be greatly appreciated.

APPENDIX II: WAYS OF COPING SUBSCALES

Scale 1: Confrontive Coping (a=.70)

6. I did something which I didn't think would work, but at least I was doing something.
7. Tried to get the person responsible to change his or her mind
17. I expressed anger to get the responsible person to change his or her mind.
28. I let my feelings out somehow.
34. Took a big chance or did something very risky.
46. Stood my ground and fought for what I wanted.

Scale 2: Distancing (a=.61)

12. Went along with fate; sometimes I just have bad luck.
13. Went on as if nothing had happened.
15. Looked for the silver lining so to speak; tried to look on the bright side of things.
21. Tried to forget the whole thing.
41. Didn't let it get to me; refused to think about it.
44. Made light of the situation; refused to get too serious.

Scale 3: Self-Control (a=.70)

10. Tried not to burn my bridges, but leave things open somewhat.
14. I tried to keep my feelings to myself.
18. Accepted sympathy and understanding from someone.
22. I got professional help.
35. I tried not to act too hastily or follow my first hunch.
43. Kept others from knowing how bad things were.
54. I tried to keep my feelings from interfering with other things too much.

Scale 4: Seeking Social Support (a=.76)

8. Talked to someone to find out more about the situation.
31. Talked to someone who could do something about the problem.
42. I asked a relative or friend I respected for advice.
48. Drew on my past experiences; I was in similar situation before.
52. Came up with a couple of different solutions to the problem.

Scale 5: Accepting Responsibility (a=.66)

9. Criticized or lectured myself.
25. I apologized or did something to make up.
29. Realized I brought the problem on myself.
51. I made a promise to myself that things would be different next time.

Scale 6: Escape-Avoidance (a=.72)

11. Hoped a miracle would happen.
16. Slept more than usual.
33. Tried to make myself feel better by eating, drinking, smoking, using drugs or medication, etc.
40. Avoided being with people in general.
47. Took it out on other people.
50. Refused to believe that it happened.
58. Wished that the situation would go away or somehow be over with.
59. Had fantasies about how things might turn out.

Scale 7: Planful Problem Solving (a=.68)

1. Just concentrated on what I had to do next--the next step.
26. I made a plan of action and followed it.
39. Changed something so things would turn out all right.
49. I knew what had to be done so I doubled my efforts to make things work.
62. I went over in my mind what I would say or do.
63. I thought about how a person I admire would handle the situation and used that as a model.

Scale 8: Positive Reappraisal (a=.79)

20. I was inspired to do something creative.
23. Changed or grew as a person in a good way.
30. I came out of the experience better than when I went in.
36. Found new faith.
38. Rediscovered what is important in life.
56. I changed something about myself.
60. I prayed.

APPENDIX III

1. Tell me about the time you discovered you were pregnant.

    a. How did you perceive your spouse's response?

    b. (If parents still living) How did your parents respond?

2. Tell me about your pregnancy, physically, emotionally.

    a. What kind of prenatal care did you receive?

    b. Where and how did you obtain support?

    c. How did you prepare for your child in your relationship with your spouse?

3. Tell me about your labor and delivery.

    a. (If preterm) Were you aware that your delivery was at risk or would be preterm? If so, how did you prepare for this with your spouse? If not, tell me about your reaction and your perception of your spouse's reaction.

    b. How did you perceive y our interactions with the hospital staff around the delivery and care of both you and your baby?

    c. How did you experience your spouse during this event?

    d. How did you get through the next few hours?

4. Tell me about the first few weeks of your baby's life.

    a. How did your life change/ How did your life change with your spouse?

    b. How did you perceive information from the hospital staff?

    c. What might have been helpful for you that you feel you didn't have?

5. Tell me about the time that your baby first went home.

    a. Where and how did you obtain support?

    b. How would you describe your baby's temperament?

    c. How did your life change with your spouse?

    d. How did you work out child care with your spouse?

    e. How did you choose to delegate tasks?

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