



Persevering Through Postpartum Fatigue

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PERSEVERING THROUGH POSTPARTUM FATIGUE

by

Jennifer Jo Runquist

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SIGNED: Jennifer Jo Runquist

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DEDICATION

This work is dedicated to Stella Klein, the first nurse with whom I had a personal relationship. You taught me the value of a life lived as a nurse. Thank you, Stella.

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ABSTRACT

Postpartum Fatigue is a predominant concern of women after childbirth.

Postpartum Fatigue is a pervasive and distressing experience that has negative health-related effects on women, infants, and families. Using grounded theory this study explored the process of postpartum fatigue in 13 women from diverse contexts in the six-week period after childbirth. The human process of *Persevering* emerged from the data. *Persevering* explained how participants continued Caregiving in the face of all but the most debilitating Postpartum Fatigue. Caregiving of the infant and older children was the outcome of the *Persevering* process. The need and ability to persevere emerged out of relationships between *Postpartum Fatigue*, *Self-Transcendence*, and *Coping Techniques*.

Persevering is depicted by the model “Persevering through Postpartum Fatigue.”

The model has five major concepts: Influencing Factors, Postpartum Fatigue, Coping Techniques, Self-Transcendence, and Caregiving. Influencing Factors is a group of factors that participants identified as having the most influence on Postpartum Fatigue across the first six weeks postpartum. The three Influencing Factors were: Maternal-Infant Sleep Pattern Conflict, Infant Characteristics, and Fatigue Limiting Factors.

Postpartum Fatigue was characterized by four dimensions: Mental, Physical, Stress-Worry, and Frustration. Each of these dimensions had empirical, context-dependent manifestations. Participants responded to Postpartum Fatigue by using a wide variety of Coping Techniques. Coping Techniques helped women manage Postpartum fatigue. Self-Transcendence was an ongoing human capacity called upon by the women to facilitate perseverance. Through the meaning and purpose ascribed to their infants and

children, participants found the strength to persevere in caregiving through all but the most debilitating Postpartum Fatigue.

The process of *Persevering* is explained through the relationships of Postpartum Fatigue, Coping Techniques, and Self-Transcendence. Profound negative feelings and an overwhelming desire to rest and sleep brought on by Postpartum Fatigue were offset by the use of Coping Techniques and Self-Transcendence, which enabled women to persevere in the provision of care to their children. “Persevering through Postpartum Fatigue” contributes a more explanatory view of Postpartum Fatigue as it is expressed in the everyday lives of postpartum women.

CHAPTER ONE

THE PROBLEM

The postpartum period is a time of accelerated change in the human life experience. Health patterns are rapidly created and modified in the months following childbirth based upon the continuous integration of the mother with her environment. One health pattern commonly experienced during this time is postpartum fatigue (PPF). PPF is one of the foremost concerns noted by women after childbirth (Carty, Bradley, & Winslow, 1996; Chapman, Macey, Keegan, Borum, & Bennett, 1985; Gjerdingen, Froberg, Chaloner, & McGovern, 1993; Martell, 2001; Mercer, 1986; O'Reilly, 2004; Ruchala & Halstead, 1994). In the words of feminist author Barbara Katz Rothman (1989), "New parenthood in America is experienced as above all else an exercise in sleep deprivation" (p. 100).

PPF has been recognized as a phenomenon of interest in nursing since Rubin (1961) published the theory of puerperal change. In some respects, fatigue can be understood as an expected experience of new motherhood having positive effects. Fatigue encourages women to rest following childbirth allowing the body to heal, facilitating relationship development with the infant, and enabling the breastfeeding process through proximity to the newborn. However, when ongoing and unrelieved, fatigue can be distressing and overwhelming and can have adverse health effects in the woman, the infant, and the family.

Purpose

The purpose of this study was to explore the human environmental process of postpartum fatigue in the everyday lives of women. A grounded theory methodology was employed to achieve the goal of generating a substantive theory of PPF. The science of PPF is in need of the unique contribution a grounded theory approach can provide to advance understanding of the process of PPF within the everyday lives of women experiencing this phenomenon. Through the development of a substantive theory this study begins to address a number of areas where PPF knowledge is tentative and incomplete.

Background and Significance

PPF is one of the most common complaints of women early in the postpartum period, and an ongoing and persistent concern well beyond the 6 to 8 week recovery period. Chapman et al. (1985) found tiredness to be a major theme for breastfeeding women from birth through the four month postpartum. Tulman and Fawcett's (1988) classic study revealed that only 51% of women had regained their usual level of physical energy by the end of the traditional 6 week recovery period. More specifically, only one third (34%) of cesarean delivered women had regained their physical energy in 6 weeks as compared to 72% of vaginally delivered women. Gardner (1991) assessed fatigue between 2 days and 6 weeks postpartum in healthy, vaginally delivered women. Overall, the women in this sample, who exemplified the healthiest of outcomes, remained fatigued throughout the data collection period. In another study of low risk, healthy Canadian women, fatigue was a more significant issue (Carty et al., 1996). At 1 week postpartum,

75% of women were as tired as in the third trimester. Moreover, at 1 month postpartum, 47% of women reported moderate or extreme tiredness.

Troy, Dalgas-Pelish and Vichitsukon (1997) recorded the trajectory of morning and evening energy and fatigue levels over 6 weeks in 36 healthy, vaginally delivered primiparous women. Overall, morning fatigue increased through the 4th week after which fatigue decreased and energy increased. Of special note is the finding that morning fatigue level was approximately equal at 6 weeks postpartum as at 1 week postpartum.

A handful of studies have examined persistent PPF. Lee and Zaffke (1999) found that fatigue severity did not significantly change from 1 month to 3 months postpartum. Gjerdingen et al. (1993) found that fatigue was highest at 1 month postpartum (42%) and then decreased sharply to 23% at three months and remained near this level at 12 months. As part of a larger study, Parks, Lenz, Milligan, and Han (1999) measured fatigue at five time points beginning 24 hours after delivery and ending 18 months postpartum. In this study, 52% of 229 women were persistently fatigued from birth to 18 months.

The Experience of Postpartum Fatigue

Women have spoken about the distressing qualities of PPF both as research participants and as individual writers within the lay literature. Mercer's (1986) seminal research on the experience of first time motherhood revealed that mothers experienced a state of pervasive fatigue in the first month postpartum. In a diary recounting her first year of motherhood, feminist author Anne Lamott (1993) reveals her own state of pervasive fatigue when at 2 weeks postpartum she writes: "I'm crazy tired. I feel as stressed out by exhaustion as someone who spent time in Vietnam" (p. 20).

Fatigue was an underlying theme in a qualitative study of 50 postpartum women interviewed about their postpartum experience (Ruchala & Halstead, 1994). For nearly one-half of the participants, fatigue was the major descriptor of the postpartum experience contributing to irritability and depressed feelings. Fatigue also manifested as a physical problem that affected household responsibilities and family relationships for 76% of the women. Carty et al. (1996) found that at 1 month postpartum 68% of women indicated their tiredness affected their level of well-being. In this same study, nearly three-fourths of the sample reported that their abilities to complete housework, care for the baby, and relate to their partner were affected.

Women felt overwhelmed with their experience of fatigue in McVeigh's (1997) study exploring the early postpartum experience of first time mothers. One mother stated "No one told me I would be so tired. No one prepared me for the amount of time spent awake at night...I'm so tired all the time" (¶ 15). Similarly, the category "Drained" was one of six categories that emerged from a grounded theory study of the experience of early motherhood (Barclay, Everitt, Rogan, Schmied, & Wyllie, 1997). Being drained was described as a sense of being emptied out physically and mentally from such things as lack of sleep, exhaustion, constant change, repetition, and the demanding nature of the infant. The experience of PPF as noted by postpartum women in the research and lay literature provides glimpses into the wider health-related effects of PPF.

The Effects of Postpartum Fatigue

Fatigue is thought of as a normal consequence of childbirth and demands of motherhood (Bozoky & Corwin, 2002). However, empirical evidence suggests that PPF

affects a mother's physical, psychological, and social health, her ability to care for her baby, and infant development. In an early study, Tulman and Fawcett (1988) found that level of physical energy significantly correlated with resumption of household tasks and social life. Although the measurement of physical energy is not a direct measure of fatigue, the concepts of energy and fatigue are intimately related (Lee, Lentz, Taylor, Mitchell, & Woods, 1994). Later, Tulman, Fawcett, Groblewski, and Silverman (1990) documented a significant relationship between physical energy and functional status from birth to 6 months postpartum. Fatigue is a documented complaint of breastfeeding mothers and hypothesized to interfere with breastfeeding (Chapman et al., 1985; Milligan, Flenniken, & Pugh, 1996). Indirect evidence suggests that fatigue may contribute to early weaning from breastfeeding (Pugh & Milligan, 1998).

Pugh and Milligan (1993) published a framework for the study of fatigue related to the childbearing experience, which later became known as the Theory of Unpleasant Symptoms (Lenz & Pugh, 2003). Synthesized from fatigue and childbearing literature, the model asserts that PPF affects a woman's ability to care for her infant, develop new relationships with the baby and family, recover physically from birth, and return to pre-birth functional status. Using this theory, Parks et al. (1999) empirically linked persistent fatigue to lower maternal health. Fifty-two percent of women in the sample were persistently fatigued from birth to 18 months postpartum. A significant relationship was also noted in the development in infants of women who were persistently fatigued both mentally and physically compared to women who were not.

The Relationship Between Fatigue and Postpartum Depression

Fatigue has been linked theoretically, and more recently empirically, to postpartum depression. Fatigue is a diagnostic criterion of mood disorders with a postpartum onset specifier (commonly known as postpartum depression) (American Psychiatric Association, 2000). Postpartum depression occurs in approximately 13% of new postpartum women, with higher rates found in adolescents (26%) and low-income, first-time mothers (38%) (Hobfoll, Ritter, Lavin, Hulsizer, & Cameron, 1995; O'Hara & Swain, 1996; Troutman & Cutrona, 1990). The consequences of postpartum depression are profound and include less affectionate behavior and responsiveness towards the infant, adverse effects on children's cognitive and emotional development, all-consuming guilt, anxiety, fear, and thoughts of harming the infant (Beck, 1995, 1998; Ugarriza, 2002).

Fatigue has been significantly correlated with depression at 2 days and 2 weeks postpartum (Gardner, 1991). More importantly, fatigue at days 7 and 14 postpartum have been shown to be predictive of postpartum depression symptoms at 28 days postpartum (Bozoky and Corwin, 2002; Corwin, Brownstead, Barton, Heckard, & Morin, 2005). Women have identified lack of sleep and sleep disturbance in combination with lack of family and social support, role change, difficult deliveries, and loneliness as causative factors in their own experience of postpartum depression (Ugarriza, 2002). In a study of depressive symptoms in low-income postpartum women, chronic stressors and inadequate social support were significantly associated with depressive symptoms at 9 weeks postpartum (Seguin, Potvin, St-Denis, & Loiselle, 1999). Additionally, women

were at high risk for depressive symptoms when they reported a combination of post-delivery health problems, a fussy or difficult infant, and a serious shortage of money for basic needs. While fatigue was not directly assessed in Seguin et al.'s study, inadequate social support, health problems, and difficult or fussy infants were noted to tax a mother's energy reserves.

Advancing Nursing Knowledge Surrounding Postpartum Fatigue

A handful of nurse researchers have begun testing interventions to decrease PPF, however, limited success has been achieved (Milligan et al., 1996, Pugh & Milligan, 1998; Troy & Dalgas-Pelish, 2003). I assert there are two main reasons for this limited success. The first reason is because the state of the science of PPF necessarily remains in the discovery phase. Nursing does not yet have a firm enough grasp on the antecedents, conditions, contexts, and relationships surrounding PPF to develop interventions that consider the diversity of postpartum women. This is especially evident when one examines the overall demographic composition of research participants in past studies on PPF. Samples are predominantly married, educated, middle-class Caucasians who had low-risk pregnancies, low-risk vaginal births, and healthy infants (Gardner, 1991; Martell, 2001; Gjerdingen et al., 1993; Ruchala & Halstead, 1994; Troy & Dalgas-Pelish, 2003; Tulman & Fawcett, 1988). While these studies found a high prevalence of PPF, the majority of women tended to be mildly to moderately fatigued and had good support structures to assist them with managing the fatigue.

That even mildly fatigued, educated, supported, low-risk, vaginally delivered women have documented health consequences associated with PPF suggests that women

living within less supportive contexts, having high risk deliveries, and obstetrical complications might have even more pronounced PPF and resulting effects. Nurse researchers have acknowledged the limitations in applying current knowledge to all postpartum women and recognize the need for more representative samples and identification of those women at high-risk for PPF (Gardner, 1991; Milligan et al., 1996; Troy et al., 1997). However, to date, no published research deliberately attempts to understand PPF in contexts considered less than optimal. This study begins to systematically address this knowledge disparity so that in time, nursing can identify those women who are especially vulnerable to PPF and empirically-based interventions can be developed and tested.

The second reason for limited success in developing interventions to decrease PPF and its effects is intimately related to the reason why the science of PPF remains in the discovery phase. This reason involves the accepted use of time intervals between measurements of PPF that are theoretically inconsistent with the nature of the phenomenon. The literature reviewed in chapter two characterizes PPF as a dynamic phenomenon whose onset and amelioration can be rapid or insidious. In other words, PPF can worsen or improve and even completely abate in a matter of hours or days. This theoretical backdrop contrasts with how this same literature measures PPF. The majority of the literature measures PPF at a single point in time that tends to be on one or more of the following intervals: 1, 2, 4, or 6 weeks, and 2, 3, 6, 9, 12, 15, and 18 months postpartum. The literature predominantly measures how PPF changes over weeks and months, yet the literature theoretically describes PPF as changing over hours or days.

Nursing interventions developed to decrease fatigue in women's everyday lives should measure the effects of those interventions on PPF proximal to the intervention. The effect of nursing interventions used daily by women to cope with PPF may not be reflected in measurements of PPF where data collection intervals span weeks and months.

Advancement of the science of PPF towards the development of interventions that have large scale, practice-changing implications needs to be based upon a solid understanding of the complex phenomenon that is PPF. The quantitative research to date has provided nursing with valuable insights into the multitude of factors that induce, contribute to, and maintain PPF. However, the picture is far from complete. Much of our understanding of PPF remains theoretical and untested. Nursing has little knowledge of factors that function to decrease fatigue or even how women manage fatigue. For example, asking the following woman specifically how she manages to continue with her responsibilities in the face of unrelenting fatigue has the potential to reveal a wealth of information:

Even if you are tired, you can't just stop, you have to get on with it. You can't not feed the baby, you can't not jiggle it around and get the burp out. However tired you're feeling you can't just collapse (Figes, 1998, p. 115).

As with any research methodology, quantitative methodologies have unavoidable limitations. Especially apparent are the difficulties quantitative methodologies have tracking how fatigue changes in the everyday lives of postpartum women. The ebb and flow of fatigue within the continuously changing patterns and upheaval of everyday postpartum life demands a level of sophistication that quantitative research is hard pressed to capture.

However, it is in this very context--the daily life of postpartum women--that nursing's greatest opportunity to study the phenomenon exists. Learning about PPF in women from a variety of contexts has the potential to uncover an understanding of PPF that has not yet been revealed. The process of PPF, including the experience, antecedents, contributing conditions, consequences, and potential avenues for intervention will emerge from the voices and stories of women. Nursing has a tradition and ethic of nurse-patient relationality (Bishop & Scudder, 1999). The use of a research methodology that also embraces relationality within the research process can generate a better understanding of this prominent health-related concern of women following childbirth.

Philosophic Orientation

Four main elements must be explicated prior to carrying out a research study: the epistemology, theoretical perspective, methodology, and methods (Crotty, 1998). Similarly, an ontological perspective is another important philosophical underpinning of research. Ontology sits alongside epistemology to inform the theoretical perspective (Crotty). This section will outline the epistemology, ontology, and theoretical perspectives that underpinned this study. As representations of the investigator's beliefs about the world and knowledge development, these philosophical underpinnings will then be utilized to place the phenomenon of PPF within this philosophical context.

Epistemology

This study was framed within a constructionist epistemology. In constructionism, meaning is constructed (as opposed to being created or discovered) by humans through engagement with their environment (Crotty, 1998). Meaning is not constructed solely

from that which is objective or subjective. Instead, both objective and subjective meanings are brought together and acknowledged for the unique perspective that each bears on the generation of meaning. An essential relationship exists between humans and objects, and a major constructionist assumption is that no object can be described in isolation from the conscious being experiencing it. Illustrating this epistemology is the example of a tree falling in a forest. The sound the tree makes while falling is objective. Air is disturbed, and sound is emitted. However, the sound possesses no meaning unless a conscious being interprets the sound (i.e., a tree is falling). Objectivity and subjectivity are inseparable and humans construct meaning through immersion in the world.

Ontology

In order for research to contribute substantively to the growing body of nursing knowledge, nursing research must be conceptualized within a nursing perspective (Cody, 1996; Donaldson & Crowley, 1978). Nursing's ontological foundation is comprised of three perspectives: the particulate-deterministic, interactive-integrative, and unitary-transformative (Newman, Sime, & Corcoran-Perry, 1991). This study was informed by the unitary-transformative worldview, which conceptualizes phenomena as self-organizing fields encompassed within larger self-organizing fields. Fields are identifiable by pattern and as manifestation of that pattern within the larger field. Change is continuous, unidirectional, and unpredictable. Human and environmental fields continuously evolve towards greater complexity and organization. The focus of nursing research and knowledge development is on unitary pattern recognition (Newman, 2002).

Postpartum Experience within a Unitary-Transformative Ontology

Within a unitary-transformative ontological perspective, the life patterns of pregnancy, childbirth, and postpartum are times of creativity, innovation, and diversity in a woman's life. In pregnancy the energy field of the fetus is completely integral with the woman's. Birth is an act of energy field separation of the fetus from the woman and social recognition of the infant as a unitary human being (Poulios, 1997). For a woman who is the infant's primary caregiver, her energy field remains especially integral with the infant's after childbirth.

The days, weeks, and months after childbirth are a time of accelerated change for women when a multitude of emerging health patterns are created, changed, and refined based upon the continuous integration of the woman with her environment. The infant's rapidly evolving and increasingly complex patterns are a major source of change in a postpartum woman's environment. Together, the woman and infant develop increasingly complex health patterns. As the woman's body heals from childbirth, she begins to integrate a mother identity within her field image while becoming increasingly skilled at recognizing her infant's patterns.

Postpartum fatigue is a pattern that can facilitate healing of the woman's body after childbirth. However, when fatigue is ongoing, unrelieved, and severe, patterns ranging from tiredness to exhaustion become dominant, and the development of increasingly complex and harmonious health patterns relative to the infant, her family, and to her other life roles and responsibilities can be overwhelming. Nursing within a unitary-transformative ontological view focuses on facilitating the management of this

accelerated change towards goals of mutuality, integrality, and well-being between the woman and her environment.

Theoretical Perspectives

Three theoretical perspectives informed this study. Symbolic interactionism is the first perspective, which is subsumed within the broader classification of interpretivism. Symbolic interactionism is the philosophical origin of the grounded theory methodology that answered the research questions. The second perspective is a feminist theory of motherhood as ideology. Finally, a Rogerian-feminist perspective of early motherhood combined with the motherhood as ideology theory together conceptualize the context of PPF and situate the findings of the study within a nursing perspective.

Symbolic Interactionism

The philosophical underpinning of the grounded theory methodology chosen for this study is symbolic interactionism, which itself, is a subset of interpretivism. Much of symbolic interactionist thought arises out of the work of George Herbert Mead. However variations in thought have arisen over time, and the perspective of Mead's student, Herbert Blumer is used in this proposal. The three basic assumptions of symbolic interactionism are:

- 1) "that human beings act towards things on the basis of the meanings that the things have for them";
- 2) "that the meaning of such things is derived from, or arises out of, the social interaction that one has with one's fellow"; and

- 3) “that these meanings are handled in, and modified through, an interpretative process used by the person in dealing with the things one encounters”
(Blumer, 1969, p. 2).

Symbolic interactionism sets itself apart from other interpretivist perspectives with the notion that the source of meaning arises out of an interactive process between people. While meaning ascribed to objects arises out of an interactive process, Blumer goes further to note that the value that meaning has for the person is based upon an internalized interpretative process. Meaning is in continuous flux based upon interactions people have with each other as well as the internal dialogue persons engage in related to that object or phenomenon under consideration.

Blumer (1969) states that the “empirical social world ...is the world of everyday experience” (p. 35). PPF was conceptualized as one such everyday experience in the life of a woman after childbirth. In this social world Blumer posits that groups reflect differing empirical worlds based upon symbolic meanings of interactions and objects within those worlds. Postpartum women were understood to be a social group within whom the experience of fatigue was different from fatigued non-postpartum groups based upon the contextualized social interactions and internal interpretative process surrounding the post-childbirth period.

The Feminist View of Motherhood as Ideology

Beginning in the 1980's, the concept of motherhood enjoyed a rapid proliferation of feminist theories addressing motherhood from a variety of perspectives. Motherhood as ideology is one such theory wherein capitalist, patriarchal societies attribute, “...to

woman and woman only, the qualities of nurturance necessary for the physical and emotional care of children due to her ability to give birth and suckle the young” (Wearing, 1984, p. 32). Assumptions of motherhood as ideology include the notions that motherhood is essential to womanhood; mothering is hard, but rewarding work; ‘good’ mothers put their children before themselves; young children need mothers in constant attendance; and mothering is a job of low status (Wearing). Feminists believe that the ideology of motherhood is a compelling influence in societal and personal constructions of mothering.

In the early mothering period (defined as the 6 months after childbirth), women are confronted with multiple contradictions between the ideology and the reality of mothering (Sethi, 1995). Many women experiencing motherhood for the first time have the added strain of becoming aware of the existence of mothering ideology and the contradictions involved for the first time in their lives. Women must accept or resist these contradictions, but ultimately, whichever path they choose they learn to construct the meaning of their own mothering in the midst of multiple contradictions within a short period of time. As Rossiter states: “To mother at this time, in this culture, requires constant negotiation of the contradictions between one’s immediate reality and the dominant ideologies of family organization” (1988, p. 261). Feminists argue that motherhood ideology generates and perpetuates social conditions that oppress and subordinate women. This theoretical perspective was a major influence in the conceptualization of this study and interpretation of the findings.

A Rogerian-Feminist Perspective of Early Mothering

A Rogerian-feminist perspective of early motherhood was created. This perspective facilitates a new understanding of the sociopolitical context within which PPF exists. This perspective was created for multiple reasons. First, the early mothering period (i.e., birth to six months postpartum) has not received sufficient attention from either Rogerian Science or feminism. Second, while nursing scholars have called for the integration of feminist perspectives into nursing, feminism remains underutilized at all levels of nursing scholarship, theory, research, and practice (Allen, 1992; Blackford & Street, 2002; Chinn, 1989; Chinn & Wheeler, 1985; Hagel, 1992; Kane & Thomas, 2000; McCormick & Bunting, 2002; Sullivan, 2002; Webb, 2002). Third, nursing scholars have suggested that the unitary-transformative paradigm should be the conceptual focus of the discipline (Newman et al., 1991). Most importantly, however, nursing scholars have suggested feminism as a perspective that has the potential to transform the unitary-transformative worldview into a worldview responsive to and directive of social change (Butcher, 2000; Campbell & Bunting, 1991; Cowling & Chinn, 2001).

Rogerian Science was the specific unitary-transformative perspective used to integrate with feminism, because Rogerian Science best represents my own conceptual views (Rogers, 1970, 1986, 1990a, 1990b, 1992). While feminism and Rogerian Science represent different worldviews, I have used points of congruence identified by nursing scholars between the unitary-transformative paradigm and feminism (Campbell & Bunting, 1991; Cowling & Chinn, 2001) to construct a Rogerian-feminist conceptualization of the early mothering period. It is my hope that this perspective will

provide nursing with a new avenue for perceiving postpartum phenomena such as PPF.

The Rogerian-feminist conceptualization of early mothering will now be outlined.

The main proposition underpinning this perspective is that a woman's everyday life and health patterns are characterized by continual complex change that is integral with the social conditions of mothering during the six months after childbirth (See Tables 1 and 2 for a summary of the perspective). Stated another way, all the conditions in which early mothering takes place combine in nonlinear, irreducible, and complex patterns to influence the individual women's mothering experience and day-to-day existence.

A Rogerian-feminist view of early mothering considers the physical demands placed on the woman's body after childbirth. The physical patterns of childbirth and postpartum are unique health patterns in a woman's life. Contrary to dominant discourse, in a Rogerian-feminist view, women do not "recover" from childbirth, but instead, are irreducibly changed from the experience. A Rogerian-feminist account of the early mothering period accepts that women's responses to the physical demands of early mothering vary widely and attends to the integrality between a woman's body and her environment. In other words, how the woman's physical experience affects the social conditions in which she mothers, and how her social context affects her physical experience after childbirth is a major concern within the Rogerian-feminist perspective.

While Rogerian science recognizes the uniqueness and wholeness of the individual human, the integration of a feminist view of early mothering with Rogerian science provides specific guidance for understanding individuals in a manner that decenters the dominant discourse and ideology surrounding motherhood (Wearing,

1984). Consciously and deliberately recognizing and valuing the multitude of diverse conditions, circumstances and experiences in which early mothering occurs functions to construct a discourse that gives voice to the women whose mothering experiences are currently marginalized and in need of attention (Jenkins, 1998). The inclusion of a feminist perspective compels nursing to acknowledge the existence of mothering ideology and the myriad of conditions (e.g., marital status, disability, sexuality, class, race) that can empower or oppress women during the early mothering period (Collins, 1991, 1994; Glenn, 1994; Jenkins, 1998; Weingarten, Surrey, Coll, & Watkins, 1998). In a Rogerian-feminist view, a plurality and diversity of mothering experiences are necessary to develop knowledge of the rapidly changing health patterns of the early mothering period.

Many of nursing's health-related interventions after childbirth revolve around health education. Much of the "expert" and "professional" health education knowledge available to newly mothering women is elitist and can reinforce oppressive aspects of mothering ideology. A Rogerian-feminist account of the early mothering period will critique the content and scope of the health-related information provided to postpartum women in a manner that exposes ideology and attends to diverse mothering circumstances.

Furthering this idea, a Rogerian-feminist view embraces the unitary-transformative idea of "knowing participation in change" (Barrett, 1989). Nurses practicing within a Rogerian-feminist view will engage with newly mothering women in a manner that is as fully participatory as possible, recognizing the power differential

inherent in the nurse-patient relationship as it exists in today's hierarchical health care system. The nurse will elicit the woman's own understanding of the early mothering period and honor that understanding when facilitating the development of new health patterns. Utilizing the idea of knowing participation in change, a nurse may examine conflicts, challenges, and contradictions faced by the postpartum woman to facilitate awareness of the influence of mothering ideology. For example, the idea of maternal instinct may be challenged in a woman who feels guilt about having no maternal instinct. Instead, the concept of maternal thinking and learning how to become a mother can be empowering alternatives to previously held beliefs (Ruddick, 1989). A Rogerian-feminist view facilitates newly mothering women to develop an empowered construction of their own mothering experience by working to place the woman at the center of her own narrative (Weingarten et al., 1998).

To this point, the focus of a Rogerian-feminist view of the early mothering period has been the individual. However, a Rogerian-feminist view works not only towards an agenda that transforms nursing care at the bedside, but also generates an agenda for transforming the larger context in which early mothering nursing care takes place. Cowling and Chinn (2001) identify a combined unitary-transformative feminist agenda, which broadly calls for: 1) Healing the Cartesian mind-body split, 2) De-fragmenting the current health care system, and 3) The creation of a participative health care system that focuses on the wholeness of human experience. Applying this agenda to the early mothering period creates the need at all levels of nursing (practice, research, education, and policy) to transform nursing's understanding of the concerns of women after

childbirth. Carrying out such an agenda would revolutionize the structure and context of early mothering nursing care to provide mothers living in diverse circumstances with the supports and knowledge mothers themselves desire.

Table 1. Propositions of the Rogerian-Feminist Perspective of Early Mothering.

-
- Health patterns are characterized by continual, complex change
 - Health patterns are integral with the social conditions in which women mother young infants
 - Social conditions influence the woman's construction of her mothering experience
 - Ideology surrounding motherhood is a compelling societal influence that can be constructed to oppress or empower women
 - Women are subject to multiple profound contradictions and cultural proscriptions in the early mothering period
 - The physical patterns of pregnancy, childbirth and postpartum influence the early mothering experience
 - The physical patterns of pregnancy, childbirth and postpartum are integral with the societal conditions and circumstances in which women mother
-

Table 2. Outcomes and Position Statements of the Rogerian-Feminist Perspective of Early Mothering.

-
- Health-related education within the early mothering period utilizes the principle of knowing participation in change to:
 - Engage with women in a mutually integral, participatory manner
 - Expose oppressive ideology in women's lives and work to reconstruct that ideology in an empowering manner
 - Promote an empowered construction of the mothering experience
 - Health-related education incorporates the social conditions and circumstances within which women live
 - Divergent, refractory, contradictory, and marginalized mothering experiences should become the dominant discourse surrounding early motherhood
 - Nurses should work within the nursing and health care environments to move postpartum nursing care towards a vision of human-environment integrality that is inclusive of the differing social conditions and circumstances in which women mother young infants
 - Within society and government, nurses should influence social and health policy in a manner that works to improve the social conditions in which women care for young infants.
-

The Phenomenon of Postpartum Fatigue: Definition, Context, Beliefs, Assumptions

This section will elaborate upon the phenomenon of PPF including the chosen definition, beliefs, assumptions and context surrounding the phenomenon. Contributing to this section are the feminist and unitary-transformative worldviews, the theoretical perspectives of symbolic interactionism and the Rogerian-feminist perspective of early mothering, published theoretical and empirical knowledge of PPF, and personal and clinical experiences with postpartum women. As well, the issue of reflexivity in feminist research will begin to be addressed through identification of my social location relative to this research proposal.

For the purpose of this study, postpartum fatigue was a health-related pattern defined as an overwhelming sense of exhaustion and decreased capacity for physical and mental work following childbirth (Pugh & Milligan, 1993; Rubin, 1975; Troy, 2003). PPF is both an experience and a social process (McVeigh, 1997; Troy et al., 1997). PPF can occur immediately following childbirth or develop insidiously in the days and weeks following childbirth. When PPF is manifested shortly after birth, the severity is influenced by a multitude of factors that are often noted for being proximal to the pregnancy, labor, and birth. These factors can include the length of labor, quality and quantity of sleep in the days and weeks leading up to labor, contributing health conditions (e.g., anemia), and intrapartum events such as postpartum hemorrhage, prolonged pushing, infection, and birth pain. (Atkinson & Baxley, 1994; Mayberry, Gennaro, Strange, Williams, & De, 1999; Mercer, 1986; Pugh & Milligan, 1993; Troy et al., 1997; Waters & Lee, 1996). Adding to this, Gardner and Campbell (1991) created two

categories for the factors they theorize influence PPF shortly after birth: physiologic (e.g., wound healing, disturbed sleep, fluid shifts, hemoglobin levels), and psychologic (e.g., adjustment to new roles, infant care, housework demands, presence of other children, father's adjustment and attention, and family characteristics).

Milligan, Lenz, Parks, Pugh, and Kitzman's (1996) concept analysis of childbearing fatigue reveals several important characteristics of PPF. PPF is a multidimensional phenomenon with physical and mental aspects that are influenced by the woman's social context. PPF is a distressing, unpleasant subjective experience that when prolonged or intense can result in feelings of exhaustion in addition to a host of other health-related effects. PPF and the associated health-related effects intensify in a manner that can be both cumulative and reciprocal (spiraling) (Parks et al., 1999).

Fatigue and tiredness are often used synonymously, but are not identical terms. Unlike fatigue, tiredness can have a positive component, such as the euphoric tiredness felt after exercise. Fatigue has varying degrees of severity that range on a continuum from full of vitality or energy to tiredness to exhaustion (Lee et al., 1994). Fatigue and depression are also concepts that overlap with each other in some ways, but remain distinct concepts. Milligan et al. (1996) reported that women easily differentiated between low or moderate fatigue and "baby blues" (blues were sadness, fatigue was tiredness). However, when fatigue was high, it became harder for women to differentiate between depression and high fatigue. Fatigue was experienced when women felt overextended and overworked, which related to piling-up of caregiving demands. The

authors note that these findings are an example of how social context influences patterns of PPF.

Women often believe PPF to be a temporary condition that will lessen when routines are re-established (Milligan et al., 1996). However, research investigating the evolution, progression, and persistence of PPF contradicts this belief. PPF has been found to not significantly improve over the first six weeks postpartum. Instead, PPF either becomes progressively worse through the fourth week postpartum or remains stable at levels noted shortly after delivery (Bozoky & Corwin, 2002; Gjerdingen et al., 1993; Troy & Dalgas-Pelish, 2003; Troy et al., 1997).

PPF is one of many patterns characterizing the postpartum experience. PPF is integral with the social, physical, and other environmental patterns after childbirth. The ideology of motherhood influences patterns of PPF on multiple levels and in multiple facets of women's lives. For instance, on a societal level, financial support resources are neither ubiquitous nor adequate in amount (e.g., paid leave from work), because motherhood is a job of low status in society. Women may experience fatigue in part, by returning to work shortly after childbirth not fully healed physically. On an individual level example, women may not feel they can ask for the level of instrumental assistance needed for the infant, because motherhood ideology asserts mothers should continually attend to their infants. In both of these examples, motherhood ideology influences PPF in different ways.

The complex and multifaceted nature of PPF exemplifies the need for an investigation that can accommodate significant complexities in data analysis (Parks et al.,

1999). The use of grounded theory methodology illuminated this process while attending to the everyday complexities that characterize PPF. As will be detailed in chapter four, this methodological approach resulted in findings that both illuminates prior quantitative findings and generates new nursing knowledge surrounding the process of PPF.

Reflexivity and the Social Location of the Researcher

The issue of reflexivity in feminist research is discussed more fully in the feminist methodological perspective section in chapter 3; however, I will begin to address reflexivity by identifying my social location within the context of this research. I am a twenty-something, Caucasian, middle-class, Norwegian-German woman. I grew up in the Midwest United States on a dairy farm and attended college in the “big city.” I am a nurse in maternal-infant health at an urban medical center, the mother of a young girl, a wife and a doctoral student in nursing. My pregnancy was timed so that I gave birth between semesters. My healthy, 8 pound 11 ounce girl was breastfed exclusively, and I am proud of the fact that formula never touched her lips. However, all was not rosy and wonderful learning how to breastfeed, working full-time in the first year of a doctoral program, and returning to night shift work as a nurse at 3 months postpartum. PPF is a phenomenon that I have close personal experience with as my sleep was disrupted 2 to 3 times each night for about 6 months, and naps were infrequent due to my school and work responsibilities. I found my first year of motherhood to be one of the most challenging and exhausting years of my life. I learned about the existence of the ideology of motherhood theory well after my infant had become a toddler. I saw my own life reflected in each and every tenet of the theory, and the awareness of motherhood

ideology in my life has changed how I construct my own mothering experience. I believe myself to be a more informed, empowered, and happier, and healthier mother as a result of this awareness.

As a nurse I have witnessed the extreme fatigue experienced by mothers during and shortly after childbirth. I often wondered how the women managed once they return home having experienced such profound fatigue within the hospital. I wonder this especially of women who have a tenuous support structure (or none at all) and exhibit what appear to be multiple risk factors for PPF. The paradoxical belief by society (and by the women themselves) that women can “do it all,” yet need no help interfaces with the idea that the postpartum period will be a time of blissfulness, sleep, relaxation, and enjoying the new baby. This is not the reality that I have witnessed within my practice.

I have multiple long-term goals with this research. First, I would like to better understand the reality of postpartum experience, especially as it relates to PPF, so that women can be better informed about what to expect in the postpartum period. Second, I envision the development of interventions to reduce the severity of PPF with the theoretical belief that by managing severe PPF nurses may be able to improve the postpartum experience and decrease or prevent health-related effects of fatigue for a large segment of the population. Particularly, the management of PPF may prevent the progression to postpartum depression or minimize the severity of postpartum depression and its related effects. Finally, I plan to use the evidence from this and future studies to advocate for the resources women need to manage the multitude of demands of the postpartum period and ensure a healthy motherhood transition.

Research Questions

To begin working towards this proposal's goal of generating a substantive theory of PPF, the following research questions are proposed. In women experiencing postpartum fatigue:

1. How do women describe their experience of PPF?
 - a. How does PPF change over time (e.g., hours, days, weeks)?
 - b. What factors contribute to worsening PPF?
 - c. What factors contribute to improving PPF?
 - d. What effects of PPF do women perceive?
2. How do women manage in their everyday lives while fatigued?

Chapter Summary

Postpartum fatigue is a pervasive experience of women after childbirth defined as an overwhelming sense of exhaustion and decreased capacity for physical and mental work. In addition to being distressing and unpleasant, PPF has adverse health consequences. This study investigated the everyday process of PPF in the weeks following childbirth using a grounded theory methodology infused with a feminist methodological perspective. Philosophically, this study was situated within a unitary-transformative ontology and constructionist epistemology. The theoretical perspectives of symbolic interactionism, the theory of motherhood as ideology, and a Rogerian-feminist perspective of early mothering informed this study.

CHAPTER TWO

REVIEW OF LITERATURE

This chapter will present a review of the postpartum fatigue (PPF) literature. The scientific base of knowledge surrounding PPF has predominantly emerged from the work of three groups of nurse scholars, namely Linda Pugh, Renee Milligan and associates; Kathryn Lee and associates; and Nancy Troy and Peggy Dalgas-Pelish. These three groups have approached the problem of PPF from different perspectives, and the work of each will be discussed in turn. Next, PPF literature from scholars who work cannot be categorized in the above groupings will be reviewed. Finally, general research on the existence of PPF and related concepts such as physical energy and tiredness and postpartum depression will be examined.

The Study of Postpartum Fatigue by Pugh, Milligan and Associates

Linda Pugh, Renee Milligan and their associates comprise the first group of nurse scholars who have contributed substantively to the study of PPF. These scholars have explored PPF both theoretically and empirically for more than a decade. Out of this work they have generated, in collaboration with others, the middle range Theory of Unpleasant Symptoms, which featured prominently in the interpretation of this study's findings (Lenz & Pugh, 2003).

Pugh and Milligan (1993) first published a framework for the study of childbearing fatigue from a synthesis of nursing textbooks and clinical and research journals. This framework uses the Classification of Nursing Diagnosis definition of fatigue, which states fatigue is: "An overwhelming sustained sense of exhaustion and

decreased capacity for physical and mental work” (Rubin, 1975). This framework describes childbearing fatigue as an unpleasant sensation experienced in pregnancy, labor and delivery and the postpartum period that affects performance in many areas of a woman’s life. Fatigue is influenced by three categories of factors: physiological, psychological, and situational. This framework established the means by which nursing could begin systematically studying PPF.

A major component in these scholars’ work was the development of an instrument to measure childbearing fatigue (Milligan, Parks, & Lenz, 1990; Pugh, 1993). The Modified Fatigue Symptom Checklist (MFSC) was adapted from the Fatigue Symptom Checklist (Yoshitake, 1971), which was originally developed in Japan for the study of subjective feelings of fatigue. The MFSC is a checklist of 30 symptoms of fatigue where scores can range from 0 (no fatigue) to 30 (maximum fatigue). The MFSC’s psychometric properties including reliability and validity were tested and reported to be acceptable (Pugh, 1993). The MFSC and its variants (Milligan, Parks, Kitzman, & Lenz, 1997; Pugh, Milligan, Parks, Lenz, & Kitzman, 1999) became the main instrument used in future studies of childbearing fatigue by this group of researchers.

Empirical Work

In a longitudinal study on PPF using the MFSC, 259 mothers reported an average of 7.05 (SD = 4.62) fatigue symptoms at day 1 postpartum, 7.58 (SD = 5.20) symptoms at 6 weeks, and 5.80 (SD = 4.56) symptoms at 3 months postpartum with scores ranging from 0 to 28 (Milligan et al., 1990). The mothers in this sample were white, ranged from 18 to 38 years, had between 0 and 8 children excluding the infant, and most were

multiparous. Mothers were from low (41%) and middle (59%) socioeconomic status, tended to be married, bottlefeeding, and have vaginal deliveries (72%). The first purpose of the study was to identify predictors of PPF while controlling for depressive symptomatology (measured with the Center for Epidemiological Studies Depression Scale). In the immediate postpartum, type of delivery predicted PPF with higher fatigue being associated with surgical delivery. At 6 weeks postpartum, infant difficulty and type of infant feeding (breast more fatiguing than bottle) predicted PPF. And finally, at 3 months postpartum, fatigue was predicted by infant difficulty and social class with women of middle social class reporting more fatigue than women of low social class. The authors note that physical factors emerged as important in PPF during the early postpartum, whereas socioenvironmental factors contributed more to PPF as time went on. The second purpose of the study was to determine how postpartum changed over time. Using a repeated measures ANCOVA and controlling for depressive symptomatology the study found that fatigue significantly changed over the three time points. Fatigue rose slightly from day 1 to 6 weeks, was highest at 6 weeks, and decreased by 3 months postpartum. Additional analyses related to persistent fatigue using this same data set are reported later in Parks et al. (1999).

Another small ($n = 20$) study using the MFSC tested whether or not a side-lying position during breastfeeding reduced maternal fatigue (Milligan et al, 1996). During postpartum hospitalization subjects were taught two breastfeeding positions (side-lying and sitting up). Subjects then rated their fatigue using the MFSC immediately after 2 subsequent feedings where each position was utilized. Data from vaginally delivered

subjects ($n = 14$) were analyzed separately from operative deliveries ($n = 6$). Vaginally delivered subjects reported 5.7 symptoms after breastfeeding in the sitting position compared to 3.7 symptoms in the side-lying position, which was a significant difference. The mean number of symptoms after breastfeeding in a sitting position in operatively delivered subjects was 6.5 and 5.5 after side-lying position, but this difference was not statistically significant. Significant limitations of the study limit broad conclusions. The sample size was not large enough to ensure that there was not a significant difference for operatively delivered women, nor was the vaginally delivered sample large enough to conclude that the side-lying position is less fatiguing for most women. The authors acknowledge the need for a larger sample size of more diverse women, because subjects in this study were mostly white, middle-class, educated women who had healthy vaginal and operative deliveries.

Pugh and Milligan (1998) tested an outreach intervention in breastfeeding primiparous women to decrease fatigue and breastfeeding difficulty in order to increase breastfeeding duration. Sixty women who had vaginal term deliveries were randomly divided into treatment ($n = 30$) and control ($n = 30$) groups. Subjects in the treatment group were provided postpartum nursing support through two home visits by a community health nurse (days 3 or 4 and day 12) and one telephone call (on day 5) from a lactation consultant. Data were collected at days 1, 7, and 14, and 6 weeks postpartum. The MFSC measured fatigue at the four data points. Fatigue levels in the control group were: Day 1, 13.4 (SD = 5.4) symptoms; Day 7, 9.7 (SD = 6.5); Day 14, 9.5 (SD = 7.6); and Week 6, 8.5 (SD = 8.0). Fatigue levels in the experimental group were: Day 1, 12.0

(SD = 5.2); Day 7, 8.7 (SD = 5.7); Day 14, 6.9 (SD = 4.5); and Week 6, 7.1 (SD = 6.0).

Both the control and experimental groups tended to have slightly higher levels of fatigue at day 1 and week 6 as compared to the results reported by Milligan et al. (1990).

Women breastfeeding beyond 6 weeks were phoned monthly until they discontinued breastfeeding. Breastfeeding duration in number of days were 88.3 (SD = 103.2) for the control group and 136.3 (SD = 128.5) for the experimental group. Fatigue was significantly higher in the control group at 14 days postpartum, which was immediately after the second home visit in the experimental group. The duration of breastfeeding was not statistically significant between the two groups. However the difference in breastfeeding duration between the two groups was clinically significant. At 6 months, one half of the women in the intervention group were still breastfeeding, which meets the Healthy People 2000 goal, whereas only 27 percent of women in the control group continued to breastfeed at 6 months.

Parks et al. (1999) longitudinally measured PPF from birth to 18 months postpartum by in a secondary analysis of data from a larger study on infant development. Data were collected at 24 hours, 6 weeks, 3 months, 6 months, and 18 months postpartum from 229 women. A shortened version of the MFSC was used in the analysis. The shortened MFSC consists of 10 items pulled from the 30 item MFSC shown to have comparable psychometric properties measuring both physical and mental domains of fatigue (Milligan, et al., 1997). Since persistence of fatigue was the focus, fatigue intensity (number of symptoms on the MFSC) was not reported. Instead, persistence was defined as the marking of at least one item on the 10-item MFSC across all 5 time points.

By this definition, more than one half (52%) of the sample were categorized as persistently fatigued. No differences were found in infant health between women who were and who were not persistently fatigued. Statistically significant differences were found, however, in reports of maternal health. Additionally, when mothers were persistently fatigued in both mental and physical dimensions, there was a significant difference in infant development. In these two instances, higher maternal health and more advanced infant development were noted when mothers were not persistently fatigued. Generalization of the study results is limited given the dominance of the following sample characteristics: Caucasian (100%), married (87%), vaginal delivery (72%).

Theory Development

In addition to their empirical contributions, this group of nurse scholars has contributed a significant amount of scholarship surrounding the theoretical development of the concept of PPF. In the mid-nineties, an article and a book chapter detailed a concept clarification of PPF (Milligan, Lenz, Parks, Pugh, & Kitzman, 1996, 1997). Milligan et al. (1996, 1997) described their multifaceted approach to clarifying the concept of PPF. The analysis expanded to the broader concept of childbearing fatigue and included literary analysis as well as a series of related quantitative and qualitative studies conducted over ten years. The literary analysis identifies fatigue as a pervasive phenomenon and major concern of women during the childbearing period (Milligan & Pugh, 1994). Childbearing fatigue is complex and dynamic, changing in relation to numerous physical, psychological and situational variables. Out of the literary analysis

arose questions that were addressed with empirical approaches. Quantitative results that contributed to the concept clarification were reported earlier (Milligan et al., 1990).

The purpose of the qualitative study, which was simultaneously undertaken with the quantitative studies, was to clarify the nature of PPF from the perspective of new mothers (Milligan et al., 1996, 1997). In home interviews, mothers were asked to describe their tiredness or fatigue and discuss how it was different from postpartum “blues.” Four themes emerged from text analysis. “Manifestations” and “Normalcy” described the women’s perceptions of being fatigued. Manifestations were numerous and both physical and psychological in nature. Women easily differentiated between “blues,” which was sadness, not tiredness. High fatigue was aligned more closely with depression with women noting that when fatigue is extreme one can become depressed. The theme of normalcy represented how mothers believed their fatigue to be a transitory state. Women thought that if their sleep patterns were reestablished or lives were more organized that their fatigue would abate. Fatigue was viewed as a temporary state.

“Family management” and “Pile-up” were the two other themes that represented causes of PPF. Factors such as housework, the baby’s sleep patterns, partner support, infant feeding, and caring for other children were identified as contributors to PPF. Demands created by multiple interfacing roles internal and external to the family overwhelmed and fatigued women. The authors note that family management and pile-up themes generated a social context that contributed to ongoing PPF.

Three major conclusions arose out of the concept clarification. The first is that fatigue and tiredness are related, but not identical concepts. Laypersons may identify both

concepts as synonymous, but tiredness can have a positive component, such as tiredness after exercise, while fatigue tends to be a negative or unpleasant feeling. Fatigue is also identified as more severe and prolonged as compared to tiredness, which is a more transitory experience. Second, the authors conclude that PPF is a multidimensional concept with physical and mental manifestations. Third, PPF and depression are distinct concepts. At times, fatigue and depression may overlap in their meaning and measurement. Fatigue is a component in depression, and one can feel depressed when extremely fatigued. However, empirical work done by the authors and reported in this concept clarification revealed that patterns of depression and fatigue change differently over time and that dissimilar indicators predict depression and fatigue. As well, qualitative analysis shows that postpartum women easily differentiate between fatigue and depression.

Theory of Unpleasant Symptoms (TOUS)

Results from the concept clarification along with the childbearing fatigue framework (Pugh & Milligan, 1993) were developed into the Theory of Unpleasant Symptoms (TOUS) (Lenz & Pugh, 2003; Lenz, Suppe, Gift, Pugh, & Milligan, 1995). The TOUS' three major concepts are symptom(s), influencing factors, and performance (Lenz & Pugh, 2003). A symptom is a subjective experience and articulated by patients as changes in normal functioning. Symptoms have four dimensions: intensity, quality, timing, and distress. Symptoms can occur alone or in relation to other symptoms. When occurring simultaneously, one symptom can change dimensions (e.g., intensity) of other symptoms.

Influencing factors “influence predisposition to and manifestation of a given symptom or multiple symptoms and the nature of the symptom experience” (Lenz & Pugh, 2003, p. 71). Influencing factors are categorized as physiologic, psychological, and situational. Physiologic factors include physical structure, physiological and genetic variables. Psychological factors include affective and cognitive variables. Situational factors include social and physical environmental variables. An influencing factor can influence the symptom experience through interaction with other factors. Conversely, symptoms can reciprocally influence the factors themselves.

Performance is an outcome variable. Variables chosen to represent performance consider impacts on the individual’s short- and long-term functioning. Examples of performance indicators used in research include duration of breastfeeding, physical role, activity level, motivation, and quality of life (McCann & Boore, 2000; Pugh & Milligan, 1998, Redeker, Lev, & Ruggiero, 2000). Refinement and testing of the TOUS is ongoing in both perinatal nursing and across multiple patient populations as the theory’s potential usefulness expands (Lenz & Pugh, 2003).

Conclusions Arising from Pugh and Milligan’s Work

This group of nurse scholars has built a strong foundation for continuing knowledge development in the area of PPF. Beginning with clarification of the concept of childbearing fatigue, these scholars have generated empirical knowledge that reciprocally contributes to theoretical advances of PPF. PPF is a pervasive, unpleasant, multidimensional, complex, and dynamic experience of the postpartum period. PPF changes according to numerous physical, psychological, and situational variables. These

variables have yet to be fully explored, and how PPF changes in relation to salient variables remains unknown. Women have identified internal and external family roles, and infant and household responsibilities as contributing to PPF. PPF is conceptually different from tiredness, postpartum “blues” and postpartum depression. High fatigue has been identified more closely with depression in conceptual meaning and quantitative measurement, however, evidence suggests that while PPF and depression may have some conceptual overlap, they are distinct concepts.

PPF changes across time. As measured by the Modified Fatigue Symptoms Checklist, women have reported between 7 and 13 symptoms day 1 postpartum and 7 to 8 symptoms at 6 weeks postpartum. Trends across time have revealed two patterns. Either the highest fatigue is reported shortly after delivery with downward trends across time, or fatigue increases from delivery to a peak at 4 to 6 weeks postpartum after which time fatigue trends downward. While women have qualitatively reported the belief that PPF is a temporary state that they believe will go away once the infant’s routine is established and the household is organized, research contradicts this belief with the finding that fatigue persists for as many as half of women through 18 months postpartum. Research beyond 18 months postpartum has not been conducted.

Gaps in the Literature

Research by this group of nurse scholars describes the presence and intensity of PPF symptoms. Longitudinal studies are beginning to show how PPF changes over time. As well, interventions to decrease PPF in hopes of increasing breastfeeding duration are promising. However, limitations to the work as a whole are noted. While larger trends

and changes in PPF are vital to the knowledge base, what is then neglected is knowledge about hourly and daily changes in PPF. Studying how PPF changes across short periods of time (hours and days rather than weeks and months) may better reveal the physiological, psychological, and situational factors that influence PPF.

On another note, while one data set from this work has included a sizeable percentage of low-income women (Milligan et al., 1990; Parks et al., 1999), the remaining samples tend not to represent diverse social classes. In general, participants tend to be white, healthy, have uncomplicated vaginal deliveries, and healthy babies. Studies on PPF need to be inclusive of women who represent the spectrum of postpartum experiences. Women who have obstetrical or other health complications, premature, ill, or multiple infants, who are single, struggling economically, and who represent diverse ethnic backgrounds must be included in studies of PPF if nursing is to both understand PPF and develop interventions that meet the needs of postpartum women.

The Study of Postpartum Fatigue by Lee and Associates

Kathryn Lee and her associated graduate students and colleagues from the University of California, San Francisco form the second group of researchers who have made substantive contributions to nursing's understanding of PPF. Over the past 15 years, Lee has approached the study of PPF from a physiological perspective emphasizing the measurement of sleep disturbance using polysomnography, functional status, mood, and blood levels of thyroid hormone, iron, and nutritional status. Early in her research, Dr. Lee developed a visual analogue scale to subjectively measure fatigue (VAS-F) (Lee, Hicks & Nino-Murcia, 1991). Comprised of two subscales (fatigue and

energy) the VAS-F serves as the primary instrument for measuring subjective fatigue severity in this research. Reliability and validity of the VAS-F were tested in a group of healthy subjects ($n = 75$). Mean morning fatigue ($x = 31.6$, $SD = 23.22$) and energy ($x = 60.3$, $SD = 23.92$) scores and evening fatigue ($x = 55.6$, $SD = 18.74$) and energy ($x = 34.9$, $SD = 19.74$) scores from the healthy subjects are reported here for comparing to postpartum women's fatigue levels below. Based upon the results of reliability and validity testing, the VAS-F was refined, and tested in a group of subjects ($n = 21$) undergoing medical evaluation for sleep disorders (Lee et al., 1991). Acceptable reliability and validity were reported.

Dr. Lee has studied fatigue in childbearing women longitudinally from pre-pregnancy through postpartum, but for the purposes of this study, postpartum findings are emphasized (Lee, 2001). Description of sleep disturbances, levels of vitality, and fatigue severity was the purpose of one study of 29 postpartum employed registered nurses (Lee & DeJoseph, 1992). In this secondary analysis, sleep disturbance was measured with a modified Stanford Sleep Questionnaire and Assessment of Wakefulness that included a General Sleep Disturbance Scale (GSDS). Fatigue was defined as excessive sleepiness and perception of fatigue severity and was measured by 3 items on a 100-mm visual analog line that related to fatigue in the past week. Vitality was assessed in 3 ways with the: 1) Dupuy General Well-Being schedule, 2) a 100-mm visual analog line indicating level of energy in the past week from low to high, and 3) one specific item from the GSDS that inquired into the frequency of feeling alert and energetic at work. Participants

worked at least 32 hours per week, reported taking naps (72%), felt low levels of energy at work (51%), and high fatigue was reported by over half of the group (52%).

In another secondary analysis, differences between primigravidae and multigravidae women in sleep efficiency, fatigue and vitality, and level of functioning were assessed in the third trimester of pregnancy and the first month postpartum (Waters & Lee, 1996). Fatigue was defined the same manner as Lee and DeJoseph (1992). Vitality is the absence of fatigue, feeling of energy, and having a sense of well-being. The authors hypothesized that multigravidae women would have higher household functioning, increased fatigue, and decreased sleep efficiency and vitality than primigravidae women, however, the results did not support this hypothesis on a number of variables. Twelve low-risk primigravida and 19 multigravida women were compared on sleep disturbance, fatigue, vitality and level of household participation. Sleep disturbance was operationalized as sleep efficiency measured through electroencephalogram and electro-oculography calculations. Fatigue and vitality were measured with the VAS-F, and level of functioning was measured with a modified version of the Inventory of Functional Status. Descriptive results of relevance were differences between third trimester and PPF measures. From 0 to 100 on the VAS-F fatigue subscore, primigravidae women averaged 64.16 (SD = ± 17.92) in the third trimester and 73.58 (SD = ± 15.22) postpartum. Multigravidae averaged 64.79 (SD = ± 19.27) in the third trimester and 64.35 (SD = ± 18.96) postpartum. No statistically significant differences were noted between or within the groups across time.

Results supported the hypothesis that multigravidae have significantly higher levels of functioning in household chores than primigravidae in both the third trimester and at one month postpartum. Contrary to the hypothesized relationship, multigravidae women in this sample reported less fatigue, more vitality and more sleep efficiency (or less sleep disturbance) than primigravidae in the postpartum. The authors suggest that the challenges encountered by first-time mothers in learning and integrating the maternal role into their lives reflects the findings that primipare women were more fatigued, had more disturbed sleep, felt less energetic and reported reduced household functioning. The authors acknowledge major limitations in generalizing these findings due to the small, privileged, and homogenous sample (92% were white, 58% had graduate degrees).

Lee and Zaffke (1999) continued investigation of fatigue and energy in a longitudinal, prospective study of healthy, educated, employed, married primiparae (n=24) and multiparae (n=18) women. The authors described levels of fatigue and energy pre-pregnancy, in each of the trimesters of pregnancy and at months 1 and 3 postpartum. As well, relationships between fatigue, energy, parity, sleep disturbance, thyroid function and iron deficiency were examined. Attrition resulted in a sample size of 30 participants at 1 month and 29 participants at 3 months postpartum. Descriptively, at one month postpartum, the mean evening fatigue score (mean of the 13 items on the VAS-F fatigue subscale) was 68.2 (\pm 17.7) and 66.5 (\pm 20.1) at 3 months. Evening energy scores (mean of 5 items of VAS-F energy subscale) at 1 and 3 months postpartum were 24.7 (\pm 14.1) and 27.7 (\pm 19.5) respectively. Nullipara and multipara women did not differ significantly in their perception of fatigue severity from pre-pregnancy to 3 months

postpartum. However, perception of fatigue severity in both groups was significantly higher at 3 months postpartum than pre-pregnancy. Of the other variables measured, PPF at three months was significantly correlated with fragmented sleep, low ferritin and low hemoglobin levels. These three variables explained 47% of the variance in fatigue at 3 months postpartum.

Lee, Zaffke, and McEnany (2000) published further results from the Lee and Zaffke (1999) database. The focus of this article was reporting of polysomnography results. Sleep patterns were recorded and analyzed for 2 consecutive nights at each of the data collection points from pre-pregnancy through 3 months postpartum. Data from night 2 was used in analyses to allow for adjustment to the monitoring equipment. The data were collected in months 1 and 3 postpartum from 29 mothers who had experienced uncomplicated normal labors and deliveries and were breastfeeding with supplementation by bottle to some degree. At one month postpartum, 3 women had low hemoglobin levels, but measures of ferritin and thyroid functioning were normal in the group. Total sleep time was not significant for parity. Sleep efficiency (the percentage of time actually spent asleep from 0 to 100%) significantly decreased from pre-pregnancy to 3 months postpartum. At one month postpartum, women experienced significantly less total sleep time, poorer sleep efficiency (caused by awakenings), increased deep sleep, and no change in REM sleep compared to third trimester values. Of interest is the finding that while women were awake more often at night, time spent in deep sleep was not affected, because: "...mothers were quickly able to get into the deeper, more restorative stages of

sleep after awakenings” (p. 17). By three months postpartum, sleep was improving, but compared to pre-pregnancy baseline levels, sleep deprivation continued.

Gay, Lee, and Lee (2004) studied primiparous couples’ PPF and sleep through use of wrist actigraphy and questionnaires to estimate sleep and fatigue at 9 months pregnancy and 1 month postpartum. Wrist actigraphy continuously monitors motion, and along with sleep logs completed by participants, this measure served as an objective measure of sleep. The General Sleep Disturbance Scale and VAS-F subjectively measured sleep disturbance and fatigue. Seventy-two couples completed the study. Mothers’ sleep changed significantly from pregnancy to postpartum with mothers losing an average of 41.2 minutes of nighttime sleep. Fathers’ sleep did not change (fathers lost an average of 15.8 minutes). Mothers experienced more disturbed sleep than fathers in the postpartum, which may be reflective of the fact that 94 percent of mothers were breastfeeding to some extent with 80 percent of mothers breastfeeding exclusively. On the subjective measures, mothers reported more sleep disturbance than fathers, however, both mothers and fathers reported increased sleep disturbance from pregnancy to postpartum. Morning and evening fatigue scores were higher postpartum than in pregnancy, but not significantly different between mothers and fathers. Overall, postpartum women reported more sleep disturbance and greater fatigue than in the ninth month of pregnancy. Fathers’ sleep changes reflect similarly to mothers’ sleep changes from pregnancy to postpartum where fathers had less night sleep and more awakenings. Both mothers’ and fathers’ perceptions of fatigue severity were comparable.

Conclusions from Research by Lee and Colleagues

The study of PPF by Lee and her colleagues has advanced nursing's understanding of fatigue and sleep across the childbearing experience in both women and their partners. Focusing on the relationship between the subjective measurement of fatigue and objective measures of sleep, this group has revealed that postpartum women's sleep tends to be more disturbed, less efficient, and less in quantity, but that restorative stages of sleep are not as affected as lighter stages of sleep. Postpartum women develop the ability to fall quickly into a deep, restorative sleep after being awakened.

In general, postpartum women report more morning and evening fatigue and less morning and evening energy than healthy non-postpartum subjects. Fatigue severity tends to increase throughout pregnancy and worsen after childbirth. Fatigue severity stabilizes around 1 month postpartum and remains at or near the 1-month level for an extended period of time. Especially in nulliparous women, fatigue levels after childbirth tend not to decrease to pre-pregnancy levels for many months, if ever. Overall, primiparous women tend to have more difficulties with sleep and fatigue than multiparous women, reflecting the increased demands first-time mothers encounter in learning how to mother. After childbirth, fathers' sleep is also more disturbed sleep, and fathers' fatigue severity levels are comparable to mothers.

Gaps in Research

These patterns of sleep and PPF have been discovered in subjects with a relatively homogenous demographic constitution. Samples in this group of research tend to be Caucasian, middle-class, highly educated, and married. Similarly, birth and medical

histories also tend towards homogeneity with uncomplicated pregnancies, vaginal deliveries, and healthy newborns comprising the norm. As a result, these patterns cannot be generalized to the wider population of women and men experiencing PPF. Wisely, the authors of these studies have acknowledged these limitations and called for research that incorporates demographics, contexts, and circumstances that are more representative of the population.

On a different note, this research focuses narrowly on the measurement of sleep and fatigue. The lack of understanding of any context within these measurements is a major limitation of this group of research. Other than demographic characteristics and occasionally the method of infant feeding, variables that are likely to influence patterns of fatigue in the postpartum period are not assessed. Part of this omission is necessary given the complexities inherent in the use of technologies such as polysomnography and measuring physiological factors that influence fatigue. However, PPF research in nursing needs to move forward and begin to study PPF in diverse populations and circumstances as well as to study the contexts in which PPF manifests most severely. A broader understanding of PPF is necessary to develop meaningful interventions to decrease PPF.

The Study of Postpartum Fatigue by Troy and Dalgas-Pelish

Nancy Wieland Troy and Peggy Dalgas-Pelish, make up the third group of scholars who have made significant contributions to nursing's understanding of PPF. The perspectives on childbearing fatigue by Pugh and Milligan (1993), Gardner (1991), Gardner and Campbell (1991), and Affonso's (1987) ideas on maternal adaptation underpin these researchers' work.

In 1995, Troy and Dalgas-Pelish described the development and testing of a self-care guide for the management of PPF. Content for the self-management guide was generated from a review of fatigue and PPF literature. A modified version of Piper et al.'s (1989) conceptual framework for cancer-related fatigue provided a structure for the self-management guide, and a panel of experts was used to assess content validity. The self-management guide was pilot tested for clarity and ease of use in a group of 25 healthy, primiparous, low-risk postpartum women of vaginally delivered full-term infants. This management guide informs the woman of potential sources of fatigue and describes techniques that can be used to reduce fatigue.

The effectiveness of this guide, named the Tiredness Management Guide (TMG), was reported in an article that sampled a similarly composed (i.e., healthy, low-risk, vaginally delivered primiparous) group of 68 postpartum women (Troy & Dalgas-Pelish, 2003). Using an experimental design, the TMG's effectiveness at reducing PPF between weeks 2 and 6 after delivery was evaluated with the Lee Fatigue Scale (VAS-F). Beginning 2 weeks postpartum, all participants marked morning and evening fatigue levels using the VAS-F six times per week (3 mornings and 3 evenings). Participants in the experimental group also documented when they used the TMG to manage fatigue. While there were differences between morning and evening fatigue scores between the experimental and control groups (experimental group tended to have lower fatigue scores), overall, these differences were not statistically significant. However, when weeks 2 to 4 postpartum were analyzed separately, the TMG did significantly reduce morning fatigue among the experimental group during this time period.

An important finding from this study was revealed when the fatigue levels from the VAS-F were compared to the general population. The authors conclude that at week 6 postpartum women's evening fatigue levels are approximately the same as general population evening fatigue levels, but that postpartum women at 6 weeks do not recover during the night from daily ongoing fatigue and demonstrate higher morning fatigue.

In addition to developing and testing a self-management guide for childbearing fatigue, this group of nurse researchers has focused on describing the trajectory of PPF, because they noted that knowledge of PPF antecedents, how long the fatigue lasts, how it affects the woman and her family and what can be done to manage PPF is scarce (Troy et al., 1997). Again, using the VAS-F, a sample of 36 low-risk, vaginally delivered primiparous women completed the instrument 3 mornings and 3 evenings from weeks 1 through 6 postpartum. The VAS-F is comprised of two subscales: fatigue and energy, which were discussed separately. The mean morning fatigue score at week 1 was 38.72 (SD = 19.27, range 0 to 100). The mean morning fatigue score increased to its highest level at week 4 postpartum (48.77) and then decreased from weeks 4 to 6 to a level approximately equal to week 1 postpartum (week 6 = 37.30). Evening fatigue scores followed a different pattern exhibiting their highest level at week 1 ($x = 63.45$, SD = 10.07), decreased week 2, increased week 3, and then steadily decreased weeks 4 through 6 (week 6 = 55.60).

Patterns of morning and evening energy were also described. Morning energy mirrored morning fatigue where morning energy steadily decreased from week 1 ($x = 51.80$, SD = 18.04) to week 4 ($x = 43.63$) after which morning energy increased through

week 6 returning to week 1 levels ($x = 50.69$). Evening energy levels decreased from weeks 1 ($x = 39.61$, $SD = 16.73$) to 3, rose to a peak at week 5 ($x = 38.08$) and leveled off at week 6. Compared to other studies that measured fatigue, this study's sample of postpartum women had more morning fatigue and less morning energy at 6 weeks postpartum than the general population, which indicates that recovery from childbirth may take longer than the traditional 6 weeks. However, evening fatigue and energy scores at 6 weeks of the sampled postpartum women were comparable to a previously studied population of healthy adults indicating an increased ability of postpartum women to manage the demands of motherhood. That morning fatigue and energy at 6 weeks remained at levels essentially equal to levels at week 1 postpartum is confirmation that infant demands and sleep interruptions impact women in an ongoing fashion. The findings that breastfeeding women tended to have more fatigue and less energy than bottlefeeding women is congruent with most previous findings. As well, older mothers tended to be more fatigued in the evening and have less energy than younger mothers.

The presence and intensity of PPF from 14 to 19 months postpartum was examined by Troy (1999). In this study, Troy used Pugh and Milligan's (1993) framework of childbearing fatigue to frame the study and measured fatigue with the VAS-F. Of the 68 participants recruited from an earlier study, 28 women enrolled and completed the study materials. Paired samples t-tests compared the means of women's reported fatigue and energy at 6 months postpartum (data collected from first study) with fatigue and energy levels from 14 to 19 months postpartum (data collected in second study). Mean morning and evening fatigue and energy scores were calculated from 3

consecutive mornings and evenings when the VAS-F was completed. Analyses revealed that the women were more fatigued and had less energy both morning and evening from 14 to 19 months postpartum, but this difference was not statistically significant. A downward trend in fatigue over time and an upward trend in energy had been expected.

Troy's (1999) finding that fatigue and energy levels were essentially the same is clinically meaningful. The conception that women have babies and "recover" to achieve pre-pregnancy levels of fatigue and energy was contradicted by these results. Similarly, in prior qualitative analysis women believed that their PPF was a temporary state that would resolve when the baby's schedule was established and the women were able to organize their lives (Milligan et al., 1996, 1997). In comparing the findings of Milligan et al. (1996, 1997) and Troy's work, women's expectations for fatigue resolution in the long-term may be unrealistic. It is important to note that 89% of the women were working an average of 36 hours per week outside the home compared to 21% who worked outside the home at 6 months postpartum. Using other measures, Troy commented that not only were most of the women working nearly full-time outside the home, but that 79% of the participants were responsible for most, if not all of the housework and childcare. The remaining 21% reported they were responsible for approximately one half of the housework and childcare. Milligan et al.'s (1996, 1997) idea that beyond the early postpartum period the major contributor to PPF is the woman's social context, which includes the piling-up of roles and responsibilities, was supported with these findings.

Conclusions and Limitations of Work by Troy and Dalgas-Pelish

The work done over the past decade by Troy, Dalgas-Pelish and Vichitsukon has advanced the state of knowledge surrounding PPF. Their work supports notions that fatigue is progressive, worsening from delivery to four weeks postpartum and that “recovery” from childbirth extends well beyond the six week period by which vaginally delivered women are believed to be fully recovered. In fact, this group’s work provides evidence that women with infants and toddlers remain more fatigued and less energetic than the general population for months, and possibly years. However, limitations that the authors identify curtail generalizations of their work to wider populations of postpartum women. These researchers acknowledge, for instance, the non-representative, homogeneous characteristics of their samples. Their samples are reflective of the body of PPF literature. Almost exclusively, research participants are vaginally delivered, low-risk, healthy women who tend to be white, married, and college educated. Like others, these scholars discuss the need for samples that are more representative of the population.

Additional Contributions to the Study of Postpartum Fatigue

A number of individual researchers have studied PPF, and these studies are reviewed here. Gardner (1991) enrolled 68 mostly white (89%), healthy women who had normal vaginal deliveries and healthy newborns in a longitudinal study on PPF. Gardner conceptualized fatigue as a subjective feeling of lack of energy and weariness. PPF was measured with the Rhoten Fatigue Scale, which conceptualizes fatigue on a continuum ranging from not tired to total exhaustion. Data were collected at postpartum days 2 or 3, 2 weeks, and 6 weeks. Attrition was high, and 35 women comprised the final sample.

Mean fatigue levels (possible range from 0 to 10 with a higher number indicating higher fatigue) were as follows: 2 days = 4.60; 2 weeks = 3.96; 6 weeks = 3.51. Overall fatigue levels for the sample were described as mild. Important relationships revealed in this study were that fatigue and age shared a negative relationship ($r = -.34$) at 2 weeks, and education shared a negative relationship to maternal education at 6 weeks ($r = -.48$). For this sample, younger moms tended to be less fatigued than older women, and women with higher educational status tended to be less fatigued.

In a pilot study, Wambach (1998) studied the fatigue experience in 41 breastfeeding, primiparae women. Using Pugh and Milligan's (1993) framework for the study of childbearing fatigue, Wambach asked how fatigue changed over time, related to selected physiological, psychological, and situational factors, and interfered with performance. More specifically, the study investigated relationships between fatigue, breastfeeding experiences, sleep characteristics, perceived stress, depression and infant temperament through nine weeks postpartum (data were collected at 3 days, and 3, 6, and 9 weeks postpartum). In addition to being primiparous and breastfeeding, participants had spontaneous vaginal deliveries and normal healthy newborns. Participants were an average of 25.9 years of age and tended to be of lower middle-class, married (75.6%), educated (78% had some college or more education), and Caucasian (68%).

Multiple instruments were used including the Perceived Stress Scale to measure life event stress and the Infant Characteristics Questionnaire to measure infant temperament. Fatigue was measured with both the Lee Fatigue Scale (VAS-F) and the Multidimensional Assessment of Fatigue (MAF), which is a revision of the Piper Fatigue

Scale. The Breastfeeding Experience Scale measured the occurrence and severity of breastfeeding problems. The Centers for Epidemiological Studies of Depression Scale measured depressive symptomology, and the Verran Synder-Halpern Sleep Scale measured sleep quality and quantity. Self-report data were collected for multiple other variables.

Fatigue scores measured with the VAS-F were described as moderate. Fatigue peaked at 3 weeks and trended downward at 6 and 9 weeks postpartum. The mean fatigue scores (possible range 0-10) were: 3 days = 4.72; 3 weeks = 4.75; 6 weeks = 3.77; 9 weeks = 3.54. Findings revealed that while depressive symptoms were mild overall and decreased over time, depressive symptoms correlated moderately ($r = .45$) to strongly ($r = .75$) with fatigue over time ($p < .01$). Breastfeeding problem severity was also significantly and positively correlated with fatigue across time ($r = .38$ to $.66$; $p < .01$). Only the strongest and most consistent findings are reported, because the power of this pilot study was limited by a small sample and a host of statistical analyses.

Postpartum Fatigue as a Dominant Theme of the Postpartum Experience

Quantitative Research

Over the past decades nursing has accumulated knowledge revealing the meaning and pervasiveness of PPF within the experience of new motherhood. In a classic work by Rubin (1984) describing maternal identity and experience, fatigue was associated with anemia, sleep hunger, sleep deprivation, and sleep disruption, and the burden of continual infant caregiving. Rubin notes that fatigue increases throughout labor resulting in acute sleep hunger in the hours and days after delivery. Fatigue is cumulative in nature and

most severe during the first month postpartum. Severe fatigue is aligned with irritability, problems with morale, development of depression, decreased physical healing, and reconstruction of self and family after delivery.

Chapman, et al. (1985) supported some of Rubin's ideas with empirical evidence describing the concerns of breastfeeding mothers up to four months postpartum. Forty-four breastfeeding women ranging from 18 to 35 years old were recruited. The concerns of mothers were categorized as breast, infant, or postpartum concerns. Fatigue was categorized as a postpartum concern, and mothers identified fatigue as major concern during the entirety of the four month study.

In Mercer's (1986) seminal study on first-time motherhood, the title of the chapter "First Month: Pervasive Fatigue and Frustration" indicates how fatigue, more than anything else, colors the early postpartum experience. Mercer's framework focuses on describing the transitional process of accepting and attaining the maternal role. The sample at 1 month postpartum contained 276 mothers ranging from 15 to 42 years of age and was divided into three categories based on age: 15 to 19 years, 20 to 29 years, and 30 to 42 years. Results were compared among these three groups to describe how the experience of first-time motherhood differed based upon maternal age and development. Data were collected on a number of variables such as attachment, competency, infant temperament, infant and maternal health status, social stress, and social support in addition to a content analysis of open-ended questions.

While data were collected at 5 time points from delivery to 12 months postpartum, fatigue was most concerning to women during the first month after delivery.

Overall, the first month postpartum was characterized by fatigue, frustration, depression, and concern about the infant and the woman's ability to mother. Lack of predictability, ongoing pain and physical difficulties from delivery, mourning over lost identities, continual caregiving, and assimilating the infant into the family were near ubiquitous difficulties of the first postpartum month. Sleep deprivation was a reported difficulty of one third of the women (44 % of 15 to 19 year olds, 27% of 20-29 year olds, and 35% of 30-42 year olds). Sleep deprivation was identified as a contributor to fatigue, postpartum blues, and depression. Mercer notes that during the first month postpartum when sleep deprivation is highest, the mother's feelings of love towards the infant, and gratification with the mothering role is lowest.

Tulman and Fawcett (1988) studied how long women take to return to full functional ability after childbirth. Functional ability was defined as full resumption of pre-delivery levels of household, social, community, and occupational activities as well as assumption of infant care. Seventy women (30 vaginally and 40 caesarean delivered) who had delivered full-term infants within the prior 5 years completed the Childbirth Impact Profile Form MQ created by the investigators to measure functional ability. Results show that functional status involves more than simply attaining full performance of tasks. Functional status also includes levels of physical energy since many women carried out their tasks in spite of a lack of physical energy. At 6 weeks postpartum, only 51% of women had regained their usual level of energy. Significant differences in physical energy were noted based on type of delivery with 71% of vaginally delivered women reporting having regained their usual level of energy by 6 weeks versus only 34%

of cesarean delivered women reporting the same. The reliability of this data, however, is questionable given data collection occurred an average of 22 months after delivery.

A couple years later, Tulman et al. (1990) again studied functional status, but this time data were collected during the postpartum experience (at 3 and 6 weeks and 3 and 6 months) to ascertain how functional status changed over time. Based upon Roy's Adaptation Model, recovery from delivery was couched in terms of maternal role performance. The sample was comprised of 87 subjects at 3 weeks and 97 subjects at the other time points. Participants averaged 29.3 years old, were married, English-speaking, Caucasian (all but 6 subjects), middle class adults who delivered full-term infants and reported no maternal health problems or prenatal complications. Forty women delivered by cesarean section and 57 delivered vaginally. Nearly half (48%) were primiparas, and 73% breastfed after delivery. Variables were measured by the Inventory of Functional Status after Childbirth (IFSAC), the Postpartum Self-Evaluation Questionnaire, and the Infant Characteristics Questionnaire.

Functional status increased significantly over the 6 months postpartum (Tulman et al., 1990). However, by 6 weeks, when postpartum women are thought to have "recovered" from delivery, only 30% of women in the sample had resumed full levels of household, social, or community activities. By 6 months, nearly one-fifth (19.6%) had not yet resumed usual levels of household activities and only 17.5% of women had resumed their usual level of self-care. Of all the variables in the study, level of physical energy correlated (by way of a canonical analysis) most strongly with functional status across time.

Similar results were found in Australian women (McVeigh, 1998). Again, the IFSAC measured functional status in the five dimensions of infant care, self-care, household activities, social and community activities, and occupational activities. Data were collected at 6 weeks ($n = 173$), 3 months ($n = 154$), and 6 months ($n = 140$). In this sample of married (94%), breastfeeding (71%), primiparous (53%) and multiparous (47%) women delivering healthy infants, at 6 weeks postpartum a minority of women reported full functional status in household activities (16%), social activities (15%), and no women reported achieving pre-delivery levels of self-care. At 6 months postpartum, 60% had not fully resumed usual levels of household activities, and 70% had not fully resumed social activities. By 6 months postpartum no women reported achieving full pre-delivery functional status as defined by resuming full activities in all five dimensions measured. The authors suggest that achieving a pre-delivery level of functional status may not be an appropriate point of reference given the significant changes in identity and other dimensions of life that occur during the transition to motherhood. The authors hypothesize that in addition to women having to work harder to meet the demands of motherhood, women may also have different priorities after delivery such that they may not desire to achieve the same level or kinds of activities after delivery. Therefore, referencing post-delivery functional status on pre-delivery functional status may be an irrelevant comparison within some dimensions.

Elek, Hudson and Fleck (2002) studied both mothers' and fathers' reports of fatigue longitudinally using the VAS-F. Based upon a power analysis, data were collected from 44 couples. To be included couples had to be living together, between 19 and 45

years old, first-time parents, and have no health or sleep problems, depression, substance abuse or overnight employment. The data were collected from couples in month 9 of pregnancy and weeks 4, 8, 12, and 16 postpartum. The study assessed fatigue severity over three days (3 morning and 3 evening scores) with the VAS-F fatigue subscale, depressive symptomology with the Center for Epidemiologic Studies-Depression scale (CES-D), marital satisfaction with the Dyadic Adjustment Scale, demographics, and sleep and wake states using a 60 hour activity diary.

In the ninth month of pregnancy average fatigue morning and evening scores for women were 33.53(13.89) and 60.08(12.60) respectively (Elek et al., 2002). For men with partners in their ninth month of pregnancy, mean fatigue morning and evening scores were 31.89(12.74) and 49.20(16.36) respectively. Mothers' morning postpartum (months 1 to 4) fatigue scores ranged between 40.96 and 41.25 (out of 100). Mothers' evening PPF scores ranged from 62.76 to 64.86. Fathers' morning PPF scores ranged from 38.05 to 43.45. Fathers' evening PPF scores varied from 59.54 to 62.65. For both mothers and fathers, fatigue severity increased from pregnancy (month 9) to postpartum.

In the postpartum, fatigue severity scores remained relatively stable from months 1 to 4 with no significant changes or trends noted across time (Elek et al., 2002). Fathers experienced a greater increase in fatigue severity than mothers from pregnancy to postpartum. Generally, fatigue and marital satisfaction were not significantly correlated in either mothers or fathers. At certain data collection points fatigue and depression were significantly correlated. In mothers fatigue and depression were correlated at prenatal and postpartum week 12 and for fathers this was prenatal and postpartum weeks 4 and 8. The

authors acknowledge the need to study PPF in couples using larger samples with more diversity in racial and ethnic backgrounds, income, and educational levels, because this study's sample demographic was predominantly middle-class, highly educated, Caucasian, and married. This study set a new precedent for studying PPF in couples and demonstrated that familial context is important to enhancing nursing's understanding PPF.

Fatigue was an underlying theme in another study that emerged out of semi-structured interviews conducted with 25 primiparous and 25 multiparous women during the first two weeks postpartum (Ruchala & Halstead, 1994). Participants ranged from 19 to 38 years and the majority were married (76%), Caucasian (74%) or African American (24%), initiated prenatal care within 2 months of conception, and tended to be middle or upper middle-class (80%). Forty-four percent identified fatigue or being tired as the major descriptor of their postpartum experience to date. Fatigue was identified both as a general feeling and a major physical concern (76%). Women noted that fatigue negatively affected multiple dimensions of their lives including family relationships and household responsibilities, as well as contributed to feelings of depression and irritability. That fatigue was such a pervasive and distressing component in the early postpartum period for these women suggests the need for further study of PPF and its consequences in women living in more diverse circumstances.

In a quantitative study of the first-time motherhood experiences of 79 Australian women, written comments from the IFSAC were subjected to content analysis and reported (McVeigh, 1997). Data were collected at 6 weeks postpartum and

demographically participants were married (94%), born in Australia (although 28% were born overseas), and averaged of 27.8 years of age. Forty-one percent had no extra help with the baby following hospital discharge, 22% felt a lack of social support prolonged their physical recovery, and 36% were dissatisfied with their level of stamina and well-being. The major category that emerged from comments written on the IFSAC was “conspiracy of silence.” The following five subcategories were identified: 1) Why didn’t someone tell me it would be so hard?, 2) No one told me I would be so tired, 3) There is no time left for me, 4) Nothing prepared me for the realities of 24-hour-a-day infant care, and 5) I don’t know what I would have done without his support. The second category is most important to the current study, and McVeigh notes that mothers were overwhelmed with their level of tiredness. The unrelenting care of a newborn as well as having an unsettled baby made fatigue unbearable. One mother was quoted as saying: “The utter relentlessness of infant care is overwhelming, and it is difficult to draw much pleasure from motherhood at this stage. I’m quite taken back by how tired I am (McVeigh, 1997, The mother’s comments section, ¶ 3). The subcategories generated the major category of “conspiracy of silence” where mothers noted feeling unprepared and overwhelmed by their first-time motherhood experiences during the 6 weeks after delivery.

Qualitative Research

Australian researchers reported on a grounded theory study of women’s experiences with new motherhood. The study was reported in two parts in which one article reported results of the six categories found (Barclay et al., 1997), and the other article reported on the methodology and the basic social process (BSP) (Rogan et al,

1997). The experience of motherhood was discussed in nine focus groups (n = 55 total participants). Drawn from a new mother support group, all the participants were first-time mothers, spoke English, were on average 30.5 years old and had infants who were between 2 and 26 weeks old. The BSP of these first-time mothers' experience was represented by the phrase "Becoming a Mother." Six categories encompassed within this category were: 1) Drained, 2) Unready, 3) Working it out, 4) Alone, 5) Realizing, and 6) Loss. Most important to this study was the "drained" category where women described themselves as being "emptied out" after having given everything of themselves to their infants. "'Drained' resulted from the physical, mental and emotional demands associated with taking on and learning their new role. Physical tiredness was associated with recovery from the birth, lack of sleep, and compounded by emotional tiredness and upheaval" (Barclay et al., 1997, p. 722). Physical tiredness and mental tiredness were discrete concepts. Physical tiredness coincided more with lack of sleep and unrelenting caregiving whereas mental fatigue coincided with uncertainty in the postpartum experience and constantly learning about the infant. Lack of social support worsened fatigue, and unlike with other forms of fatigue, crying did not result in a healthy release of emotion, but "...appeared symptomatic of exhaustion rather than of depression (Barclay et al., 1997, p. 723).

Martell (2001) conducted a grounded theory study of 32 vaginally delivered mothers of full-term infants to develop a theoretical description of contemporary first-time motherhood experiences in the early postpartum. In this convenience sample most of the participants were white (97%), highly educated (94% had some college or higher),

married (75%), middle-class (mean annual income \$58,931) and on average 30.8 years old. Women were interviewed within one week of discharge and then 1 to 2 weeks after the first interview. The core theme of the early postpartum period for these women was identified as “Heading toward the new normal,” which exemplifies that the early postpartum is a process of rapid reorganization that begins during pregnancy and continued beyond the study. Early postpartum experiences were categorized into three processes: 1) Appreciating the body, 2) Settling in, and 3) Becoming a new family. Within the category titled “appreciating the body,” fatigue was identified as one of the main postpartum difficulties. Sleep was difficult in the hospital due to the unfamiliar and uncomfortable surroundings and staff and infant interruptions. Martell reports that participants were more tired and had decreased energy at the second interview (at 2 to 3 weeks postpartum). Accumulated sleep loss was apparent to the investigator.

Conclusions

The above literature on the existence and nature of fatigue conducted from the 1970’s to present begins by documenting fatigue as a major concern of mothers and advances to more complex qualitative analyses that are beginning to elucidate the process of PPF. Although a major limitation of these studies is that PPF is a tangential finding; nevertheless, a number of patterns emerge from these studies as a group. Fatigue is a pervasive and distressing experience for many women after childbirth. Fatigue is a major concern not only in the immediate postpartum, but is ongoing in the days, weeks, and months after childbirth. Fatigue is cumulative in nature and seems to increase in intensity from birth through the first month postpartum. Fatigue negatively affects multiple

dimensions in women's lives including family relationships, the woman's ability to perform household responsibilities, and increases depressive and irritable feelings. After childbirth, many women are overwhelmed with mental and physical tiredness from sleep deprivation, providing unrelenting infant care and healing physically from childbirth. Postpartum women's level of physical energy is closely related to their functional status. While social policy and societal expectations believe women recover from childbirth and adapt to motherhood by 6 weeks postpartum, these studies reveal that less than one third of women achieve this expectation as measured by functional status. Most women do not achieve pre-pregnant levels of functional status even 6 months after childbirth. The reviewed studies suggest that the needs of women after childbirth are far from met in a society that assumes the transition to motherhood after childbirth requires little in the way of time or support. This assumption of contemporary society leaves women unprepared for and overwhelmed by the transition to motherhood.

Exploring the Relationship between Postpartum Fatigue and Depression

The literature previously discussed on PPF concludes that PPF and depression are distinct concepts that share some overlap in conceptual meaning and quantitative measurement. Research on postpartum depression helps to further illuminate the nature of the complex relationship between these two concepts. Small, Brown, Lumley, and Astbury (1994) highlighted the lack of women's voices and experiences in the research on postpartum depression. As a result, these authors interviewed 45 women whose children were approximately 2 years old. At 8 to 9 months postpartum, these women had been categorized as "depressed" in an earlier study that measured depression with the

Edinburgh Postnatal Depression Scale (EPDS). A random sample of 45 women who scored “not depressed” on the EPDS in the earlier study were also interviewed to serve as a control group. The authors report that participants easily identified what they believe contributed to their feelings of depression. The factors identified as most important included feeling unsupported, being isolated, physical health factors, and exhaustion. Of the women who reported feeling less depressed at the follow-up time point ($n = 52$), the most frequent reasons mentioned for why they felt better included the child getting older, having more partner support, returning to work, and not feeling as tired. The authors conclude that women’s explanations of their own depression, which are difficult to find in the scientific literature, situate women’s depression within the context of their own lives. After childbirth, participants who were depressed struggled with isolation, lack of social support, exhaustion, unrelenting infant care, physical difficulties, and had no time to be by themselves. This contextual view of depression challenges pure medical explanations of depression that couch depression in terms of biological or hormonal deficiencies or imbalances.

Woollett (1997) described a feminist approach to understanding postpartum depression in research on the psychological tasks of men and women in the postpartum period. The transition to parenthood was conceptualized as being situated within social, cultural and ideological contexts that genderize and stereotype feelings, experiences, and expectations of new mothers and fathers. Carried out in the United Kingdom, 106 women and their male partners were studied in pregnancy (on average at 26 weeks), at 2 to 3 weeks postpartum, and 6 months postpartum. Additionally, couples were interviewed in

their homes around 6 months postpartum. The main study measure was the EPDS, and the investigator created questions about general health and stress. Interviews at 6 months postpartum were semi-structured and allowed couples to be reflective of issues raised by the questionnaires.

Women specifically discussed being tired and exhausted and believed these issues affected their ability to physically recover from childbirth and cope with the unpredictability and change that characterized the early weeks of the postpartum period. The data revealed an unexpected response in that a number of women who scored “depressed” based upon pre-established EPDS cutoff points also reported being reasonably cheerful and enjoyed their babies. The author notes that the transition to parenthood is a complex and contradictory experience where feelings of depression require examination within the context of the woman’s life. When postpartum depression is examined only from the perspective of a pathological condition, women’s feelings and the context that contributes to the depression are neglected.

Bozoky and Corwin (2002) specifically investigated whether fatigue was a predictor of postpartum depression symptoms. Utilizing Mercer’s framework of Maternal Role Attainment fatigue was measured with the Modified Fatigue Symptom Checklist (MFSC) and depression was measured with the CES-D. Fatigue data were collected from 38 women on postpartum days 0, 7, 21, and 28. The CES D was administered on day 28. Recruitment criteria included an uncomplicated vaginal birth, full-term newborn, and no maternal or infant health issues. Participants tended to be white (87%), married (82%), multiparous (60%), breastfeeding in the hospital (82%), and ranged from 19 to 37 years

(mean = 28.3). Except for day 0, fatigue significantly correlated with depression at day 28 (r ranged from .463 to .708). Fatigue levels changed significantly over the 28 days with fatigue peaking at day 0 and decreasing from that point. In a logistical regression analysis, fatigue increased odds at all time points of scoring above 11 on the CES-D (i.e., depression cutoff) at day 28. Odds continually and significantly increased from 1.17 on day 0 to 1.25 on day 7, 1.83 on day 14, and 7.15 on day 28. Women who reported a high number of fatigue symptoms in the hospital continue to report high fatigue on successive study days and a high number of depressive symptoms at day 28.

In a study that attempted to replicate and extend the above findings, Corwin, Brownstead, Barton, Heckard, and Morin (2005) asked if women reporting severe fatigue at 1 and 2 weeks postpartum were more likely than non-severely fatigued women to develop symptoms of postpartum depression at 1 month. The Modified Fatigue Symptom Checklist, CES-D, and the Perceived Stress Scale were administered to a group of 42 women between 36 and 38 weeks of pregnancy and at days 7, 14, and 28 postpartum. Women in the sample were an average of 28.4 years old and tended to be Caucasian (98%), married or partnered (83%), primiparous (68%), and living in a rural area (73%). Due to attrition or disqualification from the study, 31 women completed data collection. This study confirmed the prior findings that severe PPF (i.e., MFSC ≥ 6) on day 14 postpartum predicted of postpartum depression symptomatology (CES-D ≥ 11) at 28 days postpartum.

Conclusions

What is known about the relationship between PPF and postpartum depression is that these two concepts manifest some conceptual similarities, but remain distinct concepts. Shortly after childbirth many women experience “postpartum blues,” which women identify as sadness, not tiredness. In addition, women believe fatigue is more severe and prolonged than tiredness. Tiredness is a more transitory state than fatigue even though women also believe fatigue is a transitory experience of the postpartum period that will abate with better sleep and organization. High fatigue has been linked qualitatively with depression with women noting that when one becomes extremely fatigued, then one can become depressed. These overlaps in meaning and measurement are acknowledged, but quantitative evidence strongly suggests that trajectories of fatigue and depression change differently over time, which lends support to the idea that these phenomena are conceptually distinct.

Contributing to the overlap in meaning and measurement is the emerging evidence that suggests PPF and postpartum depression are considerably influenced by contextual circumstances and social constructions of parenthood. Depression and PPF are related concepts as they co-exist within the sphere of women’s postpartum experience and transition to motherhood. Even as women themselves report these concepts to be different from one another, they also report the presence of a mutual relationship between fatigue and depression. Fatigue tends to be present prior to and during depression along with factors such as isolation, lack of support with infant care, exhaustion, physical difficulties, and being unable to cope with the unpredictability and change in the early

postpartum weeks. Women's physical, mental, situational circumstances are embedded within larger societal constructions and expectations of what is considered normal and abnormal in the postpartum period. Together, these circumstances, constructions and expectations weave together a complex web within which PPF is a dominant experience.

Chapter Summary

The process of PPF in the everyday lives of women remains unknown, however, published literature provides glimpses into the both the process and context surrounding PPF. Unrelieved PPF is an unpleasant and even unbearable subjective experience that leaves women feeling drained, exhausted, alone, overwhelmed, and doubting their ability to mother and meet the infant's demands. Antecedent and concurrent factors include isolation, lack of social support, sleep disruption, surgical delivery, housework, pile-up of roles and responsibilities, physical problems, breastfeeding problems, and employment outside the home. The intensity of PPF tends to follow an overall pattern or trajectory. In general, PPF is high immediately following birth and increases to an acme between 4 and 6 weeks postpartum. Then fatigue decreases to a leveling off point around 3 months postpartum. PPF frequently persists at the 3-month level for 14 to 18 months and may not actually resolve for considerably longer, if ever. Health-related effects of PPF can include delayed return to functional status, prolonged physical recovery from birth, premature weaning from breastfeeding, postpartum depression, and indirectly, less advanced infant development.

PPF is a complex and dynamic phenomenon, which can accumulate over time, persist for months, but also change abruptly in intensity (as in relief from fatigue after a

nap or worsening from a night of severely disturbed sleep). The complexity of this phenomenon means that a number of gaps in nursing's understanding of the phenomenon remain. The first of these gaps is the consistent sampling of a rather homogeneous group of women; namely, educated, married, well supported, healthy Caucasian women having low-risk pregnancies, uncomplicated vaginal deliveries and healthy babies. Overall, fatigue was a major concern of these women, which generally could be categorized as mild to moderate in intensity. The evidence suggests that if only mildly fatigued women have documented health consequences, then women in less than ideal circumstances or contexts may have even more pronounced health-related effects. However, this theory remains to be tested, because to this point, researcher have not yet studied PPF in women from diverse contexts including ethnicity, income, social context, marital status, and medical and obstetrical history. This proposal will begin to address this sampling bias by theoretically sampling women from a variety of contexts.

Two other gaps in the literature relate to the methodological approaches that prior studies have used to study PPF. The first problem stems from a general lack of concerted effort to ascertain the contributing or antecedent factors surrounding PPF. Most prior studies have focused on measuring fatigue symptoms and fatigue intensity. As well, a number of studies have investigated the sleep patterns of postpartum women in an attempt to understand fatigue as it relates to sleep characteristics. Some attention has been given to identification of major risk factors and contributors to PPF, but much of this attention is theoretical in origin with little evidence to characterize the relationship. This study will begin to address this gap by intensively studying the environmental context of

the woman's life related to her fatigue experience in an attempt to better assess factors that contribute to PPF.

The other major methodological oversight in the literature relates to the measurement of fatigue over time. If PPF really does change over hours and days, then to develop an intimate understanding of the phenomenon's antecedents, modifiers, and effects, it should be studied over hours and days. In general, PPF tends to be measured at one point in time after which weeks to months go by before it is measured again. Some of the literature has attempted to connect fatigue levels to various contextual factors (such as vaginal versus operative deliveries) with mediocre results. One would expect that with such an approach, only contextual factors producing consistently large effects over time to manifest as significant correlates of PPF. Additional factors, many of which may be highly amenable to nursing intervention, may contribute significantly to PPF. However, these factors will remain unknown until methodological approaches are used to study PPF in a manner that is consistent with the dynamic nature of the phenomenon.

As a dynamic and complex concept, the literature reveals the need to study PPF within the everyday context of women's lives. This study will begin to address the identified knowledge gaps through a systematic investigation of PPF using grounded theory methodology to capture the process of PPF in the everyday lives of a diverse sample of postpartum women. The illumination of this process will generate a substantive theory of PPF.

CHAPTER THREE

DESIGN

Arising out of the need for an exploratory investigation of PPF within the daily context of women's lives, this study utilized a grounded theory design infused with a feminist methodological perspective. In this chapter, grounded theory methodology is first described. Next, the components of a feminist methodological perspective and how those components were integrated into this study are discussed. Finally, the methods used for obtaining and analyzing data, generating theory, and the procedures used for establishing rigor are explained.

Introduction to the Methodology of Grounded Theory

Grounded theory is a qualitative methodology created by Barney Glaser and Anselm Strauss (1967) for the purpose of explaining social phenomena. Arising out of the philosophic tradition of symbolic interactionism, grounded theory aims to: "...generate a theory that accounts for a pattern of behavior which is relevant and problematic for those involved" (Glaser, 1978, p. 93). In this study, PPF was the phenomenon believed to be problematic for women. Women experiencing PPF were assumed to exhibit patterns of behavior, which could be systematically studied and described to generate a substantive theory of PPF.

The Use of Grounded Theory in Nursing

Grounded theory has been used in nursing since the 1960's (Benoliel, 1996). Since its inception, grounded theory has gained acceptance in nursing as a means by which researchers can generate substantive theories of phenomena relevant to nursing

(Benoliel, 1996; Chenitz & Swanson, 1986). Specifically in the area of maternal-child health, grounded theory has been employed by a number of nurse researchers to study social processes such as motherhood and postpartum experience (Barclay et al., 1997; Martell, 2001; Rogan et al., 1997).

A major reason for the acceptance of grounded theory as a qualitative methodology in nursing is the ability of grounded theory to account for complexities within health related phenomena that are of interest to nurses (Glaser & Strauss, 1967; Stern, 1980). Additionally, theories generated by grounded theory are middle-range in scope, a scope that is relevant for patients from diverse backgrounds who have similar health-related experiences (Dey, 1999). Furthermore, grounded theory is particularly useful in an academically young field like nursing where theory about a phenomenon does not exist or where a fresh view is needed for better understanding and development of action and intervention (Wuest, 1995).

Reason for Choosing Grounded Theory to Study Postpartum Fatigue

There are a number of reasons why grounded theory was chosen for this study over other qualitative or quantitative methodologies. PPF is understood from the literature to be a complex social process that researchers have struggled to fully understand using quantitative methodologies. The ability of grounded theory to accept and account for complexities of behavior was a major reason for choosing this methodology.

While middle-range theories are beginning to detail the antecedents, experiences, consequences, and modifying or moderating factors surrounding PPF, this knowledge

remains tentative, fragmented, and incomplete. The creation of a middle-range theory of PPF that is grounded within the social reality of the women experiencing the phenomenon enables comparison with existing middle-range theories of PPF to identify areas of congruence, divergence, and avenues for targeted intervention among postpartum women from diverse contexts.

Just as grounded theory is a research methodology congruent with a nursing study of PPF, grounded theory is also compatible with the feminist methodological perspective (which will be outlined shortly) used in this study. As a hallmark of feminist research, participants' experiences of PPF were acknowledged for their importance and contribution to a broader understanding of PPF. Interestingly enough, Glaser (1992) himself, wrote of the need to respect and reveal the perspective of study participants. Other components of feminist methods that are congruent with grounded theory include the deliberate investigation of multiple realities, acceptance of complexity and plurality of experience in women's lives, and the presence of reflexivity within the constant comparative method (Wuest, 1995).

Grounded theory is a methodology where the philosophy and methods were uniquely aligned with the needs of a qualitative, feminist nursing study of women experiencing PPF. Grounded theory enabled the generation of a theory of PPF that began to comprehend the process and inherent complexities of the phenomenon through theoretical sampling of women living within diverse postpartum contexts. This sampling approach will be outlined in a later section.

Overview of Grounded Theory

Grounded theory arose out of the sociological tradition in response to Glaser and Strauss' discontent with the field's dogmatic adherence to verification and testing of armchair theories (Dey, 1999). The grounded theory approach differed from more traditional sociological research methods by placing emphasis on the generation of theory directly from data rather than the testing of a theory created from abstract beliefs about the phenomenon. Grounded theory purports to "ground theory" in data so that the theory reflects the social reality of the participants within the context of the phenomenon under study.

Theoretical Sampling and Constant Comparative Analysis

Two methods are salient to grounded theory methodology. Like other qualitative methodologies, grounded theory uses participant observation and interviews to obtain data, but theoretical sampling and constant comparative analysis are methods specific to generating a grounded theory (Glaser & Strauss, 1967). In theoretical sampling, data sources are chosen based upon the needs of the ongoing data analysis. In other words, data sources are sought based upon the source's potential for contributing to theoretical saturation of the developing categories. Theoretical saturation is the point where no additional properties or dimensions of the concepts can be found. In the beginning of a study, initial data sources are chosen based upon a general understanding of the phenomenon. As constant comparative analysis proceeds, data sources are chosen more selectively and focus on the need for clarifying specific aspects of the emerging theory. How theoretical sampling was carried out in this study will be discussed later.

Constant comparative analysis is the process of continuously comparing every piece of data with every other piece of data in a systematic fashion to generate codes, categories, relationships, and eventually the theory that explains the phenomenon under study (Glaser & Strauss, 1967; Glaser, 1978). Constant comparative data analysis occurs in an iterative fashion and is supported by ongoing theoretical sampling of new data sources. The details of how this process was carried out will be more fully discussed later.

Two kinds of theory can be generated within a grounded theory study; substantive or formal (Glaser & Strauss, 1967). Substantive theory is developed for an empirical area of inquiry, whereas formal theory is developed for a conceptual area of inquiry. These two types of theory require different approaches to data collection. In the generation of substantive theory, data are collected from sources only within the substantive area. However, in formal theory, data are compared across substantive contexts to generate theory that crosses, but also encompasses substantive boundaries (Dey, 1999). This study generated a substantive theory of PPF.

Differing Schools of Grounded Theory

Since Glaser and Strauss published *The Discovery of Grounded Theory* in 1967 the methodology has evolved on a number of fronts. Glaser and Strauss' disagreement over ongoing interpretations and advancements of the methodology have resulted in two main schools (the Straussian and Glaserian schools) of thought related to grounded theory (Dey, 1999). Stern (1994) goes so far as to say the two schools of thought have produced fundamentally different methods. The school of belief a researcher adheres to guides the

overall approach to and procedures used in data analysis. It is important to explain the school of thought used by this proposal to avoid any potential confusion that could arise while carrying out the study.

This study adhered primarily to a Glaserian approach to grounded theory. To better understand what a Glaserian approach means, a few main differences between the Glaserian and Straussian schools will be outlined (Dey, 1999). First of all, when Glaser and Strauss first published their description of grounded theory, both were sociologists on faculty at the University of California, San Francisco. When Glaser left his faculty position, Strauss continued mentoring graduate students in grounded theory as well as published numerous articles and books in response to critiques and criticisms of the methodology. The evolution of grounded theory by Strauss resulted in what has been described as a more formulated or detailed approach to data analysis in grounded theory (Stern, 1994).

Strauss, in conjunction with his graduate student Juliet Corbin (1990) published a detailed account of how to carry out the methods that generate a grounded theory. Glaser (1978, 1992) repeatedly criticized a highly prescriptive approach to grounded theory analysis, believing instead, that the grounded theory should be allowed to emerge out of the data. Stern (1994) cogently describes what she believes is the fundamental difference between these two schools of thought; that Strauss asks “What if?” of each piece of data whereas Glaser asks “What do we have here?” (p. 220). Where Strauss seeks out and attempts to explain every contingency of the data, Glaser accepts the data as it stands and allows the grounded theory to emerge on its own.

I argue that an approach like Glaser's that accepts the data at face value is more congruent with a feminist perspective that honors the voices and stories of women's experience as they exist in that moment of time when the stories are shared. Subjecting women's stories of PPF to a tightly prescriptive structure of analysis could potentially result in the fitting of women's voices to the structure rather than allowing the meaning and knowledge imbedded within the stories to emerge in a naturalistic manner.

However, while study used a more open and emergent form of grounded theory than that argued for by Strauss and Corbin (1990) this is not to say that the literature written from the Straussian perspective was not consulted. In order to learn grounded theory, any relevant literature discussing the methodology was read to facilitate a more comprehensive understanding of this complex methodology. Additionally, in order to understand grounded theories produced from Straussian approaches, one must be familiar with the approach. No literature was neglected based upon its use of a strictly Straussian approach.

Integration of a Feminist Methodological Perspective

This study answered the research questions using a grounded theory design infused with a feminist methodological perspective. While feminists agree that there is no one particular methodology that can (or should) be labeled "feminist," feminists do agree there are certain methodological features and practices characteristic of feminist inquiry (Harding, 1987; Ramazanoglu & Holland, 2002; Wuest, 1995). Reinharz and Davidman (1992) analyzed a wide array of feminist research to identify methodological features of

feminist research. These authors outline ten thematic conclusions of their analysis (see Table 3).

Table 3. Themes of Feminist Research Methods (Reinharz & Davidman, 1992, p. 240).

Theme 1	Feminism is a perspective, not a research method
Theme 2	Feminists use a multiplicity of research methods
Theme 3	Feminist research involves ongoing criticism of non-feminist scholarship
Theme 4	Feminist research is guided by feminist theory
Theme 5	Feminist research may be transdisciplinary
Theme 6	Feminist research aims to create social change
Theme 7	Feminist research strives to represent human diversity
Theme 8	Feminist research frequently includes the researcher as a person
Theme 9	Feminist research frequently attempts to develop special relations with the people studied
Theme 10	Feminist research frequently defines a special relation with the reader

This study was designed to adhere to these themes. In particular, that feminism is a perspective (theme 1) permeated all aspects of this study from conceptualization through dissemination. Theme 2 assumes that multiple data sources are legitimate research methods that may inform the data analysis. Multiple data sources including academic and popular literature, participant observation, and interviews were utilized in this study. In this study, non-feminist scholarship was critiqued (theme 3) in the literature review through identification of literature gaps and areas of bias or non-inclusiveness in

sampling and methodological designs of prior research. Additionally, a feminist perspective was kept in mind when critiquing this study's results in chapters 4 and 5. Feminist theories of motherhood informed this study's philosophical orientation (theme 4), and the results were interpreted within this theoretical context in chapter five.

This study is inherently interdisciplinary (theme 5) with its origin in nursing, its use of a feminist perspective, its chosen methodology coming out of sociology, and the examination of literature from multiple disciplines. This study seeks to create social change (themes 6) for postpartum women by generating knowledge and awareness of one of the foremost and distressing concerns experienced by women during the transition to motherhood. Themes 7 through 9 were specifically incorporated within the methods used to collect and analyze the data and will be addressed separately in the next section. Theme 10 involves creating a feeling of investment in the reader on behalf of the research participants. This is often accomplished in feminist research through the use of direct quotes in the write-up of study findings, which facilitates a connection between the research participants, the researcher, and the reader of the work. Direct quotes are an expected part of reporting grounded theory results and are provided in chapter four to substantiate the proposed concepts and relationships of the *Perseverance in Caregiving* model.

Inclusion of Diversity

How I specifically addressed themes 7, 8, and 9 requires further elaboration. Diversity in this proposal was incorporated through interviews with postpartum women from differing backgrounds and contexts (theme 7). What was considered "diversity" in

this study was in reference to demographic characteristics and health related factors as outlined in the sample description in chapter four.

Reflexivity

The researcher as person (theme 8) is frequently employed in feminist research and involves the use of the researcher's personal experience as an integral part of the actual research. This idea is more commonly known as reflexivity, which generally stands for making explicit, "...the power relations and the exercise of power in the research process" (Ramazanoglu & Holland, 2002, 118). Feminists reject the idea that researchers can or should remain objectively detached from the research project. Instead, feminist researchers believe that reflexivity is necessary and, "...repairs the project's pseudo-objectivity" (Reinharz & Davidman, 1992, p. 258). Stated another way, feminist researchers believe that cultural beliefs, behaviors, race, class, and gender all function to shape the design of the research questions, the study's methods, participants' responses to the investigator, analysis and conclusions and should be detailed as explicitly as possible (Harding, 1987). In fact, according to Harding, explicating the researcher's social location relative to the participants' is a salient piece of the project's empirical evidence that allows readers to evaluate claims the researcher makes.

Reflexivity within a study can take on many forms and address many topics. For example, it can appear as awareness of and responses to relationships between researcher and those researched, reflections on existence and the exercise of power in the production of knowledge, and reflection on decision-making in the research process. As well, reflexivity can take the form of critical reflection of the researcher's presence in the text,

the social location of the researcher, awareness of the use of persuasion within data analysis, and admission of problems and limitations (Ramazanoglu & Holland, 2002). In this feminist qualitative study the investigator was assumed to be a data source as well as a source of influence in the collection, analysis, and interpretation of results (Hutchinson & Wilson, 2001). To address reflexivity, this study began with a discussion of the investigator's social location in chapter 1. Throughout data collection and analysis, a journal recorded reflections on the aforementioned issues as they arose and are included in a summarized format in chapter four.

Relations with Research Participants: Rapport

The development of special relations with research participants (theme 9) is an integral part of qualitative and interactive research. This does not mean post-research friendship or favors, but instead, is the development of a relationship or connection between the researcher and participant during the interview process. Reinharz and Davidman (1992) discuss how many feminists believe that a good rapport should be established with research participants. However, the singular use of rapport as an indicator of a special relationship is debatable. On the one hand, the development of rapport enables the recognition of participants' humanness. This can be especially necessary when interviewing research participants whom the researcher may not like or even despise (e.g, convicted rapists). On the other hand, a very strong rapport between a researcher and participant who have much in common about the phenomenon under study can tend to minimize the presence of important differences between the researcher and participant such as race, class, sexuality, and disability. If minimized through strong

rapport, data analysis may not capture the significance of these differences. In this study I was cognizant of the how rapport could have advantages and disadvantages and did not strive single-handedly to develop strong rapport with each and every participant.

Participants were informed of my status as a mother, however, having given birth and being a maternal-infant nurse, I was aware of the possibility of sympathizing with my informants and the effect that this sympathy could have on the course of the interview and evolving data interpretation. Instead of making strong rapport a priority of this study, participant involvement was most apparent within the process of establishing rigor. Within interviews, participants were consulted throughout data analysis to validate the veracity of the findings with their experience of PPF.

Protection of Human Subjects

Approval to conduct this study was granted by the University of Arizona Institutional Review Board (Appendix A). Permission to recruit participants on the inpatient postpartum floor was obtained from University Medical Center in Tucson, Arizona. In order to protect the rights of participants as human subjects potential participants were asked to read the study consent form (Appendix A). An addition to reading the consent form the investigator informed the participant of the nature of the study, as well as of the participant's right to refuse or drop out of the study at any time without repercussion. The investigator explained to participants how their anonymity would be ensured. The procedures taken to ensure anonymity included not transcribing any names mentioned on the interview audiotape, the storage of any identifying data in a locked box, and the destruction of all identifying information at the conclusion of the

study. Identification numbers and pseudonyms were assigned to each participant. Identifying data including the audiotapes and the contact information form were destroyed at the conclusion of the study. Potential participants were given the option to sign the consent form after the study was explained. Signed consent forms were brought to the interview which took place 2 to 5 weeks after being recruited. Participants were asked if they had any questions about the study prior to the start of the interview.

Instrumentation

The Lee Fatigue Scale (Appendix B) is an 18-item instrument comprised of two subscales that measure the level of perceived fatigue (13 items) and energy (5 items) (Lee et al., 1991). In this scale, fatigue is defined as excessive sleepiness, lack of vitality, and perception of severity of fatigue. Energy or vitality is defined as absence of fatigue, feelings of energy and possessing a sense of well-being (Lee & DeJoseph, 1992). While the fatigue subscale can be used independently of the energy subscale, this study retained the energy subscale since it consisted of only 5 items, promoted comparison of findings with previously published studies and ensured the instrument was used as it was conceptually intended. Additionally, the energy subscale was one more piece of data that conveyed an overall sense of how the participant was doing with managing the demands of motherhood.

The Lee Fatigue Scale was originally a visual analog scale, but has recently been modified to incorporate a 0 to 10 numerical scale for ease of administration and analysis. Similar psychometric properties between these two variations are reported (K. Lee, personal communication, July 21, 2005). Each item is anchored with adjectives framed

by “not at all” at the zero end of the scale to “extremely” at the 10 end (e.g., “not at all tired” and “extremely tired”). Level of fatigue was calculated as a mean of the 13 items comprising the fatigue subscale. Level of energy (or vigor) was calculated as a mean of the 5 items that comprise the energy subscale. Reliability of the instrument as a visual analog scale calculated using Cronbach’s α coefficient for each subscale has been reported between .91 to .96 for the fatigue subscale, and .88 to .96 for the energy subscale (Lee & DeJoseph, 1992; Lee et al., 1991). One study has reported reliability of the numerical rating scale (Gay et al., 2004). In this study, seven of 13 items chosen only from the fatigue subscale were administered to a group of men and women. Reliability for this shortened form of the fatigue subscale was .94 for men and .96 women. Concurrent validity of the MFSC has been supported with related subscales of the Profile of Mood States, the General Sleep Disturbance Scale, and the Stanford Sleepiness Scale (Lee & DeJoseph, 1992; Lee et al., 1991). This instrument was administered to participants upon completion of the interview and its results are reported in chapter four.

Sample

Postpartum women who met the inclusion criteria were recruited for participation. Inclusion criteria were: 1) Age 18 or older, 2) Read and write in English, 3) Birthed an infant in the past 4 days who is able to discharge home with the mother, 4) Lives in or near Tucson, Arizona, 5) Able to be contacted by home phone or cell phone, and 6) Not under treatment for a mental health or substance abuse issue. Based on the principles of theoretical sampling, initial recruitment of participants was broad and focused on obtaining participants who represented the a wide range of ethnic, social, economic,

health, and obstetrical contexts. As data collection and analysis continued, informants were sought based upon the emerging theory and needs of the data analysis. Thirteen participants were interviewed, and data collection ended when theoretical saturation of the basic social process and related concepts was obtained.

Setting

Participants were recruited from the inpatient postpartum floor of a 355-bed urban medical center in the Southwestern United States. This hospital serves as one of two high-risk obstetrical centers in the region, and the ethnic composition of the obstetrical population is primarily Caucasian and Hispanic. This medical center accepts patients with private and state funded health insurance as well as patients who present in active labor without medical insurance. Approximately 1 to 2 weeks after recruitment, participants were called to schedule an interview at a location of the participant's choosing. Twelve of the interviews took place in participant homes. One interview took place in a coffee shop of the participant's choosing. Interviews were conducted between 2 and 6 weeks postpartum, because this was thought to be when the experience of fatigue would be most pronounced. This assumption turned out to be accurate, and the behaviors, interactions, and subjective feelings of fatigue were readily available for participants to recall.

Data Collection Procedure

Nurses working on the inpatient postpartum floor were made aware of the study by an e-mail sent to all registered nurses on the floor and by individual contact with the investigator. Individual nurses were asked to preliminarily identify women whom they thought would meet the inclusion criteria. As recruitment and data analysis progressed

however, the investigator requested the nurses to identify only women possessing certain known characteristics (e.g., first-time mother who had a cesarean section) in addition to the inclusion criteria. Once a potential participant was identified then the nurse asked the patient if she would permit the investigator to approach her to discuss the study. The nurse also gave the patient a brochure explaining the study (Appendix A). When permission was obtained and the nurse informed the investigator it was an appropriate time to speak with the patient, then the investigator would then enter the patient's room, conduct introductions and explain the study. If the woman expressed interest and she verbally stated she met the inclusion criteria then a consent form was provided, reviewed, and signed. An unsigned consent form was given to the women. Participants then completed the demographic questionnaire and contact information form (Appendix B). Participants who declined participation the study or did not meet the inclusion criteria were thanked for their time after which point the investigator left the room.

Participants were contacted by telephone 1 to 2 weeks after delivery to set up an interview. Interviews took place between 2 and 5 weeks postpartum at a time and location convenient to the participant. The night or morning before the interview participants were called to remind them of the interview and ask if they remained available for the interview. On a number of occasions issues and unforeseen events arose that prevented participants from meeting at the arranged date and time and a new interview was scheduled.

Prior to the interview the interview process was briefly discussed, and participants were asked if they had any questions about their participation in the study. Participants

were informed that they could pause the interview anytime necessary, and most interviews were paused multiple times to attend to the infant or other children in the house. Interviews lasted between 15 and 60 minutes and ended after all questions from the semi-structured interview schedule were asked and when the participant indicated nothing further to share about PPF. A semi-structured interview schedule guided the investigator during interviews to ensure the research questions were addressed (see Table 4). Four general questions were asked of participants. This interview schedule formed a basic matrix within which additional probing questions were asked based upon the participant's context and situation to further elicit the participant's experience of PPF. The interview schedule was revised twice over the course of the data collection and analysis (see Appendix B for the final version). The initial interview schedule questions remained unchanged throughout all three versions, but questions were added to versions 2 and 3 that further revealed the process of PPF.

Table 4. Semi-structured Interview Schedule for the First Participant Interviews.

What is it like to have fatigue after childbirth?
<ul style="list-style-type: none"> • What is it like to have fatigue with a newborn baby? • How does being so fatigued change you? • How does being fatigued change your relationship with your family? • What is different in your life when you are really tired?
Why do you think you are fatigued?
How do you cope when you are really fatigued?
<ul style="list-style-type: none"> • Is there anything you can't do when you are really fatigued? • Is there anything that is easier when you are fatigued?
Has your fatigue gotten better or worse since birth?
<ul style="list-style-type: none"> • How? • What makes your fatigue worse? • What makes your fatigue better?
<ul style="list-style-type: none"> • Please tell me what your pregnancy and labor was like.

At the end of the interview the Lee Fatigue Scale was explained and completed after which participants were given a \$15 gift card to Target® in appreciation of their participation. Participants were thanked for their time and the research session was completed. The possibility for a second interview within 8 weeks postpartum was built into the structure of this study in order to clarify points from the first interview if needed, but this feature turned out to be unnecessary and all participants were interviewed only once.

Participant Observation and Field Notes

Because PPF is a subjective experience that an outside observer cannot objectively evaluate, participant observation was only recorded as field notes

immediately after interviews, because taking field notes during the interview would have been obtrusive (Glaser, 1978). Observations were made of the participant's geographic location, neighborhood and home environments, social support structure, and reflections on the course of the interview with the participant noting both verbal and non-verbal cues. At the same time in a separate "reflexive journal" the investigator's thoughts and feelings surrounding a number of reflexive topics were recorded.

Additional Data Sources

In grounded theory, interview and observational data sources may be augmented by additional relevant data sources known as "slices of data" (Glaser & Strauss, 1967, p. 65). Such sources included lay or gray literature magazine articles featuring PPF issues, newspaper clippings, movies, government documents, maternal support groups, and published books by mothers on the experience of PPF. Use of data sources other than interviews and observations can facilitate theoretical saturation of categories when the information sought is very specific and focused, or when a perspective from a diverse social group is needed. Inclusion of multiple data sources improves rigor and increases the density of the analysis (Hutchinson & Wilson, 2001). The additional data sources used in this study were a small, but important addition to the analysis.

Data Management and Analysis

This section will discuss the procedures used to manage and analyze the data. Early on, Glaser and Strauss (1967) outlined four stages of the constant comparative method: 1) comparing incidents applicable to each category, 2) integrating categories and properties, 3) delimiting the theory, and 4) writing the theory (p. 105). Over time, these

stages have been expounded upon in great detail and their labels slightly changed. This study's data analysis procedures specifically included coding, memoing, and discovery of the human process.

Managing the Data

Tape recorded interviews were transcribed into a typed document by the investigator. Field notes of observations taken immediately after interviews were also transcribed into a typed format as soon as possible after the interview. Checking transcription accuracy is discussed under rigor.

Coding Data

Coding is the process of translating raw data (e.g., transcripts) into a state ready for analysis (Dey, 1999). In grounded theory, the iterative and comparative nature of the inquiry means that coding and analysis occur more as a simultaneous process than a linear step-by step process. Using the constant comparative method, as each unit of data (which can be a phrase, line, sentence, concept, category, or incident) is identified, it is simultaneously compared with every other piece of data (Glaser & Strauss, 1967; Glaser, 1978). This constant comparative process begins to generate theoretical properties of the category. Theoretical properties of categories include its dimensions, conditions under which the category is more or less important, its consequences, and its relation to other categories (Glaser and Strauss, 1967, p. 106). There are three main types of coding in grounded theory: open coding, selective coding, and theoretical coding. The goal of coding is to generate categories and their properties that will result eventually in the construction of a theory explaining the phenomenon (Glaser, 1978).

Open Coding

Open coding is the first type of coding performed on data where the researcher looks at transcripts line-by-line for single units of meaning (Schreiber, 2001). A unit of meaning may consist of phrases, words or stories and may reveal the dimension of a concept, a relationship between two or more concepts or communicate an idea. In open coding the researcher searches for as many codes as possible in any way the data will allow (Glaser, 1978). Incidents are compared to begin the process of identifying similarities and differences among incidents (Schreiber). This laborious and prolific process forces the researcher to set aside preconceived notions of the phenomenon and allow the data to move any direction it requires. In this study, open coding began upon completion of the first interview's transcript and continued until the final interview was fully coded. Open codes were written in the margins of each transcription and then typed into a table to facilitate the organization of the open codes into categories. Organization of open codes began the selective coding process.

Selective Coding

Selective coding begins as similarities across concepts become apparent during open coding. Selective coding enables the researcher to focus, or delimit the data by comparing incidents to incidents (open coding) while simultaneously comparing incidents to concepts (Glaser, 1978). An important part of this coding process is the identification of where more data are needed to fill out concepts, categories, properties, and dimensions (Schreiber, 2001).

In this study selective coding was initiated with the creation of a selective coding table, which functioned to organize open codes. The following data were included in this table: 1) Original excerpt from the interview, 2) Open code assigned to that excerpt, and 3) Labels assigned to multiple similar open codes. A label was applied only when constant comparison revealed that multiple open codes from multiple interviews expressed the same dimension, property, concept, or relationship. The use of this table facilitated the fracturing of the data into bits by which similarities among data bits could be identified, organized, and then assigned a label.

Theoretical Coding

Theoretical coding is the process of examining relationships between and among categories. Hypotheses are generated and tested through ongoing data collection and analysis. Models or pictures can be drawn of the emerging theory. At this time, a secondary literature review is conducted to ascertain how the emerging theory fits with the existing literature on the topic. The end product of theoretical coding is the integration of categories and relationships into a grounded theory of the phenomenon (Glaser, 1978).

In this study, pictorial representation of the emerging relationships and grounded theory was a prominent method used within the theoretical coding process. Additionally, the selective coding table was restructured a number of times to place related concepts within close proximity of each other (e.g., all frustration-related concepts), which organized the data in a manner that facilitated a broader view of the emerging relationships. As the theory emerged the literature was then consulted to identify areas of

agreement and tension with the existing literature. Literature from a number of areas not originally reviewed for the purposes of this study was consulted for how models from other areas (e.g., family crisis theory and fatigue in other health-related contexts) could clarify the structure of the emerging theory.

Theoretical Memoing

Theoretical memos provide the foundation upon which data are organized to generate the structure of the emerging grounded theory (Glaser, 1978). During the coding process, conflicts, hunches, sparks of ideas, and hypotheses that arise are systematically recorded as theoretical memos (Stern, 1980). Memos span the length of data analysis; from open coding through write-up of the theory. Glaser and Strauss (1967) suggest that when conflicting findings or insights occur during data analysis they should be written down so they are not lost. Theoretical memos are also brought to the research team. Memos contribute to the processes of member checking, peer debriefing, and ongoing development of theoretical ideas and relationships of the emerging grounded theory.

In this study, theoretical memos were recorded in two places. The first was a notebook that housed the narrative record of theoretical memos. This theoretical memoing notebook functioned to record the development and progression of the study results from recruitment and theoretical sampling issues through the later stages of the grounded theory structure. The second location of theoretical memos was a sketchpad where the narrative ideas and the selective coding table were pictorially represented. The representation of relationships between concepts and the structure of the emerging theory were recorded primarily in the drawing notebook.

Basic Social Process

In grounded theory, accounting for the pattern of behavior or phenomenon of interest revolves around the identification of a core category that emerges from the data (Glaser, 1978). A core category explains wide variations in behavior surrounding the phenomenon, emerges from the data repeatedly, and appears to link many categories together (Schreiber, 2001). A core category has a necessary relation with the resolution of the problematic nature of the phenomenon, and the researcher begins searching for a core category when open coding begins (Glaser, 1978). Once a core category is identified and labeled, other coding should be limited to finding variables that relate to the core category. Selective coding and theoretical sampling guide further data collection needed to saturate the core category.

A particular kind of core category is the basic social process (BSP) (Glaser, 1978). All grounded theories will have one or more core categories, but not all will identify a BSP. This is because a BSP is specifically process oriented with two or more stages, which, "...differentiate and account for variations in the problematic pattern of behavior" (Glaser, 1978, p. 97). As a result, a BSP captures change over time, has a significant amount of explanatory power, and integrates of all aspects of the phenomenon (Fagerhaugh, 1986).

There are two types of BSPs: basic social psychological processes (BSPP) and basic social structural processes (BSSP) (Glaser, 1978). Most studies focus on the discovery of BSPPs unless explicitly stated, and some feminist nurse scholars advocate for the need to identify more structural processes in women's health (Wuest, Merritt-

Gray, Berman, & Ford-Gilboe, 2002). A BSPP includes social psychological processes related to the phenomenon and tends to be individual focused. A BSSP on the other hand, refers to the structural process followed by groups, institutions, organizations, or governments. A BSSP often encompasses or facilitates a BSPP, because the BSSP explains the larger structure in which the BSPP exists. Given the lack of prior grounded theories of PPF and the individual focus, this study focused on the identification of a basic social psychological process of PPF.

Theoretical Sampling

This study's use of theoretical sampling began with the assumption that in order to come to a more complete understanding of PPF women from diverse contexts should be sampled. Prior to beginning recruitment, I formulated a list of characteristics that I wanted to try to sample. These characteristics included age, parity, ethnicity, marital status, delivery type, level of financial comfort, education, and number of weeks postpartum (ranging from 2 to 6) at the time of the interview. Throughout recruitment I kept track of participant characteristics in a demographic table so I could see how well the participants already recruited spanned the various characteristics. For instance, once I had about half of my anticipated participants recruited I noted that the age variable ranged from 26 to 41. I felt like I had a good spread of older participants, so I focused on recruiting younger participants. In general, I recruited 3 to 4 women at a time, which worked well, because data collection and analysis took on a wavelike motion where momentum would build over a few weeks and result in major advances in understanding

(i.e., cresting), then calm and slowly build again as more data were collected and analyzed. This process continued until theoretical saturation was obtained.

When the selective coding advanced to a point where several important categories were becoming saturated while others remained “thin,” theoretical sampling became more focused. For example, when nearly 75 percent of my anticipated number of participants had been recruited I realized that only one interviewed participant had more than 2 children. The experience of PPF with 3 or more children was not well captured, and this one participant who I had interviewed (she had 4 children) introduced a whole series of issues that women with 1 or 2 children had not expressed. I then went to the hospital and asked the staff nurses if there were patients on the unit who had delivered three or more children. Over the course of a 1 or 2 weeks a number of women were admitted to the unit having birthed their 3rd or 4th infant, and of those who met the inclusion criteria, three agreed to participate. As a result of theoretical sampling, the experience of PPF in women with more than 2 children was enhanced, and categories important to the development of the grounded theory were saturated.

Establishing Rigor: Trustworthiness

Rigor is the means by which a qualitative research study demonstrates trustworthiness, integrity, and competency (Lincoln & Guba, 1985; Tobin & Begley, 2004). This qualitative study used four criteria to establish rigor in the research and findings: credibility, transferability, dependability, and confirmability (Lincoln & Guba, 1985). The strategies used to establish rigor are discussed as they fall within each of these four criteria.

Credibility

Credibility is how well the researcher's representation of data fits with the participants' views (Lincoln & Guba, 1985). The techniques of prolonged engagement, member checking, and peer debriefing were used to assist the investigator to accurately represent participant's beliefs and views. Credibility was promoted first and foremost through consistent use of the grounded theory method to assure a systematic methodological process was used to collect, analyze, and document data. Secondly, because the investigator transcribed all interviews, the transcription of interviews was checked by a fellow doctoral candidate colleague who is familiar with grounded theory. This colleague listened to two of the 13 interviews to compare the accuracy of the transcription to the audiotapes. One interview was chosen from the beginning of data collection and one towards the end of data collection. The auditor determined that the transcriptions were 99.9 percent accurate and that any differences noted did not reflect changes in meaning of surrounding words.

Prolonged engagement pertains to the investment of an appropriate amount of time to learn about the phenomenon, about variations in the phenomenon across contexts, and to facilitate the development of rapport and trust with participants in order to promote an authentic description of the phenomenon under study (Lincoln & Guba, 1985). The strategy of recruiting participants at a point in time separate from the interview strengthened rapport. The point in time of the interview was at least the fourth time the investigator had spoken with participants, which enhanced the participant's familiarity and comfort with talking to the investigator.

Member checks were another strategy employed to establish credibility of the emerging findings (Lincoln & Guba, 1985). In member checks participants were asked for feedback on emerging hypotheses to evaluate the ability of the findings to represent their experience. Often member checks were included directly within the interview. When participants revealed a part of their experience that coincided with an unsaturated concept, the investigator would re-visit the issue later in the interview and ask the participant to elaborate upon that experience. The emergence of the dimensions of Stress-Worry and Frustration are examples of categories that emerged in this fashion. Additionally, one participant was shown a diagram of an early version of the process model and asked to what degree the process shown (i.e., the investigator's interpretation) agreed with the participant's experience of PPF. This strategy proved particularly helpful, because the participant's input along with a peer debriefing session facilitated the restructuring of the process model into a form that closely approximated what is presented in the results.

Peer debriefing sessions with the faculty advisor occurred throughout data analysis (Lincoln & Guba, 1985). Intensive probing of the emerging data analysis facilitated the clarification of and refinement of the analysis. For example, the subcategory "realistic expectations of the healing process" is a by-product of a peer debriefing session. In an extended discussion of "fatigue limiting factors" the faculty advisor assisted the investigator with bringing together a number of data threads to result in the naming an important concept that had previously not been distinguished as a separate subcategory.

Dependability

Dependability is achieved through an auditing process that demonstrates research decisions made throughout the study are logical, traceable, and clearly documented (Lincoln & Guba, 1985). Dependability and credibility have an essential relationship with each other whereby credibility cannot exist without dependability. Dependability and credibility were simultaneously evaluated by a grounded theorist colleague who was given all data (transcriptions, theoretical memos, diagrams) and traced the investigator's decisions as they were documented in data analysis.

Transferability

As naturalistic inquiry, this study was concerned with generating results that have analytic generalizability or transferability (Lincoln & Guba, 1985; Hutchinson & Wilson, 2001). Analytic generalizability (as opposed to statistical generalizability) is an evaluation of the usefulness of results to explain the process of fatigue in postpartum women from a variety of contexts. This is not to say that the process will be the same in every detail across contexts, but that there are useful and applicable themes and patterns that bridge differences in contexts. Lincoln and Guba refer to this bridging as accumulating empirical evidence of contextual similarity, which is communicated in chapter four through the presentation of a "thick" (p. 316) or full description of the substantive theory of PPF. The reader of the grounded theory evaluates transferability.

Confirmability

Confirmability is concerned with establishing that data and interpretations arising out of the data are actually derived from the data and are not simply biased views of the

researcher (Lincoln & Guba, 1985). Reflexivity in the research process is an important method of recognizing preconceptions and preventing the introduction of personal bias into the analysis. The keeping of a reflexive journal and theoretical memos was an ongoing feature of this study throughout data recruitment, data collection and analysis. Summarized findings of the reflexive journal are presented in chapter four.

A second component to establishing confirmability is the tracing of an audit trail. A confirmability audit is where the product or conclusions of the study are traced back to the raw data to ensure the conclusions arise out of actual data. In order to enable the confirmability audit to take place study activities must be documented. Documentation in this study took on many forms including transcriptions, open codes in the margins of transcriptions, field notes, a reflexive journal, demographic form, selective coding table, theoretical memos, and diagramming on a sketchpad. Whenever a data bit or excerpt was taken directly from a transcript, an origination label was attached to the end of the excerpt. The origination label identified both the participant and the exact place within the transcript the excerpt was found. Each transcript was labeled with continuous line numbers for auditing purposes.

A comprehensive confirmability audit was conducted by a doctorally-prepared non-committee member grounded theorist. All of the study's data were submitted the auditor. This data included all fieldnotes, clean and open-coded transcripts, theoretical memos, diagramming sketchpad, selective coding tables (4 versions), and all demographic-related data. The auditor first read all interviews and open codes. Then the auditor traced the open codes through the selective and theoretical coding process. The

auditor concluded that: 1) The data supported the open, selective, and theoretical coding findings, 2) One can easily follow the progression of thinking through the memos and diagramming, and 3) The graphic representations of the data are grounded in the data and are traceable back to the data excerpts.

Chapter Summary

This chapter presented a grounded theory design infused with a feminist methodological perspective to study PPF. An overview of grounded theory and the methods used to carry out a grounded theory were described. The components of a feminist methodological perspective and how this study adhered to this perspective were detailed. Protection of human subjects was described. Data collection, transcription and analysis were conducted under the guidance of the faculty advisor. Finally, to ensure trustworthiness in the findings the methods used for establishing rigor were described.

CHAPTER FOUR

RESULTS

Chapter Four presents the results obtained from interviews of 13 postpartum women about their descriptions of fatigue. The purpose of this study was to explore the human environmental process of PPF in the everyday lives of women. The goal of this study was to generate a substantive nursing theory of PPF through use of grounded theory methodology infused with a feminist perspective. The research questions for this study were:

1. How do women describe their experience of PPF?
 - a. How does PPF change over time (e.g., hours, days, weeks)?
 - b. What factors contribute to worsening PPF?
 - c. What factors contribute to improving PPF?
 - d. What effects of PPF do women perceive?
2. How do women manage in their everyday lives while fatigued?

The first section of this chapter will summarize characteristics of the study participants as a group as well as provide a synopsis of each participant. The second section will present the grounded theory of PPF as derived from the data. The third section will discuss how the grounded theory addresses each research question. Finally, reflexivity in this study's research process will be addressed.

Sample Characteristics

To be included in this study women had to meet the following criteria: 1) Age 18 or older; 2) Able to read and write English; 3) Live in or near Tucson, Arizona; 4)

Birthed a healthy infant in the past 4 days; and 5) Reported that they were not under treatment for a mental health or substance abuse problem. Women did not have to report feeling fatigued when recruited into the study since fatigue was an assumption of postpartum experience. A total of 16 women were recruited into the study. Three women either cancelled the scheduled interview or were not at the interview location at the designated time and were subsequently removed from the study. A total of 13 participants completed the study. Participants were interviewed between 2 and 5 weeks postpartum and were on average 3.6 weeks ($SD = .81$ weeks) postpartum at the time of the interview.

Participants represented diverse ethnic, socioeconomic, medical, obstetrical and social contexts (see Table 5). Participants ranged in age from 19 to 41 years (mean = 29.1 years). The ethnic groups represented were primarily Caucasian (46%) and Hispanic (38%). One participant was African American, and one participant was Native American. Educational level ranged from 12 to 22 years with twelve years representing completion of high school (mean = 14.4 years education). Nine (69%) of the participants were married and 4 were single. Most of the sample (62%) reported they were “somewhat comfortable” financially, two reported being “not at all comfortable” and one participant reported being “extremely comfortable.”

Four participants delivered their infant operatively by cesarean section, and nine participants delivered vaginally. Two of the participants who delivered vaginally went on to have bilateral tubal ligations prior to hospital discharge. Number of children ranged from 1 to 4 with this delivery being the first for 5 (39%) of the participants. Eight (62%)

participants breastfed their infants, 3 (23%) fed only by bottle, and 2 (15%) breast and bottle-fed.

Seven (54%) participants reported no health problems before, during, or after the pregnancy. However, 6 women experienced one or more health problems. Two participants reported having gestational diabetes in pregnancy. One of these participants was obese. The other participant had been obese, but lost 100 pounds during her pregnancy. This participant was also on Coumadin[®] prophylaxis for a history of pulmonary embolisms. One participant had chronic constipation from pregnancy through postpartum. One participant had severe nausea that affected her ability to function on a daily basis the first 4 months of pregnancy. Another participant had chronic coccyx pain resulting from a motor vehicle accident in her second trimester of pregnancy. Finally, during pregnancy one participant had breathing problems, heart palpitations and fainted once. About 1 week postpartum this woman was emergently hospitalized for 7 days when her chest cavity filled with fluid.

Table 5. Participant Characteristics.

Characteristic	N (% sample)
Age	
Mean	29.1 years
Range	19-41 years
Standard Deviation	7.50 years
Ethnicity	
Caucasian	6 (46%)
Hispanic	5 (38%)
African American	1 (8%)
Native American	1 (8%)
Educational Level (years)	
Mean	14.4 years
Range	12-22 years
Standard Deviation	3.04 years
Marital Status	
Married	9 (69%)
Single	4 (31%)
Financial Status	
Not at all Comfortable	2 (15%)
Somewhat Comfortable	8 (62%)
Very Comfortable	2 (15%)
Extremely Comfortable	1 (8%)
Type of Delivery	
Cesarean	4 (31%)
Vaginal	9 (69%)
Tubal Ligation after Vaginal Delivery	2 (15%)
Number of Children	
1	5 (38%)
2	4 (31%)
3	2 (15%)
4	2 (15%)
Mean	2.1 children
Standard Deviation	1.1 children

Lee Fatigue Scale

At the end of each interview participants completed the Lee Fatigue Scale for the purpose of describing the sample's mean level of fatigue and energy in order to compare these levels with reports in the literature. The sample's mean level of fatigue was $x = 4.1$ ($SD = 2.06$), and mean level of energy was $x = 3.8$ ($SD = 1.77$). Fatigue levels individually ranged from 0.5 to 7.31 with a higher number indicating more fatigue. Energy levels ranged from 0.8 to 6.6 with a higher number indicating more energy. Time of day when participants completed the Lee Fatigue Scale ranged between 9:10 a.m. and 4:05 p.m. Reliability calculated as an alpha coefficient in this sample of 13 women was $\alpha = .95$ for the fatigue subscale, and $\alpha = .90$ for the energy subscale.

Participant Synopses

A synopsis of each participant is provided to locate each woman within her everyday context. Each participant was assigned a number at the time she was recruited into the study to protect her identity. A pseudonym was chosen for each woman for the purpose of reporting these findings.

Interview with Participant 01: "Cathy"

Cathy is a 34-year-old Caucasian, single mother of 4 who lives in an apartment and reports being "not at all comfortable" financially. Cathy has completed 3 years of college and works full-time night shift (11pm to 7am) as a hotel night auditor. Cathy's children are 11, 5, 1 ½ years and 4 weeks, and she breastfeeds the baby. Cathy worked 70 hours each week for the 2 weeks leading up to her delivery, and she was hospitalized for an induction before her expected due date. She delivered a healthy infant and returned to

work full-time 3 days postpartum. Cathy receives government assistance for childcare, but because of a mishap in the paperwork she “slipped through the cracks” and has not had childcare for the 2 months leading up to the interview. This means Cathy goes to sleep at 8 or 9pm fully clothed for work, wakes about 10:45pm (as late as possible) to run out the door for work, works all night, and then returns home to care for her 3 youngest children during the day. Cathy’s social support consists of her boyfriend who stays with the children in the evening while she sleeps and through the night. However, at the time of her delivery Cathy was severely distressed over the fact that her boyfriend had run off with a 19 year old for a few days. At that time she had an 18 year old on parole living with her for a couple months to help with childcare, but that person has since left. Child Protective Services (CPS) is currently involved with this participant. Cathy had to break into her apartment after locking her keys inside one day, and now because her door does not lock her 5 year old runs outside the apartment at will. A neighbor called CPS, because the participant lives near a busy street and the neighbor found the child unattended. Cathy appears very fatigued and is frustrated with the governmental systems that are supposedly “helping” her.

Interview with Participant 02: “Sylvia”

Sylvia is a 28-year-old Hispanic mother of 2 children ages 8 years and 4 weeks. She is single and lives in an apartment that is within the same vicinity as her mother’s apartment. Sylvia’s mother serves as her main support person and will provide all childcare for Sylvia’s infant daughter when she returns to full-time work in 1 to 2 weeks as a medical receptionist. Sylvia completed high school, reports having no health

problems, and she delivered a healthy daughter vaginally who she bottle-feeds. She reports being “somewhat comfortable” financially. Sylvia has multiple brothers and sisters who provide respite care for her, and she seems well connected to that family support system. Sylvia makes no mention during the interview of a partner or her children’s father. Sylvia takes comfort in knowing that the fatigue she is experiencing is not permanent. She expects her fatigue to get better in about 1 year, which was her experience with her son.

Interview with Participant 03: “Maria”

Maria is a 41-year-old Hispanic mother of 2 children ages 2 ½ years and 3 weeks. Maria is married, has 12 years of education, lives in a modest house, and reports being “somewhat comfortable” financially. She delivered by repeat cesarean section. Maria felt anxious and scared in her pregnancy due to the emotional highs and lows of having gestational diabetes. Maria is obese and reports having severe sciatic nerve problems towards the end of the pregnancy that made life uncomfortable, sleep nearly impossible, and walking difficult. As a result, she delivered 2 weeks early after a positive amniocentesis to test fetal lung maturity.

Maria was frank and open about her fatigue experience. With her first baby she said that one night when she was so tired she was holding her baby, “and to me she was like a little demon and that was terrible.” This experience was never repeated, but she has since learned the importance of asking for help from people when she gets too tired. She particularly emphasized how challenging and tiring it is to manage both a breastfeeding newborn with a toddler who refuses to nap. Maria is articulate in expressing how the

piling up of demands from other people and everyday tasks exacerbate fatigue. Maria is the primary caregiver of both children and while her husband helps her to a degree, he works full-time away from the house. Maria takes comfort in the fact that if she feels too overwhelmed she has an open invitation to sleep with the children at her twin sister's house where her sister can allow her to get some uninterrupted sleep. Maria says her fatigue was worse earlier on when the baby was sleeping only 1-2 hours at a time, but now her fatigue is better, because the baby sleeps in 3 to 3 ½ hour chunks.

Interview with Participant 05: "Ann"

Ann is a 25 year old single Caucasian mother whose baby is 2.5 weeks old. Ann is college educated, reports being "somewhat comfortable" financially, and delivered by cesarean section. Labor was induced for low amniotic fluid and she had an operative delivery, because her cervix would not dilate past 9 centimeters. Ann lives in a large house within a fairly new housing subdivision with her boyfriend who is her main support person. Ann breastfeeds and bottle-feeds her baby. Ann discharged from the hospital 2 days after her delivery, because she could not sleep in the hospital, and her mother stayed for 1 week after arriving home. Her boyfriend willingly helps her with the infant. Both routinely get up at night, and Ann's boyfriend consoles the baby while she makes the bottle. Her partner will care for the baby a couple mornings each week so Ann can sleep a little longer. Ann reports that she is not as tired as she expected she would be given the accounts she had heard from friends and family. She believes this is because in part, her baby has a good disposition and falls asleep without fuss after eating in the

night. Ann states she is typically getting about 6 hours of sleep at night in 1½ to 2-hour intervals.

Interview with Participant 06: "Ruth"

Ruth is a 27 year old Caucasian woman raised and schooled in England. She completed the high school equivalent for England. Ruth is married, reports being "very comfortable" financially and lives in a large house in a middle class subdivision. She delivered a healthy baby vaginally with augmentation and had a bilateral tubal ligation prior to hospital discharge. Ruth has 2 children ages 4 years and 2 weeks, and she is bottlefeeding her baby. Ruth had chronic coccyx back pain that resulted from her being in a motor vehicle accident in her second trimester, which greatly reduced her ability to get comfortable and sleep throughout the pregnancy. Ruth requires sleeping pills to get to sleep, because regardless of whether the baby is crying or not she still hears the baby's cry continuously when trying to fall asleep. It takes Ruth 2 to 3 hours to fall asleep, and she wakes around 2am to allow her husband to go to sleep. She currently gets about 4 to 5 hours of total sleep each night. Ruth's husband works for the military 5 days a week for 8 to 12 hour shifts and is on call every other weekend. He has been on paternity leave from his job and is of great assistance to Ruth by caring for the children in the evening to allow her to go to sleep around 6pm. He returns back to work next week and Ruth at which point Ruth will be the sole caregiver. She expects her fatigue to worsen significantly when her husband returns to work. Ruth plans to stay home until her infant enters kindergarten at which time she plans to resume employment.

Interview with Participant 07: “Elena”

Elena is a 22 year old Hispanic woman who is married and “somewhat comfortable” financially. This baby is her first and is 4 weeks old. Elena had an uneventful pregnancy and although her labor was long, Elena’s mother taught her how to “control” the contractions enabling her to have a delivery without an epidural. Elena’s only difficulty before during and after the pregnancy was constipation. The constipation was eventually relieved by her prescribed postpartum medications. Elena plans to remain at home to raise her child.

Elena is unique among this study’s participants, as she has not experienced fatigue since having her baby. She says she feels the weight of responsibility having a baby, but could not describe her experience as fatigue. Her lack of postpartum fatigue meant that instead of asking about her fatigue during the interview, the investigator inquired into Elena’s reasons for not having fatigue. Elena comes from a traditional Hispanic family where care of the self and long-term rest in the postpartum are of paramount importance. As a result, Elena’s mother came to live with her for 1 week prior to the delivery and 3 weeks postpartum. During this time Elena was coached by her mother on how to labor, and in the postpartum Elena was not allowed to even enter the kitchen for fear she would not be resting enough. Elena’s mother did everything necessary to run the household, and Elena’s job was to take care of herself and the baby. Elena also elaborately described how as she healed and became more active, her mother taught her how to pace her resumption of household tasks to prevent becoming too tired.

Interview with Participant 08: “Elisa”

Elisa is a 19 year old Hispanic, first-time mother who is married and “somewhat comfortable” financially. Elisa is attending community college, which she took 2 weeks off from and has returned to since. She delivered vaginally and had no health problems in the pregnancy or postpartum. Elisa and her husband have been living with Elisa’s aunt until they save enough money to move into an apartment of their own, which they expect will be within the next month. Elisa’s husband lost his job 2 weeks after Elisa delivered, which was a particularly stressful and fatiguing time for Elisa. Her husband has since found employment at 2 places and they are now better off financially than before. Elisa was surprised that she had not fully resumed her household duties by a couple days after birth and that her body required time to heal. Elisa is breastfeeding and recently started supplementing with formula. Elena normally sleeps for about 5 hours total and wakes twice in the night to feed the baby. Elisa notes that her aunt and cousin provided some assistance to her after birth, but that if her mother had come to take care of her things would have been much easier. However, Elisa’s mother lives 1 hour away and has young children and responsibilities of her own that she could not leave.

Interview with Participant 09: “Kari”

Kari is a 38 year old Caucasian woman who has 22 years of education and is currently working on her doctorate. She is married and reports herself to be “extremely comfortable” financially. Kari has a weekly housecleaner and so her main household responsibilities are laundry and cooking, although she has not felt like cooking and so her husband has taken over that responsibility. Kari and her husband moved from the eastern

United States 4 months ago for her husband's job, and Kari has essentially no friends, family, or other support system in this part of the country. Kari delivered by scheduled cesarean section for breech. Her mother stayed for 10 days postpartum to assist with cooking and caring for the baby while Kari recovered.

Kari was the most acutely fatigued of all the participants. She attributed this partially to her baby's colicky nature. Her son was known to cry for between 2 and 8 hours continuously. Additionally, Kari finds it impossible to nap during the day and distressing to be awake at night when one is "supposed" to sleep. Kari's husband is her main support person and she relies on him frequently, because she perceives her husband as being better at handling a screaming baby. Kari's fatigue is particularly acute, because the baby "stopped sleeping" so Kari had slept only about 2 hours in the 24 hours prior to the interview.

Interview with Participant 10: "Janet"

Janet is a 19 year old African American woman who is currently in her second year of community college. She reports no health problems and vaginally delivered a healthy daughter. She lives with her mother and two younger sisters (ages 15 and 16) and describes herself as "somewhat comfortable" financially. Janet recently left an apartment she was sharing with her boyfriend to move back home. Janet's boyfriend was with her at the time of the delivery, but is not a part of her life currently. Janet's mother is her main support person, but Janet describes a large network of extended family that provides her with instrumental and informational support. Leading up to her delivery Janet went to school full-time and worked full-time. Janet's most severe fatigue was experienced in the

first 2 weeks postpartum. Janet took the weekend off from her end-of-semester schoolwork to have her baby and returned to school the following Monday. Having her baby at the end of the semester meant that even though Janet was fatigued with a new baby she could not sleep until her schoolwork was done. She describes the first 2 weeks postpartum as crazy and chaotic where some nights she would get a total of 3 hours of sleep. Her drive to finish school and be a strong role model for her daughter carried her through this difficult time. Her fatigue has eased since entering the semester break and her 4 week old daughter usually wakes every 3 hours during the night. Janet plans to return to school full-time and work part-time around 6 weeks postpartum.

Interview with Participant 11: "Linda"

Linda is a 39 year old Native American (Pascua Yaqui), married woman with three sons ages 14 and 10 years and 5 weeks. Linda lives in a modest home, describes herself as "somewhat comfortable" financially, and has 14 years of education. Linda delivered vaginally and notes that her body has taken longer to heal from this birth than from her others. She had severe nausea for the first 4 months of her pregnancy that reduced her functional status. Linda's baby tends to wake every 2 to 3 hours in the night and it takes Linda about 20 minutes to breastfeed her son before returning to sleep herself. The past couple days, however, the infant has had a stuffy nose and wanted to "nurse constantly," which severely fatigued Linda. Linda works three-quarters time as director of a Native American cultural organization and went on maternity leave 1 month prior to her delivery. She plans to return to work in 3 months. Linda states her husband is a great help to her and will assist her with whatever she asks of him. He recently returned

back to work after taking 30 days paternity leave during which time he regularly got up to assist with the baby in the night. Linda notes a big difference between the support her husband provides as compared to the father of her first two sons with whom Linda shouldered the burden of sole caregiver. This sense of security, knowing that her husband will be there to help her when he returns from work each day, helps her cope with PPF.

Interview with Participant 12: “Susan”

Susan is a 28 year old Caucasian, married woman with 12 years education who describes herself as “very comfortable” financially. Susan has 4 children ages 10, 3, 2 years and 4 weeks. Susan had a vaginal delivery, however, she was given a 40 percent chance of dying in labor from hemorrhage. Susan took Coumadin® prior to her pregnancy, gave herself Lovenox® injections throughout the pregnancy, and donated her own blood for storage in case of hemorrhage in labor, because she has a recent history (1½ years ago) of pulmonary embolisms. In addition, Susan developed gestational diabetes in pregnancy and significant dietary changes resulted in a 100 pound weight loss during the pregnancy. She had a bilateral tubal ligation after delivery before discharge home. Susan’s main support person is her husband who cares for the 2 and 3 year old children while Susan cares exclusively for the newborn who is bottle-fed due to crossover of the Coumadin® into breastmilk. Susan works full-time and earns the main source of income for her family in a management-level administrative job. She returned to work 2 weeks postpartum and takes the infant to work with her while her husband remains at home with the toddlers and sees the 10 year old off to school. Susan regularly lives with very little sleep. She usually falls asleep around midnight, wakes at 4am in order to leave

for work by 5:30am. Between midnight and 4am she usually wakes once to feed the baby. Susan has followed this schedule for months and she believes her body has adjusted to the point that it would be difficult for her to sleep longer even if she had the option.

Interview with Participant 15: "Monica"

Monica is a 34 year old Caucasian woman who lives in a house with her husband and 3 children ages 7 and 5 years and 3 weeks. Monica delivered vaginally without incident and breastfeeds her infant son. Monica's husband lost his job shortly before she delivered and had not found employment in the 5 weeks preceding the interview. In her pregnancy she developed some breathing problems, heart palpitations, and fainted once. Although Monica sought appropriate diagnostic care for these problems, physicians did not find a cause or diagnosis for these health problems. At one week postpartum Monica developed more severe breathing problems and was hospitalized for one week for fluid in her chest cavity although again, doctors could not pinpoint a causative mechanism or diagnosis. Physicians did say, however, that had Monica delayed coming to the hospital merely 11 more hours that she likely would have died. This gave Monica great pause for thought about what would happen to her children if she had died.

Monica says she lives a "life of stress" an administrator of a non-profit organization. Monica has a master's degree, and when recruited she expressed a desire to return to work within a couple weeks of having the baby. At the interview Monica noted that she had not returned to work, because her fatigue had been quite severe. She also expressed surprise at the level of organization required to efficiently leave the house in

the morning with 3 children. She had thought that having “just one more child” would not significantly alter her life. Despite being hospitalized for a week with a life-threatening condition just one week prior to our interview, Monica believes her fatigue is an “organizational issue” that will be relieved if she can just get into a routine.

Interview with Participant 16: “Lilia”

Lilia is a 23-year-old Hispanic married mother of 2 children ages 2 years and 3 weeks. She lives in a recently built house in a planned community undergoing rapid development. She describes herself as “somewhat comfortable” financially. Lilia delivered by repeat cesarean section and describes having an easier recuperation after this surgery than the first. She says she tried for a vaginal birth, but when the labor became too painful she elected to go through with the surgery instead. Lilia and her husband are Mormons and have named their sons according to this religious tradition, which seems to be an important part of their lives.

Lilia’s mother-in-law stayed with Lilia to care for the household and 2 year old for 1 ½ weeks after her delivery. During this time Lilia remained in her bedroom upstairs with the baby to establish breastfeeding and to rest and recover. Lilia and her husband both have undergraduate degrees and her husband works full-time evenings. Lilia worked up until 2 weeks prior to the delivery and plans to return full-time days in 3 months.

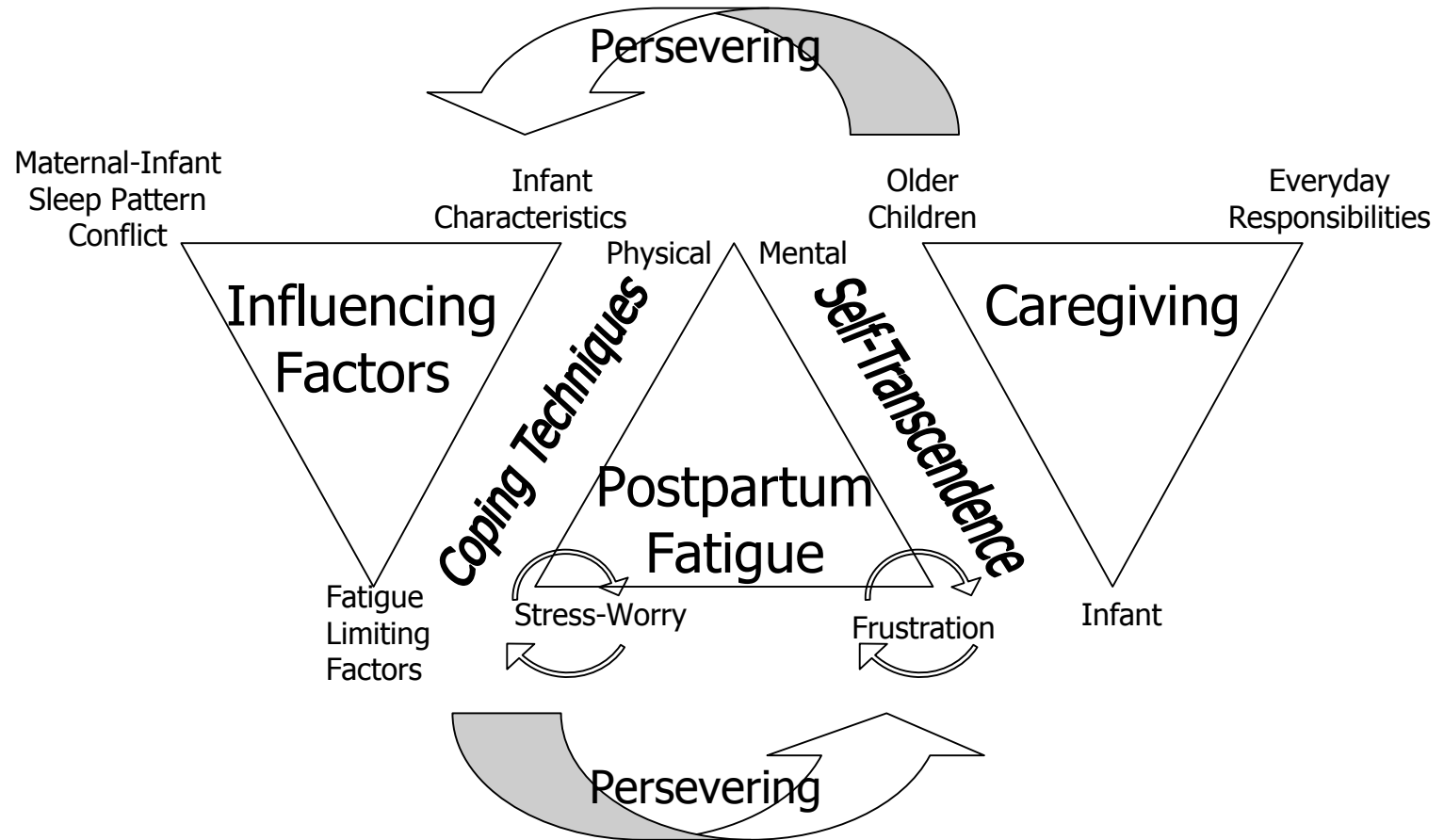
Lilia seems to handle her fatigue in a healthy manner by doing only essential tasks if she is too tired to accomplish all her responsibilities. Because Lilia cares for the children alone in the evening she is often fatigued from the day’s activities. When severely fatigued, Lilia will see to the children’s physical needs and bedtime routines

after which she will allow herself to go to bed leaving the remaining household tasks for the morning.

Explication of the Grounded Theory

Using grounded theory methodology, the model “*Persevering through Postpartum Fatigue*” was synthesized (Walker & Avant, 2000). This model is middle-range in scope (Fawcett, 2000) and describes the human process of *Persevering* (see Figure 1). *Persevering* has five major concepts: *Influencing Factors*, *Postpartum Fatigue*, *Coping Techniques*, *Self-Transcendence*, and *Caregiving*. *Influencing Factors* is a label given to the group of factors that participants identified as the foremost influences on *Postpartum Fatigue*. *Influencing Factors* has three subcategories: *Maternal-Infant Sleep Pattern Conflict*, *Infant Characteristics*, and *Fatigue Limiting Factors*. *Postpartum Fatigue (PPF)* is a multidimensional concept comprised of Mental, Physical, Stress-Worry, and Frustration dimensions. *Coping Techniques* are those strategies and behaviors employed by women in response to PPF for the purpose of reducing PPF. Coping techniques can alter PPF directly or indirectly through modification of the *Influencing Factors*. *Self Transcendence* is salient within the persevering process. The participants in this study found great meaning and purpose in the caring of their children. The belief that children represented a purpose larger than themselves enabled participants to persevere in caregiving in the face of all but the most severe fatigue. *Caregiving* is the outcome of *Persevering*. *Persevering* is the process that emerged out of the relationships between *PPF*, *Coping Techniques*, and *Self Transcendence*.

Figure 1. *Perservering Through Postpartum Fatigue*



This study sought to discover a basic social psychological process of PPF. This process was identified as *Persevering*. However, it became apparent when the data were interpreted within the study's theoretical orientation that the phenomenon of postpartum fatigue was not solely governed by "social" processes. Model elements such as the Physical dimension of postpartum fatigue and a number of the *Influencing Factors* such as *Infant Characteristics* and *Maternal-Infant Sleep Pattern Conflict* are **health-related** patterns and processes. Depicting *Persevering* as a purely social process would be incongruent with the findings of the model and would restrict the explanatory power of the model to its methodological origins (i.e., grounded theory being sociological in origin). As a result, this study applied the re-formulated notion of *Persevering* as a basic social psychological process into a human process (P. G. Reed, personal communication, February 12, 2006). Labeling *Persevering* as a human process better represents the whole process of PPF by embracing the social, physical, mental, and spiritual (i.e., Self-Transcendence) processes involved with PPF. Additionally, the notion of human process is more theoretically consistent with the unitary-transformative ontological perspective within which this study is based.

Each major concept and its related sub-concepts will now be presented. Data excerpts will substantiate concepts and relationships within the grounded theory. Each excerpt will be labeled by participant pseudonym, identification number and transcript line number(s) to facilitate the reader's evaluation of dependability, transferability, confirmability.

Persevering in Caregiving

Persevering was the human process that emerged from this grounded theory.

Caregiving of infants and older children was the outcome of persevering. That participants persevered to care for their infants in spite of ongoing fatigue was the major common denominator among all the participants. The word “perseverance” (of which persevering is the verb form) is defined in the dictionary as a steady persistence in adhering to a course of action, a belief, or a purpose; steadfastness (Editors of the American Heritage Dictionaries, 2000). Tenacity is a synonym of perseverance that appropriately characterizes participants’ behavior in the face of fatigue. In this study, all participants adhered to the course of action, belief and purpose of continuing to care for their children in spite of PPF.

“I would say probably the only difficulty is that I know I need to attend to his needs no matter how tired I am. I have to get up and feed him” (Ann, 05, 21-23).

Coping with Fatigue: “Just deal with it”

Participants were asked: “How do you cope when fatigue?” Their responses to this question reflected steadfastness and tenacity in persisting to care for their children when fatigued.

“I kind of feel like you just gotta muster everything up and get it together and do it” (Maria, 03, 118-119).

“If the kid’s screaming you can’t say “well you know what? I feel like crap” so, and stay in bed. You just get up and keep going” (Kari, 09, 76-78).

“Just deal with it” (Janet, 10, 234).

Some women’s ability to persevere was facilitated by having a time element in mind. For some this time element was short (hours to days).

“I just kind of deal with it and just say OK it’s just a little bit longer I take like every hour at a time and I go from there” (Maria, 03, 102-104).

“Like now I sort of feel like OK well, in the afternoon his dad can, you know I can get a rest, like I know there’s a light at the end of the tunnel kind of thing I think? And so I sort of cope like that. Like OK you know, let’s just you know, deal with this, later I can rest. And I think just knowing that you know, um helps a lot” (11, 213-217).

For others, this time element was long (months).

“It’s something that will pass. I think maybe at most a year. That’s how it was with my first child” (Sylvia, 02, 18-20).

Knowing their fatigue would come to an end at some point allowed them to manage the fatigue and persevere in caregiving until relief was obtained.

“I’m realizing that it’s going to come to an end soon. I think that’s what, you know is my saving grace is that I know it’s not permanent, it’s something that will pass” (Sylvia, 02, 14-16).

There is No “Can’t”

Participants were asked the question: “Is there anything you can’t do when fatigued?” Responses tended to group around two similar types of answers: “No. It all gets done,” or “There’s no such thing as can’t.”

“I mean there’s no such word as can’t, because you have to, I mean if you’re the only one here, if there’s some things you have to do, you have to do it” (Maria, 03, 112-114).

“There’s nothing that I don’t, can’t do when I’m fatigued” (Elisa, 08, 265-266).

Participants spoke about there being no choice involved with PPF. The infant or children had to be cared for regardless of how the mother felt.

“I’m just cranky. Do what I have to do. I don’t have a choice” (Cathy, 01, 87-88).

“There is no choice like I said even if you feel fatigued you have to take care of your baby” (Elisa, 08, 85-86).

“It’s not an option of you picking that you can or can’t do it. You have to do it” (Maria, 03, 114-116).

The belief that there was no choice when fatigued about whether or not to care for the baby or other children created the condition whereby perseverance became necessary.

The Limits of Perseverance: Breaking Points and Beyond

Towards the middle of data collection and analysis when persevering had emerged as a core category, questions were added to the interview schedule to explore the limits of perseverance. Participants were asked what would happen if they didn't keep going. Responses were poignant and ranged from the practical issues of money and safety of their children to the more personal issues of loss of identity, structure in life and disappointment in self.

"Your baby would be crying and, and dirty diapers and hungry. So I, you know, I guess your baby would suffer if you didn't keep going" (Linda, 11, 237-239).

"Well, nobody would take care of my kids and they'd be running around here, it's not real safe you know, they need constant supervision. And I wouldn't be able to make money at work, you know, to support my family" (Susan, 12, 167-169).

"You'd just fall apart you wouldn't have anything to live for no more. That would be bad" (Janet, 10, 288-289).

As evidence of the embeddedness of persevering in their lives, two participants expressed difficulty in even thinking of not persevering.

"When you have a little baby you always have to you know, be you know taking care of the baby and changing him, feeding him everything and so you kind of just have to keep going you can't really think about not keeping going I mean" (Linda, 11, 231-234).

"I never thought about just, what it would be like if you just then gave up on everything. I don't know. I couldn't do it" (Janet, 10, 289-291).

To begin to understand the endpoint of perseverance, participants were also asked at what point they would **have** to stop caregiving because of the fatigue.

"Well of course for health reasons. You would have to like that's what they always tell me that I'm gonna have a breakdown if I don't slow down" (Janet, 10, 294-295).

Monica had no choice in the matter. She was hospitalized for fluid in her chest cavity.

This participant stopped persevering only when her body physically shut down.

“When they hospitalized me I didn’t have a choice. So I feel like um, you know, it sort of has to lead like to um, a complete shutdown of the body. I think it’s the reality” (Monica, 15, 238-240).

Likewise, another participant spoke of how she would persevere until forced to stop by her body, or if the situation arose that she or someone else was hurt as a result of her fatigue. Persevering in caregiving continued at all cost.

“I think if I got ill. If I got real sick I’d probably stop and take a rest. Take a, take a look at the situation again. But with me for some reason it always takes something drastic to happen before you know, I’ll actually rest (Susan, 12, 172-175) Obviously if you know, I hurt myself or somebody else, you know, I think I would look at it differently. Um, I think that would be the main thing, is if I caused an unsafe situation, because of me being, you know, really tired” (Susan, 12, 182-185).

Some participants told stories about having had the experience of crossing a breaking point. When this happened they could not continue with caregiving, and they gave the baby to a support person and rested. For participants whose support persons were their husbands, the husbands were handed the infant and not given the option of giving the infant back until the women had rested. For example, Kari had a colicky baby who was known to cry for 8 hours straight.

“And if you’re me you put in ear plugs and give him to your husband” (Kari, 09, 22-23).

Janet’s breaking point happened in the first 2 weeks postpartum when she stayed up late to complete end-of-semester homework. A few minutes after going to sleep the baby awoke to be fed and Janet could not physically get up to feed her. Janet gave the baby to her mother on these nights.

“I think the nights when I was just really really really out of it I couldn’t take care of her. I couldn’t get up with her and stuff, so sometimes like some nights when I had really been out of it, stayed up with school and everything (Janet, 10, 243-245). Not a lot of nights, but just some nights were just, I would have to give her to my mom to get up for her (Janet, 10, 251-252). Like when I’d finally be done working on homework and then go lay down with her then I have to get back up after just a couple minutes of sleep, sometimes I just couldn’t get back up again” (Janet, 10, 256-258).

Linda’s breaking point came after the baby had nursed constantly due to upper respiratory discomfort. This participant just wanted to sleep and not to be in constant physical contact with the baby:

“Night before last he was just nursing and nursing and nursing all night like he would start to fall asleep, but then right away he was waking up and wanting to nurse again. I felt like I had no milk left I was just so tired that I just had to say OK no I, I can’t do this anymore. Um, you know I’m going to sleep now. You guys deal with it, you know. So I think that was my point where I just, you know, it was like maybe 3 in the morning. I hadn’t really slept much yet, I just did not want to nurse him anymore (Linda, 11, Intermittent lines 242-254). I felt just you know, exhausted. But I also felt like I just wanted my body not to be touched by anybody or I didn’t want you know, I just wanted to go to sleep and yeah. Not um, not feed him anymore for a while” (Linda, 11, 258-261).

Susan reached her breaking point when she physically could not stand up anymore.

“That actually was happening to me last week, granted I was sick too, but still I kept trying to go and go and go and I just finally, I got really dizzy and having a hot flash. I was like that’s it, I gotta lay down” (Susan, 12, 177-180).

Self-Transcendence

In the nursing literature, self-transcendence refers to a person’s ever-present capacity to expand self-boundaries and grasp a perspective that exceeds everyday confines and limitations (Reed, 1991). Such a broadened life perspective facilitates a person’s ability to find meaning and purpose in life. In this grounded theory study *Self Transcendence* was a salient element of the *Persevering* process. Self-transcendence was

an ongoing inner resource that was called upon by the women to enable them to persevere with caregiving when fatigued. The participants found the strength to persevere through a belief that their children brought purpose and meaning to their lives. Self-transcendence can be more apparent during times of heightened vulnerability (Reed, 2003). The infant's and other children's vulnerability manifested by the need for constant attention compelled the women to persevere in spite of fatigue.

"I just realize that his needs are more important than mine and I'll find another time to sleep. It's just kind of a understanding of what's more important is probably the way I cope with it" (Ann, 05, 63-67).

"Um, I actually am fatigued I just look at my baby and I'm actually proud of him. It's like I feel happy I mean, I brought him into this world and I can't say oh, I shouldn't have done that I mean, I just when I'm fatigued I think about baby and I actually get a little bit happier" (Elisa, 08, 178-181).

"My kids motivate me. Obviously I have to take care of them. They can't take care of themselves. And I, I just know I have to, I have to be here for my family. That's my motivation. To keep going" (Susan, 12, 163-165).

In this grounded theory, *Self transcendence* and *Coping Techniques* facilitated *Persevering*, which enabled continued *Caregiving* in spite of *PPF*.

Influencing Factors

Three groups of factors emerged from the data as wielding the most influence on the expression of PPF. These factors were: *Maternal-Infant Sleep Pattern Conflict*, *Infant Characteristics*, and *Fatigue Limiting Factors*. Each of these factors had the ability to influence PPF expression positively or negatively thereby making PPF better or worse. It is important to note that these three factors were not the only factors to influence women's fatigue, but were the factors that emerged repeatedly over the course of the first 5 weeks postpartum for the majority of the participants. For instance, in women who had had operative deliveries, incisional pain was mentioned by 2 of the 4 participants (Kari

and Lilia) as important the first few days postpartum, but this factor did not remain salient to women's fatigue experience across time. The other two participants who had delivered operatively (Maria and Ann) did not mention any experience of post-operative pain. Furthermore, even though Ann had two characteristics documented in the literature as being highly fatiguing (operative delivery and first-time mother), she was the only participant who said the fatigue had not been as bad as she expected.

"I don't find I'm quite as tired as people built it up to be" (Ann, 05, 186-187).

It is also important to note that influencing factors were both stable and dynamic and were context-dependent. An example of a stable characteristic was consistent instrumental support that enabled the mother to nap 2 hours every afternoon. An example of a dynamic characteristic was rapid worsening of the maternal-infant sleep pattern conflict. This happened to Linda whose infant became congested nasally and demanded to nurse almost continuously for 24 hours. Prior to the infant's congestion Linda's fatigue was slowly, but consistently improving, but when her infant started nursing constantly, her fatigue became severe over a matter of a few hours. Each of the three influencing factors will now be discussed in detail.

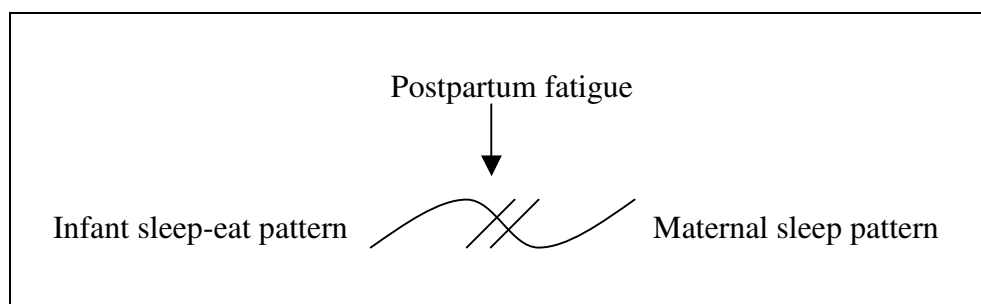
Maternal-Infant Sleep Pattern Conflict

The conflict between the mother's and infant's sleep patterns emerged as the foremost influence on PPF. The infant was the essential element, or root of PPF. If the infant were to be removed from the situation, then PPF would have ceased to be PPF. Given this understanding, the question following question was asked of the data: What is it about the infant that makes the infant so foundational to PPF? The answer to this

question resulted in the emergence of the category *Maternal-Infant Sleep Pattern Conflict*.

At birth the infant emerges from the mother with an existing sleep pattern. This pattern starts to integrate with the infant's need to eat frequently. Infants have a rapidly cycling sleep-wake-eat pattern that changes continuously for weeks to months after birth. At the same time, the mother also has an existing sleep pattern. Participants noted that often this sleep pattern consists of 5 to 8 hours of uninterrupted sleep at night each 24 hour period. When the mother is the infant's primary caregiver, as was the case with the participants in this study, then the infant's existing and continuously changing sleep-eat pattern conflicts with the mother's existing sleep pattern. PPF is not inherently generated because the infant exists, but instead because of dissonance or disharmony between the infant's sleep-eat patterns and the mother's sleep patterns. PPF is that dissonance (see Figure 2).

Figure 2. Maternal-Infant Sleep Pattern Conflict.



When this disharmony or dissonance begins to emerge, it is not up to the infant to change his or her pattern to accommodate the mother's pattern. Instead, it is up to the

mother to change her sleep pattern to accommodate the needs and patterns of the infant.

This can be a unsettling discovery for some postpartum women.

“I never had interrupted sleep before. I’m used to being able to get consistent 7 to 8 hours a night and even though I still maybe be getting 6 to 7 hours it’s in spurts. I’m only getting between an hour and a half to 2 hours at a time” (Ann, 05, 9-12).

“I think what I’ve been finding mo, most fatiguing is not sleeping in long blocks. It’s the 1½ hours here, another hour and a half. I really want my 5 hours at a time or 6 or 7 or or 8. Someday I’ll get 8, huh? (to baby). And uh, so it’s the, the the break the trying to go through the night with these little chunks of sleep that really, really gets me and uh, I’ve always been a person that needs 8 hours of sleep, so this has not been good” (Kari, 09, 30-35).

Over months to years, the infant’s sleep-eat patterns change in a manner that approaches synchrony with the mother’s sleep pattern. Also, while it was incumbent on mothers in this study to change their sleep patterns to accommodate the infant’s sleep-eat patterns, mothers also employed techniques to facilitate a more rapid change of the infant’s sleep-eat patterns towards a pattern more in harmony with their own sleep pattern. For example, participants worked towards increasing the interval between feedings so that longer periods of uninterrupted sleep could be obtained. Harmony in maternal-infant sleep patterns was identified as the goal to which participants aspired. Participants believed that the maternal-infant sleep patterns would harmonize and their PPF would be relieved when the infant consistently slept 5 or more uninterrupted hours or “slept through the night.” Achieving this goal was a long-term process.

“Um, I think, maybe the at most a year, um, that’s how it was with my first child who is 8. For the first year I felt like I didn’t sleep, so, yeah, once by the time he was a year old we slept through the night” (Sylvia, 02, 18-20).

“You get maybe an hour of sleep at a time when you’re longing for like 4 or 5 hours of sleep at a time. And that’s really hard” (Maria, 03, 91-95).

Infant Characteristics

Infant Characteristics were characteristics of the infant that tended to either improve or worsen PPF. Table 6 identifies these characteristics.

Table 6. Influencing Factor: Infant Characteristics.

<p>Infant Characteristics that Improve Postpartum Fatigue</p> <ul style="list-style-type: none"> • “Good” infant • Does not cry often or for long periods of time (i.e., not colicky) • Wakes to eat, eats, and then falls back asleep quickly. • Content • Falls asleep without pacing or walking
<p>Infant Characteristics that Worsen Postpartum Fatigue</p> <ul style="list-style-type: none"> • Takes 60 to 90 minutes to eat and consistently falls asleep while eating • Consistently falls asleep while eating • Colicky or cries a lot (for hours at a time) • Gassy or seems in discomfort in abdomen • Sleeps in short intervals (1 to 3 hours) • Does not return to sleep after feeding in the night

A number of infant characteristics tended to have a positive influence on the mother’s PPF. Participants identified having a “good” infant as a positive description of their infant. Often a “good” infant combined multiple characteristics that influenced PPF in a positive manner. Not crying frequently or for extended periods of time and not having a “colicky” baby were identified as positive characteristics of the infant.

“Mostly she’s pretty good. So I don’t have like colicky problems or anything like that to deal with” (Cathy, 01, 306-307).

Another desirable characteristic was an infant who awoke in the night, ate, and immediately fell back asleep with little effort on the part of the mother to help the infant return to sleep.

“She just wakes up and then she has some food and then when she ate, and then when she eats she goes to sleep again and that’s the same at night” (Elena, 07, 94-96).

In general, a content infant was one who was quiet, did not demand a lot of handling and would remain in one place for an extended period of time.

“Yeah, too quiet and and if I put here there she stays there (pointing to the bouncy chair) and if I put her in her bassinet she stays there. Wherever I put her she stays” (Elena, 07, 116-118).

“It’s just easier to love him when he’s quiet” (Kari, 09, 176).

Another desirable characteristic was an infant who could fall asleep without requiring pacing or walking in order to actually fall asleep.

“I’m not awake because I have to pace or anything like that. I don’t do anything like that. I just lay in bed with him until he falls asleep again and then I got to sleep” (Ann, 05, 196-199).

A number of infant characteristics tended to worsen the mother’s PPF. One woman’s fatigue was highly influenced by her infant taking 60 to 90 minutes to eat and consistently falling asleep during this time, which impinged on the mother’s sleep time.

“But she gets up like every 3 hours and it takes her an hour and a half to feed so by the time I’ve fed her she’s up again in an hour” (Ruth, 06, 140-143). “Now she’s got in this bad habit where she’s not finishing all her food, so instead of being up every 3 hours she’s up every 2 and like I said it takes an hour, hour and a half to feed her ‘cause she falls asleep and there’s no way, I, I can’t wake her up” (Ruth, 06, 88-90).

One participant attributed severe fatigue to her infant remaining awake for long periods of time during the night.

“Before I’d say I was only getting about 3 hours of sleep ‘cause she’d stay up ‘til about eleven then she’d, she’d stay up long even like she wouldn’t wake up so many times, but when she was up she was up for hours” (Janet, 10, 52-54).

A highly fatiguing characteristic was an infant who cried for hours at a time or was “colicky.”

“And also books that say they sleep 16 to 18 hours a day, that’s a lie. My cat does that, you do not (to baby). He can cry 8 hours straight and not sleep” (Kari, 09, 54-56).

Related to crying or fussiness were babies who seemed “gassy” or discomforted in their abdomen.

“She’s got really fussy lately ‘cause we changed her formula over a bit” (Ruth, 06, 168-169).

“I can hear my kid having gas, I think he probably does, but book says no, so you just deal with it” (Kari, 09, 17-18).

In all cases, when infants consistently slept for short intervals participants were highly fatigued. What qualified as a short interval ranged from 1 to 3 hours depending on the level of distress noted by participants. Fatigue started improving when infants slept in 3 to 4 hour intervals. Five hours of uninterrupted sleep was a “gold standard” that participants looked forward to obtaining and meant true relief from their fatigue.

“The hardest part is I was a person who needed 8 hours of sleep and it was eight hours of nice uninterrupted and now I’m getting 6 hours of like maybe an hour and a half to 2 hours at a time” (Ann, 05, 189-192).

“You get so tired, because you’re up all night and you’re up all day and you get maybe an hour of sleep at a time when you’re longing for like 4 or 5 hours of sleep at a time” (Maria, 03, 91-93).

Participants employed coping techniques in an attempt to reduce infant characteristics that worsened fatigue and promote infant characteristics that improved fatigue. Specific coping techniques used to address infant characteristics are discussed in the *Coping Techniques* section.

Fatigue Limiting Factors

Fatigue Limiting Factors represents a group of five factors that appeared to limit PPF (see Table 7). These factors emerged from a more abstracted understanding of the

data towards the latter part of the data analysis. The idea that PPF could be limited by certain factors began emerging after the interview with Elena. Elena was unique, because she denied having any fatigue since childbirth. Given this study's assumption that all women at some point have fatigue after childbirth, this participant's experience contradicted this assumption. Instead of having Elena speak to her experience of fatigue, she was interviewed for why she was *not* fatigued. The interview was approached from the perspective of: "What is it about Elena's life that limited her PPF?"

After Elena's interview, the approach of looking at what factors served to limit PPF was applied using the constant comparative method to all the interviews. Five different factors appeared to varying degrees and frequencies in participants who seemed to manage their fatigue either particularly well or in a notably healthy manner. Conversely, those women who seemed most stressed, fatigued, distressed or frustrated were often noted to lack a number of these factors. Instances in which the presence and absence of these limiting factors enhanced the understanding of *Fatigue Limiting Factors* are provided to substantiate the concepts.

Table 7. Factors that Limit Postpartum Fatigue

<ul style="list-style-type: none"> • Prior infant experience • Availability of instrumental support • Multiple sources of information • Low worry • Realistic expectations about postpartum healing process
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Prior infant experience. Participants, especially first-time mothers, who had prior experience caring for an infant on a daily basis seemed more adept at caring for their

infants and less distressed by having an infant of their own who required constant attention and caregiving.

“When I was about 15 my mom had a baby. So we were always around. I actually, I’m handling, I’m handling it OK, being a new mother ‘cause I would take care of my little brother. We were always there. We would help my mom feed him sometimes when he would get the bottle or change him, keep him clean so I actually didn’t need a lot of help. [Interviewer: OK. You kind of knew what to expect?] Yeah, I knew what to expect. I just didn’t, for example with my little brother I just wouldn’t wake up at night ‘cause that’s what my mom would do. That’s the only difference I had being a new mother- waking up at night” (Elisa, 08, 272-280).

“I think the basics, the most I need I know it. I know it because, and then also because I lived with my sister and she had 2 kids, the 2 little nieces and I help her a lot with the, with, uh, [Interviewer: When they were young?] Yeah, yeah, when they were babies. So that’s what I think. I, I have a little bit of, of experience” (Elena, 07, 147-152).

Availability of instrumental support. The availability of instrumental support was particularly important to participants’ ability to both cope with the fatigue and limit the cycle of worsening fatigue. Two participants articulated that what was most comforting was not that someone was constantly helping them with the baby, but knowing that someone was there for them when needed. Security was an important component of instrumental support. In this first excerpt Linda contrasts her current feelings of security with the infant experiences of her older children (ages 14 and 10 years).

“I think it helps that I feel like I have help you know. Um, I, I remember with my other kids you know, it was hard, sometimes really hard to cope. I think especially knowing that um, I was really the only one who was gonna, you know, um who ha, who was really dealing with it. You know like their dad he would help out a little, but I didn’t feel secure like OK I’m not the only one who will you know, you know, I, I felt like it was mostly on me and so I think that made me, that made me feel a little different than now. Like now I sort of feel like OK well, in the afternoon his dad can, you know I can get a rest, like I know there’s a light at the end of the tunnel kind of thing I think? And so I sort of cope like that. Like OK you know, let’s just you know, deal with this, later I can rest. And I think just knowing that you know, um helps a lot, yeah” (Linda, 11, 206-217).

Janet, a single, 19 year old, first-time mother relies on her mother for everyday support.

“Being there to help you. Just having, knowing that somebody else is there. Even if some nights she just stay up with me even if the baby wasn’t up or nothing, if I was just up on the computer she’d just stay up at the same time with me. So it just having somebody with you is what helps” (Janet, 10, 220-223).

The effect of no instrumental support on PPF is readily apparent in Kathy’s situation.

“Lack of daycare right now. I haven’t had daycare for about 2 months. Um. [talks to child]. There was a mishap in the system with the jobs program and the DES program and the childcare program where I got slipped through the cracks, because they had me as not complying and they had me that I wasn’t working even though I am working. So I didn’t have daycare for about 2 months. I finally got that established where it was supposed to start last week as far as the daycare end of it now the jobs part of it having them pay for the copay, which is \$70 a week for the two kids. Um. It’s somewhat done, I have an appointment today at 3, so again another day with no sleep. I got 2 hours yesterday of sleep. [Interviewer: Oh my goodness.] So. And I worked all night long and I get to do it again today” (Cathy, 01, 47-59).

Multiple sources of information. Having multiple sources of information of which participants could ask questions and advice seemed to limit PPF, particularly for the first-time mothers. Possessing several baby books, however, did not constitute several “sources” of knowledge. This became apparent with Kari who had accumulated several baby books that she frequently consulted. However, because the books were all of the same variety, what was gained in quantity was lost in quality, or the ability of that one source of knowledge (i.e., “expert” baby books) to address Kari’s problem.

“I guess what was happening was just this helplessness that you don’t know what to do and nothing you seem to do does any good. And, you know, you read your books, they don’t help and the book says that “kids don’t have gas” and I’m like well I can hear my kid having gas, I think he probably does, but book says no, so you just deal with it” (Kari, 09, 14-18).

Multiple sources of information meant diverse sources of knowledge. Diversity in knowledge sources included, but were not limited to professional knowledge (i.e.,

medical, nursing, midwifery), familial or layperson knowledge (i.e., a mother, sister, aunt, friend), and Internet knowledge obtained from websites. Having knowledge sources that spanned a variety of perspectives created a web of knowledge from which participants drew. If an unsatisfactory or insufficient answer was found from one source, another source was consulted.

“Yeah. And I don’t, I don’t really have too much questions, because my mom, my sister the, that nurse and the Internet. Those things help me a lot” (Elena, 07, 144-145).

It is acknowledged that these knowledge sources had the potential to contradict each other. This happened to Elena. When her mother provided unsatisfactory information about whether or not she should take a certain prescribed pill for constipation, Elena turned to the Internet and found the information she needed.

“Yeah and I said what is constipation? I didn’t know that and I asked my mom and she said no I don’t think you have that. She told me that. That’s the only thing she told me and I was like you know I was thinking about that and I went to the website the one that I told you and yeah, they, they explained me what was that and I said I need those pills. That’s why I’m having problems going to the bathroom. And I called my mom and I say you know what, what were those pills? What? And I told her. ‘Ohhh. I didn’t know that. Oh yeah, that’s constipation.’ Mom yeah (J and Elena laugh) it was like yeah, but you know” (Elena, 07, 368-375).

Another instance exemplifies how familial knowledge helped Elena manage her labor pain better than the professional knowledge given to her by the hospital’s medical professionals.

“When I was in the hospital they told me how to, um, how to uh, you know to control the contractions, you know to breathe, and it, what to do, but my mom said “no, you, you’re gonna get tired.” You, what I’m gonna do I’m gonna tell you something she told me “you need to do this” and then like how to control the contractions and when she told me that uh, I felt better. I felt better, because you know, I had too much time

with contractions and high contractions and I think I learned to control them” (Elena, 07, 465-471).

Although resources had the potential to contradict one another, the availability of a web, or network of resources was an informative and empowering means for obtaining health-related information that helped participants to identify techniques for managing their fatigue.

Low worry. Participants who managed their fatigue in a healthy manner warded off worsening fatigue by being able to let go of everyday tasks that increased their fatigue. When fatigued, the ability to “let go” and not worry about undone tasks was a factor that limited PPF.

“You kind of have to I think be able to sort of let things go that you wouldn’t ordinarily, you know, be able to do (Linda, 11, 287-288)...So I’m trying to just be able to sort of let things go and relax you know, um, because if you’re feeling that stress all the time, sort of that anxiety, it, it really does sap you and make you more tired” (Linda, 11, 295-297).

“And then with the baby I don’t really care too much about the house you know, I go slow, slow and I don’t care if it’s, you know messy or not” (Elena, 07, 19-21).

Conversely, PPF was worse in participants who were either unable to set aside non-essential tasks or worried constantly about tasks if they did set them aside.

“Not being able to do what I want to do so that’s definitely frustration um, uh that makes it like you know, household stuff and work-related stuff and um, just um, just general things like little things I want to do ‘cause all, all you have you know when you’re fatigued and you’re forced to lay down and all you do is think about what you have to do so it’s kind of like no matter how much you want to rest you’re still you know feeling like you’re helpless or out of control” (Monica, 15, 250-256).

Realistic expectations about the postpartum healing process. In this study, some participants, both primipara and multipara, expressed surprise and distress over the length of the postpartum healing process. A number of participants’ expectations about when

they would be “up and running” after childbirth were unrealistic. Some participants expressed surprise that by 3 to 7 days postpartum they had not returned to a pre-pregnancy level of functional status in the assumption of their daily lives and activities. The distress created by the expectation that they *should* have already recovered affected multiple PPF dimensions. First, these unrealistic expectations contributed to stress, and participants worried about not having fully healed yet. Second, participants felt frustrated over the belief that the reason they had not fully recovered was some personal deficit or fault. Finally these unrealistic expectations worsened participants’ self-perception. Participants felt self-disappointment, which worsened PPF by compelling participants to try harder and fight the fatigue more.

“I guess it’s just frustrating, because I feel like um it’s an out of control feeling. It’s sort of like a, I knew, I know having a baby creates that feeling, but I think that I usually just keep things more in order and I had planned probably to be up and running by the third day after my pregnancy and instead I was you know having trouble” (Monica, 15, 49-54).

“You know the first week after I had the baby I did go for a mile walk, because they said ‘take it easy,’ well, that’s easy. It was flat, just over on the Riverwalk. I slept the next day. Like I stayed in bed most of the next day. It was just horrible and the fact that I couldn’t walk a mile was bad” (Kari, 09, 143-146). (operative delivery)

“I feel like I can’t do everything I want to do. Like um, incapable of um, of handling things the way I usually do, so I guess I kinda feel like um, a little disappointed in myself” (Lilia, 16, 101-103).

Women who had realistic expectations of how long it takes to resume daily activities after childbirth spoke of respecting the needs of their bodies and minds to heal. These participants tended to have better fatigue experiences compared to women with unrealistic expectations about the postpartum healing process. In particular, the women in Elena’s family taught her respect for the cultural proscription of resting after childbirth and gave her the support she needed to carry out that proscription.

“Yeah, and then also uh, she never let me go to the kitchen. She said you need to stay you know, relaxed, calm, because you just had your baby. And I was like OK. And I knew that, because when I was with my sister it was the same way. My mom was there and “don’t do that,” “don’t do that,” “don’t push that,” “na, na, na, just stay with the baby” or whatever you know. And then she alw, she’s always like cooking for us and then I knew it was going to be kind of the same, because I was living with my sister when my mother was there” (Elena, 07, 249-255).

Elena acknowledged that instrumental support was key, and had she not been given the necessary instrumental support to allow her to rest she would have felt fatigued and “desperate.” Instrumental support was key in being able to rest and heal from childbirth.

I know I have a family that helps me and then support emotionally and then physically and everything. I think it would be a little different. I think I would be like desperate and you don’t know how you’re gonna react and then like that you know what to do” (Elena, 07, 266-269).

In a different example, Elisa adhered as best she could to her culture’s proscription to rest after childbirth, but admits that things would have been easier for her had her mother been able to help her postpartum.

“Like my mom is a lot of help. She’s a really nice person to, maybe she would have helped me clean a little bit I don’t know, but may, if she had been around I think everything would have much more easier” (Elisa, 08, 295-297).

In another case, Kari admitted that she knew she was supposed to rest to recover from a major surgery, but her situation did not allow her that rest, which was distressing.

“I think that it’s just not ending. There’s just no way to get away from it. There’s, I mean I joke with my husband “can’t we get a nighttime nanny?” and obviously we can’t, but that’s there’s just no way, there’s no, there’s no way to put an end to it. And, it was, it was bad the first couple weeks also, because I’d had a c-section and I wanted to just recover, but you’re not allowed to. It seems like it’s the only surgery that you don’t get to recover from, because you’ve got all these other demands and that’s it” (Kari, 09, 70-76).

Limiting the development of worsening and unrelenting PPF with realistic expectations about when and to what extent a woman can resume daily activities and responsibilities

after childbirth was contingent on the availability of instrumental support that enabled the woman to carry out those realistic expectations. When realistic expectations and instrumental support worked in concert, PPF was profoundly limited.

Postpartum Fatigue: Dimensions and Descriptors

This section will detail the multidimensional concept of PPF. In this study, PPF emerged as an overwhelmingly negative, unpleasant, and distressing subjective experience that was operationalized by four integrated dimensions: Stress-Worry, Frustration, Mental, and Physical. First, participants' descriptions of PPF will be presented and then each dimension will be described separately.

Not a single participant mentioned fatigue in a positive light or that the fatigue benefited them in any way. Table 8 is a list of words used by women to describe PPF.

Table 8. Descriptors of Postpartum Fatigue

Hard	Bad
Helpless	Lack of energy
Difficult	Frustrating
Unending	The worst fatigue
Stressful	With no end in sight
Tiring	

When asked what was different when fatigued, participants said PPF changed every aspect of their lives.

“Seems like everything. How you feel is different. How you dress is different ‘cause you don’t, don’t want to get dressed. I think eh, when you’re not getting enough sleep it really affects every part of you. Your mind isn’t right” (Janet, 10, 96-99).

“Everything is different. Everything...” (Maria, 03, 68).

PPF made even the simplest, everyday tasks more difficult.

“I’m more tired so you know vacuuming the house it would have been like a really easy chore before is a little more difficult now ‘cause I’m just, I’m tired” (Ann, 05, 73-75).

Some participants commented that when fatigued, they were unable to continue with those activities that had previously brought them enjoyment.

“I love to cook. I don’t feel like cooking. Uh, I just don’t feel like doing anything” (Janet, 10, 108-109). “I just, you know, love to go outside, but I don’t even feel like going outside” (Janet, 10, 140-141).

“I can’t read, which is um, something I like to do when I’m, when I’m laying in bed, so I’m laying in bed and I can’t, you know, so when I’m really tired I can’t even read. I just sort of lay there until I fall asleep” (Monica, 15, 110-113).

Participants were asked whether PPF made anything easier. The only thing made easier was falling asleep.

“Easier? To sleep [Laughs]. That’s the only thing. You hit the pillow and you’re gone in seconds, but that’s the only thing. That’s the only thing that’s easy” (Maria, 03, 122-124).

“I’m able to fall asleep real quickly” (Ann, 05, 84).

However, the opposite was true for participants who had difficulty falling asleep. For some participants the stress and frustration inherent in the fatigue experience actually made it more difficult for participant to fall asleep.

“Easier? No (laughs). Not at all” (Ruth, 06, 126). “It takes me almost an hour, hour and a half to get to sleep to start off with. I can’t just snap my fingers and just fall down even though I could be dead tired” (Ruth, 06, 105-107).

“No I don’t think so, because even if, I would say if I’m tired it would be easier to go to sleep, but there’s so many things going through my mind” (Lilia, 16, 201-202).

With the exception of a few participants who found falling asleep easier, participants noted that nothing was easier when fatigued. In fact, most participants found the question bewildering, humorous, and laughed outright when asked whether anything was easier when fatigued.

“Um, no (laughing)” (Linda, 11, 126).

“(Laughs) No. No. Is there anything that people tell you is easier when they’re tired?” (Janet, 10, 263-264).

Mental Dimension

The Mental dimension of PPF includes three categories of psychological manifestations of PPF: Self-perception, mood, and attention.

Participants’ **self-perceptions** when fatigued were overwhelmingly negative. Women were disappointed in themselves, felt unhappy, doubted themselves and their capability to be good mothers, and felt hypercritical about themselves.

“But um, but I just um get a little disappointed in myself” (Lilia, 16, 105).

“Well, I hate my life (laughs). I just, it’s not the way one should live. I mean that’s why I never pulled all-nighters, because I knew I’d feel bad. Now I just, I, it, it just makes me so unhappy” (Janet, 10, 155-157).

“I feel like I’m failing them somehow” (Monica, 15, 128-129).

“I don’t think you feel as confident you know. I, I don’t feel as confident with myself and a little more unsure of myself, you know” (Susan, 12, 78-79).

Contributing to a negative self-perception, participants expressed how when fatigued they did not feel like themselves.

“Just like you’re not yourself, that, that’s how I just felt like I wasn’t me. So you’re not really happy with yourself” (Janet, 10, 142-143).

When fatigued, participants’ **moods** were affected to varying degrees, but generally were of a discontented nature. Words used to describe mood changes included edgy, irritable, moody, grumpy, cranky, and grouchy. Participants noted that their mood affected relationships with family members through negative interactions caused by being grumpy, snapping or yelling at family member. Participants were distressed when this happened, because they did not recognize this irritable person as being their normal self.

"I feel myself being more edgy, more irritable" (Sylvia, 02, 22).

"I am more moody. I sense I seem to snap a little bit more" (Ruth, 06, 38).

"I'm more short-fused. I'm crankier" (Cathy, 01, 28).

"Grouchy. Not yourself. That's what make me then, that's when you want to cry 'cause you know you're snapping at people and really you're not that type of person to be grouchy like that so that's how it changed me. Attitude problem" (Janet, 10, 42-44).

Participants frequently expressed a reduced ability to pay **attention** when fatigued. Participants described their minds as slowing down, lacking focus, being unable to think, and being unsteady or rambling.

"It [the mind] doesn't work. It just, it shuts down" (Kari, 09, 127). "I think the worst is that he squirms and I carry him and I'm not as sharp as I should be and I wonder if I'm gonna drop him and, just, so then that worries me and hey, just not, not sharp anymore" (Kari, 09, 151-153).

"I, my mind feels like I can't really think. It's like I'm just daydreaming I guess. It's like I'm just dosing off thinking of whatever. They'll probably be talking to me and they'll have to I'm like what? They'll repeat it to me like 3, 2 or 3 times. My husband's noticed that lately. He's like I already told you this is the third time I'm telling you and I'm like oh, ok and then that's when I'll pay attention" (Elisa, 08, 153-158).

"Just rambling, like nothing's steady. Nothing is, nothing is, nothing is straight. Just seems like everything's just a blur. That's how it feels" (Janet, 10, 123-124). "You don't have no focus on anything" (Janet, 10, 126).

"It's hard to think sometimes. It's hard to concentrate" (Susan, 12, 65).

Reduced attention was a particularly distressing feature for participants who drove vehicles. In a number of cases, fatigue prevented participants from driving.

"I even am afraid sometimes to drive, because I'm so tired, you know just, I can't imagine that I would actually stop at the right point and turn at the right place anymore or pay attention to the other drivers, just it totally slows down" (Kari, 09, 129-132).

Physical Dimension

The Physical dimension was comprised of multiple manifestations that collapsed into three categories: Body soreness, body aches, and weakness. Pain was a component of

each of these categories. To some participants, **body soreness** referred to whole body soreness, and to others this soreness manifested in specific locations. This soreness was perplexing to some, because it did not occur in response to physical exercise. Depending on the participant, **body aches** also referred to either whole body aching or aching of specific areas. Participants sometimes compared body aching to when they had previously been sick with an illness that caused body aching. **Weakness** was a lack of feeling strong, or feeling like the body would give in if pushed too far. Excerpts substantiating the Physical dimension are presented together, because women frequently experienced multiple manifestations of fatigue.

“Oh, horrible. It just, everything aches” (Kari, 09, 139).

“My legs hurt. Yeah, my legs, um, I’ve noticed they start hurting when I’m fatigued” (Elisa, 08, 160-161).

“You just feel weak. Your whole body is weak (Janet, 10, 22). My legs and everything was always sore. Just weak. Really weak, weak. Painful weak. Like even to the point where you just feel yourself and you’re just sore for no reason. You haven’t done anything all day, but you just, you know that’s what it is, just your body it’s just weak like that” (Janet, 10, 132-137). “Like you could just feel like you just push through yourself that’s how weak you be” (Janet, 10, 387).

“You know? It’s achy. You feel achy, like almost like you’re sick, but it’s just you know, you’re achy” (Susan, 12, 75-76).

Linda did not give specific symptoms, but was more creative with her description of how her body felt when fatigued.

“A couple days ago and he was just nursing constantly. So between that and kind of being up late with him with that, I, have to say I felt like, you know ET like when he’s dying and kinda turns white and, and crispy (Linda, 11, 102-104). Like yeah it felt his body kind of turned parchment-like and kind of white and that’s how, that’s how I was um feeling like my body, yeah. (laughs)” (Linda, 11, 108-109).

Stress-Worry Dimension

The Stress-Worry dimension was a prominent and unique component of PPF.

Stress-Worry referred to how participants felt stress predominantly in the form of worry over stressors. Participants identified 10 stressors (see Table 9). Worry was continuous in nature and often manifested most intensely when participants wished to fall asleep.

Participants were kept awake “worrying” about all that they had not accomplished or that remained to be accomplished. Worry was extremely stressful for participants.

Table 9. Stressors Identified by Participants.

Messy house, cleaning	School work
Cooking	Infant care
Money	Visitors
Enough food for family	Unfinished work from
Making sure kids are	previous place of employment
OK when sleeping	Can't stop thinking about the problem

“Just I guess stress like um, you just uh, have like um, making sure you have food for them and making sure that they’re OK when they’re sleeping and um, you know money, sometimes things like that. I, we have money but I just like worry sometimes you know that what if this happens and we wouldn’t have this or this, but thank God we have what we need right now, but that’s still always a concern in the back of your head” (Maria, 03, 157-163).

“When you’re fatigued and you’re forced to lay down and all you do is think about what you have to do so it’s kind of like no matter how much you want to rest you’re still you know feeling like you’re helpless or out of control” (Monica, 15, 253-256).

“There’s been times I’ve been stressed and I definitely can’t sleep. I’ll be laying in bed thinking about everything...and you end up you know just laying there just trying to go to sleep and you can’t stop thinking of things and that goes with stress” (Susan, 12, 195-198).

“Basically I’m not going to do all those things and I’m it’s just too much, but um, but my mind is, it’s constantly uhh, well I have to do this and now teach the baby or all these things and it just makes it um, a little stressful” (Lilia, 16, 85-88).

The dimension of Stress-Worry was unique for its cyclical relationship with fatigue.

Worsening Stress-Worry increased fatigue severity and worsening fatigue increased

Stress-Worry. When participants were physically limited by PPF, they worried about all they could not accomplish. Participants expressed how Stress-Worry and fatigue were a vicious cycle.

“I feel a lot more fatigued and overwhelmed if I’m you know, thinking OK I gotta get this done, I gotta do this” (Linda, 11, 289-290). “If you’re feeling that stress all the time, sort of that anxiety, it, it really does sap you and make you more tired. Um, even when you are tired you start thinking like that anyway so yeah, it definitely one has to do with the other. It’d kind of a vicious cycle” (Linda, 11, 296-299).

“Stress and fatigue, um, well I think they just go hand in hand” (Lilia, 16, 254).

“The stress is what really really made you crazy, ‘cause it’s not like you’re just up, you’re up and you’re worrying about this, you’re thinking about this, you’re worrying about that, it’s not like you’re just up to where you’re in that mind for I just gotta do what I gotta do and just stay up and take care of her. You’re not, it’s not just that. You’re up having to take care of her, do what you have to do and on top of that you’re thinking I have this paper due I have to do this” (Janet, 10, 334-340). I think the stress, the stress part of being tired is really what did me over, is having this stress, having stress when you’re up (Janet, 10, 343-345).

Pile-up of stressors increased worry and thereby worsened fatigue.

“I was having like issues with my husband, because of his job and I was feel, I guess that makes me more tired having, or having family problems makes me more tired ‘cause I have the baby and problems, cleaning, cooking, school. Everything comes together, and I guess that’s when I feel more fatigued” (Elisa, 08, 234-237).

“I have, a lot of things are crossing through my mind. I’m like oh, I have to do this and I have to do that and I’m, it’s so occupied. Basically I’m not going to do all those things and I’m it’s just too much” (Lilia, 16, 84-86).

Frustration Dimension

Like the Stress-Worry dimension, Frustration was another essential and cyclical dimension of PPF. Where stress related to worry, frustration related to being bothered in combination with having a lack of patience. In the dictionary, frustration is defined as the condition that results when an impulse or an action is thwarted by an external or an internal force (Editors of the American Heritage Dictionaries, 2002). Where Stress-Worry was in response to stressors, frustration was manifested in response to being unable to

carry something through. In the case of the participants, what they most wanted to carry through and what was most thwarted was uninterrupted sleep.

“It’s frustrating not getting enough sleep and not having enough hours to do what you need to do” (Cathy, 01, 10-11).

“You would think I would be able to fall asleep better, but I don’t. That’s, I mean that’s part of the frustration” (Kari, 09, 274-275).

While uninterrupted sleep was the most common frustration, there were other frustrations. Kari attempted to accept that she was just too tired to work on her dissertation, but she missed the enjoyment of that type of mental stimulation and productivity, which frustrated her.

“So I said OK, you know I’ll just be too tired to do my work, I don’t worry about it, but I miss it. And so then that makes it worse” (Kari, 09, 278-279).

Infants who cried continuously were particularly frustrating to participants who seemed unable to help the infant no matter what they tried.

“When you’re just totally fatigued and you know if you’re if there’s certain hours where your baby’s just crying and crying you know I think um you can feel a lot more frustrated with that if you’re fatigued” (Linda, 11, 276-278).

“The crying, it, if the baby would just be awake that’s OK. I can handle that. It’s the crying and awake that even if it’s the same amount of time awake the fact that you had to deal with the crying, that makes it worse. Just ‘cause that’s just frustrating. So it’s all those things that could frust, that are frustrating that make it, that make it worse” (Kari, 09, 229-223).

Like Stress-Worry and fatigue, Frustration and fatigue also had a cyclical relationship where when one worsened so did the other in a vicious, ongoing cycle.

“And he’ll[husband] just, lights on, noise going on he’s asleep and he doesn’t need as much sleep so that now makes me even more frustrated and it then I sleep even less” (Kari, 09, 46-48).

Being bothered by the littlest irritants was a prominent feature of Frustration.

“To get frustrated? About everything? Mhmm. That’s when I start getting snappy ‘cause you get frustrated. Everything, everything irritates you” (Janet, 10, 327-328). “I can’t keep it all together and be pleasant and happy and everything little thing bothers you and it’s just not me, but that’s me now” (Kari, 09, 135-137). “I get frustrate easil, eas, easily when I’m tired um, with my kids, with you know, work sometimes, and my husband, you know just you know the little, the littlest things you know sometimes will get you really frustrated” (Susan, 12, 188-190).

Participants talked about how when they were fatigued, it was easier to take out their frustrations on family members, because they did not possess their usual level of patience. Participants also talked about “catching” themselves in the process of taking out frustrations on family, especially young children.

“I was in bad moods too and I would take it out on my husband and a little bit on her [older daughter] sometimes, I catch myself” (Maria, 03, 49-51). “And you try not to scream and be impatient, but sometimes its hard, ‘cause they don’t know and they just want to love the baby and it’s hard” (Maria, 03, 64-66). “Patience. I don’t have any patience. I can’t keep a little bit of the patience. It’s just like (exasperated ah!)” (Cathy, 01, 158-159). “I’ll get frustrated really easily when um at night when I wanna um get, I’m doing finishing laundry and then I wanna um get my son in the shower and he wants to run around and play and do fun with that I’ll get frustrated easily I mean I’ll, I’ll be running around and I’m like “hurry get in the shower” instead of you know, making a game out of it “Oh, I have the bubbles, oh, you hear the water running!” I just catch myself. My usual, my usually routines or the ways that I, I play around with him are more like orders and um, that’s how I catch myself” (Lilia, 16, 244-251).

Linda’s reflection of her previous postpartum experience nicely captures the Frustration dimension.

“I remember especially with my first son, and even my second one, but you know, um I felt um, sometimes just frustrated like when they wouldn’t stop crying and I was like totally tired. That was really hard. You know you kind of feel like, sometimes you get to the point you can feel like throwing them out the window” (Linda, 11, 113-117).

In summary, this study found that PPF was an overwhelmingly negative and distressing subjective phenomenon operationalized by the dimensions of Mental, Physical, Stress-Worry, and Frustration. These four dimensions integrated with each

other to generate PPF. Each of the dimensions had specific manifestations. Mentally, fatigue had negative effects on self-perception, mood, and attention. Physical manifestations included painful aching, soreness, and weakness. The dimensions of Stress-Worry and Frustration had cyclical relationships with fatigue. PPF was an individualized, context-dependent pattern that was constructed from a complex constellation of manifestations within each of the four dimensions.

Coping Techniques

When fatigued, participants employed a multitude of techniques to manage the fatigue. Two of these techniques were discussed in the section *Persevering in Caregiving*, because these techniques were critical to the persevering mindset. The first technique was the adoption of a “just do it” attitude towards caregiving when fatigued. The second technique employed the use of a time-limiting factor through which participants justified continued caregiving, because they anticipated their fatigue would be relieved at some future point. The coping techniques not previously discussed fall into two main categories based on their intended effect (see Table 10).

Table 10. Coping Techniques Employed by Participants in Response to Fatigue.

Techniques that directly affect PPF
<ul style="list-style-type: none"> • Drinking coffee or tea • Napping • Try to forget about the fatigue by watching TV or keeping busy • Showers • Conserve energy by withdrawing from family interactions
Techniques that indirectly affect PPF by changing the <i>Influencing Factors</i>
<ul style="list-style-type: none"> • Take a nap • Go to bed early or sleep in late • Ask for help with infant or older children • Change the diaper before feeding the baby • Get the baby into a routine • Get everyday life organized • Increase amount of time between feedings by keeping baby awake until baby is completely full

In the first category were those techniques that were expected to directly improve PPF.

These techniques were short-term management strategies. In other words, they were intended to improve fatigue over minutes to hours. For example, a number of participants report drinking coffee or tea to reduce fatigue.

“And my mom helps, keep giving me tea. That helps stay up” (Janet, 10, 67-68).

“Once you know, I get my coffee rush you know, then I’m good” (Susan, 12, 54-55).

Napping was a technique employed by a number of the participants.

“Napping, which sometimes I can get in and sometimes I can’t. Definitely napping helps it. Helps me feel better” (Ann, 05, 102-104).

Napping was less of an option for women with older children, however, because older children either refused to nap or it was next to impossible to coordinate simultaneous infant-child mother naps.

“And my husband goes to work and so it’s me to take care of her [2 ½ year old] and she normally doesn’t take naps during the day” (Maria, 03, 83-85).

“Getting them to take naps and for all of us to coordinate together to take a nap together it’s hard” (Lilia, 16, 43-44).

Additionally, napping was not a technique used by women who had difficulty falling asleep during the day.

“Well, at 2 in the afternoon I can’t sleep. I got blackout curtains. I did everything you’re supposed to, doesn’t work. It’s 2 in the afternoon! It doesn’t matter” (Kari, 09, 52-54).

Some participants managed their fatigue by trying to forget about the fatigue. Two main methods of forgetting the fatigue were to keep busy and watch TV.

“I even watched you know some horrible show last night because he was screaming and I could read the closed caption” (Kari, 09, 110-111). “And then I’ll open up the curtains, I see sun, I need to go outside for a few minutes, but that gets better and then I can forget about it for a while” (Kari, 09, 167-168).

“Even though I’m tired, I’m fatigued I keep myself busier” (Lilia, 16, 71).

Some participants deliberately attempted to conserve energy to keep their fatigue from worsening. Being quiet or withdrawing from family interactions were ways to rest while still awake.

“The time I’m quiet just thinking oh, I’m resting for a little while” (Elisa, 08, 109-110).

“I try and stay away from everybody...like last night I was real tired I just try and stay away from everybody ‘cause I don’t wanna make anybody feel uncomfortable and I don’t want ‘em all to be pitying to you, so I stay away from everybody” (Janet, 10, 225-229).

The second category of coping techniques were intended to indirectly affect PPF by directly changing *Influencing Factors*. Asking for or accepting instrumental support was a coping technique that reduced PPF. Assistance included helping the participant

catch up on household work such as cleaning and laundry or someone watching the infant or other children to allow the participant to nap or take a shower.

“We change diapers together. both get up when he needs to feed so then he’ll go and put laundry in or something or he writes his thank you notes while I’m, you know feeding” (Kari, 09, 97-99).

“Yeah, sometimes when my husband um is here during the day he’s like “you can go rest for a little while I can take care of the baby” and sometimes I’ll do that” (Elisa, 08, 248-250).

In another example of a coping technique, one participant realized that changing her baby’s diaper before breastfeeding reduced her fatigue by changing both an infant characteristic and reducing the maternal-infant sleep pattern conflict. In other words, by changing the diaper before, instead of after the baby nursed, the baby stayed asleep after feeding.

“I’ll always change his diaper before I nurse him. Before I did it, I well my first one I never even noticed that, but I do that now, the new pattern, because um, after he’s done eating I’ll wake him up and then he won’t go to sleep” (Lilia, 16, 277-279).

Napping is a technique that falls into both categories of coping techniques, because effects are noted in the fatigue experience as well as the influencing factors. More specifically, a nap will effect an immediate reduction in fatigue, but when used daily, it is a long-term coping mechanism meant to minimize the maternal-infant sleep pattern conflict.

Waking up with the baby in the morning initially, but then leaving the baby in the care of a partner and returning to bed was also an effective coping technique.

“Then you get one night’s sleep or like I got an extra couple hours this morning and then you feel better, so I’m like I got 2 hours sleep yea, life’s not so bad” (Kari, 09, 157-159).

“A couple mornings he will let me go back to bed and he stays up with him, which has been nice” (Ann, 05, 207-208).

Another technique used to reduce the maternal-infant sleep pattern conflict was to increase amount of time between feedings by keeping infant awake while eating in order to ensure the infant was as full as possible.

“We can tickle him and keep him awake and. So we will actually get more sleep on the other end so it makes it worth it. So I guess that’s one thing, (to baby) we make you eat a lot. But then it will give us more time to sleep” (Kari, 09, 251-254).
“Since he was waking up every hour, hour and a half, to nurse in the beginning I tried to get him in a pattern where I would, he would be falling asleep, I would just try to keep him awake to keep finishing to get full completely before he fell, fell asleep. That way I could have more rest and not be up right away again to nurse him again and that has been coming in handy ‘cause now he can sleep his 3 hours and um, I can get that rest” (Lilia, 16, 269-272).

Parents noted that when the infant fell asleep and did not eat long enough that the infant would awaken sooner.

“Now she’s got in this bad habit where she’s not finishing all her food, so instead of being up every 3 hours she’s up every 2 and like I said it takes an hour, hour and a half to feed her ‘cause she falls asleep and there’s no way, I, I can’t wake her up” (Ruth, 06, 140-143).

One of the main techniques used by participants was to get the infant into some sort of routine so that the infant’s sleep schedule (and therefore the mother’s) was more predictable. This technique reduced the maternal-infant sleep pattern conflict.

“Off, no there’s no routine at all (laughs). Everyday is different. I’m trying to get on a routine now, but at first it was crazy, crazy” (Janet, 10, 174-175). “That’s why I’m here at my mom’s ‘cause she’s helping me to get that stuff together” (Janet, 10, 178-179).
“I’m probably not going to get any more than 4 hours of sleep until I can get this one [newborn] into a routine” (Ruth, 06, 44-45). “Until she gets into her little routine, maybe even try to go 4 hours and try to get her to eat 3 hours, trying to get her to finish within half and hour to 45 minutes, then I might be able to get a little bit more sleep each time” (Ruth, 06, 90-94).

Participants also talked about getting their own lives into more of a routine. The first two weeks home after childbirth were often the hardest and most chaotic.

“For the first two weeks I just felt like I didn’t sleep at all” (Sylvia, 02, 49).

“The first week was really hard” (Ruth, 06, 8).

“It was bad the first couple weeks also, because I’d had a c-section and I wanted to just recover, but you’re not allowed to” (Kari, 09, 73-74).

As participants got through the first couple weeks they started thinking about how to make their lives more routine and predictable so they could more easily manage demands on their time (e.g., household tasks, caregiving, employment).

“When you get a routine schedule even with the babies it helps them realize it’s time to lay down now so then you have that time when you could do what you have to do” (Janet, 10, 181-183).

“Now that he’s 3 weeks old I could say that the first week was very hard. The second week I was in the hospital with the, uh, heart problem. So this last week has been um, has been better. I would say that um, I don’t feel like it was, I, I feel like it’s an organizational issue now more than it is a, a fatigue issue” (Monica, 15, 156-159).

Additional techniques used by participants to reduce the maternal-infant sleep pattern conflict were going to bed early or sleeping in late. Going to bed early was a technique used particularly by a woman who took 2 or 3 hours to fall asleep.

“Usually I go to bed about 6, but I don’t usually get to sleep until about 8, 9 and then I have to get up again 2, 2:30 to let him [husband] go to sleep” (Ruth, 06, 21-23).

Summary of Model “Persevering through Postpartum Fatigue”

This study synthesized the substantive grounded theory “Persevering through Postpartum Fatigue.” This theory arose out of fatigue descriptions from 13 women during the first five weeks after childbirth. The theory was comprised of five main concepts and the human process of *Persevering*. The five concepts were: *Influencing Factors*, *Postpartum Fatigue*, *Coping Techniques*, *Self-Transcendence*, and *Caregiving*.

Influencing Factors were comprised of three factors that most influenced the expression of PPF across time. These factors included *Maternal-Infant Sleep Pattern Conflict*, *Infant Characteristics*, and *Fatigue Limiting Factors*. *Postpartum Fatigue (PPF)* was described as overwhelming, unpleasant, and distressing. *PPF* was an individualized, context-dependent pattern constructed from a complex constellation of manifestations within each of the four PPF dimensions. The four integrated dimensions that operationalized *PPF* were: Stress-Worry, Frustration, Mental, and Physical. In order to relieve PPF, participants used a variety of coping techniques to directly improve PPF or indirectly improve PPF by altering the *Influencing Factors*.

Persevering, the human process, integrated all aspects of the model and explained how women continued caring for their infants in the face of ongoing PPF. *Caregiving* was the outcome of the persevering process. *Persevering* was the process that emerged out of the relationships between *PPF*, *Coping Techniques*, and *Self Transcendence*. *Persevering* was necessary in order to continue *Caregiving* of infants and other children in spite of *PPF*. Salient to this process was the concept of *Self Transcendence*. *Self-Transcendence* was an ongoing human capacity called upon by the participants to enable them to persevere in *Caregiving*. Through the meaning and purpose ascribed to their infants and children, participants found the strength to persevere through all but the most debilitating *PPF*. While *PPF* reduced women's ability to engage in *Caregiving*, *Self Transcendence* and *Coping Techniques* used to manage *PPF* compensated for the negative effects of *PPF*, enabling women to persevere.

Research Questions

This section will address the research questions initially proposed in this study to capture the process of PPF. In a grounded theory the initial research questions provide a guideline or framework for beginning data analysis. Due to the dynamic nature of grounded theory some research questions were more relevant than others in the emergence of the grounded theory. While all the research questions were answered during the interviewing process, the answers provided a strong, but beginning foundation out of which the grounded theory arose. Although it may appear some new data are presented, this is not technically accurate. In order to respond directly to the research questions, some of the data are presented in a less refined form. This form is less analyzed and less integrated with the process of PPF precisely because these research questions were thoroughly answered before data analysis had advanced very far. As data analysis progressed, the data from the research questions were incorporated into a more advanced and process-oriented understanding of PPF.

Research Question 1: How do Women Describe their Experience of Postpartum Fatigue?

Participant's descriptions of PPF were a major component in the development of the multidimensional understanding of the phenomenon and was discussed in the section *Postpartum Fatigue Dimensions and Descriptors*. However, in order to come to that understanding, four questions that were thought to facilitate a description of PPF were asked.

1a. How Does Postpartum Fatigue Change Over Time (e.g., Hours, Days, Weeks)?

One ambition of this study was to explore how PPF changed over time. Attempting to answer this question exemplified the complex nature of PPF. It was quite obvious from the data that fatigue changed rapidly and in response to a host of variables.

Characterizing that change was another story. Change in PPF over time was highly complex and context dependent and not a saturated part of this data analysis. In order to begin to better understand broader change over time, participants were asked if their fatigue had gotten better or worse (or both) since birth. Their stories of how, when and why their fatigue improved or worsened provided only a beginning understanding of PPF change over the first 4 to 5 weeks postpartum.

Not surprisingly, two main patterns of change emerged in the first month after delivery: Fatigue either improved or worsened. Often it did both. Participants tended to talk about their fatigue improving or worsening in periods of 1 to 2 weeks of time. In the first and second weeks postpartum PPF worsened for the following reasons: 1) Pain from cesarean section, 2) Newborn slept in 1-2 hours intervals, and 3) Never had experienced interrupted or little sleep before.

“For the first two weeks I just felt like I didn’t sleep at all. So I just felt for a couple weeks I felt really, like I was awake, you know, and tired. But now I’m starting to sleep more” (Sylvia, 02, 49-52).

“It was bad the first couple weeks also, because I’d had a c-section and I wanted to just recover, but you’re not allowed to” (Kari, 09, 73-74).

However, PPF generally improved in the first 1 to 2 weeks postpartum in those participants: 1) whose mothers or other family members came to live with them to help

care for the baby and take care of all household duties, and 2) whose infants consistently slept in long intervals (i.e., 3-4 hours).

“I would say that it’s probably gotten worse just because since she’s left now we’ve gotta take care of him on our own and so we’re not getting that nice bout of sleep in the morning together” (Ann, 05, 89-92).

“When we brought her home she wasn’t up every 3 hours, she was up like every 4 to 5 hours. And now it’s just I guess I’ve gotten into a bad routine” (Ruth, 06, 128-130).

In the third and fourth weeks postpartum participants’ PPF again either eased or worsened based on a number of variables. Those participants whose infants slept in 1 to 2 hour intervals the first 2 weeks postpartum tended to feel better as their techniques to get their infants to sleep longer started working. For these participants, 3 to 4 hour intervals between infant feedings was an improvement and the start of a routine.

“But now I’m starting to sleep more. She’s [infant] sleeping better” (Sylvia, 02, 52-54).

“And now he’s like every 3 to 3 and a half. So...that’s good” (Maria, 03, 128-129).

Conversely, Kari’s infant had slept well the first week (and her mother had been present to help), but then developed colic. Kari’s PPF had worsened significantly by week 4 postpartum.

“And then the second week was still good, but it started getting worse and then the last few days have just been horrible, so it’s gotten worse. Definitely gotten worse” (Kari, 09, 208-210).

Those participants whose fatigue had been severe the first 1 to 2 weeks, because they either had not experienced interrupted sleep before or it had been a long time since having interrupted sleep, reported improving fatigue as they “adjusted” to being fatigued.

“It takes a lot to get used to, being able to still function during the day and not having really slept the night before” (Sylvia, 02, 7-8).

“I’m getting used to the fact now that I, I have a baby. I’m getting used to this routine and maybe that’s why I was really fatigued before, ‘cause I was barely getting used to it, I mean having a newborn baby” (Elisa, 08, 203-205).

Aside from these patterns, it is important to keep in mind the dynamic nature of PPF. At any point, participants’ fatigue had the potential to become very severe over just a matter of hours or days when *Influencing Factors* changed. Such was the case with Sylvia and Lilia (infant cold and congestion, wanting to nurse constantly, infant discomfort), Kari (infant developed continuous crying), and Elisa (not enough breastmilk, infant woke every hour to eat until she started supplementing with formula). Just as likely, PPF can manifest a rapid improvement as when an infant suddenly sleeps for 5 hours straight.

“Now I’m getting great sleep. She wakes up and will eat about, well she was waking up every 3 hours, but last night she slept for 5 hours, so she’s getting better and better so I’m good on sleep now” (Janet, 10, 48-50).

1b. What Factors Contribute to Worsening Postpartum Fatigue?

To address this question participants were asked, “What makes your fatigue worse?” Factors that made PPF worse were also deduced from the participant’s stories about PPF. Table 11 presents factors that worsen PPF. A few data excerpts are provided below the table for confirmability reasons. Many of these factors were integrated into the grounded theory in a manner that reflected the factor’s relationship to the elements of the model.

Table 11. Factors that Worsen Postpartum Fatigue.

• Lack of sleep	• Having a newborn
• No help with baby, burden of being sole care provider	• Knowing you should be asleep, but can't
• Not napping	• Thrill of having a new baby wears off
• Interruptions in sleep	• Stress of having everyday chores hanging over your head
• Lack of understanding from others	• Overdoing yourself
• Frequent, extended (hours) baby crying	• Pressing demands at school
• Continuous thinking of whether baby is OK or not	

“Especially if you don’t have anybody to help you” (Maria, 03, 7-8).

“Lack of sleep” (Sylvia, 02, 58).

“From midnight on just seems, that it’s just wrong to be awake and so that makes it worse (Kari, 09, 121-122). And also the thrill of it all wears off” (Kari, 09, 210).

“It’s (baby) something that I cannot leave unattended. I, and that’s something that keeps my mind running and running and running and that’s probably why I feel a little bit fatigued” (Elisa, 08, 186-188).

1c. What Factors Contribute to Improving Postpartum Fatigue?

Just as participants were asked what worsened their fatigue, they were also asked:

“What makes your fatigue better?” Table 12 identifies those factors that improved PPF. A few data excerpts are also provided. Like the factors that worsened fatigue, many of these improving factors found their way into the grounded theory in a number of places, but most often under *Coping Techniques*.

Table 12. Factors that Improve Postpartum Fatigue.

• Rest	• When the sun comes up, daylight
• Sleep	• Catching up on housework
• Napping	• Baby feeling good, healthy
• Showers	• When there's less everyday chores to worry about
• Instrumental support	• Knowing there's someone there to help you
• Alone time	• Good conversations with family, laughing
• Feeling happy	• Talking with someone who's gone through PPF
• Coffee, Tea	• Less stress and worry about finances

"You wanna just sleep and get rest" (Maria, 03, 45-46).

"Napping, which sometimes I can get in and sometimes I can't. Definitely napping helps it. Helps me feel better" (Ann, 05, 102-104).

"I have to take a shower like almost pretty much as soon as I wake up other wise, I, I'm just tired throughout, I'm more tired throughout the rest of the day" (Ruth, 06, 154-156).

"When they get to get out of my hair for a little bit and I get to catch up on the housework and then it's like ahhh (sigh of relief)" (Cathy, 01, 203-204).

"Once you know, I get my coffee rush you know, then I'm good" (Susan, 12, 54-55).

1d. What Effects of Postpartum Fatigue do Women Perceive?

To begin to capture the effects of PPF participants were asked how fatigue changed them and their relationships with their family. Later on in the data analysis the questions became more specific. In addition to being asked how fatigue changed them they were asked how their mind and body felt when fatigued and how they felt about themselves and their children when fatigued. These specific questions quickly facilitated the emergence of the multidimensional conceptualization of PPF, the human process *Persevering* and the salience of *Self Transcendence* within that process. The effects of PPF as manifested in the four dimensions of PPF were presented earlier. How PPF changed relationships with family members did not emerge as a factor requiring a separate explanation or variable in the grounded theory and as such is briefly described

below. The effects of PPF on relationships was more subtly integrated within multiple areas of the theory including Stress-Worry, Frustration, coping techniques, and influencing factors.

PPF affected relationships women had with their partners, support persons and children in two main ways. First, many women described reduced interaction with family members. For some this was distressing, and for others it was not.

“I’ve been actually too tired to read them [5 and 7 year old daughters] stories at night, so that’s been tough on them” (Monica, 15, 95-96).

“I try to sleep when he [baby] does and so that you know, we don’t get to spend quite as much time together as we used to before. Um, but I don’t really, it doesn’t really feel like it’s affected our relationship, just the time we spend together” (Ann, 05, 36-40).

The second way PPF changed relationships was to change the nature of interactions with family members.

“I think he’s around more, but we don’t have really interesting conversations anymore. It’s more about how many diapers did we change today and gosh I think he’s growing versus you know anything interesting that we read in the Wall Street Journal or something like that. Or he’ll say “didn’t you read that article?” and I’m like I haven’t even looked at the newspaper yet today. So it’s it’s much more superficial what we talk about now. But we still, I mean he’s around a lot more actually so, the time’s still there it’s just what we talk about” (Kari, 09, 99-106).

Research Question 2: How do Women Manage in Their Everyday Lives While Fatigued?

This research question proved quite fruitful to the analysis by revealing the human process of *Persevering* and the coping techniques participants used to deal with PPF.

Women were asked, “How do you cope when you’re really fatigued?” and what was most often stated were variations on; “I do the best that I can” or “I just deal with it.” As theoretical sampling and data analysis focused in on understanding *Persevering in Caregiving*, additional questions probed the limits of persevering. For example, in the

latter part of data collection participants were asked what makes them keep going when fatigued, what would happen if they did not keep going, and what would have to happen for them to stop persevering. The answers to these questions and their relation to the human process discovered in this grounded theory were previously discussed.

Summarized Findings of Reflexive Journal

In order to address the issue of reflexivity a journal was kept throughout data collection and analysis in which I reflected on similarities and differences between my social location and the participants' locations, placing most emphasis on the location of power in those relationships. I reflected on tensions and congruencies, places where I identified with the participant's experiences and what feelings that engendered as well as when I did not identify with the participant and possible reasons for lack of understanding or even passivity. In one example of an issue that arose during recruitment, I reflected on my location as both an insider (a nurse) and an outsider (a researcher) in the culture of the hospital unit on which I recruited participants. In another instance I reflected on elitism in my social location as a middle-class Caucasian English only-speaking researcher as a result of having to refuse enrollment to two willing, but broken-English-speaking women. Finally, I reflected on a rather humbling experience in which I learned just how exclusionary my carefully crafted "inclusion" criteria were in a hospital where large segments of the population served were considered "high risk."

A tremendous number of issues arose that were reflected on in the reflexive journal, however, since the purpose of this section is to demonstrate reflexivity on the part of the researcher, a summary of two reflexive issues, rapport and privilege, will be

presented. The interviewing experience highlighted what I encountered on numerous occasions in the research process; namely, how my ethnicity, socioeconomic status, professional status, and academic status functioned to promote or diminish the establishment of rapport with participants. It was interesting to observe and comment on the ebb and flow of these characteristics as they intersected with participants' characteristics in the interviews. For instance, my professional status as nurse worked "for" and "against" me on a number of occasions. Participants seemed quite open about telling me, a nurse and mother, their good and bad stories. This was particularly notable on my first interview when one of the first things Sylvia told me was how in a state of exhaustion she had seen her first daughter as a demon one night. In another example, Linda told me how she had wanted to throw her first child out the window when she was so exhausted, because the baby would not stop crying, and she had no one to help her. On the other hand, my status as a professional nurse worked against me in some respects, because I was a part of that system of medical care that some participants felt had wronged them in some way during the childbirth process.

Privilege was frequently on my mind when I left interviews. After interviews I was able to go home to my husband, child, comfortable home and income (provided by my professional status) and take time to write about women's struggles. If I needed time to "think" about a piece of my theory, I would go out for a bike ride, run, or hike, because exercise was cathartic and helped me process the data. But what bothered me was while I did this the women continued to struggle, and for that I felt I came to this research from a position of privilege.

While I gave the women a \$15 gift card for their time and took some comfort in the belief that the telling of those stories to an active listener proved helpful to the participants in processing their childbearing experience, I do not feel that I imparted to them any knowledge of how to reduce their struggle with PPF. Voyeuristically, I stepped in for a brief glimpse of their lives, and if I stopped there, then I feel I will have wronged them in some manner. If I stop the research process at the point of reflecting, then I feel I will have used my privilege to promote my status (i.e., getting my PhD) at the expense of the participants' time, energy and rich stories. I feel I will not have given back to the participants in an equal fashion. However, this seems to be the nature of education and research, especially in nursing. I eventually concluded that it will not be these particular women who I have the potential to help by alleviating some part of their struggle with PPF. Instead, this sharing of stories, time and energy on the part of the participants generates a duty to tell their stories; to disseminate this research a manner that promotes informed nursing care for future postpartum women.

Chapter Four Summary

This chapter described the substantive theory "Persevering through Postpartum Fatigue." First, characteristics of the sample and a synopsis of each participant were provided. Next an overview of the theory preceded a detailed discussion of each of the theory's concepts. Then, how this study answered the original research questions was discussed. This chapter ended with a summary of the research's reflexivity findings as they related to this study's use of a feminist methodological perspective within data collection and analysis.

CHAPTER FIVE

DISCUSSION AND RECOMMENDATIONS

The process of “Persevering through Postpartum Fatigue” was described in Chapter four. In this process, *Persevering* was the human process that explained how participants continued *Caregiving* in the face of PPF. *Caregiving* of the infant and older children was the outcome of the *Persevering* process. *Persevering* emerged out of the relationship between *Influencing Factors*, *PPF*, *Self-Transcendence*, and *Coping Techniques*. In this chapter, the study results will first be discussed in relation to the related literature and then interpreted within the context of the study’s theoretical orientation. Next, limitations of the study will be acknowledged. Then, implications the findings have for nursing research, theory, and practice will be presented. Finally, recommendations for future research will be outlined.

Integration with the Literature

The findings of this study will be discussed in relation to their convergence and divergence with the related literature. First, the multidimensional conceptualization of PPF arising out of this study will be compared with the existing PPF literature and fatigue literature from other illness contexts. Next, concepts within the “Persevering through Postpartum Fatigue” model will be examined within the existing PPF and postpartum experience literature. Finally, the dilemma of how to differentiate PPF from postpartum depression as it arose and was addressed in this study is discussed.

The Dimensions of Postpartum Fatigue

This study conceptualized PPF as a multidimensional phenomenon.

Conceptualizing fatigue as multidimensional is well-accepted in the health-related literature (McDaniel & Rhodes, 2000). However, where this study begins to depart from the literature is in the characterization of those dimensions. In this study PPF was characterized by the four dimensions of Stress-Worry, Frustration, Mental, Physical. These dimensions were operationalized in terms of context-dependent manifestations, which served as empirical indicators of PPF. The four dimensions resemble some aspects of existing conceptualizations of fatigue, yet also reveal a unique patterning of fatigue occurring after childbirth. This study's conceptualization of PPF will be compared with both existing PPF conceptualizations and fatigue conceptualizations within other illness contexts.

The conceptualization of PPF found in this study demonstrates similarities and dissimilarities from the conceptualization of PPF within the Theory of Unpleasant Symptoms (TOUS) (Lenz & Pugh, 2003). This study's findings were similar to Lenz and Pugh's understanding of PPF as a subjectively perceived phenomenon that is best described by the person experiencing PPF. Postpartum women's descriptions of PPF were rich and varied and spoke of the pervasiveness of PPF in their lives. The findings also agree with Lenz and Pugh's assertion that PPF can be conceptualized as manifesting multiple variables and measurable dimensions. A wide variety of PPF manifestations (e.g., body aches, reduced attention, constant worry) were identified by participants in the

current study. These manifestations have considerable future potential for serving as measurable indicators of the four PPF dimensions.

It is at this point that the current study diverges from Lenz and Pugh's (2003) conceptualization of PPF. The first way in which the current study diverges from Lenz and Pugh is in their assertion that PPF varies based on the dimensions of timing, intensity, quality, and distress. First of all, these dimensions are considerably different from the dimensions discovered in this grounded theory (Physical, Mental, Stress-Worry, and Frustration). Secondly, variations in PPF in this grounded theory were noted to occur in relation to the *Influencing Factors* (i.e., Maternal-Infant Sleep Pattern Conflict, Infant Characteristics, and Fatigue Limiting Factors). The categories of factors under the umbrella of *Influencing Factors* are what effected change in Postpartum Fatigue.

The second major divergence with Lenz and Pugh (2003) is in their assertion that PPF is a symptom. When I returned to the literature towards the end of data analysis, I was struck by the awkwardness of referring to PPF as a symptom, because this study did not find evidence that women believed PPF to be a symptom. The assertion that PPF is a symptom initiated questions such as: What is PPF a symptom of?...Motherhood? To regard PPF as a symptom implies there is a cause or origin of PPF. This would agree with the findings of the current study where the newborn was the primary origin of PPF. However, the assumption in health care is that symptoms are generally treated by attempting to address the root cause. This assumption arises out of a pathophysiological orientation. Diseases have symptoms and when the disease is cured, the symptom should theoretically disappear. In chronic illness where illnesses are not curable, then

management of symptoms is the priority (McDaniel & Rhodes, 2000). Symptom management is the higher purpose of the TOUS (Lenz & Pugh).

The difficulty with this logic is that ultimately the cause of PPF is the infant. Without the infant, PPF does not exist. However, the infant is not inherently pathologic, nor thought of as a chronic illness. Health care providers would not seek to remove the infant from the woman's life to "cure" the PPF. For these reasons, the current study's findings diverge from the conceptual underpinnings of the TOUS, which have leanings towards a more pathophysiological view of PPF (Lenz & Pugh, 2003). The current study, which was based within a unitary-transformative ontological view did not find evidence that PPF was a symptom. Instead, PPF was a pervasive, distressing and disharmonic patterning that was expressed as part of the broader experience of postpartum phenomena.

Dimensions of Fatigue in Other Illness Context

The multidimensionality of fatigue has been studied in multiple illness contexts. The comparison of PPF with two contexts within which grounded theories have been conducted reveals not only some underlying similarities across fatigue experiences, but also identifies the unique aspects of fatigue occurring in the postpartum period.

Fatigue has been frequently studied in relation to cancer (Winningham & Barton-Burke, 2000). Cancer-related fatigue has been defined as either acute or chronic in nature where acute often serves to protect a person from exhaustion (McDaniel & Rhodes, 2000). Chronic fatigue is long-term in nature, occurs with serious, ongoing illness, and impairs quality of life. Piper (1997) identified four dimensions to cancer-related fatigue:

sensory, affective, behavioral, and physiological. Winningham and Barton-Burke (2000) state that cancer-related fatigue has both physiological and psychological components. Magnusson, Mooler, Ekman, and Wallgren (1999) used a grounded theory approach to describe the categories and dimensions of fatigue in cancer patients. Additionally, this study generated a process model wherein the experience of fatigue leads to consequences that in turn result in actions to cope with the fatigue. This theory's identification of coping actions is similar to the Coping Techniques identified in the current study. Additionally, Magnusson et al. identified seven dimensions of fatigue, which included loss, need, malaise, psychological stress, emotional affection, abnormal weakness, and difficulties in taking the initiative. Consequences of fatigue were social limitation, affected self-esteem, and affected quality of life. While the dimensions of fatigue in these cancer patients were similar in some respects to PPF (i.e., stress, weakness), they were considerably different in other respects. The seven fatigue dimensions reflect the pathophysiologic nature of cancer-related fatigue.

In another illness context, Glacken, Coates, Kernohan, and Hegarty (2003) conducted a grounded theory exploring fatigue in persons with hepatitis C. Three dimensions of fatigue were identified as physical, cognitive and affective. Within the hepatitis C fatigue experience there were two distinct types of fatigue. The first was chronic, which was an ongoing daily fatigue in which the intensity varied from low grade to a more severe daily fatigue lasting a few hours. The second type of fatigue was temporary. Temporary fatigue was considerably more distressing because of its unpredictable onset and duration as well as its acute intensity, which was described as

being able to completely strip away a sense of control in life. These two types of fatigue are notable for how differently PPF is expressed. PPF did not have two “types,” but instead was both ongoing in nature and could also worsen rapidly in severity over a matter of hours in certain circumstances (e.g., nursing constantly due to infant congestion). It is also worthy to note that unlike in hepatitis C fatigue, postpartum participants acknowledged that unpredictability and loss of control in their lives was a given part of having a new infant.

In the physical dimension, participants with hepatitis C talked about having a whole body fatigue that included feelings of heaviness, weakness, and aches (Glacken, et al., 2003). This varies slightly from PPF where soreness rather than heaviness was noted. However, the whole bodily nature of the physical dimension was similar in both fatigue contexts. Forgetfulness and lack of concentration were major features in the cognitive dimension of hepatitis C fatigue. Anger, frustration, and anxiety comprised the affective dimension of hepatitis C fatigue. Anger and anxiety were not aspects of postpartum women’s fatigue. Instead, stress in the form of worry and frustration were prominent dimensions that cyclically worsened PPF. These psychological differences in fatigue may reflect differences in the primary health state generating the fatigue (i.e., hepatitis versus postpartum healing and motherhood) and on differences in meaning ascribed to the fatigue.

Discussion of Concepts in the Model “Persevering through Postpartum Fatigue”

A number of studies exploring postpartum experience have identified fatigue as a dominant theme of postpartum experience. Findings within these studies will be highlighted as they converge or diverge with the results of this study.

Postpartum Sleep in the Weeks after Childbirth

A variety of studies have identified changes in sleep patterns and their association with postpartum fatigue. Rubin (1984) noted fatigue to be most severe in the first month postpartum and was associated with irritability, sleep hunger, sleep deprivation, sleep disruption and the burden of continual infant caregiving. These findings were readily apparent in the results of the current study. Fatigue was a significant and distressing phenomenon in participants’ lives that was predominantly related to conflicts in the maternal-infant sleep pattern. Fatigued participants stated all they wanted to do was rest and sleep (i.e., sleep hunger). Participants in the current study also reported less sleep than pre-pregnancy (sleep deprivation), and sleep interruption was frequent and ongoing. Sleep deprivation was a prominent feature within the first month postpartum in Mercer’s (1986) study on postpartum experience, and disrupted sleep patterns were frequently experienced in the first three weeks postpartum in Martell’s (2001) study as well. Similar to what was reported by Lee and Zaffke (1999), participants in the current study talked of how their fatigue worsened from pregnancy to postpartum. Participants in Gay et al.’s (2004) study also reported sleeping less and what sleep they did get was highly interrupted.

Persevering, Postpartum Functional Status, and Realistic Expectations

Previous research on postpartum functional status supports a number of this study's findings. The notion of persevering is implied within Tulman and Fawcett's (1988) study in which the authors noted how many of the subjects carried out their tasks in spite of lacking physical energy. The longitudinal studies by Tulman et al. (1990) and McVeigh (1998) on postpartum functional status emphasize how few (if any) women achieved full pre-delivery functional status even by 6 months postpartum. Unrealistic expectations about return to pre-delivery and even pre-pregnancy activity levels were major findings in the current study and may be an avenue for a PPF nursing intervention to help women understand just how completely and permanently life changes after delivery.

Coping Techniques

Women in Martell's (2001) study talked about working towards stability in their environments, and like the women in the current study, this process required a period of time and adjustment. Additionally, while at first women attended to the needs of the infant based on the infant's demands, over time, the women attempted to align the infant's schedule with the mother's needs and demands on her time and energy (Martell). Molding the infant's schedule to meet the mother's need for sleep was something participants in the current study identified as a major goal. Moreover, like the current study, Martell reported that women consulted a wide range of resources and used problem-solving techniques to approach caregiving issues.

Postpartum Fatigue Influences

The grounded theory analysis of early motherhood reported in two parts by Barclay et al. (1997) and Rogan et al. (1997) intersects with the current study's Influencing Factors in a number of ways. The study was conducted in first-time mothers, but the results often reflected multigravida participant's experiences within the current study. Rogan et al. reported that the infant's behavior, social support, and previous experience all mediated the process of becoming a mother. These mediators are similar to the factors of Infant Characteristics, Instrumental Support and Previous Infant Experience found to influence fatigue in the current study. Similarly, McVeigh's (1997) study highlighted the importance of instrumental support, which was a major category that reduced PPF, and Rubin (1984) noted that fatigue was worse when instrumental support was lacking.

Mental Dimension

In a category titled "Loss," Barclay et al. (1997) reflect on women's loss of a sense of self. This loss included loss of self esteem, loss of confidence, and a negative perception of self. These findings support the findings of the current study in which women did not recognize themselves when fatigued. Negative self-perception, lack of confidence, and feeling they were not living up to their capabilities (but also having unrealistic expectations) were manifestations of the Mental dimension of PPF identified in the current study.

Martell's (2001) identification of altered thinking processes (i.e., not thinking clearly) was similar to the finding in this study that attention and ability to focus were

affected by PPF. However, while Martell notes that altered thinking was mostly related to being within the hospital environment, the current study found this to be the case in participants for weeks after discharge from the hospital. Additionally, Rubin (1984) identified problems with irritability, mood, and morale in postpartum women during the first month after childbirth. Likewise, Mercer (1986) observed that women questioned their ability to mother. Problems with morale and doubt are similar concepts to the negative self-perception or self-disappointment within the Mental dimension in the current study.

Feeling Uninformed about Difficult Postpartum Experiences

McVeigh's (1997) content analysis of first-time motherhood revealed a "conspiracy of silence" as a major category. Interestingly enough, one participant in the current study referred directly to such a conspiracy:

"I think there's a great conspiracy out there. I think people don't tell you the truth. I think other parents are like 'oh yeah, you're tired for a while,' but no, they never tell you exactly how tired you are and how bad it really is" (Kari, 09, 409-412).

Subcategories of the conspiracy of silence reported in McVeigh's study were all noted by participants in the current study: 1) Why didn't someone tell me it would be so hard?, 2) No one told me I would be so tired, 3) There is no time left for me, 4) Nothing prepared me for the realities of 24-hour-a-day infant care, and 5) I don't know what I would have done without his support. Subcategory 2 was elaborated upon by participants of the current study. For instance, Janet was informed by other women that she would be mentally tired, but what she was not informed about was how her body (i.e., painful weakness) would feel when fatigued.

Differentiating Postpartum Fatigue from Postpartum Depression

A dilemma arose during data collection about whether participants' expressions of severe PPF were actually PPF or postpartum depression. This question surfaced after I attended a perinatal and postpartum mood disorders conference. In this conference, a complete overview of postpartum depression and other perinatal and postpartum mood disorders was presented. My concern was heightened, because I heard my participants' voices reflected in the stories of depressed women featured as case studies. In particular, I was most concerned about Kari (09) whose fatigue had rapidly worsened in the 2 days leading up to her interview. Kari was an older (37 years), married, first-time mother whose family and friends were located in the eastern United States. Additionally, Kari's colicky baby was known to regularly cry for 2 to 8 hours straight. Kari expressed she was the type of person who "needed" 8 hours of uninterrupted sleep, was highly distressed about being awake when it was dark outside, could not fall asleep during the day, and had never experienced interrupted sleep before. During the interview, I assessed that Kari was severely fatigued, based upon her having the highest Lee Fatigue Scale fatigue score in the study's sample. In each participant's interview I asked myself if what I heard the mothers saying indicated signs and symptoms of postpartum depression. Given the acute nature of Kari's worsening PPF, however, I did not believe she displayed depressive symptoms.

PPF was a prominent theme in the clinical case studies presented at the conference. I left the conference with more knowledge of postpartum depression and re-read Kari's interview. I followed up with Kari, and found that she was doing much better.

Kari informed me that since the interview things had improved considerably in her life and the baby was sleeping 5 to 6 hours in a row at night now. She expressed that her level of fatigue during the interview had truly been acute, that her fatigue had significantly improved since that point and that her life was much better in general. Her demeanor and improved outlook on life confirmed my original impression that her issue was acute fatigue and that she was not continuing to display signs of postpartum depression.

During and after this experience I reviewed the conference handouts, the DSM-IV-TR, and the nursing literature on postpartum depression to further reflect on how expressions of PPF in the current study differed from depression. A number of depressive traits from the postpartum depression literature did not emerge from this sample of participants. These included anxiety, confusion, suicidal or harmful self thoughts, agitation, insomnia, intense striving for perfection, obsessive thoughts, emptiness of life, mental foginess, envisioning self as a robot going through the motions, and guilt over thoughts of harming the infant (American Psychiatric Association, 2000; Beck, 1992, 1993; Dalton, 1996; Tammentie, Paavilainen, Astedt-Kurki, & Tarkka, 2004). Examples of concepts that were noted in both the depression literature and in this study's data analysis included irritability, feeling of being overwhelmed, not feeling normal, sleep deprived, frequent waking, difficulty falling asleep, and loss of control (Beck & Indman, 2005; Tammentie et al., 2004).

A number of the depressive features appeared to have possible overlap with some of the fatigue concepts. Anxiety and worry was one example. Anxiety is a depressive feature, but in this study, I identified worry, not anxiety. Worry was a prominent feature

in PPF inextricably linked to stress, but anxiousness and nervousness, components of anxiety, were not noted in the interviews.

Another finding that related to the differentiation of PPF from postpartum depression was in the observation of what happened when the PPF was relieved. In the participants, when PPF was relieved the manifestations of PPF abated. In other words, when not fatigued, the participants did not feel their attention was compromised, they felt better about themselves and their lives, felt less stress and worry, were not frustrated, bothered or irritable, and had a better mood. Beck and Indman (2005) describe a loss of sense of self as being a depressive feature. When fatigued, the participants of the current study spoke similarly, that they were not themselves when fatigued, but that the feeling disappeared when the fatigue was relieved. However, in the postpartum depression literature these symptoms are described in a fashion that implies an insidious and ongoing symptomatology (i.e., depressed mood for most of the day nearly every day for 2 weeks) that may not be as responsive to rapid abatement even when fatigue improves (American Psychiatric Association, 2000). This observation of temporality in symptoms might be an indication of how PPF and depression can be differentiated. When only PPF is involved, manifestations quickly abate when fatigue improves. Whether PPF and postpartum depression can be differentiated on the basis of temporality of specific features is a hypothesis that requires further scholarly dialogue and testing through research.

Summary of Integration with the Literature

This study identifies how PPF is distinct from fatigue in other illness contexts. A few basic underlying elements of fatigue exist across fatigue contexts. Such elements

include fatigue having physical and mental manifestations and having a highly dynamic, contextualized, and individualized nature. Unique components of PPF include the dimensions of Frustration and Stress-Worry, which have not been previously reported in the PPF or general fatigue literature. PPF also appears to be a unique in that it is more environmentally-based and less pathophysiologically-based than other types of fatigue.

The existing PPF literature supports many of the concepts of the model “Persevering through Postpartum Fatigue” including self-transcendence, the three types of influencing factors (maternal-infant sleep pattern conflict, infant characteristics, and fatigue limiting factors) as well as the use of coping mechanisms to respond to PPF. The model presents many possibilities for nursing intervention and will require further elaboration, confirmation and testing.

A major dilemma that arose in the course of this study was how to differentiate PPF from postpartum depression. Several depressive features were reflected in participants’ descriptions of PPF, while several other depressive features were not. A hypothesis of temporality of symptoms is offered as a possibility for explaining when expressions of PPF are fatigue versus when expressions of fatigue are actually indicative of depression. This hypothesis proposes that PPF is actually fatigue when fatigue manifestations rapidly abate as PPF is relieved. In postpartum depression, however, these manifestations may not rapidly disappear when PPF is relieved.

Congruence with the Theoretical Orientation

This section will identify how the study’s findings relate to the original theoretical orientation. First, the model Perseverance in Caregiving will be discussed in relation to

the dominant theory (i.e., The Theory of Unpleasant Symptoms) used to understand PPF in nursing. Then, the results will be discussed in relation to how they inform the three theoretical perspectives that underpinned this study: symbolic interactionism, motherhood as ideology, and a Rogerian-feminist perspective of early motherhood.

Comparison of PPF Models: The TOUS and Persevering through Postpartum Fatigue

The Theory of Unpleasant Symptoms (TOUS) is the dominant model in nursing that addresses PPF (Lenz & Pugh, 2003). There are both similarities and dissimilarities between “Persevering through Postpartum Fatigue” and the TOUS. Briefly, the TOUS is a middle-range theory that states physiologic, psychologic, and situational factors influence the symptom experience (i.e., PPF). Symptoms are comprised of four dimensions including timing, distress, intensity, and quality. Symptoms affect performance. Performance feeds back into both the influencing factors as well as the symptom experience.

As was already discussed, the four dimensions identified in this study that comprise PPF are different from the TOUS symptom dimensions. The TOUS asserts that physiological and psychological factors influence PPF, but the current study found that such factors were actually two of the four dimensions of PPF. The results of this study indicated that what influenced variations in PPF were factors more aligned with the TOUS’ category “situational factors.” According to Lenz and Pugh (2003), situational factors include the social or physical environment. The infant comprises the mother’s environment, and so the influences such as *Infant Characteristics* and *Fatigue Limiting Factors* would be considered situational factors in the TOUS. On the other hand, the

influencing factor Maternal-Infant Sleep Pattern Conflict would include all three TOUS influencing factors, because the infant constitutes a situational factor, the mother's beliefs about her sleep needs and level of distress assigned to the conflict are psychologic, and the mother's physical requirements for sleep and healing are physiologic. As a result, while the TOUS Influencing Factors encompass a number of this study's Influencing Factors, this study's depiction of the *Influencing Factors* arose out of the grounded experience of postpartum women and therefore may reflect more specificity for factors that influence fatigue occurring after childbirth.

In the TOUS, "Performance" is an outcome concept that can be defined in whatever manner is appropriate for the symptom of interest (Lenz & Pugh, 2003). In the PPF literature a common performance outcome is functional status, or a woman's ability to fulfill her tasks and obligations in multiple arenas of her life (e.g., infant care, self-care, household activities etc.). Within the interviews, the concept of *Caregiving*, which is a major component of functional status, emerged as a major concern of women with PPF. The predominant reason why PPF was distressing was because the participants could not "do" or function in caregiving and everyday activities at a level that they believed they should be able. *Caregiving* was expressed implicitly and explicitly throughout all the interviews. *Caregiving* was the outcome of the *Persevering* process just as Performance (i.e., functional status) was the outcome of the PPF symptom experience in the TOUS.

A major difference between the TOUS and *Persevering through Postpartum Fatigue* is in their respective focus. The TOUS focuses on describing the PPF symptom

experience. *Persevering through Postpartum Fatigue*, on the other hand, focuses on explaining the process of PPF. Consequently, the theoretical description of the woman's response to PPF is different between the two models. In the TOUS, the "response" is the outcome, or a change in normal functioning. In the *Persevering* process, however, women responded to PPF by employing the use of coping techniques to either change PPF directly or indirectly by way of the *Influencing Factors*. The TOUS is more descriptive, whereas *Persevering through Postpartum Fatigue* is more explanatory, because it more fully attends to change across time to address processes that occur before, during, and following PPF.

Symbolic Interactionism

Blumer's (1969) symbolic interactionist assumptions were supported in this study. The assumptions of symbolic interactionism include that humans act towards things on the basis of meaning those things have for them; that meaning arises out of interaction with others; and that meanings are modified based on interpretive processes. Originally, PPF was proposed to be different from other types of fatigue based on the contextualized, social, interpretive process that surrounds postpartum experience. This idea was supported in this study, because the maternal-infant interaction was found to be the fundamental element that influenced expressions of PPF. The meaning ascribed to caregiving, the mother's beliefs about the infant's needs and her role in meeting those needs constructed the context in which PPF was expressed and interpreted within the human process of *Persevering*.

Self-transcendence was especially important in this interpretative process, and a related study highlights the prominence of self-transcendence in the maternal-infant interpretive process. Sethi's (1995) grounded theory of postpartum phenomenon in first-time mothers reflects a self-transcendent process within the basic social process of "The Dialectic in Becoming a Mother." One of the four categories that relates to the process of becoming a mother is "Redefining Self." Within this category Sethi discusses how women grew through the experience of having an infant. The infant acted as a catalyst for a woman to rethink and reassess her way of life to enable for the infant's growth and development. On a similar note, feminist author Phyllis Chesler (1979) elegantly captures this broadened life perspective: "Through you, Ariel, I'm enlarged, connected to something larger than myself. Like falling in love, like ideological conversion, the connection makes me *feel* my existence" (p. 246, italics original). This notion is congruent with the current study's finding of self-transcendence as a salient concept within the *Persevering* process. On a related note, in the current study the infant was paradoxically both a source of fatigue and a source of strength. Such contradictions and paradoxes within new mothers' lives were also fundamental to the process of becoming a mother in Sethi's study and reflect the complexity of the maternal-infant interpretive process in the postpartum fatigue experience as distinct from other fatigue experiences.

Motherhood as Ideology

A number of the notions within the theory of motherhood as ideology were supported by the findings of this study. For instance, the assumption that "good" mothers put themselves before their children (Wearing, 1984) was a major theme within the

experience of PPF in this study. Participants frequently talked of prioritizing the infant over themselves and would even go to the extent of unfairly comparing themselves with the infant. For example, Ann referred to her sleep as a “want” whereas the infant only had “needs.” Even though sleep is a human “need,” this mother did not believe her needs were remotely comparable to her baby’s needs.

The notion that women are confronted with multiple contradictions between the ideology and reality of mothering was supported in this study. These contradictions seemed particularly apparent to a number of the first-time mothers who noted significant losses of independence, loss of their ability to carry out meaningful activities of pre-infant life, changes in relationships with family members, and a significant changes in identity. The motherhood as ideology framework asserts that women will accept or resist these contradictions to construct the meaning of their own mothering. This assertion was supported by the findings. Some participants resisted these contradictions more strongly (e.g., Kari), which was fatiguing, while others were more accepting (e.g., Elena), which was less fatiguing. Other participants talked of wanting to resist, but not having the ability to do so, because of the fatigue. This was the case with Monica who felt sequestered when her husband would try to keep her two older daughters away to allow her to rest from childbirth. Monica believed that the whole family should be together most of the time in spite of the fact that Monica’s fatigue was severe, because (unknown to her) her chest cavity was filling up with fluid. Monica was so fatigued that she acquiesced to her husband’s insistence that she rest alone with the baby, but the meaning

ascribed to this interaction served to influence Monica's belief that she was failing her two older daughters as a mother.

This idea of failing as a mother or not living up to one's capabilities supported the feminist argument that motherhood as ideology generates social conditions that can be oppressive. Monica's example is one of many in this study where women's beliefs about the kind of mothers they should be contributed to a negative self-perception. The socially constructed idea of "failure" in motherhood pressured a number of the participants to frequently fight or forget their fatigue, which generally escalated their levels of distress, self-disappointment and fatigue.

A Rogerian-Feminist Perspective of Early Mothering

The results of this study supported a number of the propositions of the Rogerian-feminist perspective of early mothering. First, the proposition that the conditions in which early mothering takes place continuously change in nonlinear, complex patterns to influence women's mothering experiences and everyday existence was supported. Women's individual circumstances combined in a myriad of complex patterns to influence PPF. PPF in turn, permeated every aspect of women's everyday lives. As well, PPF was noted to be highly dynamic and integral with the continuously changing patterning of the woman and her environment.

The propositions that the physical patterns of pregnancy, childbirth and postpartum influence both the early mothering experience and are integral with the circumstances in which women mother were supported. In the interviews, pregnancy, birth, and postpartum were not discrete entities to study's participants, but instead were

integrated into a complex patterning that had brought the participant to the point and time of the interview. Participants frequently talked about the multitude of related circumstances and patterns from before the pregnancy, the pregnancy itself, their birth experience, and postpartum experience to describe PPF. Additionally, their own health patterning, especially when there were health-related conditions that affected fatigue (e.g., age, pain, surgery, chronic illness) were integral with childbearing patterning.

However, one discrepancy that emerged revolved around women's beliefs about their ability to carry out pre-birth and pre-pregnancy roles and activities. Many of the participants were noted to have unrealistic expectations about "recovering" from childbirth; that recovery should be concluded within a few days of giving birth. The Rogerian-feminist perspective of early motherhood asserts that women do not "recover" from childbirth, but are irreversibly changed from the experience. Pregnancy, birth, and the resulting health and life patterning that emerge after birth are all part of the ongoing evolution of human and environmental fields. Further exploration is needed to better understand how ideas about "recovery" are a part of women's experiences so that nursing can connect with women in ways that meaningfully integrate their past health patterning with the accelerated change of the postpartum period to facilitate the development of harmonious health patterning.

The results of this study also supported two proposed implications of a Rogerian-feminist perspective of early mothering. The first outcome is to promote changing health-related education through utilization of the principle of *knowing participation in change* to promote a more empowered construction of the mothering experience among

postpartum women. This study supports this outcome by first undertaking a research study using a methodology that enabled the researcher to engage with participants in a participatory manner. Second, this study begins to expose oppressive ideology in women's lives as manifested in expressions of PPF. Thirdly, this information can now be used to promote a more empowered construction of the mothering experience. The process of PPF as well as how motherhood ideology is reflected within PPF can be used to promote awareness of these issues in pregnant and postpartum women. Nursing can use this information to help women develop a healthier, more informed, and empowered construction of motherhood.

The second outcome supported by this study was to promote a discourse within the postpartum/early motherhood nursing literature wherein divergent, refractory, and marginalized mothering experiences dominate the discussion. This study deliberately sought out participants from diverse ethnic, social, health, obstetrical, and economic statuses in order to initiate such a discourse and challenge other scholars to do the same.

Summary of Congruence with the Conceptual Orientation

This study's findings generated a grounded theory of the human process of *Persevering in Caregiving*. The theory broadens nursing's context for understanding PPF, its dimensions, and how it operates in the everyday lives of postpartum women. The theory also provides new insights that may begin to move the science of PPF from an understanding of experience to an elaboration of change in which nurses can play a health-promoting role.

Additionally, this study's findings support and enrich the theoretical perspectives used to conceptualize this study. Conflicts between how women believed they should be able to mother and how they were actually able to mother while fatigued supported the propositions of motherhood as ideology. Finally, this study's exploration of PPF supported the Rogerian-feminist view of early mothering that provided a philosophic basis for developing the theory. This perspective in conjunction with the findings of this study challenge nursing to continue constructing a more complex knowledge of postpartum experience by incorporating divergent, contradictory and diverse mothering accounts into the dominant discourse and utilizing knowing participation in change to facilitate empowered constructions of mothering in postpartum women.

Limitations

I acknowledge several limitations in this study. While this study did recruit diverse participants from a variety of contexts, the sample was mostly composed of women from Caucasian and Hispanic ethnic groups. The transferability of the results to different contexts should be undertaken with caution and note the highly individualized, context-dependent nature of PPF. Additionally, women excluded by the inclusion criteria, women from ethnic groups not represented in this study, and women who refused participation may have PPF experiences different from those reported.

Secondly, this study's focus was rather narrow in scope with respect to time. At the time of the interview participants were between 2 and 5 weeks postpartum. Therefore, this study and the resulting grounded theory focus upon the experience and process of PPF during the first 5 weeks postpartum. Whether the theory *Persevering through*

Postpartum Fatigue retains usefulness beyond the first 5 weeks is not known. However, given that PPF is such a dynamic phenomenon and has been recorded as long as 18 months postpartum, it is likely that the intensity and manifestations of PPF in the first weeks after birth change as time passes. A similar limitation was the inability of this study to saturate how PPF changed across the first five weeks postpartum. This remains to be explored in the future.

Implications

The implications that this study has for nursing theory, practice, and research are discussed below.

Implications for Nursing Theory

As a middle-range theory, *Persevering through Postpartum Fatigue* has several implications for existing and future nursing theory development. This study supports and challenges a number of existing theoretical notions about PPF. The study supports the existing conceptualization of PPF as a multidimensional phenomenon. However, this study challenges the nature of those dimensions. In the Theory of Unpleasant Symptoms the dimensions of PPF are intensity, quality, timing and distress (Lenz & Pugh, 2003). The current study identifies the dimensions of PPF to be Mental, Physical, Stress-Worry, and Frustration. It was not that intensity, quality, timing and distress were not important to PPF in this study. Instead, these qualities were featured in a number of ways throughout the process of *Persevering*. However, it was the integration of the Mental, Physical, Stress-Worry and Frustration dimensions that generated a unique, and

“grounded” understanding of PPF. Further theoretical dialogue is called for in light of this study’s findings.

Additionally, this study begins to theoretically explicate concrete factors that influence PPF as well as women’s responses to fatigue. One of the criticisms of the TOUS as the premier theory that addresses PPF is that the influencing factors (particularly the situational factors) are in need of further explication. *Persevering through Postpartum Fatigue* builds upon the excellent work of previous theorists by proposing a number of factors that influenced PPF in this study’s sample, but remain to be explored in more detail theoretically.

Implications for Nursing Practice

This study has implications for nursing practice by providing nurses with a more thorough understanding of PPF as it is manifested within the everyday lives of postpartum women. The model *Persevering through Postpartum Fatigue* is parsimonious, while at the same time accounting for and explaining a larger amount of complexity in the PPF process than the existing literature. The empirically supported relationships among the five main concepts in the model suggest paths for nursing interventions to effect changes in each factor (e.g., *Influencing Factors*, *Postpartum Fatigue*, *Coping Techniques*, *Self-Transcendence*, and *Caregiving*). For instance, nursing interventions may focus on enhancing the number and type of coping interventions women have available to them to directly reduce PPF. Intervention may also focus more indirectly on changing the influencing factors such as educating women how to feed the infant in a manner that promotes longer sleep intervals for the purpose of reducing the

maternal-infant sleep pattern conflict. Nursing intervention could also focus directly on the dimensions of PPF by increasing awareness of the ever-worsening cycle of Stress-Worry and PPF. Such interventions need to be generated in a systematic fashion and tested for effectiveness, but the model “Persevering through Postpartum Fatigue” has the potential to enhance the nursing care provided to postpartum women.

The second main implication the model *Persevering through Postpartum Fatigue* has for nursing practice is to place the phenomenon of PPF in a new light with a fresh understanding that is grounded in the everyday experiences of postpartum women who are acting out the process. The model situates the postpartum woman and her everyday strength and struggle with caregiving at the focal point. This model can serve as an example for how nursing should focus on responding to the concerns identified by postpartum women. This model does not separate the mother from the infant or place the mother and infant in an adversarial relationship requiring surveillance and monitoring, but instead places the mother and infant-children in a mutual relationship that presumes when the mother is well cared for the infant and other children benefit.

Implications for Nursing Research

Grounded theory was an appropriate methodology to study the process of PPF in women’s everyday lives. Grounded theory and its tenets of theoretical sampling and constant comparative analysis proved to be particularly productive for elucidating the human process of *Persevering*. A methodological implication is to modify and broaden the traditional focus in grounded theory research from 'basic social process' to 'human process.' This approach better reflects health and nursing-related processes that emerge

from the use of grounded theory and has implications for nursing research. The study of human health processes indicates a substantive turn in focus from generating sociological grounded theories about nursing phenomena to generating nursing grounded theories that are congruent with nursing philosophical perspectives. The study of health-related human processes has the potential to sensitize researchers to new areas of research and theory development within nursing.

On another note, the resulting theory “Persevering through Postpartum Fatigue” proposes a more complex, but also more explanatory and concrete understanding of PPF in the first 5 weeks postpartum. This new understanding of PPF is fertile ground for further elaboration as well as theoretical testing, verification, and refinement of PPF dimensions and governing processes. Quantitative, qualitative, and mixed methodologies can all contribute in unique and relevant ways to advance the science of PPF. For example, grounded theory aimed at exploring the human process of *Persevering* in other ethnic groups, obstetrical contexts (e.g., mothers of NICU babies, mothers with postpartum depression), social contexts (e.g., adoptive mothers), and across time will help to identify the usefulness of the process in a wide variety of circumstances and demarcate the limits of the process. Quantitative methodologies, on the other hand, may be quite useful for identifying how the dimensions of PPF experience (Mental, Physical, Stress-Worry and Frustration) change in response to both coping techniques and influencing factors. Likewise, coping techniques could also be the focus of quantitative research to evaluate the effectiveness of techniques to reduce fatigue as well as evaluate the response of postpartum women to educational interventions targeting reductions in

PPF. Further research can also help to refine the relationship between PPF and postpartum depression. Whether reducing PPF can reduce the incidence or severity of postpartum depression remains unknown.

Recommendations for Future Research

A number of recommendations for future research arose from the findings. Listed below are several ideas for further investigation. Some indicate a methodological focus, for example, to develop instruments for measurement of concepts. Others suggest a substantive research focus to further formalize the theory using other postpartum populations.

1. Is the human process of *Persevering* relevant for women with postpartum depression?
2. Does the human process of *Persevering* retain usefulness beyond five weeks postpartum?
3. How is change in PPF characterized over the first six weeks postpartum?
4. How can the influencing factors be measured (i.e., fatigue limiting factors, maternal-infant sleep pattern conflict, and infant characteristics).
5. How can PPF be measured as a multidimensional phenomenon?
6. What coping techniques are most effective at reducing PPF?
7. Can PPF be differentiated from postpartum depression on the basis of temporality of depressive features?

Many more questions and ideas arose, but those listed above provide a starting point for future continuation of this research.

Ending Comment

In the thick of the data analysis the goal of PPF emerged.

“Cause you just wanna just be able to be up with them” (Janet, 10, 154-155).

Participants just want to *be* with their infants. Participants wanted to be able to mother, to be responsive to the infant, interaction with the infant, and attend to the infant’s needs.

PPF interfered with their ability to do this. With the literature that has come before and the new knowledge generated from this study, nursing is situated at the forefront of being able to effect positive change in postpartum women doing their best to mother.

Summary of Chapter Five

This chapter first presented a discussion of this study’s findings as they converged and diverged with the existing literature. Next, the results were discussed within the context of how they informed the study’s underlying theoretical orientation. Then, limitations of the study were discussed. Finally, the implications this study has for nursing theory, research, and practice and resulting recommendations for future research were presented.

APPENDIX A
HUMAN SUBJECTS

HUMAN SUBJECTS APPROVAL LETTER

Human Subjects Protection Program
http://www.irb.arizona.edu



1350 N. Vine Avenue
P.O. Box 245137
Tucson, AZ 85724-5137
(520) 626-6721

12 September 2005

Jennifer Runquist, MS
Advisor: Pamela Reed, Ph.D.
College of Nursing
PO Box 210203

RE: **BSC B05.206 GROUNDED THEORY OF POSTPARTUM FATIGUE**

Dear Ms. Runquist:

We received your research proposal as cited above. The procedures to be followed in this study pose no more than minimal risk to participating subjects and have been reviewed by the Institutional Review Board (IRB) through an Expedited Review procedure as cited in the regulations issued by the U.S. Department of Health and Human Services [45 CFR Part 46.110(b)(1)] based on their inclusion under research category 6 (audio-taped interviews). Although full Committee review is not required, a brief summary of the project procedures is submitted to the Committee for their endorsement and/or comment, if any, after administrative approval is granted. This project is approved effective **12 September 2005** for a period of one year.

The Human Subjects Committee (Institutional Review Board) of the University of Arizona has a current *Federalwide Assurance* of compliance, **FWA00004218**, which is on file with the Department of Health and Human Services and covers this activity.

Approval is granted with the understanding that no further changes or additions will be made either to the procedures followed or to the consent form(s) used (copies of which we have on file) without the knowledge and approval of the Human Subjects Committee and you College or Departmental Review Committee. Any research related physical or psychological harm to any subject must also be reported to each committee.

Sincerely yours,

Theodore Glatke, Ph.D.
Chairman
Social Behavioral Sciences Human Subjects Committee

TG:rd

cc: Departmental/College Review Committee

SUBJECTS CONSENT FORM

APPROVED BY UNIVERSITY OF AZ IRB
THIS STAMP MUST APPEAR ON ALL
DOCUMENTS USED TO CONSENT SUBJECTS.
DATE: 9/12/05 EXPIRATION: 9/12/06

SUBJECT'S CONSENT FORM

Project Title: Women's Experiences after Childbirth

You are being asked to read the following material to ensure that you are informed of the nature of this research study and of how you will participate in it, if you consent to do so. Signing this form will indicate that you have been so informed and that you give your consent. Federal regulations require written informed consent prior to participation in this research study so that you can know the nature and risks of your participation and can decide to participate or not participate in a free and informed manner.

PURPOSE

You are being invited to participate voluntarily in the above-titled research project. The purpose of this project is to better understand the experiences of women having a baby and particularly experiences that may be described as fatigue. Many parts of women's lives change after having a baby. Some changes can affect the health of women, their babies, and their families, but nurses do not know much about these changes. Nurses may be able to better help women adjust to life after having a baby if more is known about women's lives after delivery.

SELECTION CRITERIA

To be eligible to participate, you must be able to read and write English, be between age 18 and 45 and have delivered a healthy baby at UMC in the past 4 days. You must also be able to be contacted by phone and not be under treatment for a mental health or substance abuse problem. A total of 10 to 20 individuals will be enrolled in this study.

ALTERNATE TREATMENT

This study is not a treatment study.

PROCEDURE

The following information describes your participation in this study, which will last up to 8 weeks.

If you agree to participate, you will be asked some general questions about your life (age, marital status, etc.). These questions will take about 5 minutes to answer and will be completed after you sign the consent form. Three to four days after you leave the hospital, the researcher will call to schedule an interview with you. This interview will take place in your home or another convenient place between two and six weeks after your baby was born. In this interview you will be asked about your experiences related to childbirth and the time since childbirth. The interview will be tape-recorded with your permission and could last up to 1 hour. After the interview, you will be asked to complete a 2-minute survey. You may also be asked for a second interview to clarify some of the information you provided. Providing more information is voluntary also.

Including everything, this study will take about 2 ½ hours of your time.

RISKS

There are no known risks to participating in this study. During the interview you may become tired. If you feel too tired to continue with the interview you may ask to stop the interview at any time.

BENEFITS

There is no direct benefit to you from your participation.

CONFIDENTIALITY

You will be asked for your name and contact information. This information will be recorded on the "contact information" form. You may also identify yourself and talk about your family during the taped interview. The "contact information" form and the audiotape will be kept in a locked box at the investigator's home. Only the investigator will be able to access this information. In June 2006 the contact information will be shredded and the audiotape erased. Your name will not be put on the questionnaires. When the audiotape of the interview is transcribed onto paper, no names will be transferred to paper. Instead, the relationship of the person whose name you use (for example, "baby" or "aunt") will be substituted for the name of that person.

PARTICIPATION COSTS AND SUBJECT COMPENSATION

There is no cost to you for participating except your time. After the interview, you will receive \$15 Target gift card for your participation.

CONTACTS

You can obtain further information from the principal investigator Jennifer Runquist, RN, MS, PhD Candidate at (520) 407-8292. If you have questions concerning your rights as a research subject, you may call the University of Arizona Human Subjects Protection Program office at (520) 626-6721.

AUTHORIZATION

Before giving my consent by signing this form, the methods, inconveniences, risks, and benefits have been explained to me and my questions have been answered. I may ask questions at any time and I am free to withdraw from the project at any time without causing bad feelings or affecting my medical care. My participation in this project may be ended by the investigator for reasons that would be explained. New information developed during the course of this study which may affect my willingness to continue in this research project will be given to me as it becomes available. This consent form will be filed in an area designated by the Human Subjects Committee with access restricted by the principal investigator, Jennifer Runquist, RN, MS, PhD Candidate or authorized representative of the College of Nursing. I do not give up any of my legal rights by signing this form. A copy of this signed consent form will be given to me.

Subject's Signature

Date

INVESTIGATOR'S AFFIDAVIT:

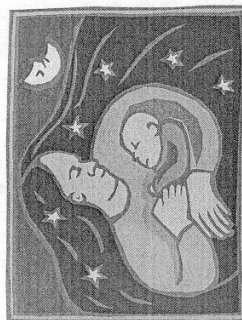
I have carefully explained to the subject the nature of the above project. I hereby certify that to the best of my knowledge the person who signed this consent form was informed of the nature, demands, benefits, and risks involved in his/her participation.

Signature of Investigator

Date

RECRUITMENT BROCHURE

**Women's Experiences
after Childbirth**

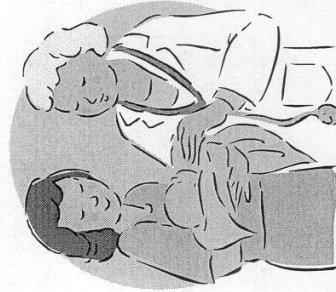


A Research Study

The University of Arizona
College of Nursing
Tucson, Arizona

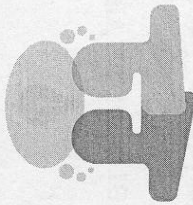
**Women's Experiences
after Childbirth**

A Research Study



The Researcher

Jennifer Runquist, RN, MS is currently a doctoral student at the University of Arizona College of Nursing. She works as a nurse in maternal-infant health at University Medical Center and is the mother of a 3 year old.



If you enroll in this study, your identity and rights as a research participant will be protected.

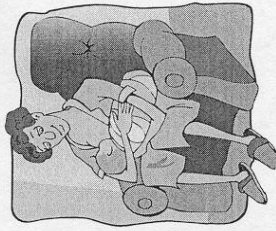
You may qualify for this study if you meet these criteria:

1. Age 18 or older
2. Read and write English
3. Life in or near Tucson
4. Have a telephone or cell phone
5. Delivered a healthy baby in the past 4 days
6. Not under treatment for a mental health or substance abuse problem

Research Study

Women's Experiences

after Childbirth



I want to learn more about the experiences of women after having a baby, particularly the experience of fatigue, to understand how nurses can better care for women after delivery.

In this study, women will be asked to complete a few brief questionnaires while in the hospital and at home, which should take about 10 minutes. Then, 2 to 6 weeks after going home, women will be interviewed for about 1 hour to find out what their lives are like after having a baby.

I invite you to read this brochure to see if you might be interested in learning more about this study.

Jennifer Runquist, Study Investigator

If you are interested in learning more about this study, please tell your nurse

Your nurse will contact the researcher who will come and talk with you before you go home. The researcher will explain the study and ask you some more questions to see if you qualify. If you qualify, you will be invited to participate. **You are under no obligation to join the study if you talk with the researcher.** You will be compensated for your participation in this study.



Thank you and Congratulations!

UMC ACCESS FOR RECRUITMENT


**University Medical Center**

Nursing Staff Development
P.O. Box 245100
Tucson, Arizona 85724-5100

Memorandum

Date: September 19, 2005

To: Jennifer Runquist, MS
College of Nursing

From: Lauri McCanless, MS, RNC, CNS 
Nursing Research Access
Clinical Nurse Educator
Women and Children's Services

Subject: Request for Access to UMC for Nursing Research

CC: Maria Ho, Acting Patient Care Manager
Labor and Delivery, Newborn Nursery and Postpartum

Your request for access to nursing staff and/or patient care units at UMC to conduct your study, "Grounded Theory of Postpartum Fatigue", has been approved. I have designated Maria Ho/Kathy Goff as your contact person for the study. Please make an appointment with Maria to decide how you will make the staff aware of your study, what assistance you will need in finding subjects and how you will communicate the results of your study to the unit staff. **Please work with the Nurse Manager/Medical Director of the units where you will be collecting data to assure the protection of human subjects.**

Please let me know if I can be of help to you during data collection. Please call 694-2474 when you have completed data collection and send me an abstract when you have finished writing your results. At that time, please notify your contact person that you have finished data collection. I may ask you to present the results of your study at a nursing rounds or workshop.

Thank you for your interest in working with the patient care staff and units at University Medical Center. I look forward to seeing the results of your study.

APPENDIX B
INSTRUMENTS AND RELATED ITEMS

DEMOGRAPHIC FORM

ID# _____

Please answer the following questions.

What is your age? _____

What is your ethnicity?

- (1) African-American
- (2) Asian-American
- (3) Caucasian
- (4) Mexican-American
- (5) Other (please describe) _____

How many years of education do you have? _____
(For example, completion of 8th grade is 8 years, high school is 12 years).

If you're not sure how many years, then please describe your education.

Are you:

- ____ Single
- ____ Married
- ____ Separated
- ____ Have a boyfriend or partner
- Other _____

With regard to finances, would you say you are (please select one):

- ____ Extremely comfortable
- ____ Very comfortable
- ____ Somewhat comfortable
- ____ Not at all comfortable

Including this baby, how many children do you have? _____

What kind of delivery did you have:

- ____ Vaginal
- ____ Cesarean section (C-section)

CONTACT INFORMATION FORM

ID# _____

I would like to interview you in 2 to 4 weeks at a place and time that is convenient for you. Please tell me how to contact you to schedule the interview and where you think you would like meet.

Name:

Home Phone:

Cell Phone:

Any other way to easily contact you:

Where would like to meet?

Address:

Any specific directions to this place:

LEE FATIGUE SCALE

ID # _____ Date _____ Time _____ a.m or p.m.

I am trying to find out about you are feeling today. There are 18 items I would like you to respond to. This should take less than 1 minute of your time. Thank you.

DIRECTIONS: You are asked to circle a number on each of the following lines to indicate how you are feeling RIGHT NOW.

For example, suppose you have not eaten since yesterday.
What number would you circle below?

not at all																extremely
hungry	0	1	2	3	4	5	6	7	8	9	10	hungry				

You would probably circle a number closer to the "extremely hungry" end of the line. This is where I put it:

not at all																extremely
hungry	0	1	2	3	4	5	6	7	8	9	10	hungry				

NOW PLEASE COMPLETE THE FOLLOWING ITEMS:

- | | | | | | | | | | | | | | | | | |
|----|------------------|---|---|---|---|---|---|---|---|---|---|----|------------------|--|--|-----------|
| 1. | not at all | | | | | | | | | | | | | | | extremely |
| | tired | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | tired | | | |
| | | | | | | | | | | | | | | | | |
| 2. | not at all | | | | | | | | | | | | | | | extremely |
| | sleepy | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | sleepy | | | |
| | | | | | | | | | | | | | | | | |
| 3. | not at all | | | | | | | | | | | | | | | extremely |
| | drowsy | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | drowsy | | | |
| | | | | | | | | | | | | | | | | |
| 4. | not at all | | | | | | | | | | | | | | | extremely |
| | fatigued | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | fatigued | | | |
| | | | | | | | | | | | | | | | | |
| 5. | not at all | | | | | | | | | | | | | | | extremely |
| | worn out | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | worn out | | | |
| | | | | | | | | | | | | | | | | |
| 6. | not at all | | | | | | | | | | | | | | | extremely |
| | energetic | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | energetic | | | |
| | | | | | | | | | | | | | | | | |
| 7. | not at all | | | | | | | | | | | | | | | extremely |
| | active | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | active | | | |

8. not at all
vigorous 0 1 2 3 4 5 6 7 8 9 10 **extremely
vigorous**
9. not at all
efficient 0 1 2 3 4 5 6 7 8 9 10 **extremely
efficient**
10. not at all
lively 0 1 2 3 4 5 6 7 8 9 10 **extremely
lively**
11. not at all
bushed 0 1 2 3 4 5 6 7 8 9 10 **totally
bushed**
12. not at all
exhausted 0 1 2 3 4 5 6 7 8 9 10 **totally
exhausted**
13. **keeping my
eyes open**
is no effort
at all 0 1 2 3 4 5 6 7 8 9 10 **keeping my
eyes open**
is a tremendous
chore
14. **moving my
body** is no
effort at all 0 1 2 3 4 5 6 7 8 9 10 **moving my body**
is a tremendous
chore
15. **concentrating**
is no effort
at all 0 1 2 3 4 5 6 7 8 9 10 **concentrating**
is a tremendous
chore
16. **carrying on a
conversation**
is no effort
at all 0 1 2 3 4 5 6 7 8 9 10 **carrying on a
conversation**
is a tremendous
chore
17. I have absolutely
**no desire to
close my eyes** 0 1 2 3 4 5 6 7 8 9 10 I have a tremendous
**desire to close
my eyes**
18. I have absolutely
**no desire to
lie down** 0 1 2 3 4 5 6 7 8 9 10 I have a tremendous
**desire to
lie down**
K.Lee ©1992

19. When you think of fatigue, what comes to mind? If more space is needed, please write on the back of this form.

INTERVIEW SCHEDULE FINAL VERSION

Can you please think back to when you have been the most fatigued since birth. Please tell me what was happening and how did you feel?

What is it like to have fatigue after childbirth?

- What is it like to have fatigue with a newborn baby?
 - How does being so fatigued change you?
 - How does being fatigued change your relationship with people in your family?
 - What is different in your life when you are really tired?
-

When is fatigue most difficult to deal with; in the day or night? Why is the (day, night) more difficult than the (night, day)?

Do you find yourself dealing with your fatigue differently during the day versus the night? If so, how?

How does your mind feel when you are fatigued?

How does your body feel when you are fatigued?

How do you feel about yourself when fatigued?

How do you feel about your baby when fatigued?

Why do you think you are fatigued?

Has your fatigue gotten better or worse since birth?

- How?
 - What makes your fatigue worse?
 - What makes your fatigue better?
-

How do you cope when you are really fatigued?

- Is there anything you can't do when you are really fatigued?
 - Is there anything that is easier when you are fatigued?
-

Interview Schedule Final Version - *Continued*

A number of women have said that no matter how fatigued they are they just do what they have to do to get through a tough day.

- Do you find yourself just doing what you have to do to get by?
- What makes you keep going?
- What would happen if you didn't keep going?
- At what point do you think you would stop doing what you have to do because of the fatigue?
- What do you think would have to happen for you to give up?

Other women have told me frustration is a part of fatigue? Do you find this to be true for yourself? If so, how is frustration a part of fatigue with you?

Other women have told me that stress is a part of fatigue? Do you find stress and fatigue go together? If so, how?

Please tell me what your pregnancy and labor was like.

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