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Expectations and Quality of Life During the Antepartum and Postpartum Period

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EXPECTATIONS AND QUALITY OF LIFE DURING THE ANTEPARTUM AND POSTPARTUM PERIOD

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People who suffer a lot, often times do so, because they are cognitively wrong about what they think they have a right to expect.

– Abraham H. Maslow

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ABSTRACT

During pregnancy, women frequently anticipate birth and motherhood with unrealistic images and expectations which are formed by personal experience and society's portrayal of motherhood (e.g., books and movies). How these expectations impact the postpartum period for women has not been well studied. However, research has identified a link between maternal expectations, reality, and negative emotional responses. When expectations are met, the experience of motherhood may be a positive one. However, when these expectations are not met, the potential for negative emotional responses may be greater. The postpartum period is a significant period of adjustment, and depression occurs in about 13%–19% of women. Postpartum depression not only affects the mother and her ability to parent but her overall quality of life. The question of whether having higher expectations during pregnancy increases the potential for postpartum depression and decreases quality of life has not been studied.

This was a descriptive, longitudinal quantitative design. The purpose was to determine how expectations affect maternal quality of life and which factors are predictive of poor quality of life in women during pregnancy as well as the postpartum period. The following measures were administered during the last six weeks of the antepartum period and at 6 to 12 weeks postpartum: (1) expectations (Parenting Expectations Measure); (2) parental attitudes (Intensive Parenting Attitudes Questionnaire); (3) moods (General Anxiety Disorder 7, Edinburgh Postnatal Depression

Screen); and (4) overall quality of life (Ferrans and Powers Quality of Life Index) in the last six weeks of pregnancy and at the six-week postnatal office visit. Descriptive statistics and regression models were used to determine whether expectations are met as well as if they are predictive of maternal quality of life.

Predictors of quality of life were different for antepartum, distinct from postpartum. Antepartum predictors include expectations, anxiety, and depression, while postpartum quality of life is predicted by experience of motherhood based on expectations. Almost half of the participants had expectations of motherhood that were not met, and this group had significantly lower quality of life scores and higher anxiety scores. This is essential knowledge for the nurse in helping to prepare new mothers during the antepartum period and to understand their concerns postpartum. The importance of unmet expectations is a crucial facet to investigate in addressing modifiable risk factors of postpartum mood disorders.

CHAPTER ONE

PROBLEM STATEMENT

The early postpartum weeks are commonly a period of adjustment for new mothers. During this time women experience a range of emotions from elation to devastation (Beck, 2002; Mercer, 2004). The ability to deal with this adjustment may be challenging and result in postpartum depression which can significantly impact maternal quality of life. Over the last 15 years, there has been no change in the rate of postpartum depression which hovers between 13 to 19 percent among all new mothers, with rates peaking at 30 to 40 percent in the third trimester of pregnancy ("Postpartum Depression", 2014; Records & Rice, 2007; Tychey et al., 2006). This disease not only affects the mother and her ability to parent, but has negative long term consequences on the child's psychological development. According to a recent meta-analysis, postpartum depression impairs bonding efforts between mother and child; which may, in turn, increase the development of behavioral problems and depression in the child (Goodman et al., 2011). Feelings of shame and inadequacy might frequently prevent the mother from seeking help, worsening the situation for her and her family.

Women suffering from postpartum depression have described it as feeling lonely, helpless, out of control, and overwhelming (Beck, 2002; "Postpartum Depression", 2014). Efforts for early identification are underway in hospitals and pediatrician offices. Routine administration of depression screening tools help to detect those who may be

developing postpartum depression and is supported by the American College of Obstetricians and Gynecologists (2010). The vested interest of pediatricians stems from emerging data relating maternal depression to behavioral, developmental, and psychosocial difficulties in their children (Goodman et al., 2011). While detection and treatment studies are crucial, further research into prevention and identification of modifiable risk factors can focus on decreasing the incidence of postpartum depression, thus improving maternal quality of life. By understanding the factors which may impact the dimensions of quality of life, practitioners can develop individualized care plans to maximize postpartum quality of life (Guyatt et al., 2007). Understanding the unique manifestations of gaps between maternal expectations and reality of motherhood can lead to prevention through education. This gap in knowledge has potentially critical implications for improving the emotional health of American families, and most significantly, of postpartum women (Beck, 2002; "Postpartum Depression", 2014).

Expectations of Motherhood

Theoretically, a link can be made between maternal expectations, reality, and negative emotional responses. Women frequently anticipate birth and motherhood with unrealistic images. These images are found throughout society in books, movies, and even relationships, which can set women up for failure (Warner, 2006).

The most recent metasynthesis of literature pertaining to postpartum depression, written by Beck (2002), cites multiple articles which link a discrepancy between postpartum depression and the expectations and reality of motherhood. Unfortunately, this novel idea is not often revisited in the literature. Exploratory research suggests that

the picture in our mind of how a situation should work out has a direct relation to our emotional wellbeing. When there is a gap between this picture and reality, quality of life can suffer (Calman, 1984).

Quality of Life in the Postpartum Period

Quality of life is defined by a variety of dynamic factors that are unique to the individual (Calman, 1984; Ferrans & Powers, 1992). Women adjusting to their role as the mother of a first baby, or after subsequent babies, experience changes that are physical, psychological, social, and familial (Symon, 2003). These changes may affect how postpartum mothers rate their quality of life based on the expectations they had of motherhood and the value of that factor (Calman, 1984).

Much of the focus in studies related to postpartum quality of life has been on women with debilitating comorbidities such as cancer, hyperemesis gravidarum, and congenital heart disease (Dow, Harris, & Roy, 1994; Magee et al., 2002; Simko & McGinnis, 2003). The study of mothers without comorbidities who enter into postpartum with unrealistic expectations of motherhood is also important to consider regarding quality of life (Martin & Jomeen, 2003).

Purpose

The purpose of this study is to determine how expectations affect maternal quality of life and to determine which factors are predictive of poor quality of life in women during pregnancy as well as in postpartum. For some mothers, the discrepancy between expectations and reality may result in lower perceived quality of life scores. Factors that are predictive of maternal quality of life will also be examined such as social support,

parental attitudes, and mood. Finally, the study will also explore the expectations that women have of motherhood as well as the sources of these expectations (family, friends, media) using an open-ended questionnaire.

Theoretical Framework

The theoretical framework guiding this study is proposed by Calman (1984) who hypothesizes that quality of life is determined by the dynamic comparison of expectations to reality. Quality of life is optimal when the expectations of an event correspond with reality. In order to achieve this state, one must have realistic expectations, or be willing to reduce those expectations to lessen the gap between expectations and reality (see Figure 1). According to the theory, many factors contribute to one's determination of their overall quality of life (Calman, 1984). The factors to be examined in this study are physical, psychological, and social/familial (motherhood).

Calman (1984) asserts that quality of life is unique to the individual based on their life experiences, aspirations, and dreams for the future. These dreams and aspirations may be impacted by illness and treatments which challenge the delicate balance between expectations and reality. Assumptions from the theory relevant to this study include the following: (1) quality of life should be reported by the individual; (2) many aspects of life should be considered; (3) illness and treatment may modify the goals; (4) action by the patient, and possibly with the help of others, is necessary to close the gap between expectations and reality; and (5) the gap between expectations and reality is dynamic (Calman, 1984).

Calman's theory also includes guiding principles which relate to this study. Most

important, there is a continuous fluctuation of both expectations and reality; the distance between the two determines the individual's perspective on their quality of life. The individual can improve their quality of life by making expectations more realistic in those areas that are negatively affecting the quality of life. Calman (1984) uses the term "here and now" to describe an individual's current reality. He proposes that the "here and now" includes various dimensions of life such as the physical, psychological, social, emotional, and intellectual. One way to minimize the larger gaps between expectations and reality is to maximize one of the other dimensions of life. Calman (1984) emphasizes the individuality of quality of life by stating that some may have major problems but report good quality of life. Conversely, one may have smaller problems but a larger gap between expectations and reality, resulting in poor quality of life. Quality of life would rely on how the individual values the expectation and is able to adapt the expectation, making it more realistic. This also takes into account the energy required to achieve that expectation, which may be more than the person can give. When help from others is needed to meet or adjust expectations, the practitioner should be aware of the factors which affect the individual's quality of life.

The theoretical framework addresses the purpose of this study by describing one's quality of life in response to a gap between expectations and reality. Calman (1984) also maintains that a measure of quality of life is composed of multiple dimensions of life which may have differing values to the individual. This study will address the dimensions of physical, family/social, and psychological quality of life pertaining to the pregnant and postpartum mother. According to the theory, it is important to gather how

the individual values each dimension and to assess the gap between expectations and reality. The combination of a highly valued dimension and a larger gap can then be related to depression or anxiety when the individual is unable to adjust her expectations to lessen the gap. Calman's (1984) theory and hypothesis provide an ideal framework for the study of maternal expectations and reality.

In Figure 1, expectations and reality are depicted as fluid lines with gaps noted in different domains (social, physical, etc.). At certain points or domains, there are smaller gaps while at other points, there are larger gaps. Smaller gaps may create a greater negative impact on quality of life depending on how valuable that domain is to the individual.

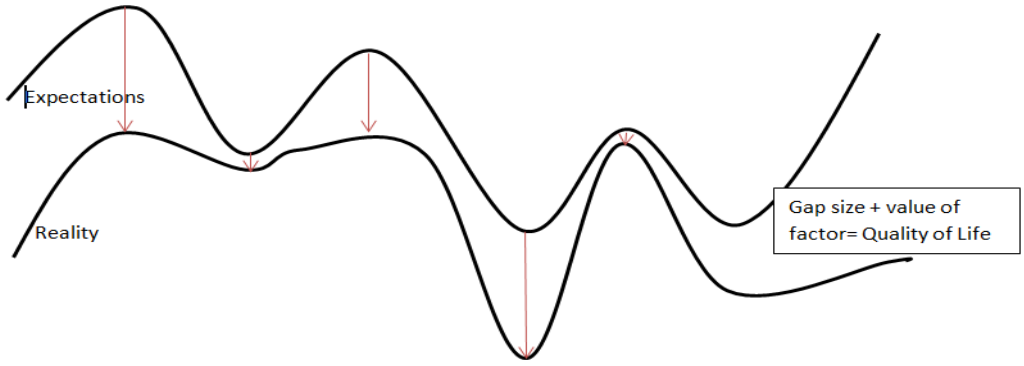

Figure 1. Calman's model of quality of life.

(Note: From "Quality of life in cancer patients: A hypothesis," by K.C. Calman, 1984, *Journal of Medical Ethics, 10,* 124–127. Copyright 1984 by BMJ Publishing Group. Adapted with permission.)

For the proposed study, expectations and quality of life will be measured during pregnancy and the postpartum period. In addition, factors that contribute to these key

variables will be assessed (see Figure 2). These factors will be organized according to domains identified by Calman (physical, family/social, and psychological).

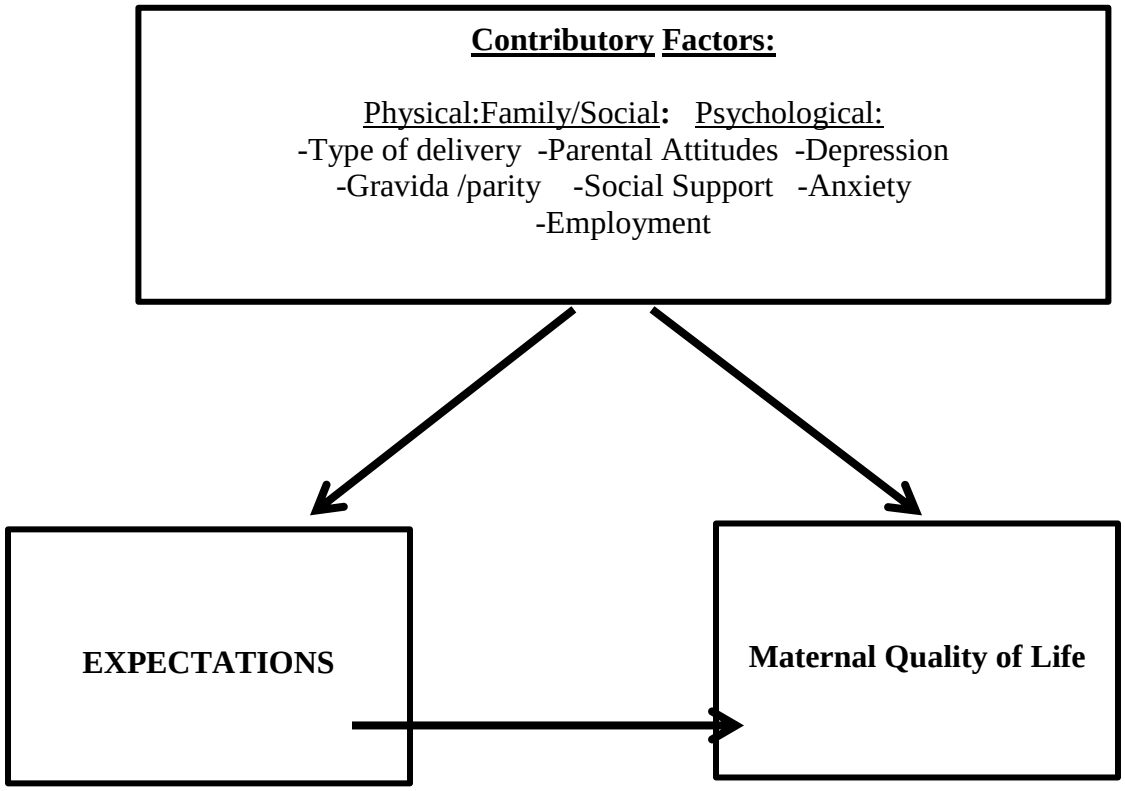

Figure 2. Adams' conceptualization of expectations and maternal quality of life.

Aim 1

To describe expectations and maternal quality of life during pregnancy and the postpartum period as well as factors that may contribute to maternal quality of life at these points in time.

Aim 2

To determine how expectations, attitudes towards motherhood, and mood (anxiety, depression) will be predictive of maternal quality of life during the antepartum and postpartum time points.

Hypothesis 1. Expectations, parental attitudes, and mood (anxiety, depression), will be predictors of maternal quality of life during the antepartum and postpartum time points.

Aim 3

Examine whether women who have a negative residual difference between expectations and experience of motherhood (higher or lower) report a similar change in maternal quality of life.

Hypothesis 2. Mothers who have high expectations during pregnancy which are unmet during postpartum will have lower maternal quality of life scores than those who have high expectations that are met.

Hypothesis 3. Mothers who have high expectations during pregnancy which are unmet during postpartum will have a more negative mood (depression, anxiety) than those who have high expectations that are met.

Exploratory Aim

To discover the characteristics of a ‘good mother’ as described by antepartum women and the factors influencing their description.

CHAPTER TWO

LITERATURE REVIEW

Quality of Life

The theoretical framework by Calman which is used for this study defines quality of life as an individual's perception of their satisfaction with life based on the gap between expectations and reality (Calman, 1986). Similarly, Ferrans (1990) defines quality of life as "a person's sense of well-being that stems from satisfaction or dissatisfaction with the areas in life that are important to him/her" (p.15). Both theorists emphasize the individual and their satisfaction with what they consider important aspects of life.

The significance of assessing quality of life was delineated by researchers who presented a literature review of the concept (Guyatt et al., 2007). The review noted that there is a focus on improving physiologic symptoms, such as pain, which assumes that all patients highly value an improvement in physical functioning. This viewpoint does not take into consideration the unique life experiences and cultural differences of the individual who, as a result, may value different domains of quality of life. The authors suggest that when quality of life is assessed and patients give value to the domains, an individualized plan of care can be formulated (Guyatt et al., 2007). Using quality of life as an outcome gives clinicians the ability to address the patient's concerns from multiple perspectives, improving overall health for that patient.

General Quality of Life

Studies on maternal quality of life and the changes over time are lacking. Instruments specific to maternal quality of life in general have only been developed in the last 12 years (Symon, MacDonald, & Ruta, 2002; Hill, Aldag, Hekel, Riner, & Bloomfield, 2007). As stated previously, quality of life in motherhood has been focused on comorbidities in either the mother or child. In studies that examine comorbidities, a decrease in quality of life has been found compared to those without comorbidities (Dow, Harris, & Roy, 1994; Magee et al., 2002; Simko & McGinnis, 2003). Only recently has the holistic perspective of motherhood gained interest and been measured by quality of life tools created for postpartum mothers.

Symon, MacDonald, and Ruta introduced the Mother Generated Index (MGI) in 2002 as an instrument that would be able to capture quality of life in motherhood as described by each mother completing the tool. The MGI prompts the mother to list eight areas in her life that have been affected by the baby. Following this, the mother rates each area based on how much of an affect it has had and then how important that area is to the mother. Initial pilot testing of the tool with 103 postpartum women was done at six to eight weeks postpartum and compared to a group that was eight months postpartum (Symon, MacKay, & Ruta, 2003). The researchers systematically computed the scores mothers had given to the overall effect of the baby on their lives to come up with a Primary Index, which represents quality of life. The group measured at six to eight weeks postpartum most often reported tiredness and happiness with the baby but ranked tiredness as not very important according to points allocated by the mother. When

compared as high scoring or low scoring on the Primary Index, the low scoring group most often reported less time with family, less personal time, physical problems, low self-esteem, and poor family relationships as the source of lower scores (Symon, MacKay, & Ruta, 2003). At eight months, the women continued to report tiredness and happiness with the baby as having the most impact on their lives. Those with lower Primary Index scores now reported worse scores on relationships with family or partner and self-esteem which were also deemed more important to the mothers. In comparison, the higher scoring group reported the most important aspect as physical problems, which was not mentioned at all in the lower scoring group.

A similar study by Symon, Glazener, MacDonald, and Ruta (2003) found that women who reported physical symptoms as having a high impact according to their Primary Index score would also designate this area as not very important. The authors suggest that although physical problems need to be addressed, the mothers are reporting other areas of higher personal significance, such as family relationships, personal time, self-esteem, happiness with the baby, and financial problems. If these problems are not addressed, they could negatively impact their quality of life (Symon, Glazener, MacDonald, & Ruta, 2003).

The newly developed Maternal Postpartum Quality of Life tool, based on the Ferrans and Powers instrument structured for quality of life measurement, was used to examine quality of life in postpartum women (Hill & Aldag, 2007). Postpartum women were compared based on gestational age at delivery: preterm, near-term, and full term. Participants were asked to complete the tool at one and three weeks postpartum. When

groups were compared as a whole between the two time points, quality of life scores were significantly higher (p=.012) at three weeks postpartum. Between the three groups, the lowest scores of quality of life were reported by those who had delivered preterm, but the difference was not significant. There was, however, a significantly lower score in the preterm group in the domain of psychological/baby (p<.0001) (Hill & Aldag, 2007). The authors note that the study, although small, shows an improvement in quality of life over the postpartum time frame.

Expectations of motherhood. Research supports that both positive and negative emotions interplay throughout motherhood (Green & Kaftersios, 1997; Hall & Wittkowski, 2006; Mercer, 2004). Mercer (2004) found that a mother's self-confidence becomes disrupted and her identity redefined . Mercer thought that these challenges should lead to increased confidence and contentment with motherhood. Expectations of motherhood may originate from societal definitions of how "good" mothers should behave and feel (Beck, 2002; Choi, Henshaw, Baker, & Tree, 2005; Johnston & Swanson, 2003). When a mother accepts these definitions as her own, poor quality of life may result when there is a discrepancy with reality.

The influence of maternal expectations on self-perception and postpartum depression has sparked the interest of researchers. Researchers compared maternal attributes, resources, and perceptions to the incidence of postpartum depression and found a significant relationship between maternal self-perception and postpartum depression (Horowitz, Damato, Duffy, & Solon, 2005). Beck (2002) found multiple studies which she used in her metasynthesis that demonstrated how unfulfilled

expectations of motherhood related to a higher risk for postpartum depression . Beck (2002) talks about ‘destructive myths’ such as equating motherhood with complete fulfillment and happiness or that negativity towards motherhood was not felt by ‘good’ mothers . The myths contribute to the isolation of mothers who feel they are inadequate and unable to live up to the standards set by society.

Choi, Henshaw, Baker, and Tree (2005) performed a qualitative study to see if there were common themes found in postpartum women regarding the transition to motherhood. The researchers interviewed 24 women and the results indicated that women do refer to the myths of motherhood to judge themselves as good mothers. Their responses suggested to the authors that the women try to ‘perform’ femininity. This statement was referring to the image of motherhood being primarily a feminine responsibility, and women feeling as if they were acting out the role, but not truly feeling that role was a part of their identity. The objective of this performance is that the women outwardly appear to be adjusting to their role seamlessly, becoming the perfect image of a ‘supermom’. They do this out of fear and possibly shame for feeling unhappy with motherhood. The mothers reported being afraid to tell anyone about how they felt because, as women, they were expected to keep up, do it all, and enjoy all aspects of motherhood (Choi et al., 2005). The authors believe that this behavior is reinforcing the ideology of motherhood and the patriarchal culture. The sense of fear mothers experience is keeping them from challenging the norms and perpetuates a society of hopelessness when mothers should connect and make the transition easier for each other.

A grounded theory study allowed researchers to uncover themes related to the experience of couples as new parents (Tammentie, Paavilainen, Astedt-Kurki, & Tarkka, 2004). A total of nine couples were interviewed, and from those interviews themes emerged. One overarching theme was discrepancy between expectations and reality. Mothers and fathers reported that as new parents, lifestyle changes could be overwhelming and unanticipated leading to sadness and sometimes depression. This study highlighted the reoccurring issues related to postpartum depression which contribute to discrepancies. The issues found in this group were the following: (1) inadequate spouse/significant other support; (2) hiding emotions to outwardly appear that adjustment to motherhood is smooth; (3) and unrealistic expectations of motherhood prior to delivery (Tammentie, Paavilainen, Astedt-Kurki, & Tarkka, 2004).

Discrepancies between expectations and reality were examined in relation to women's perceptions of their adjustment to motherhood at one year after birth (Kalmuss, Davidson, & Cushman, 1992). Quantitative data for the study were collected prior to delivery and 12 months after delivery. Subjects were recruited from obstetrician's offices and eligible women were interviewed by phone. The operational definitions of the variables were unclear in the article.

Results of the study showed that pre-birth expectations did not match one year reality. This was true in areas of relationship with spouse and friends, physical well-being, maternal competence, and assistance from spouse (Kalmuss, Davisdon, & Cushman, 1992). The authors then used regression models to see which discrepancy or demographic factor may have the most influence on adjustment to parenthood. The

findings supported the authors' hypotheses in that a discrepancy in assistance from spouse and relationship with extended family were related to a more difficult adjustment. The demographic factors that had the most influence on difficult adjustment were child temperament, pre-birth marital quality, and post-birth work status. Over all, the results were consistent with previous studies.

The Parenting Expectation Measure (PEM) was developed and used in a study by Harwood, McLean, and Durkin (2007) to evaluate the difference between antepartum expectations of motherhood and postpartum reality . An initial study was done using the tool where participants were asked about their parenting expectations during their pregnancy then four months after delivery. The sample was first time mothers who were living with their partners. The women were recruited from antenatal classes and a total of 71 completed the survey at both time points. Instruments distributed were the Edinburgh Postnatal Depression Screen (EPDS), PEM, Parenting Sense of Competence Scale (PSOC), Dyadic Adjustment Scale (DAS), and Social Provisions Scale (Harwood, McLean, & Durkin, 2007).

Overall findings showed that experiences were positive in relation to expectations measured by the PEM, although 35.2% of the sample reported more negative experiences than what they expected of motherhood. Significant decreases in depression scores and relationship adjustment were noted in comparing the means between antepartum and postpartum (Harwood, McLean, & Durkin, 2007). Findings related to the impact of depression on expectations scores were not significant in a multiple regression analysis of data. Hierarchical regression testing using postnatal depression and residualized

expectations scores and using the effect of efficacy beliefs as a moderator was significant. Expectation scores were a significant predictor of depression scores when a discrepancy between expectations and experience was present. When efficacy was examined as a moderator, higher efficacy scores were significantly related to higher depression scores when experiences were negative (Harwood, McLean, & Durkin, 2007). Implications of the findings are that a discrepancy need not be significant to have a negative effect on postpartum mood and adjustment.

Factors Affecting Expectations and Maternal Quality of Life

This study will examine three factors affecting expectations and quality of life. According to both Calman (1984) and Ferrans (1996), reports of quality of life are unique to the individual and include the combination of physical, psychological, and social/family factors.

Physical factors. The variables collected that will reflect the physical factors are age, type of delivery, and number of pregnancies and children at home (gravida and parity).

While there are limited studies that examine the physical factors of quality of life in postpartum women, current research has described some characteristics that affect quality of life. A study conducted by Sadat, Taebi, Saberi, and Kalarhoudi (2013) found that women who had vaginal deliveries reported a higher quality of life postpartum than those who had a cesarean section (p= 0.034 between groups). The women who had vaginal deliveries scored significantly higher in the physical and mental, social and emotional subscales of the SF-36 quality of life questionnaire at four months postpartum.

The women who had vaginal deliveries had reported significantly higher scores at two months postpartum on physical factors only. The study population was women living in Iran and the authors do not describe potential differences in care related to delivery and postpartum care in their country. The study may not be generalizable, due to the possible cultural differences in care and support of the postpartum woman in Iran. Other studies have found that women who have vaginal deliveries report higher quality of life scores primarily in the physical factor, but also psychological factors (DaCosta, Dritsa, Rippen, Lowensteyn, & Khalife, 2006; Torken, Parsay, Lamyian, Kazemnejad, & Montazeri, 2009).

A similar study, conducted in rural China, found no significant differences in quality of life related to type of delivery (Huang, Tao, Liu, & Wu, 2011). The authors reported a cesarean section rate of 70% with 59.7% of those being elective surgeries in the study population. This may explain the findings as the cesarean section is the more frequent method of delivery, which is high compared to the United States.

The variables of age and gravida/parity have not been found to be significantly related to quality of life postpartum and have not been the primary variables assessed in any studies found (Huang, Tao, Liu, & Wu, 2011). The number of children at home reflected as the gravida (number of pregnancies) and parity (number of deliveries after 24 weeks gestation) has been collected as a demographic factor, but its relationship to quality of life is not always examined.

The physical factors as stated are non-modifiable but should be noted if they are shown to influence postnatal quality of life. Health care can be further personalized to

address not only the factors which need to be addressed such as wound care, but also to focus on factors that are important to that patient.

Family and social factors. Factors that reflect the impact of societal expectations of mothers will be collected and include breastfeeding, attending a new mother's group, and reading books on childcare or subscribing to online blogs for motherhood. According to authors that describe the current societal influence on motherhood, these are some variables that indicate the societal image of a good mother (Hays, 1996; Johnston & Swanson, 2003; Liss, Schiffrin, & Rizzo, 2013; Warner, 2006). Qualitative evidence exists to support the presence of themes related to motherhood and the expectations of society whereby mothers are expected to 'do it all' (Beck, 2002; Choi, Henshaw, Baker, & Tree, 2005; Mauthner, 1999).

The variable of social support has been shown to have a negative relationship with depression and anxiety (Beck, 2002; Pierce, 1999). A study done by Harwood (2004) found that social support did not significantly contribute to overall experience scores using the Parenting Expectations Measure. In addition to social support, employment status information will be collected on the demographics tool. Employment status has contributed to feelings of anxiety and much debate between stay-at-home mothers and mothers who work outside the home (Tummala-Narra, 2009; Warner, 2006). The focus of the debate, according to these authors, is who is the better mother; the one who stays at home full time, or the one who maintains her career while taking on the duties of home.

The idea of intensive parenting originated in a book by Hays (1996) which chronicles the development of this attitude towards mothering in American society. Hays (1996) found three components of intensive parenting: (1) regarding children as sacred and fulfilling for parents; (2) accepting that the mother is the best caregiver for the children; and (3) providing a consistent, intellectually stimulating environment for the child. Spurned by the multitude of child-rearing guides available to mothers, the role of motherhood has become an intense, time-consuming effort to ensure that the actions typical of good mothers are emulated (Hays, 1996). The components of intensive parenting reflect the directives of child-rearing experts such as Spock, Brazelton, and Leach. Hays (1996) implies that the popularity of these parenting guides represents the overall attitude towards parenting in contemporary American society .

Despite updated versions of the parenting books, Hays (1996) notes that all three authors continue to assert that the ideal primary caregiver is the mother; consistently using the pronoun "she" when referring to the caregiver. The presumed innate ability of women to exhibit the mothering behaviors of nurturing, caretaking, and loving their child is a mainstay of these manuals. The intense, time-consuming nature of motherhood is glorified in how the books advise parents to attend to the child's needs. Attachment is a common concept where the mother will instinctually find herself cuddling and loving her child so the bond between them is formed. Without this, the experts say, the child may never be able to have a healthy relationship with others (Hays, 1996). The child becomes the center of attention as caregivers learn to interpret cues in order to give the child what they need. The best way to do this is to know the age-appropriate stages the child is

going through so needs can be anticipated and mother and child will be happy. Finally, the idea of children as sacred is taken to the extreme by these child-rearing experts. According to Hays, the authors suggest that mothers who work outside the home should leave their sense of efficiency and their need to work for financial gain at the workplace so they can be flexible and nurturing at home. All three advise that the best way to cultivate a caring child is for the mother to be at home full time.

The three principles of Intensive Parenting are the basis for the Intensive Parenting Attitudes Questionnaire (IPAQ). Liss et al. (2012) developed this questionnaire to assess parental attitudes towards the tenets of Intensive Parenting. In the initial study, an online link to the surveys was posted on Facebook and various parenting blogs yielding a sample size of 595 mothers aged 20 to 73 and 209 non-mothers aged 17 to 58. Groups were homogeneous and comprised of mostly white, well-educated, and middle to upper middle class women. When parenting attitudes between the mothers and non-mothers were compared, mothers scored significantly higher on items which regarded motherhood as challenging and viewed mothers as the best caregiver for the child. Non-mothers scored higher on items related to intellectual and psychological stimulation of the child and child-centered ideals indicating an idealistic view of motherhood (Liss et al., 2012).

Findings from this study indicate that many women recognize and identify with the Intensive Parenting beliefs. The study reported that the instrument was reliable for both mothers and non-mothers except for the non-mothers on the stimulation items

(Cronbach's alpha= 0.57). These items are related to how involved the parent should be in providing optimal, intellectually stimulating care to their child.

A study using the new IPAQ was done to determine the relationship between intensive parenting and stress, depression, and life satisfaction (Liss, Schiffrin, & Rizzo, 2013) The researchers also examined the impact of social support on mental health related outcomes in the presence of high scores on the IPAQ. The sample consisted of 181 mothers with children under the age of five, mostly Caucasian, middle to upper middle class, and had a domestic partner. Additionally, 53.9% worked full time and 31.1% were stay-at-home mothers (Liss, Schiffrin, & Rizzo, 2013). The participants completed the IPAQ, the family subscale of the Multidimensional Scale of Perceived Social Support, the Center for Epidemiologic Studies-Depression Scale, the Satisfaction with Life Scale, and the Perceived Stress Scale. Researchers found that the subscale Essentialism, the attitude that mothers are the best caregiver, was positively correlated with stress (r=.24, p< .01) and negatively correlated with life satisfaction (r= −.38, p<.001). Those who scored higher on the Challenging subscale had lower life satisfaction scores (r= −.15, p< .05) and higher depression (r= .20, p< .01) and stress (r= .29, p <.001) scores. Finally, Child-Centered scores were negatively correlated with life satisfaction (r= −.16, p <.05). In relation to the effect of social support on mental health, in hierarchical regression models, higher scores on the Essentialism subscale still predicted life satisfaction. The belief that parenting is difficult (Challenging subscale) predicted stress and depression despite social support.

Psychological factors. The factors of depression and anxiety have been demonstrated to impact maternal quality of life significantly. However, the impact of expectations on the development of depression and anxiety is not known.

***Depression*.** Quality of life studies in the postpartum period focus on the relationship between depression and quality of life. Researchers have found a link between symptoms of depression and reports of poor quality of life, specifically within the mental health or psychological scales of the instrument used (Darcy et al., 2011; DaCosta et al., 2006; Tychey et al., 2006). No studies were found that examine the relationship of quality of life to maternal expectations, intensive parenting beliefs, or anxiety.

Darcy et al. (2011) recruited 217 mothers who planned to return to work full time before four months postpartum. The women completed the Center for Epidemiologic Studies Depression scale, the short form of the quality of life 12 scale, and an infant-toddler quality of life scale over the course of 16 months after delivery. The researchers found that 32% of the mothers had significant depressive symptoms at the four month screening. When there were depressive symptoms reported, scores on the physical and mental domains of the quality of life tool were lower (Darcy et al., 2011).

A study done in France by Tychey et al. (2006), proposed that women who were reporting depressive symptoms would have a lower quality of life score, but that the gender of the child may also influence the score. The instruments were given between four and eight weeks postpartum. The GHQ12 and EPDS were used to assess for depressive symptoms and the SF36, a generic quality of life tool, was used. The results

supported their hypothesis where all domains of quality of life were rated lower by those women who also had symptoms of depression. Specifically, the domains of mental, social, and emotional functioning were significantly lower than the physical domains of quality of life (Tychey et al., 2006). Results also showed that when the gender of the child was male, there were significantly lower ratings of physical role (p<0.00), emotional role (p=0.01), and vitality (p< 0.00). The researchers in this study theorize cautiously that the mothers may have had negative experiences with males in their lifetimes and are expecting their baby to have the same problems. They also speculate that the mothers with a lack of experience with male children may be biased in thinking boys are more difficult to manage. Both theories are purely speculative as no prior research has been done relating quality of life and depression to gender of the newborn.

Setse et al. (2008) completed a longitudinal study which started in early pregnancy and ended postpartum to see how depressive symptomology affected maternal functioning. Data was collected at four time points after recruiting 200 pregnant women. The Center for Epidemiologic Studies Depression Scale and the Health Related Quality of Life measure were administered at 14 weeks, 18 to 22 weeks, 28 to 32 weeks, and within three days after delivery (Setse et al., 2008). The percentage of women whose depressive symptom scores were greater than 16, indicating significant depressive symptoms, was 12% in the first trimester, 14% in the second trimester, 30% in the third trimester, and 9% after delivery.

When the researchers performed the analysis of depressive symptoms and their effect on quality of life, and adjusted for socio-demographic status, social support, and

clinical factors (Setse et al., 2008), functional status in quality of life scores was significantly lower in those women who experienced depressive symptoms. The measurements were followed over time so a change from depressive symptoms to no depressive symptoms was shown between trimesters. When compared to women who never had depressive symptoms, women whose symptoms had improved scored higher in bodily pain, general health, vitality, and mental health. When observed from the third trimester to after delivery, women whose depressive symptom scores increased still reported lower scores on mental health and social functioning. Based on these findings, the authors suggest that further studies should be done to determine if depression precedes changes in quality of life or vice versa (Setse et al., 2008). The current study uses quality of life as an outcome to try to determine if there is depression which eventually will change quality of life. It could also be that lower perceived quality of life ultimately contributes to depression.

Anxiety. According to a recent qualitative study, anxiety has been overlooked as most research on mood disorders is focused on depression (Wardrop & Popadiuk, 2013). The authors aim is to understand the experience of anxiety in postpartum women. Their interest stems from research that has found anxiety to be more prevalent than depression in postpartum women, which creates negativity towards motherhood and weakens the self-confidence of the mother (Hart & McMahon, 2006). The description of anxiety includes symptoms such as restlessness, racing heart, sense of dread, worry, and fear or phobia which may be experienced by the postpartum woman (Wardrop & Popadiuk, 2013). There were six women interviewed, all had children younger than three years old

and all held a Bachelor's degree or higher. Some of the themes that became evident were increased reported anxiety based on expectations of a new mother; either based on what the women thought they should do, or what they believed was expected of them by others and society. Some areas where expectations did not match reality included the following: being prepared for motherhood, physical appearance, and bonding with the newborn in the delivery room. Participants noted that they would compare themselves to other mothers—their own mother, or friends who were mothers—in order to determine if they were fulfilling their role.

The researchers also found that support was an issue with the new mothers. The support that they expected from their husbands, mothers, and healthcare providers was not evident in reality. The mothers mentioned how they were dismissed if they tried to express feelings of worthlessness, anxiety or sadness, which made their negative emotions worse. Another theme was societal scripts of motherhood, where the women discussed feeling pressured by society to do things right. They commented on myths of motherhood, and how the myths are portrayed in the media, television and movies, as being much easier than reality (Wardrop & Popadiuk, 2013). This study, although small, highlights the experience of mothers and the feelings of anxiety they have related to expectations.

Anxiety in women has been reported to have a higher prevalence than depression, especially in the first one to two weeks post-delivery (Austin et al., 2010; Wenzel et al., 2003). These studies also found that as time progressed, levels of anxiety decreased. It has been noted that the impact of delivery, becoming a mother, and meeting expectations

have created stress and anxiety in new mothers, especially primiparas (Austin et al., 2010; Wardrop & Popadiuk, 2013). Few studies have been done to examine variables that might increase or decrease anxiety in pregnancy and postpartum. Studies found have correlated demographic factors to anxiety with primiparas, low socioeconomic status, previous mental illness, and lower education as the predictors of postpartum anxiety (Austin et al., 2010; Britton, 2008). As evidenced in the qualitative study by Wardrop and Popadiuk (2013), there may be other factors that contribute to anxiety, specifically expectations of motherhood and mothers by society. When the new mother compares herself to these 'models', she may determine that she is not meeting the expectations, and thus a gap is formed. If this gap is highly valued by the mother then, regardless of the gap size, her quality of life may diminish according to the theory by Calman (1984). The investigation of contributing factors to quality of life, as will be done in the proposed study, is crucial to developing methods to address the modifiable risk factors that may negatively affect quality of life.

Summary of Literature

Based on the review of literature, there is a gap in knowledge regarding the relationship between expectations, maternal attitudes, mood (e.g. depression and anxiety), and maternal quality of life. The unique contribution of this study will be the measurement of these variables in the antepartum and postpartum period. Demographic and health factors such as employment status, marital status, type of delivery, and gravida/parity will be assessed since previous studies have reported that these may affect the outcomes being studied. This study will include the variables of depression and

anxiety and their impact on maternal quality of life. It is expected that there will be a negative relationship between depression and anxiety and maternal quality of life based on previous studies. How expectations impact maternal quality of life has not been studied and is also a unique contribution of this study.

CHAPTER THREE

METHODOLOGY

Design

This study used a prospective, descriptive correlational design. The data collection occurred at two time points, first within the 34–42 week antenatal period which is when most pregnant women have attended prenatal classes and prepared for motherhood. The participants also completed tools at the six-week postnatal visit which is the point where by postpartum depression seems to become evident (American Psychiatric Association, 2013; Cox & Holden, 2003). Collecting data in this fashion was reflective of the prospective design. The relationship between the variables has been examined with depression and the experience of motherhood as outcomes but not with maternal quality of life. Direction and strength of the correlation between anxiety, depressive symptoms, maternal expectations, and attitudes towards parenting with quality of life is the purpose of this study. Due to the lack of statistically supported knowledge regarding this phenomenon, a descriptive, correlational design was appropriate (Polit & Beck, 2008).

Setting

This study was conducted at a large, Midwestern medical center which serves a diverse population. Women receiving prenatal care from one of three obstetrics care offices affiliated with the medical center were participants. The office is located in a

suburb within ten miles of the medical center. Data collection took place from September, 2014, to November, 2015. The site served primarily Caucasian, middle class women and this was the target sample for this study.

Sample

The sample for this study was a convenience sample. The participants were recruited at their obstetrician visit once they had completed 34 weeks. Inclusion criteria for participation included age 18 and over, English speaking and reading, 34 or more weeks pregnant, and primipara. Exclusion criteria included a pregnancy that requires bed rest.

Sample size was calculated using the PEM which represents the concept of interest related to the Quality of Life theory. The tool is given prenatally to measure expectations of motherhood and postnatally to measure experience of motherhood (Harwood, 2004). The number of participants necessary to have an α of 0.05 and power of 0.80 with an effect size calculated from previous research data as 0.33 would be 67 participants. This effect size was calculated using data from the psychometric testing of the PEM. The difference between antepartum and postpartum average total scores was calculated then divided by the standard deviation of the postpartum scores (298.71–288.72 / 30.35= 0.33). This figure was calculated based on the above settings using the Gpower 3.1.2 calculator online.

The other measures have not been tested using a sample of antepartum then postpartum women within the same study. Therefore, in order to ensure an adequate sample size, given that there are 10 key variables (See Table 1), a 10-subject minimum

per variable would include 100 participants. However, because of the prospective nature of the study, an attrition of 20% is anticipated so a sample size of 120 subjects should provide sufficient power to achieve the study aims.

Recruitment of Study Participants

This sample was obtained by establishing contact with the director of women's health at Loyola University, Chicago, for approval to use the sites. The IRB forms were completed and submitted to the respective IRB for approval. With approval obtained, the obstetrics office staff was educated on the study process and participant criteria.

The researcher worked with the outpatient office manager to identify potential participants for the study. The investigator would notify the nursing staff of potential participants for the day, and nursing staff would get permission from the patient to allow the investigator to discuss the study with them. If the patient agreed, the investigator would review the study with the patient and have the informed consents signed if the patient wanted to participate in the study. The participant would then complete the questionnaires while waiting for the doctor, or after the visit was concluded (Appendix A). During the informed consent process, participants were made aware that by signing consent, the investigator would have access to their electronic medical record. Participants were also aware that in completing measures of mood, their healthcare provider would be notified if additional assessment was required based on their responses. Each participant was assigned a unique numerical identifier which was recorded on their questionnaires. This number was also the only identifier used when entering data to SPSS.

Collection of Data

Questionnaires were completed by participants at their prenatal visit and also at their six-week postpartum visit at the obstetrician's office. The questionnaires took 30–90 minutes to complete, depending on timing with the doctor. Meeting times with the participants for the postpartum visit were scheduled via phone call. If the participant did not respond, an email and text message was sent using the information provided on the demographics form completed by the women. Follow-up meetings occurred primarily at the obstetrician's office, others took place at the participant's home or other convenient location. Participants were aware that their health care provider would be notified again if the responses to the questionnaires on mood warranted further assessment.

The participants completed questionnaires that addressed their expectations of motherhood, attitudes towards parenting, quality of life, social support, and mood. A demographic form was also completed by the participants which included age, race, marital status, socioeconomic status, history of depression and anxiety, and medications (Table 2). Participants were also asked to rank who had most influenced their image of motherhood and completed an open-ended question on words or phrases that describe a 'good' mother. Information gathered from the electronic medical record included delivery date, method of delivery, and date of the six-week postpartum office visit.

Measurements

Measurements were organized according to the conceptual model used for the study. These are listed in Table 1 and described accordingly. The tools are included in Appendix A.

Table 1. Key Study Concepts and Measurements

Key Study Variables		**Measurement**
Expectations	Experience of motherhood	• Parenting Expectations Measure
Maternal Quality of Life	Overall Quality of Life	• Ferrans & Powers Quality of Life Index-Maternal Version
Contributory Factors		
Physical	Maternal Health Factors	• Type of delivery • Gravida and parity
Social	Image of Motherhood	• Intensive Parenting Attitudes Questionnaire • Open-ended questions regarding perceptions of motherhood
	Demographics	• Multidimensional Scale of Perceived Social Support • Employment
Psychological	Depression	• Edinburgh Postnatal Depression Scale
	Anxiety	• General Anxiety Disorder-7

Expectations. The Parenting Expectations Measure (PEM) was developed to gain an understanding of women's expectations of motherhood both antepartum and postpartum. Harwood (2004) notes that measures currently available do not address the experience and reality of motherhood but, rather, measure beliefs and attitudes towards parenthood. The PEM focuses on three aspects of life that may differ from antepartum to postpartum: relationship with the spouse, physical and psychological well-being, and relationships with others such as friends and family.

The measure originally contained 103 items adapted from various instruments which addressed the experience of motherhood. It also contained 26 items developed by Harwood from research that had found discrepancies between certain aspects of expectations and reality. The PEM was administered to a group of 87 first-time mothers in Australia. Items were removed and the final instrument retained 55 of the original 103 items (Harwood, 2004). Cronbach's alpha scores for this initial study were 0.94 overall, infant expectations subscale 0.84, partner expectations 0.83, self-expectations 0.86, and social expectations 0.70. Harwood (2004) reports that factor analysis was not done with this data because of the small sample size.

Participants rated each statement on a Likert scale from 1 (strongly disagree) to 7 (strongly agree) (Harwood, McLean, & Durkin, 2007). The statements are phrased so that they reflect expectations during pregnancy and experiences in the postpartum period. Harwood, McLean and Durkin (2007) which examined the psychological effect of a discrepancy between expectations and reality used the tool in the antepartum and postpartum periods. The Cronbach's alpha scores for this study were the following:

infant expectations .76, self-expectations .86, partner expectations .80, and social expectations .75. The postpartum version of the tool had Cronbach's alpha scores of .77 for infant expectations, .82 for self-expectations, .89 for partner expectations, and .73 for social expectations (Harwood, McLean, & Durkin, 2007).

Maternal quality of life. The outcome variable of maternal quality of life was measured by an adapted version of the Ferrans and Powers Quality of Life Index (QLI). The generic version was developed with the unique component of not only measuring satisfaction in four areas of life but also having the participant place value on those areas.

There are four domains assessed with this tool: health and functioning, psychological and spiritual, social and economic, and family. Part one of the questionnaire has choices ranging from 1 (very dissatisfied) to 6 (very satisfied) where the participant rates how satisfied they are in regard to 33 statements (Ferrans & Powers, 1992). This is followed by part two which asks participants to place value on each statement, thus placing value on the four factors, which ranges from 1 (very unimportant) to 6 (very important). The statements for each part are identical.

Reliability testing of the generic version resulted in Cronbach's alpha scores of 0.93 for a sample of 349 hemodialysis in-patients (Ferrans & Powers, 1992). Factor analysis confirmed the presence of the four factors and Cronbach's alphas for each were as follows: health and functioning (0.87), psychological and spiritual (0.90), socioeconomic (0.82), and family (0.77). Subsequent reports of reliability showed Cronbach's alpha for the overall tool of 0.73–0.99 and ranges for the factors as follows: health and functioning (0.70–0.94), psychological and spiritual (0.78–0.96),

socioeconomic (0.71–0.92), and family (0.63–0.92) (Ferrans & Powers, n.d., QLI website).

Four items were added to the generic index in consultation with Dr. Ferrans via email March 24, 2014). These items are the following: (1) your ability to be a good mother; (2) the life changes you have had to make related to motherhood; (3) your ability to find time for everything you need to do; and (4) your ability to get enough time for rest and sleep. These items are related to the specific challenges of motherhood and were reflective of the quality of life experienced prior to and after delivery. The Quality of Life Index was the tool used to measure the major outcome variable used for the study, identified as the Maternal- Quality of Life Index (M-QLI) which included the new items

Factors contributing to expectations and quality of life. The physical, family and social, as well as psychological components contributing to expectations and quality of life are described below.

Physical component. There are certain physical factors that have been shown to impact quality of life. The following will be collected from the patient: type of delivery, age, and gravida and parity. Research has shown that women who have a vaginal delivery report higher quality of life compared to those who have a cesarean section (Huang et al., 2011; Sadat et al., 2013). Maternal age and gravida and parity have not been included as variables in previous studies.

Family and social component. Social beliefs and cultural influences affect quality of life according to Calman (1984). For this study, the social component was

examined using the Intensive Parenting Beliefs Questionnaire and the open-ended question.

Intensive parenting beliefs. The Intensive Parenting Beliefs Questionnaire (IPAQ) was developed by Liss, Schiffrin, Mackintosh, Miles-McLean, and Erchull (2012) to assess the degree to which mothers support statements that describe motherhood. Items were generated based on the qualitative interviews of Hays (1996), who coined the phrase "intensive parenting" to define the activities and attitudes of an ideal parent. Participants use a six-point scale ranging from strongly disagree (1) to strongly agree (6) in response to 25 statements. Psychometric testing of the instrument in a sample of 595 mothers was done, and using factor analysis, the authors determined five factors within the tool (Liss et al., 2013). The first factor, Essentialism, which asserts that mothers are the most capable person to care for their children, had a Cronbach's alpha of 0.84–0.85. Fulfillment, which states that parental happiness is principally derived from the child, had Cronbach's alpha of 0.74–0.77. The factor, Stimulation, relates to the belief that parents should seek out the best educational and recreational activities for their child, and had a Cronbach's alpha of 0.61–0.64 (Liss et al., 2012). Challenging, the fourth factor, describes the reality of raising children as difficult. This factor had a Cronbach's alpha of 0.73–0.76. Finally, the Child-Centered factor refers to the idea that parents should always sacrifice for their children's needs (Cronbach's alpha= 0.70–0.75).

The IPAQ results were used to describe the women's attitudes towards motherhood using the current ideals in American culture. The administration of the tool prior to and six weeks after delivery indicated agreement or disagreement with this

prescription for mothers from two different standpoints. A change in attitude may relate to a change in quality of life for the new mother either as she adjusts the attitude to a more realistic view or is unable to adjust and suffers a decrease in quality of life in response. Evaluation of maternal attitudes towards motherhood as measured by the IPAC may affect quality of life scores (Calman, 1984).

Demographics. The information collected that related to the social component of quality of life were the following: employment status/income, and reading books or belonging to a new mom's group postpartum. Martin and Jomeen (2010) describe factors which impact quality of life in the ante- and postnatal woman which include partner support, expectations, and social economic status. This information was obtained from each participant by completing the demographic form before and after delivery. Social support information was also collected using the Multidimensional Scale of Perceived Social Support.

The Multidimensional Scale of Perceived Social Support (MSPSS) is a 12-item tool which measures subjective social support using a Likert scale ranging from 1 (very strongly disagree) to 7 (very strongly agree). Initial psychometric testing of the instrument by the authors report three subscales: family, friends, and significant other (Zimet, Dahlem, Zimet, & Farley, 1988). Calculated Cronbach's alpha for the tool has ranged from 0.85–0.91 according to the authors. The tool has also been used in antepartum women, yielding Cronbach's alpha of 0.92 (Zimet, Powell, Farley, Werkman, & Berkoff, 1990).

Psychological component. The variables of depression, anxiety, and parental expectations were assessed in the antepartum and postpartum periods in order to assess the psychological component of quality of life.

Depression. The Edinburgh Postnatal Depression Screening Scale (EPDS) is one of the most frequently used tools in studies of postpartum depression (Boyd et al., 2005). The instrument was developed in 1987 to capture the unique dimensions of depression that occurred within the first year postpartum (Cox et al., 1987). In constructing the tool, the authors chose items which would most closely reflect the influence of the latent variable-postpartum depression. The EPDS is a 10-item tool which asks the participant to think back over the past seven days to respond to the statements (Cox et al., 1987). Responses are worded according to the item and range from having the thought or feeling 'quite often' to 'not at all'. The responses vary per each item and are coded 0–3 depending on the item.

The intended population for this tool was originally women who were two weeks postpartum. Cronbach's alpha scores range from 0.73–0.91. Using this tool, symptoms of postpartum depression are present when the participant's total score is greater than 12 (Beck & Gable, 2001; Boyd et al., 2005; Harwood, McLean, & Durkin, 2007; Mayberry, Horowitz, & Declercq, 2007; Records et al., 2007).

In 2009, researchers performed a review of literature to determine if the EPDS could be used in the antepartum population. Gibson et al. (2009) proposed that antepartum women naturally experienced a higher level of anxiety, so the cutoff was raised to 15 or greater. The rationale was to identify those who were experiencing higher

than average levels of anxiety. Studies that used the cutoff score of 12 in antepartum samples reported a Cronbach's alpha of 0.80–0.86 (Mosack & Shore, 2006; van Bussel, Spitz, & Demyttenaere, 2009).

Anxiety. The General Anxiety Disorder-7 (GAD-7) was used to assess the symptoms of anxiety in the antepartum and postpartum periods. Participants responded to seven statements by selecting 'not at all' (0) to 'nearly every day' (3) when thinking about the last seven days. The instrument was developed using nine items that reflected diagnostic criteria from the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition* and four items from existing anxiety-screening tools (Spitzer, Kroenke, Williams, & Lowe, 2006). Instrument developers believed that anxiety was overlooked because of the lack of a self-report, brief tool available to physicians. The 13-item tool was psychometrically tested on a sample of 1654 patients from family practice and internal medicine physician offices. From this sample, 965 were randomly selected to be contacted by a mental health professional to show procedural validity (Cronbach's alpha = 0.83). When comparing the results of item correlations with the total score, the seven highest correlated items were retained for the final tool (Spitzer et al., 2006).

Initial psychometric testing of the tool showed good internal consistency (Cronbach's alpha= 0.92) (Nunnally & Bernstein, 1994; Spitzer et al., 2006). Scores on eight depression items from the Patient Health Questionnaire were combined with scores on the GAD-7 to also determine validity using principal component analysis. The results confirmed that the two measures did not overlap in their factors but the two factors loaded items related to each separate tool. According to associations with functional

impairment, mental health personnel interview, and disability days, the GAD-7 was also able to determine severity of anxiety. A score of 10–14 represented moderate anxiety and a score of 15–21 was consistent with severe anxiety (Spitzer et al., 2006).

One study has used the GAD-7 during the antepartum period. Pop et al. (2011) used the cutoff score of ten to indicate moderate anxiety validated the tool that combined symptoms and depression and anxiety for use in the antepartum period (Pop et al., 2011). The report of the Cronbach's alpha for the GAD-7 in this study was 0.87 in pregnant women.

The GAD-7 in combination with the EPDS was used to describe the psychological variable in the study which was examined in relation to quality of life. In both instruments, higher scores reflect higher levels of symptoms.

Human Subjects Protection

Request for approval to conduct this study was submitted to the Institutional Review Board at Loyola University Medical Center. Informed consent was explained and signed by all participants prior to data collection. The consent included a statement that their healthcare provider would be informed at both visits if the participant responded positively to item number ten on the EPDS, "The thought of harming myself has occurred to me," and/or item number seven on the GAD-7, "feeling afraid as if something awful might happen". The participants' information was coded with an identification number and responses were anonymous. The tools completed on paper have been kept by the investigator in a locked file cabinet and electronic information was stored on the investigator's password protected computer.

This study had minimal risks to the participants and no physical discomfort was reported. The investigator reported to the patient's obstetrician when a positive score was recorded on item number ten on the EPDS and/or item number seven on the GAD-7. There was no expense to the patient and the forms took about 30–45 minutes to complete. A gift card was given to participants after completing the tools both ante- and postpartum. The above risks were explained to the patient during discussion of informed consent.

The minimal risks involved in this study will provide benefits to future women experiencing poor quality of life postpartum. The impact of the findings for future use is to provide information regarding the combination of factors which contribute to quality of life during the early postpartum period.

Knowledge gained from this study will help nurses and health care providers better understand the expectations of pregnant women and the realities of motherhood. In addition, exploring the factors that impact quality of life during the antepartum and postpartum period will help women to prepare for motherhood with a more realistic perspective.

CHAPTER FOUR

RESULTS

The analysis and subsequent study results will be discussed, starting with the description of the sample and the variables examined in the study. The results will also cover the analyses as they correspond to the aims. There were three study aims: (1) Aim 1—to describe expectations and maternal quality of life during pregnancy and the postpartum period as well as factors that may contribute to maternal quality of life at these points in time; (2) Aim 2—to determine whether expectations, attitudes towards motherhood and mood (anxiety, depression) will be predictive of maternal quality of life during the antepartum and postpartum time points; and (3) Aim 3—to examine whether women who have a greater difference between expectations and experience of motherhood (higher or lower) report a similar change in maternal quality of life. One exploratory aim was proposed: to discover the characteristics of a 'good mother' as described by antepartum women and the factors influencing their description.

Description of the Sample

The study sample was obtained at the obstetrician's office where 75 women were asked to be participants after describing the study, 72 of these women agreed to participate. Of these 72 women, only 61 completed both the antepartum and postpartum questionnaires which resulted in an attrition of 15%. This was due to the researcher

being unable to contact the 11 participants after repeated attempts by phone, email, or text. This convenience sample was collected between -09/14 and 11/15.

The sample was primarily Caucasian (74.2%), married (69%), employed (73%), had no history of depression or anxiety (84.7%, 87.5%), and had an income of greater than $50,000 per year (49%). The average age of the sample was 27.9 years and ranged from 19 to 40 years old. Other races represented in the sample were Asian (2.8%), American Indian (1.5%), and Black (7.6%) which is consistent with the population receiving prenatal care at this office location. The groups who did and did not complete the study were not significantly different on age [$t(61)= 1.36$, $p=.18$], and chi-square analyses showed no significant differences between groups on history of depression or anxiety, marital status, income, and race.

Table 2. Description of Sample

Variable	Total Sample N=72 (%)	Sample who Completed Study N=61	Sample who Did not complete Study N=11
Age Mean (SD) Range	29.7 (4.97) 19-40	30 (5.11) 19-40	27.9 (4.23) 20-33
<u>Ethnicity</u> Hispanic Non-Hispanic	 13 (18.1%) 59 (81.9%)	 11 (18.3%) 49 (81/7%)	 2 (16.7%) 10 (83.3%)
<u>Race</u> White Black Asian American Indian Other	 49 (74.2%) 5 (7.6%) 2 (2.8%) 1 (1.5%) 9 (12%)	 42 (70%) 3 (5%) 1 (1.7%) 1 (1.7%) 8 (13.4%)	 7 (58.3%) 2 (16.7%) 1 (8.3%) 0 1 (8.3%)

Table 2. Description of Sample (cont.)

Marital Status			
Married	49 (69%)	42 (70%)	7 (58.3%)
Divorced	1 (1.4%)	1 (1.7%)	0
Separated	1 (1.4%)	1 (1.7%)	0
Single, not living with partner	7 (9.9%)	5 (8.3%)	2 (16.7%)
Single, living with partner	12 (16.9%)	9 (15%)	1 (8.3%)
Income			
Less than $5000	5 (7.4%)	3 (5%)	3 (25%)
$5000-$9,999	3 (4.4%)	2 (3.3%)	1 (8.3%)
$10,000-$19,999	3 (4.4%)	3 (5.3%)	0
$20,000-$29,999	7 (10.3%)	7 (11.7%)	0
$30,000-$39,999	7 (10.3%)	3 (5%)	4 (33.3%)
$40,000-$49,999	9 (13.2%)	9 (15%)	0
$50,000-$59,999	9 (13.2%)	7 (11.7%)	2 (16.7%)
$60,000-$69,999	9 (13.2%)	7 (11.7%)	2 (16.7%)
Over $70,000	16 (23.5%)	16 (26.7%)	0
History of Depression			
Yes	11 (15.3%)	9 (15%)	3 (25%)
No	61 (84.7%)	51 (85%)	9 (75%)
History of Anxiety			
Yes	9 (12.5%)	8 (13.3%)	1 (8.3%)
No	63 (87.5%)	52 (86.7%)	11 (91.7%)

Data Entry

Upon completion of data collection, the data were entered into a statistical software database (SPSS Windows Version 23.0, SPSS, Chicago, IL). Entry errors were corrected by manually checking all the data, and a randomly selected group of 5 questionnaire booklets were hand scored to verify the computer analysis. The data was analyzed by using only ID numbers assigned to the participants, names and identifying information such as medical record numbers were not included in data entry. Missing data was minimized by checking the questionnaire packets upon completion. The largest amount of missing data was found in the antepartum questionnaire for quality of life.

Since the women in the sample were all primiparas, many did not answer the item which asked, *How important are your children to you?* After discussion with Dr. Ferrans, the instrument developer, it was decided to leave this item out for the Cronbach's alpha analysis, as the SPSS syntax would adjust for this item automatically (C.E. Ferrans, personal communication, August 8, 2015).

Data Analysis of Key Study Variables

In order to prepare for data analysis, there was an evaluation of normality using histogram plots for each key variable. The variables that were positively skewed for both time points were scores from the depression and anxiety measures, while negatively skewed scores were found in the social support scores. Although these scores were skewed, the scores were consistent with samples of similar demographic characteristics, and this phenomenon was verified with Dr. Paula White, director of the Obstetrics and Gynecology group; thus transformation of the data was not done. The scores for age, quality of life, parenting attitudes, and parenting expectations for both time points were normally distributed based on the histograms.

Quality of life. The key outcome of quality of life was measured using the modified Ferrans and Powers Quality of Life Index, the M-QLI. This questionnaire uses a 6-point Likert scale ranging from very dissatisfied/moderately unimportant (1) to very satisfied/very important (6). There are 38 items and two parts to the questionnaire. The first 38 items ask how satisfied the respondent is and the second identical 38 items ask how important each area of their life is to them. Total and subscale scores were calculated using the prescribed SPSS syntax from the developers which created a score

reflective of quality of life that incorporated importance. There were 4 items added to the questionnaire with the help of Dr. Ferrans to include aspects of prenatal and early postnatal areas.

The overall Cronbach's alpha for the questionnaire in this study was .94 during the antepartum time point and .95 for the postpartum. The antepartum subscale scores' Cronbach's alphas were: health and functioning .85, socioeconomic .75, psychological and spiritual .89, and family and social .68. After consulting with Dr. Ferrans, items 12 and 27 were excluded from the reliability analysis. Item 12 was unanswered by most participants as they were all primiparas and the item asked how satisfied they were with their children. Item 27 was excluded from both the antepartum and postpartum analysis of reliability because it assumed the participant was unemployed and a majority of the participants were employed (74%). The postpartum subscale scores for this study were as follows: health and functioning .89, socioeconomic .87, psychological and spiritual .86, and family and social .63. The family and social reliabilities for antepartum and postpartum were noted as low but compared to previous studies, were within the reported range of .63–.92 (Ferrans & Powers, n.d., QLI website).

Table 3 provides the means and standard deviations for the antepartum and postpartum times. Information regarding individual item means is presented in Table 4.

Table 3. Mean Scores for the QLI

	Antepartum	Postpartum
QLI total score	24.35 (2.92)	24.58 (3.21)
• Health and functioning	23.21 (3.47)	23.61 (3.61)
• Social and economic	24.48 (3.76)	24.47 (4.60)
• Psychological/spiritual	25.28 (3.14)	25.02 (3.35)

• family/social	25.94 (3.77)	26.86 (3.10)

Table 4. Item Highest and Lowest Means on the QLI for Antepartum Satisfaction

Item	Antepartum Mean (SD)
High Scores	
15.Your spouse, lover, or partner	5.66 (.69)
31.Your chances for a happy future	5.64 (.52)
35.Your happiness in general	5.53 (.57)
Low Scores	
7. How prepared you are for giving birth	4.42 (1.07)
4.The amount of energy you have for everyday activities	4.25 (1.49)
5.The amount of rest and sleep you get	4.20 (1.47)

Table 5. Item Highest and Lowest Means on the QLI for Postpartum Satisfaction

Item	Postpartum Mean (SD)
High Scores	
19.Your ability to be a good mother	5.68 (.51)
31.Your chances for a happy future	5.54 (.65)
33.Your faith in God	5.53 (.89)
17.The emotional support you get from your family	5.51 (.94)
Low Scores	
14.Your sex life	4.26 (1.49)
21.Your ability to find time for everything you need to do	4.25 (1.33)
5.The amount of rest and sleep you get	4.02 (1.28)

Table 6. Item Highest and Lowest Means on the QLI for Antepartum Importance

Item	Antepartum Mean (SD)
High Scores	
19.Your ability to be a good mother	5.97 (.18)
15.Your spouse, lover, or partner	5.90 (.31)

Low Scores	
33.Your faith in God	5.25 (1.29)
23.The amount of worries in your life	5.07 (.98)

Table 7. Item Highest and Lowest Means on the QLI for Postpartum Importance

Item	Postpartum Mean (SD)
High Scores	
12.Your children	5.98 (.13)
19.Your ability to be a good mother	5.97 (.18)
13.Your family's happiness	5.90 (.44)
1.Your health	5.88 (.33)
35.Your happiness in general	5.88 (.33)
Low Scores	
22.How useful you are to others	5.12 (1.00)
23.The amount of worries in your life	5.02 (1.09)
33.Your faith in God	5.02 (1.73)

Expectations. Participants completed the Parenting Expectations Measure in order to assess expectations of motherhood prenatally, and after delivery, their experience of motherhood. This instrument has 55 items which are worded in future tense to determine the pregnant woman's expectations of motherhood, and 55 items in the present tense to see how a new mother actually is experiencing motherhood. Participants responded to the items using a seven point Likert scale, options from strongly disagree (1) to strongly agree (7). The items are divided into four subscales: Infant, Partner, Self, and Social. The Cronbach alphas for this study were as follows: total .93, infant .82, partner .80, self .85, and social .73 for the antepartum period. The postpartum reliabilities for this study indicated similar findings: total .94, infant .78, partner .90, self .81, and social .66.

Scores were calculated as total scores, according to the instrument developer's reports. Table 8 provides the means and standard deviations for the antepartum and postpartum time points. During the antepartum time point, items 5 and 26 had the highest means while items 6 and 7 were lowest. Items 5 and 26 had the highest mean scores in the postpartum time point and items 7 and 42 had the lowest mean scores. Information regarding individual item means is presented in Table 8.

Table 8. Means of Total Scores for Parenting Expectations Measure

	Antepartum	Postpartum
PEM	303.69 (SD 31.33)	308.75 (SD 32.18)
-Infant	61.95 (SD 7.21)	64.39 (SD 7.53)
-Partner	62.32 (SD 8.21)	61.7 (12.41)
-Self	103.05 (SD 12.60)	105.70 (SD 12.47)
-Social	68.05 (SD 8.03)	68.48 (SD 12.46)

n=61

Table 9. Item Means on the Parenting Expectations Measure

Item	Antepartum Mean (SD)	Postpartum Mean (SD)
1. I will have a feeling of "fulfillment"	6.18 (.79)	6.41 (.72)
2. I will have an increased appreciation for family tradition	6.17 (.84)	6.34 (.81)
3. I will have less contact with friends*	3.75 (1.39)	3.95 (1.75)
4. My partner will help out more with household chores	5.39 (1.26)	5.32 (1.67)
5. I will enjoy my baby's company	6.58 (.75)	6.82 (.47)
6. Being a parent will make me feel frustrated*	3.56 (1.78)	4.90 (1.68)
7. Caring for a baby will be very difficult*	3.07 (1.54)	3.39 (1.82)
8. I will feel more distant from my partner*	5.23 (1.48)	5.03 (1.78)
9. Breastfeeding will make me feel close to my baby	5.94 (1.09)	5.69 (1.33)
10. Becoming a parent will be the best thing that ever happened to me	6.31 (.83)	6.38 (.92)
11. There will be unwanted interference from other people in my life*	3.99 (1.67)	4.84 (1.98)
12. My friends and colleagues will think that I am less interesting*	5.34 (1.45)	5.75 (1.31)

Table 9 (cont.)

13. My partner will show too little attention to the baby*	6.38 (.90)	6.17 (1.34)
14. I will feel "edgy" or emotionally upset*	4.78 (1.64)	5.67 (1.42)
15. I will resent being the main caretaker of the baby*	6.15 (1.04)	6.25 (1.21)
16. My partner will get on my nerves*	4.94 (1.65)	5.43 (1.83)
17. My relationships with my relatives will be closer	5.24 (1.46)	5.39 (1.49)
18. Being a parent will make me feel happy	6.36 (.81)	6.64 (.61)
19. I will be disturbed by feelings I have towards my baby*	5.93 (1.29)	6.54 (.91)
20. I will enjoy breastfeeding my baby	5.42 (1.18)	5.32 (1.58)
21. My partner will be able to take care of the baby when I go out	6.28 (.96)	6.18 (1.24)
22. My family and friends will help me out after the baby is born	6.34 (.86)	6.38 (1.08)
23. Being a mother will make me feel fulfilled as a woman	5.82 (1.16)	6.16 (1.05)
24. My life will change for the better	6.35 (.72)	6.59 (.67)
25. My partner will show less attention to me*	5.47 (1.41)	5.55 (1.73)
26. I will feel proud to be a parent	6.57 (.75)	6.85 (.40)
27. Being a parent will be the most important thing in my life	6.17 (1.02)	6.44 (.90)
28. I will feel disappointed by parenthood*	6.22 (.95)	6.43 (.85)
29. I will be less sexually responsive*	4.94 (1.46)	4.15 (1.66)
30. I will feel that my friends without children no longer understand me*	4.94 (1.54)	4.97 (1.65)
31. I will return to my normal physical self within a few months of the birth of the baby	4.93 (1.58)	3.95 (2.16)
32. I will feel more vulnerable to being criticized by others*	4.89 (1.63)	4.89 (1.95)
33. I will find breastfeeding uncomfortable*	4.22 (1.44)	4.46 (1.80)
34. My partner and I will have more fun together	5.10 (1.15)	4.48 (1.54)
35. My partner will be less sensitive to my feelings*	5.77 (1.26)	5.53 (1.76)
38. I will form new friendships	5.72 (1.05)	4.26 (1.89)
39. I will feel that my baby loves me	6.47 (.71)	6.67 (.63)
40. The arrival of the baby will cause difficulties in my relationship with my partner*	5.54 (1.61)	6.05 (1.37)
41. I will continue my social activities as usual	4.03 (1.65)	3.93 (1.76)
42. I will feel confined to the house*	4.37 (1.56)	3.59 (1.50)
43. My partner and I will enjoy spending time together	6.10 (1.03)	6.03 (1.50)

Table 9 (cont.)

44. There will not be enough money for non-essential items or services (for example going to the movies, buying CDs or gifts)*	4.13 (1.90)	5.26 (1.79)
45. I will become too dependent on others when the baby is born*	5.81 (.99)	5.79 (1.34)
46. I will have more periods of boredom*	5.54 (1.50)	5.03 (1.78)
47. The messes that my baby will make will bother me a lot*	5.76 (1.36)	6.54 (.74)
48. I will sometimes regret having my baby*	6.49 (.99)	6.66 (.91)
49. My life will lack variety*	5.88 (1.32)	5.39 (1.55)
50. The demands of being a parent will restrict my social life*	4.74 (1.84)	3.93 (1.77)
51. Being a parent will increase my sense of independence	4.47 (1.57)	4.66 (1.66)
52. Being a parent will make me feel satisfied	6.13 (.87)	6.46 (.74)
53. My baby will be fun to play with	6.43 (.69)	6.56 (.76)
54. Being a parent will fit into the life I want to live	6.33 (.92)	6.38 (1.07)
55. I will receive emotional support from my family and friends	6.51 (.75)	6.63 (.55)

* Items that were reverse-coded for analysis

Parenting attitudes. The IPAQ was used to evaluate the participant's attitude towards statements regarding parenting beliefs. Participants responded to 25 items using a six point Likert scale with choices ranging from strongly disagree (1) to strongly agree (6). There were five subscales in the IPAQ: essentialism, fulfillment, stimulation, challenging, and child-centered. The Cronbach's alphas for this sample during the antepartum were: total .79, essentialism .85, fulfillment .65, stimulation .56, challenging .67, and child-centered .70. The postpartum Cronbach's alphas were as follows: total .84, essentialism .85, fulfillment .69, stimulation .58, challenging .69, and child-centered .73. The lower scores on the fulfillment, stimulation, and challenging scales are consistent with previous studies (Liss et al., 2012; Rizzo et al., 2013).

Scores were calculated as mean scores, according to the instrument developer's reports. Table 10 provides the means and standard deviations for the antepartum and postpartum time points. Information regarding individual item means is presented in Table 11. The highest scores for the antepartum time point were on items 9 and 25, while the lowest scores were on items 1 and 6. During the postpartum time point, items 9 and 25 were the highest scored items again, while items 1 and 6 were lowest.

Table 10. Mean Scores for the IPAQ

	Antepartum	Postpartum
IPAQ	3.77 (.46)	3.95 (.59)
-Essentialism	2.14 (.82)	2.51 (.99)
-Fulfillment	4.85 (.83)	4.95 (.85)
-Stimulation	5.24 (.55)	5.28 (.65)
-Challenging	4.09 (.72)	4.16 (.85)
-Child-centered	4.06 (1.00)	4.21 (1.03)

n=61

Table 11. Item Means on the IPAQ

Item	Antepartum Mean (SD)	Postpartum Mean (SD)
1. Both fathers and mothers are equally able to care for children*	1.44 (.87)	1.91 (1.23)
2. Although fathers may mean well, they generally are not as good at parenting as mothers	2.17 (1.27)	2.75 (1.67)
3. Parents should begin providing intellectual stimulation for their children prenatally, such as reading to them or playing classical music	4.59 (1.06)	4.97 (1.21)

Table 11. (cont.)

4. Although fathers are important, ultimately children need mothers more	2.40 (1.38)	3.31 (1.51)
5. Parents never get a mental break from their children, even when they are physically apart	4.08 (1.44)	4.52 (1.41)
6. Ultimately, it is the mother who is responsible for how her child turns out	2.00 (1.16)	2.11 (1.33)
7. Being a parent brings a person the greatest joy he or she can possibly experience	5.35 (.77)	5.36 (1.07)
8. Parenting is exhausting	4.38 (1.32)	4.51 (1.45)
9. It is important for children to be involved in classes, lessons, and activities to engage and stimulate them	5.53 (.65)	5.39 (.92)
10. Parenting is not the most rewarding thing a person can do*	4.29 (1.67)	4.51 (1.56)
11. The child's schedule should take priority over the needs of the parent's	3.67 (1.30)	3.89 (1.34)
12. Men do not recognize that raising children is difficult and requires skills and training	2.32 (1.15)	2.57 (1.60)
13. Child rearing is the most demanding job in the world	4.39 (1.26)	4.52 (1.16)
14. Holding his or her baby should provide a parent with the deepest level of satisfaction	5.14 (.84)	5.13 (.92)
15. Being a parent means never having time for oneself	2.61 (1.22)	2.74 (1.34)
16. Women are not necessarily better parents than men*	2.21 (1.05)	2.34 (.98)
17. Men do not naturally know what to do with children	2.42 (1.21)	2.66 (1.40)
18. A parent should feel complete when he or she looks in the eyes of his or her infant	4.75 (1.02)	4.84 (1.08)
19. Children should be the center of attention	3.89 (1.33)	4.03 (1.35)
20. Men are unable to care for children unless they are given specific instructions about what to do	2.18 (1.07)	2.41 (1.36)
21. Finding the best educational opportunities for children is important as early as preschool	5.14 (.86)	5.05 (.97)
22. It is harder to be a good parent than to be a corporate executive	4.03 (1.31)	4.17 (1.32)
23. To be an effective parent, a person must possess wide ranging skills	4.51 (1.32)	4.57 (1.40)
24. Children's needs should come before their parents	4.58 (1.23)	4.72 (1.10)
25.It is important to interact regularly with children on their level (e.g. getting down on the floor and playing with them)	5.60 (.60)	5.70 (.76)

* Items that were reverse-coded for analysis

Social support. Participants completed the MSPSS to address the social support variable. There were 12 items on this scale and participants used a Likert scale to select very strongly disagree (1) to very strongly agree (7) in response to the items. Along with the total scores for the antepartum and postpartum time points, three subscales were also analyzed in this questionnaire: friend, family, and significant other. The Cronbach's alphas for this sample were: total .97, friends .96, family .99, significant other .99 for the antepartum responses and total .94, friends .97, family .98, significant other .99 for the postpartum responses.

Scores were calculated as mean scores, according to the instrument developer's reports. Table 12 provides the means and standard deviations for the antepartum and postpartum time points. Information regarding individual item means is presented in Table 13. The items that were scored the highest in the antepartum period were items 2 and 5, while the lowest scored items were items 7 and 8. The postpartum scores that were highest were on items 5 and 10, while the lowest scores were on items 7 and 8.

Table 12. Mean Scores for the MSPSS

	Antepartum	Postpartum
MSPSS	6.47 (.89)	6.27 (1.12)
-Friends	6.36 (.96)	6.18 (1.16)
-Family	6.33 (1.34)	6.16 (1.55)
-Significant Other	6.71 (.86)	6.46 (1.35)

Table 13. Item Means on the MSPSS

Item	Antepartum Mean (SD)	Postpartum Mean (SD)
1.There is a special person who is around when I am in need	6.50 (1.19)	6.38 (1.39)
2. There is a special person with whom I can share joys and sorrows	6.57 (1.19)	6.46 (1.34)
3. My family really tries to help me	6.33 (1.50)	6.30 (1.48)
4. I get the emotional help and support I need from my family	6.28 (1.53)	6.25 (1.60)
5. I have a special person who is a real source of comfort to me	6.57 (1.23)	6.51 (1.34)
6. My friends really try to help me	6.19 (1.30)	6.10 (1.30)
7. I can count on my friends when things go wrong	6.04 (1.47)	6.05 (1.30)
8. I can talk about my problems with my family	6.14 (1.62)	6.03 (1.72)
9. I have friends with whom I can share my joys and sorrows	6.32 (1.25)	6.38 (1.07)
10 There is a special person in my life who cares about my feelings	6.61 (1.19)	6.49 (1.39)
11. My family is willing to help me make decisions	6.24 (1.52)	6.08 (1.60)
12. I can talk about my problems with my friends	6.25 (1.35)	6.18 (1.22)

Depression. The variable of depression was measured using the EPDS. Participants completed this 10 item questionnaire, recalling their feelings over the last 7 days. Total scores for this study were calculated for the antepartum and postpartum time points and Cronbach's alphas were .81 and .74 respectively. Of the total sample, and using 12 as a cutoff for the antepartum women, 2.8% (n=2) scored above the cutoff. Using the same recommended cutoff of 12 in the postpartum population, 1.4% (n=1) scored above the cutoff. Participants also answered a demographic question to report if they had been diagnosed with depression, 15% reported they had been diagnosed with depression.

Table 14. Mean Scores for the EPDS

	Antepartum	Postpartum
EPDS	3.31 (3.24)	3.16 (2.89)

Table 15. Item Means on the EPDS

Item	Antepartum Mean (SD)	Postpartum Mean (SD)
1.I have been able to laugh and see the funny side of things	.03 (.17)	.03 (.18)
2. I have looked forward with enjoyment to things	.06 (.29)	.03 (.18)
3. I have blamed myself unnecessarily when things went wrong	.61 (.68)	.67 (.75)
4.I have been anxious or worried for no good reason	.67 (.81)	.67 (.75)
5.I have felt scared or panicky for no good reason	.47 (.67)	.34 (.60)
6.Things have been getting to me	.74 (.69)	.80 (.75)
7.I have been so unhappy that I have had difficulty sleeping	.14 (.39)	.15 (.40)
8.I have felt sad or miserable	.35 (.56)	.23 (.53)
9.I have been so unhappy that I have been crying	.22 (.45)	.23 (.53)
10.The thought of harming myself has occurred to me	0 (0)	0 (0)

Anxiety. Participants completed the General Anxiety Disorder-7 at the antepartum and postpartum time points to screen for symptoms of anxiety. The 7 item questionnaire used a Likert scale with 4 responses ranging from 0 (not at all) to 3 (nearly every day). Participants completed this questionnaire considering their feelings over the last week so that the depression and anxiety screens both used the same recall period. The Cronbach's alpha for the instrument completed antepartum in this study was .82 and the postpartum Cronbach's alpha was .74.

Participants also completed a demographic question asking if they had been diagnosed with anxiety. Of the total antepartum sample, 12.5% (n=8) reported having been diagnosed with anxiety. Scores on the GAD-7 higher than 10 indicate moderate anxiety while scores higher than 15 indicates severe anxiety. The antepartum scores showed that 3.8% (n=2) were higher than 10 and 1 person scored a 15.

Table 16. Mean Scores for the GAD-7

	Antepartum	Postpartum
GAD-7 total score	2.59 (3.01)	2.38 (2.99)

Table 17. Item Means on the GAD-7

Item	Antepartum Mean (SD)	Postpartum Mean (SD)
1.Feeling nervous, anxious or on edge	.68 (.71)	.30 (.53)
2.Not being able to stop or control worrying	.26 (.53)	.27 (.52)
3.Worrying too much about different things	.44 (.63)	.42 (.65)
4.Trouble relaxing	.43 (.67)	.48 (.68)
5.Being so restless that it is hard to sit still	.14 (.39)	.13 (.39)
6.Becoming easily annoyed or irritable	.58 (.82)	.40 (.64)
7.Feeling afraid as if something awful might happen	.17 (.48)	.22 (.45)

Data Analysis for Study Aims

The primary aim of the study was to describe the expectations and maternal quality of life during pregnancy and the postpartum period. This included an examination of other factors that may influence quality of life at these times. The second aim of the study was to see which factors are most predictive of quality of life for the antepartum and postpartum mother, specifically examining the expectations of motherhood. A third aim sought to first identify those women whose expectations of

motherhood did not match up with their experience, and to see if there was a difference between those women and reports of quality of life and mood (depression and anxiety).

Data Analysis: Aim 1

The first aim was to describe expectations and maternal quality of life during pregnancy and the postpartum period as well as factors that may contribute to maternal quality of life at these points in time.

For Aim 1, descriptive statistics were used to describe each of the key variables (see Table 1) during pregnancy and following delivery of the baby. Paired t-tests were used to assess for any changes in these variables over time. Mean scores were analyzed to determine which variables or subscales had the highest scores. The results will be presented showing the values from the antepartum and postpartum time points for each variable.

Expectations. The mean total scores on the PEM were highest for the expectations of self subscale during antepartum, 103.05(SD ±12.60) and postpartum, 105.70(SD±12.47). The higher scores indicate the women had higher expectations and subsequent experiences of themselves as being a mother. In the pregnant/antepartum women, the means were as follows: for overall PEM, 303.69 (SD ±31.33); for the infant subscale, 61.95 (SD±7.21); for the partner subscale, 62.32 (SD±8.21); and for the social subscale, 68.05 (SD±8.03). The scores for the new moms/postpartum women were as follows: for overall PEM, 308.75 (SD±32.18); for the infant subscale, 64.39 (SD±7.53); for the partner subscale, 61.70 (SD±12.41); and for the social subscale, 68.48 (SD±12.46).

Although the overall expectations score did not show a statistically significant change, the infant subscale did. Previous studies have used the subscale scores when reporting findings rather than the overall scores (Harwood et al., 2007). On average, expectations scores from the infant subscale were significantly higher in the postpartum time point compared to the antepartum time point, p=.01. The changes in scores from the antepartum to postpartum time points will be analyzed in Aim 3 using residual scores.

Table 18. Dependent T-Tests for Parenting Expectations Measure

Variable	Group	Mean	Standard Error	Df	T-statistic	p-value
PEM total score	Ante-partum	303.69	4.01	60	-1.39	.17
	Post-partum	308.75	4.12			
PEM Infant	Ante-partum	61.95	.08	61	-2.41	.01
	Post-partum	64.39	.08			
PEM partner	Ante-partum	62.32	.10	60	.48	.64
	Post-partum	61.70	.15			
PEM self	Ante-partum	103.05	.08	61	-1.75	.85
	Post-partum	105.70	.09			
PEM social	Ante-partum	68.05	.08	61	-.37	.71
	Post-partum	68.48	.08			

Quality of life. The scores on the QLI indicated participants' evaluation of both the satisfaction with the item taking into consideration the importance of that item to the participant. Scores that are higher indicate greater quality of life on those items most

important to the participants in the antepartum and postpartum time points. The highest mean scores of quality of life were on the family subscale for both the antepartum, 25.94 (SD±3.77) and postpartum, 26.86 (SD± 3.10) time points. Other means scores for the antepartum group were as follows: overall score, 24.35 (SD±2.92), health and functioning, 23.21 (SD±3.47), social and economic, 24.48 (SD±3.76), and psychological and spiritual, 25.28 (SD±3.14). Mean scores for the postpartum group were as follows: overall score, 24.58 (SD±3.21), health and functioning, 23.61 (SD±3.61), social and economic, 24.47 (SD±4.60), and psychological and spiritual, 25.02 (SD±3.35).

As noted, the change in scores on the family subscale were statistically significant (*p*=.03, see Table 19), indicating a better quality of life related to family in the postpartum time point. However, this may not be a clinically significant change as at least a 2 point difference is typically the guideline used for clinical significance with this tool (Dr. Carol Ferrans, personal communication, May 2, 2016).

Table 19. Dependent T-Test Results for the QLI

Variable	Group	Mean	Standard Error	Df	T-statistic	p-value
QLI total score	Ante-partum	24.35	.38	60	-.70	.50
	Post-partum	24.58	.41			
QLI health and functioning	Ante-partum	23.21	.48	59	-.92	.36
	Post-partum	23.61	.47			
QLI social and economic	Ante-partum	24.48	.48	59	.02	.91
	Post-partum	24.47	.59			

Table 19 (cont.)

QLI Psycho-logical/ spiritual	Ante-partum	25.28	.41	59	.79	.43
	Post-partum	25.02	.43			
QLI family	Ante-partum	25.94	.49	59	-2.17	.03
	Post-partum	26.86	.40			

Parental attitudes. Parental attitudes were measured to determine agreement or disagreement with statements that described the characteristics of a phenomenon called intensive parenting. Higher scores on this questionnaire meant stronger agreement with the intensive parenting beliefs. The intensive parenting beliefs carry a negative connotation, as parents become extremely involved and over manage the child's life (Hays, 1996). Subscale scores indicated strong agreement or disagreement with the different aspects of intensive parenting. Scores for the overall IPAQ were shown to be significantly higher in the postpartum time point compared to the antepartum time point (p= .001). The subscale of essentialism was also shown to be significantly higher from the antepartum to postpartum (p= <.001) (see Table 20). The essentialism subscale measures the belief that mothers are innately better caregivers than fathers, thus are the best parent to be home with the child. Means for the other subscales were not statistically significant and antepartum scores were as follows: fulfillment, 4.85 (SD ±.83), stimulation, 5.24 (SD ±.55), challenging, 4.09 (SD±.72), and child-centered, 4.06 (SD ±1.00). Scores for the postpartum time point were as follows: fulfillment, 4.95 (SD± .85), stimulation, 5.28 (SD± .65), challenging, 4.16 (SD ±.85) and child-centered, 4.21 (SD± 1.03).

Table 20: Dependent T-Test Results for the IPAQ

Variable	Group	Mean	Standard Error	Df	T-statistic	p-value
IPAQ Overall score	Ante-partum	3.77	.06	60	-3.43	.001
	Post-partum	3.95	.07			
IPAQ Essential-ism	Ante-partum	2.14	.11	60	-4.26	.000
	Post-partum	2.51	.13			
IPAQ Fulfill-ment	Ante-partum	4.85	.11	60	-1.17	.25
	Post-partum	4.95	.11			
IPAQ Stimula-tion	Ante-partum	5.24	.07	60	-.49	.62
	Post-partum	5.28	.08			
IPAQ Challeng-ing	Ante-partum	4.09	.09	60	-.76	.45
	Post-partum	4.16	.11			
IPAQ Child-centered	Ante-partum	4.06	.13	60	-1.35	.18
	Post-partum	4.21	.13			

Social support. The questionnaire used to measure social support was the MSPSS. This questionnaire assessed perceived social support during the antepartum and postpartum time points. Higher scores reflect higher levels of perceived social support. The highest mean scores during the antepartum time point were in the significant other subscale, 6.71 (SD±.86) which was the same for the postpartum time point, 6.46 (SD±1.35). Based on these scores, participants reported that their significant other was their best source of social support. Overall, the mean scores for the total and subscales

were lower at the postpartum time point than in the antepartum time point, although none of the changes were significantly different.

The remaining antepartum means and standard deviations for the questionnaire were as follows: overall score, 6.47 (SD± .89), friends subscale, 6.36 (SD±.96), and family subscale, 6.33 (SD±1.34). The remaining postpartum means and standard deviations for the questionnaire were as follows: overall score, 6.27 (SD± 1.12), friends subscale, 6.36 (SD± 1.16), and family subscale (SD±1.55). The higher scores for the total score and subscale scores indicate higher levels of perceived social support, however, the mean scores of the instrument and subscales lacked variability and so differences may not have been observed.

Table 21. Dependent T-Test Results for the MSPSS

Variable	Group	Mean	Standard Error	Df	T-statistic	p-value
MSPSS overall score	Ante-partum	6.47	.11	60	1.22	.23
	Post-partum	6.27	.14			
MSPSS friends	Ante-partum	6.36	.12	60	1.03	.31
	Post-partum	6.18	.15			
MSPSS family	Ante-partum	6.33	.17	60	.92	.36
	Post-partum	6.16	.20			
MSPSS significant other	Ante-partum	6.71	.11	60	1.37	.18
	Post-partum	6.46	.17			

Depression and anxiety. The EPDS was used to measure depression symptoms in the antepartum and postpartum time points. Higher scores reflect higher levels of depressive symptoms, but scores for this population were below the cutoff score of 12 as indicative of depressive symptomology. There were no significant differences between the antepartum and postpartum time points.

Table 22. Dependent T-Test Scores for the EPDS

Variable	Group	Mean	Standard Error	Df	T-statistic	p-value
EPDS total score	Ante-partum	3.31	.42	60	.40	.69
	Post-partum	3.16	.37			

Anxiety was measured by the GAD-7 questionnaire. This tool also was used to measure anxiety in the antepartum and postpartum time points. A score of seven or above was used as a cutoff for symptoms of anxiety. Mean scores for the antepartum, 2.59 (SD±3.01) and postpartum, 2.38 (SD± 2.99) time points were below this level, and were not significantly different.

Table 23. Dependent T-Tests for GAD-7 Measures

Variable	Group	Mean	Standard Error	Df	T-statistic	p-value
GAD-7 total score	Ante-Partum	2.59	.39	60	.77	.44
	Post-partum	2.38	.38			

Data Analysis: Aim 2

For Aim 2 and its corresponding hypothesis, first, correlations were analyzed to assess the relationship between each of the key variables for the study. During the

antepartum time point, quality of life was found to be significantly related to the variables of expectations (r=.56, *p*<.001), depression (r= -.52, *p*<.001), and anxiety (r= -.52, *p*<.001). Higher expectations were related to higher reported quality of life, while higher levels of anxiety and depression were related to lower reported quality of life. Parenting attitudes and social support were not significantly related to any other variables in pregnant women. The variable of parenting expectations was significantly related to anxiety (r= -.23, *p*=.05) and depression (r= -.31, *p*=.01). The negative relationship indicating that there was lower anxiety and depression when parenting expectations were higher for pregnant women. Anxiety and depression were also significantly related during the antepartum period (r=.56, *p*<.001) where higher levels of anxiety indicated higher levels of depression and vice versa.

Table 24. Correlations Between Key Variables Antepartum

	Quality of Life	Parenting Attitudes	Expecta-tions	Anxiety	Depression	Social Support
Quality of Life	1	−.109	**.561****	**−.524****	**−.516****	.067
Parent-ing Atti-tudes		1	−.050	.075	.112	.053
Expecta-tions			1	**−.233***	**−.313****	.091
Anxiety				1	**.564****	−.129
Depres-sion					1	−.052
Social Support						1

**Significant correlations at the p<.001 level, *Significant correlations at the p<.05 level.

During the postpartum time point when women were 6-12 weeks post-delivery, significant relationships were found between quality of life and anxiety (r= -.48, *p*<.001), depression (r= -.51, *p*<.001), expectations (r=.75, *p*<.001), and social support (r=.31, *p*=.02). Anxiety and depression were again negatively related to quality of life, while higher expectations and social support scores were related to higher reports of quality of life. Social support became significantly related to not only quality of life, but parenting expectations for new mothers (r=.37, *p*=.004). The scores on the PEM postpartum indicated the actual experience of being a mother at 6-12 weeks postpartum was better if perceived social support was higher.

Table 25. Correlations Between Key Variables Postpartum

	Quality of Life	Parenting Attitudes	Expecta-tions	Anxiety	Depression	Social Support
Quality of Life	1	-.22	**.75****	**-.48****	**-.51****	**.31***
Parent-ing Atti-tudes		1	-.12	.09	.02	-.05
Expecta-tions			1	**-.49****	**-.53****	**.37****
Anxiety				1	**.81****	-.07
Depres-sion					1	-.10
Social Support						1

**Significant correlations at the p<.001 level, *Significant correlations at the p<.05 level.

In order to examine the variables of expectations, anxiety, depression, and experience of motherhood as predictors of quality of life, a stepwise, backward regression analysis was done. This analysis is appropriate when there are several

predictors to one outcome variable and theoretical data is not available to support the order of predictors added to the model (Field, 2009; Polit & Beck, 2008). By using the backward method of stepwise regression, all predictors are placed into the model and the computer eliminates those which make the least significant contribution to the model's predictive ability. If a predictor is removed, the model is then re-assessed (Field, 2009). According to Field (2009), the backward method, as opposed to the forward method, is recommended to reduce the potential for a Type II error.

Two models were examined using the backward stepwise regression method. The first used the antepartum variables of expectations, attitudes towards parenting, and mood to predict quality of life antepartum. The second looked at the same variables from the postpartum time point as predictors of postpartum quality of life. The antepartum regression model was found to have expectations, anxiety, and depression as predictors of antepartum quality of life. When all four predictors were entered into the model, 51% of the variance was explained (R^2=.51, F(4,66)=17.22, p<.001. Upon examination of the depression scores (EPDS) at this time point, an outlier was identified. One individual had a score of 18 (Table 26 *) at the antepartum time point which was >2 standard deviations from the mean. When this outlier was removed, depression was no longer a significant predictor of antepartum quality of life.

Table 26. Regression Models

Time	Variable	B	SE B	β	t	p value
Antepartum	**Expectations**	**.04**	**.01**	**.41**	**3.94**	**<.001**
	Anxiety	**-.27**	**.12**	**-.28**	**-2.29**	**.03**
	Depression	**-.22**	**.11**	**-.24**	**-2.02**	**.05***
	Attitudes	-.55	.68	-.08	-.80	.43
Postpartum	**Expectations**	**.06**	**.01**	**.64**	**6.11**	**<.001**
	Anxiety	-.03	.16	-.03	-.19	.85
	Depression	-.17	.17	-.15	-.99	.33
	Attitudes	-.85	.50	-.15	-1.7	.09

*variables not significant when outlier removed from analysis

To examine the predictors of quality of life following delivery, the postpartum measures of the same variables (expectations, anxiety, depression, and parental attitudes) were included in the model. This model indicated that the inclusion of all four variables explained 60% of the variance in postpartum quality of life (R^2=.60, $F(4,52)=19.80$, $p<.001$).

Data Analysis: Aim 3

To analyze Aim 3 and its corresponding hypotheses, residual scores were calculated, and participants grouped into met and unmet expectations. This calculation and grouping of participants into met versus unmet expectations was done in accordance with the original research by the instrument developer (Harwood, McLean, & Durkin, 2007). There are four possible outcomes using these scores: low PEM prenatal to high PEM postpartum, indicating experience was better than expected. Low PEM prenatal to low PEM postpartum (no change), high PEM prenatal to low PEM postpartum, indicating experience was worse than expected. Finally, a report of high PEM prenatal to high PEM postpartum (no change). In reality, it would be very unlikely for patients to

have no change in their PEM scores at all. A t-test was done to examine the mean scores of women on the QLI, EPDS, and GAD-7 to see if there were significant differences between those whose expectations were met and those whose expectations were unmet.

To complete the analysis for aim 3, a linear regression was done to compute the residuals using postpartum scores from the PEM as the dependent variable and antepartum scores as the independent variable. The scores that were less than zero represented those women whose expectations were not met, and those who scored greater than zero represented women whose expectations were met. Using residual scores was recommended by the instrument developer over simply subtracting postpartum PEM from antepartum PEM. Using residuals minimized the variance present when comparing the two scores.

Out of the 60 women who completed both time points, 33 (55%) had met expectations, while 27 (45%) had unmet expectations. Further characteristics of the group whose expectations were unmet revealed that 55.6% had a vaginal delivery, 70.4% followed a new mom's blog, 59.3% had read books on motherhood, but only 7.4% belonged to a new mom's group. Mean age was 29 years old, 81.5% were Caucasian, and 77.8% were married. The group that had met their expectations of motherhood was on average 30 years old, Caucasian (72.7%), and married (90.9%). The mothers in this group reported having a vaginal delivery (51.5%), following a new mom's blog (63.6%), reading books on motherhood (66.7%), and belonging to a new mom's group (15.2%).

Table 27. Characteristics of the Women with Met versus Unmet Expectations

Category	Group	Expectations	
		Met (n=33)	Not met (n=27)
White	Yes	24 (72.7%)	22 (81.5%)
	No	9 (27.3%)	5 (18.5%)
Living with partner/married	Yes	30 (90.9%)	21 (77.8%)
	No	3 (9.1%)	6 (22.2%)
Type of delivery	Vaginal	17 (51%)	17 (63%)
	Cesarean Section	15 (45%)	10 (37%)
Working prior to delivery	Yes	24 (72.7%)	20 (74%)
	No	9 (27.3%)	7 (26%)
Plan to return to work after delivery	Yes	29 (88%)	24 (89%)
	No	4 (12%)	3 (11%)
Income >$50,000/year	Yes	18 (54.5%)	12 (44.4%)
	No	14 (42.4%)	13 (48.1%)

A Chi-square analysis was done to determine if the significant differences between groups on quality of life and anxiety were due to race, partner status, type of delivery, working prior to delivery, plan to return to work, or income. These variables were chosen because they have been found to be predictors of poor mood postpartum (Boyce & Hickey, 2005; Corrigan et al., 2015; Liu & Tronick, 2013). No differences between groups were found on race [$X^2(1)= 1.12$, $p=.29$], partner status [$X^2(1)=2.19$, $p=.14$], type of delivery [$X^2(1)=.58$, $p=.45$], working prior to delivery [$X^2(1)=.014$, $p=.91$], plan to return to work after delivery [$X^2(1)=.02$, $p=.90$],or income [$X^2(1)=1.66$, $p=.20$].

An independent t-test was used to determine if there were significant differences in age and perception of social support between the groups. As per Table 28, no significant differences were found.

Table 28. Independent T-Test Between Groups

Variable	Group	Mean	Standard Error	Df	T-statistic	p-value
Age	Met	30.51	.92	51	.81	.42
	Unmet	29.38	1.09			
Social Support	Met	6.54	.19	58	.54	.60
	Unmet	6.41	.11			

Hypothesis 2 states that the women whose expectations were met would have higher quality of life scores than those women whose expectations were unmet. An independent t-test was used to examine this hypothesis, and the hypothesis was supported by the data. The women whose expectations were met (*M*= 25.84, *SD*= 2.92) had significantly higher quality of life scores than women whose expectations were not met (*M*=23.05, *SD*=2.91), *t*(58)=3.68, *p*= <.001.

Hypothesis 3 asserts that the women whose expectations were unmet would have higher scores on the depression and anxiety questionnaires. Using the residuals from the PEM to divide the women by met and unmet expectations of motherhood, independent t-tests were run to examine this hypothesis. There was no significant difference on EPDS scores between women who had met expectations (*M*= 3.00, *SD*=3.49) and those women with unmet expectations (*M*-3.59, *SD*=2.96), *t*(58)= -.70, *p*=.25. However, the scores on the GAD-7 were significantly higher in the unmet expectations group (*M*=3.52, *SD*=3.83) than in the met expectations group (*M*= 1.85, *SD*= 1.95), *t*(58)= -2.60, *p*=.03.

Table 29. Independent T-Test Results for Met and Unmet Expectations

Variable	Group	Mean	Standard Deviation	DF	t statistic	p value	Effect size
Quality of Life	Met expectations	25.84	2.92	58	3.68	**.001**	**.95**
	Unmet expectations	23.05	2.91				
Depression	Met expectations	3.00	3.49	58	-.70	.25	.18
	Unmet expectations	3.59	2.96				
Anxiety	Met expectations	1.85	1.95	58	-2.06	**.03**	**.53**
	Unmet expectations	3.52	3.83				

n= 33 MET n=27 UNMET

One exploratory aim was examined to discover the characteristics of a 'good mother' as described by antepartum women and the factors influencing their description. The open-ended questionnaire completed by the mothers was used to address the exploratory aim. A description of a 'good mother' was developed from the questionnaire using the participant's own words as they occur most frequently. Frequencies were used to calculate who influenced their image of motherhood most (mother/mother figure, friends, books, television and movies) and how accurate that source was. Information was collected regarding if the women had read books, online blogs or attended new mother's support groups that may influence the image.

Influences on the Image of Motherhood

During the antepartum time point, participants were asked to rate on a scale of most influential to their image of a good mother (1) to least influential (5) in regards to

four potential sources: their own mother or mother figure, books about motherhood, TV/movies about motherhood, and friends who had children. Bar graphs for each of the ratings are shown below. The most influential was the participant's own mother or mother figure (82%) and the least was the influence of television and movies (33%).

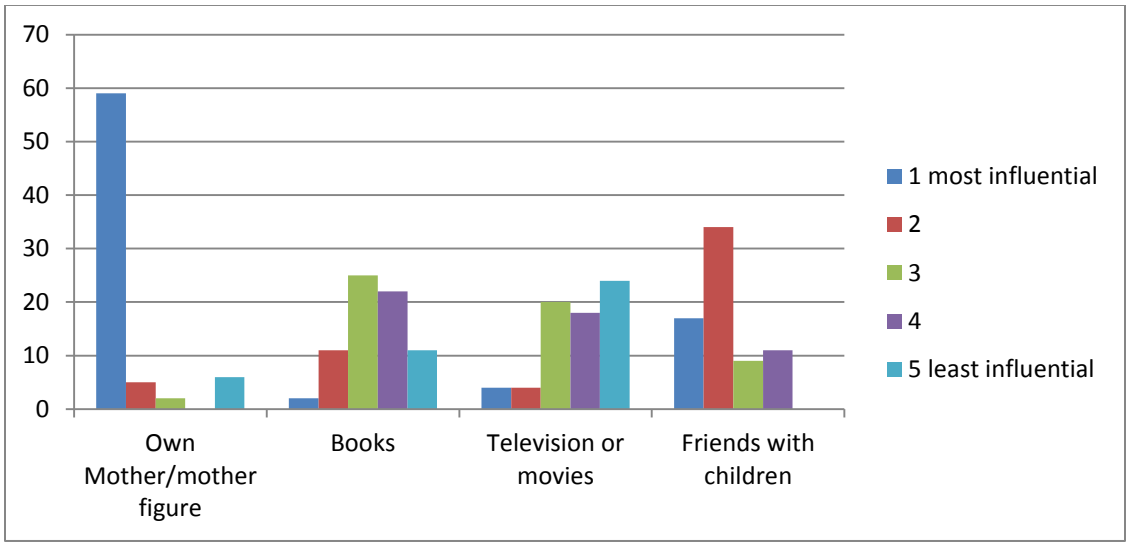

Figure 3. Frequencies of the influence on motherhood, antepartum.

Participants were also asked to respond to the following open-ended question, how would you describe a 'good mother'? Responses were given in various formats and paragraphs, phrases, and words were analyzed to develop a definition of motherhood for the antepartum time point with additions from the postpartum time point. At the postpartum time point, participants were given a copy of their description of motherhood from before the delivery and asked if they would add, delete, or change any part of the definition.

The following were words and phrases most frequently used in the participant's answers. The qualitative data was reviewed, and from the frequent use of these terms, a definition of a 'good mother' was constructed.

"Loving, caring unconditionally"

"Always there"

"Keep child safe, teach morals"

"Supportive"

"Nurturing"

"Puts child's need before her own."

The definition of a 'good' mother according to antepartum primiparas is someone who loves and cares for their child unconditionally. She is always there for the child, keeping them safe and teaching them morals. A good mother puts her child's needs before her own and supports and nurtures her child in all ways.

The participants were asked at the follow-up visit during the postpartum period to review their responses. Some participants provided additional feedback on the definition of a 'good mother', having been a mom for 6-12 weeks. From these responses, the antepartum definition of a 'good mother' remained the same, but terms were added to reflect a new mother's perspective:

"Patient," "Flexible," and "Learns baby's needs."

The postpartum definition is: someone who loves and cares for their child unconditionally. She is always there for the child, keeping them safe and teaching them morals. A good mother puts her child's needs before her own and supports and nurtures

her child in all ways. A good mother is also patient and flexible while learning her baby's needs (added postpartum).

CHAPTER FIVE

DISCUSSION

The following will be a discussion of the study findings, organized by variables and by study aims. The chapter will also include study limitations, nursing implications, and recommendations for future research. Calman's theory guided this study in order to analyze potential relationships between expectations of motherhood and quality of life. This theory claims that a greater discrepancy between expectations and reality would result in a reported decrease in quality of life in the framework of many dimensions of quality of life (Calman, 1984). Calman explains that there are many dimensions of quality of life, and three have been evaluated in this study: psychological, family, and physical. Using the Ferrans and Powers Quality of Life Index, a descriptive study sought to understand a potentially modifiable risk factor of postpartum depression: maternal expectations. According to Calman (1984), the physical, psychological, social, and familial changes new mothers experience may not meet their expectations and could lead to diminished quality of life.

The unique contribution of this study to nursing research is found in the percentage of mothers who experience a discrepancy between expectations and reality (45%) and the difference in their scores on the QLI and GAD-7. Prior studies have investigated the incidence and risk factors for women related to postpartum depression, anxiety and decreased quality of life, but none have focused on the existence and

potential impact of unmet expectations of motherhood. This study is also unique in the characteristics of the sample. Multiple studies have been done that have uncovered significant risk factors for postpartum depression such as socioeconomic status, race, or previous history of depression. This study's sample lacked many of these risk factors so that the women who participated were assumed to be adjusting without difficulty, based on their socioeconomic status, marital status, and educational accomplishments.

Qualitative studies have established the presence of unmet expectations in motherhood (Beck, 2002; Choi et al., 2005; Johnston & Swanson, 2003; Kalmuss et al., 1992; Tammentie et al., 2004). This descriptive study examined the impact of these unmet expectations on quality of life, anxiety, and depression.

Description of the Sample

The women who participated in this study were primarily Caucasian (74.2%), married (69%), employed (73%), and did not report a history of anxiety (87.5%) or depression (84.7%). All of the women were primiparas and completed the antepartum questionnaires after completing 34 weeks of pregnancy. The women completed the second set of questionnaires between 6–12 weeks postpartum. The mean age of the women who completed the study was 30. According to the Centers for Disease Control (2015), the average age of first time mothers in 2014 was 27. This sample may have a higher mean age due to the higher percentage of employed, married women who typically delay motherhood.

The characteristics of this sample are consistent with women who are not at risk for depression (Centers for Disease Control and Prevention [CDC], 2015). A cutoff score

of 12 on the EPDS was used to indicate the presence of depressive symptoms and in this sample, 3.4% scored greater than 12 at the antepartum time point and 1.7% at the postpartum time point. Typically, 8–19% of women have depressive symptomology; however, this sample lacked the primary risk factors associated with depression (CDC, 2015). This lack of depressive symptomology was discussed with Dr. Paula White, Director of Outpatient Women's Health, who confirmed this finding was typical given the population served at this particular office location. Studies of depression in antepartum and postpartum women with similar sample characteristics also reported a lack of depressive symptomology when risk factors were not present (see Appendix E).

Description of the Variables

Quality of Life

Measures of quality of life were administered in both the antepartum and postpartum time points and reflected both satisfaction with and importance of four realms of quality of life: health and functioning, social and economic, psychological and spiritual, and family. Scores during the antepartum time point were highest for the family subscale (*M*=25.94), and the highest scored item was number 15 ("Your spouse, lover, or partner"). This score indicated the woman's high level of satisfaction with her spouse, lover, or partner as well as identifying them as important. This sample of pregnant women reported being least satisfied with "the amount of rest and sleep you get" (number 5), which also factored in high importance.

The instrument was completed during the postpartum time point by the new mothers and the highest mean score was, again, in the family subscale (*M*=26.86). The

health and functioning subscale scores were the lowest in both time points (*M*= 23.21; *M*=23.61). This finding is not unusual due to the physical changes experienced during the antepartum and postpartum time points. The item that was scored as the highest mean satisfaction and highest importance at this time was number 12 ("Your children"). The item with the lowest mean satisfaction and importance at this time was item number 5 ("The amount of rest and sleep you get"), which would be expected in the early postpartum time when sleep is disrupted frequently throughout the night. Symon et al. (2002) also found lack of sleep and feeling tired to be a primary factor in quality of life in a study of women who were six to eight weeks postpartum, most of whom were married (88%) but multiparous (66%).

The low scores regarding the amount of rest and sleep obtained in both the antepartum and postpartum time points are supported by literature (Martin & Jomeen, 2010; Symon et al., 2003). The study by Symon et al. (2003) also found that postpartum women reported highest satisfaction with their new baby. The findings regarding the overall subscale and item means are consistent with the literature that is available regarding quality of life in pregnancy and postpartum.

Expectations

The Parenting Expectations Measure was completed by the participants during the last six weeks of their pregnancy. The questionnaire used statements focused on the future, which assessed expectations the pregnant women had of themselves, their spouse, the baby, and their social lives once the baby is born. Higher scores indicated higher expectations of motherhood. The mean total scores from the subscales in this study were

consistent with prior research, which had similar sample characteristics (Harwood et al., 2007).

Participants completed the PEM between 6–12 weeks after delivery, responding to the same statements that were now worded in the present tense to assess the experience of motherhood at this time point. Overall, scores were higher than the antepartum expectation scores indicating that the new mother's reality was better than she expected. The scores on the partner subscale, however, were lower in the postpartum time point when compared with the antepartum time point, indicating that women's expectations were not met. The partner subscale scores show that these women had unmet expectations of how motherhood would affect their relationship with their partner. Items in this subscale address not only the relationship with the partner ("My partner gets on my nerves"), but also how much the partner is helping with newborn care ("I am satisfied with my partner's involvement in the daily care of the baby"). Unrealistic expectations in this subscale have been supported in the literature (Harwood et al., 2007; Sanders, Lehmann, & Gardner, 2014; Van Horn, 2010). This finding may be due to a lack of communication of the expectations with the partner, or the mother having unreasonably high expectations of their significant other.

The items that were scored the highest in both the antepartum and postpartum time points, indicating high expectations and corresponding high report of experience, were numbers 5 ("I will enjoy my baby's company") and 26 ("I will feel proud to be a parent"). The high scores on these items meant that the women strongly agreed with these statements as expectations of motherhood as well as their experience of

motherhood. These statements were from the infant and self subscales, and were consistent with the findings of Harwood (2004) using the PEM in a sample of women pregnant with their first child (100%) and living with a partner (89%).

The lowest scoring items from the antepartum time point also came from the same two subscales as the highest scoring items. Women reported disagreement with item number 6 ("Being a parent will make me feel frustrated") and number 7 ("Caring for a baby will be very difficult") when reporting their anticipated experience of motherhood. The lowest scoring items in the postpartum time point were also from the same subscales of infant and self. Item number 7 ("Caring for a baby is very difficult") and item number 42 ("I feel confined to the house") were statements that participants disagreed were part of their experience of motherhood. Qualitative studies using a sample of mothers with children aged 0–10 report that women do feel parenting is difficult and also feel isolated from friends (McIntosh, 1993; Sanders, Lehmann, & Gardner, 2013).

Attitudes Towards Parenting

Participants completed questionnaires before and after delivery to determine how closely they believed in the principals of intensive parenting. This way of parenting, coined by Hays (1996), supports beliefs in the mother as the truly best caregiver of her children, in the management of the child's development through planned activities and educational opportunities, and an attitude towards parenting as the single most fulfilling thing one can do. The items on the questionnaire address the various aspects of intensive parenting within five subscales: essentialism, fulfillment, stimulation, challenging, and child-centered. The mean scores for the overall instrument and each subscale increased

from the antepartum to the postpartum time point, indicating a stronger belief in the idea of intensive parenting. The Likert scale used in the instrument ranged from strongly disagree (1) to strongly agree (6) and mean overall scores were between somewhat agree (4) to agree (5) for both the antepartum (*M*=3.77) and postpartum (*M*=3.95) time points. Lowest scores were on the essentialism subscale for the antepartum (*M*=2.14) and postpartum (*M*=2.51) time points, indicating the least agreement with items that singled out the mother as the best caregiver for the child.

The highest subscale scores were found on the stimulation items for both the antepartum (*M*=5.24) and postpartum (*M*=5.28) time points. This subscale measured agreement with statements that suggested beliefs that intellectual stimulation is a high priority, such as item 9 ("It is important for children to be involved in classes, lessons, and activities to engage and stimulate them"). This item, along with item number 25 ("It is important to interact regularly with children on their level [e.g. Getting down on the floor and playing with them]"), had the highest item mean scores in both time points. These items also belonged to the stimulation subscale, which had the highest overall mean scores. The agreement with these items from the stimulation subscale may reflect generational norms for this group of mothers whose mean age was 30. Steinmetz (2015) surveyed a group of Millennial generation parents to see how these 20 to 35 year olds approach parenting. Results from an online survey of 2000 parents with children under 18 indicate that Millennials were supportive of children being in multiple scheduled activities. Only 36% of Millennials compared to 53% of Baby Boomers thought their friend's children participated in too many activities (Steinmetz, 2015).

The lowest item mean scores for both the antepartum and postpartum time points were on items 1 (“Both fathers and mothers are equally able to care for children”) and 6 (“Ultimately, it is the mother who is responsible for how her child turns out”). The low scores reflect the participant’s disagreement with these statements. Item number 6 also has the lowest mean score in the antepartum (*M*=2.00) and postpartum (*M*=2.11) time points indicating disagreement with this statement. These items were both part of the essentialism subscale which had the lowest scores for both time points. Being that roughly 86% of this sample was married or living with a partner, disagreement with this statement may be due to the expectations of the partner in contributing to child care and development. Kalmuss et al. (1992) found similar results regarding expectations of the partner in contributing to child-rearing at one year postpartum. The factor of unmet expectations of partner involvement was also qualitatively supported by Tammentie et al. (2004).

Social Support

The social component of quality of life was measured by the MSPSS for the women in the antepartum and postpartum time points. The mean overall scores and subscale scores were all greater than 6 on a 7-point Likert scale. This suggests that this sample perceived a high level of social support from friends, family, and their significant other from pregnancy into early motherhood. The subscale with the highest mean score was significant other for the antepartum (*M*=6.71) and postpartum (*M*=6.46) time points. As noted prior, this sample was mostly composed of women who were married or living with their partner. Naturally, when discussing parenthood, support would be expected to

come from the significant other. Zimet et al. (1990) administered the MSPSS to groups of pregnant women, adolescents, and residents and found that the antepartum women had the highest mean scores; and of the three subscales, they ranked support from their significant other highest (*M*=6.39). This group of women was in their third trimester and had a mean age of 25.8.

Although not low for this scale, the subscale score with the lowest mean scores was the family subscale for both the antepartum (*M*=6.33) and postpartum (*M*=6.16) time points. Items related to the family subscale may be perceived as support that would primarily come from a significant other. This finding is consistent with research done by Zimet et al. (1990). Examples such as "I can talk about my problems with my family" or "I get the emotional help and support I need from my family" are not reported as absent from the overall social support system, but not ranked as high as coming from a significant other. It may be interpreted that social support from all three domains, friends, family, and significant other, were perceived as strong sources of support.

The highest ranked items from the antepartum time point were item 2 ("There is a special person with whom I can share joys and sorrows") and item 5 ("I have a special person who is a real source of comfort to me"). Both statements are from the significant other subscale, while the lowest scored items, 7 and 8, are from the friends ("I can count on my friends when things go wrong") and family ("I can talk about my problems with my family") subscales. A study done by Aktas and Calik (2013) had similar results where mean perceived social support scores were highest in the significant other subscale (24.63) followed by the family subscale (24.10) and friend subscale (19.22). The sample

was 26.54 years old; 84.9% did not work outside the home, 51.9% were primigravidas, and 68.8% in their third trimester.

The postpartum time point had similar results where the highest ranked items were numbers 5 and 10 ("There is a special person in my life who cares about my feelings"). These items, again, were from the significant other subscale while the lowest scoring items in the postpartum time point were numbers 7 and 8: the same as antepartum. The overall rating of the significant other as the primary source of social support in the later part of pregnancy and early motherhood shows how much the women are relying on their significant other.

Psychological Components: Depression and Anxiety

Scores on the EPDS were obtained for the antepartum and postpartum time points. The mean total scores for the antepartum time point (*M*=3.31) were higher than the postpartum time point (*M*=3.16). These scores reflect a very low report of depressive symptoms in this population. Given the high scores on the social support instrument, and sample characteristics such as married or having a partner, income level, race, and lack of previous diagnosis of depression, these EPDS scores are not unusual (See Appendix E). A study by Glazier et al. (2004) used a sample of mostly married, Caucasian women with an income over $70,000 per year and found that women who reported higher levels of social support had lower levels of anxiety and depression. Studies using samples with similar demographic characteristics reported postpartum mean scores on the EPDS at 5.2 and 5.3 (Brugha, Morrell, Slade, & Walters, 2010; Corrigan, 2015). The percentage of EPDS scores that were greater than 10 ranged from 1.5%–6.1% (Banti et al., 2011; Buist

et al., 2008; Farr, 2014; Liu & Tronich, 2013). For both time points, the response to item number 10 ("The thought of harming myself has occurred to me") was 'never'. Of the remaining items, the highest scores in the antepartum period were number 4 ("I have been anxious or worried for no good reason") and number 6 ("Things have been getting on top of me"). A qualitative study by Wardrop and Popadiuk (2013) interviewed six women with children under age 3 to determine sources of anxiety postpartum. Themes that were uncovered included transition, issues of support, and expectations. Subthemes of transition included feeling overwhelmed by the tasks and responsibility of motherhood, not engaging in self-care activities (i.e., sleep), and observing a pronounced gender difference in baby care expectations.

During the postpartum assessment, the highest scored items were numbers 4 and 6 again, but also number 3 ("I have blamed myself unnecessarily when things went wrong") had the same mean score as number 4. High mean scores for these items, it should be noted, were not greater than a '1' on a 0-3 scale which generally corresponded to an answer of 'not very often' for these items.

The low scores on the EPDS for the antepartum and postpartum time points were discussed with Dr. Paula White, who cares for patients at the primary study site and also at the hospital-based clinic (personal communication, August 17, 2015). She did not find that the scores were unusually low, especially for the population of women typically seen at the primary study site. She noted that the higher EPDS scores are found in women at the hospital based clinic, who fit the risk profile for depression. Predictors of postpartum depression include poor social support, poor relationship with significant other, prior

diagnosis of depression, low socioeconomic status, non-white race, and major negative life events that occur during pregnancy or postpartum (Boyce & Hickey, 2005; Corrigan et al., 2015; Liu & Tronick, 2013). Studies were examined that had samples of similar demographic characteristics and were found to also have below the expected rate of depression typical for a low risk population (See Appendix E).

The GAD-7 tool was used to assess levels of anxiety in the antepartum and postpartum time points. Similar to the EPDS scores for depression symptoms, the scores for levels of anxiety were low. The antepartum mean scores (*M*=2.59) and postpartum scores (*M*=2.38) fell below the cutoff score of 10 used for mild anxiety. A study using a sample that was married (98%), mean age of 30, working outside the home (89.8%) but multiparous (55.6%) reported a mean of 4.28 in women who took the GAD-7 during their pregnancy (Pop et al., 2011). The incidence of GAD in pregnancy and in the postpartum time period (3.4%) for this study, however, was comparable to the reported norms (3–5%) in the third trimester (Buist, Gotman, & Yonkers, 2011; Lowe et al., 2008). Again, given the demographic characteristics of this sample putting them at a very low risk, and the percentage of the sample who had been diagnosed with anxiety (12.5%), these scores are to be expected. The highest scored item in the antepartum time point was number 1 (“Feeling nervous, anxious or on edge”). This is similar to the highest scored item in the EPDS regarding feeling anxious or worried. Since the women were approaching their due date, anxiety could arise from a variety of concerns as stated previously (Waldrop & Popadiuk, 2013). The lowest scored item in the antepartum time point was number 5 (“Being so restless that it is hard to sit still”). During the postpartum

time point, the highest scored item was number 4 (“Trouble relaxing”) while the lowest scored item was the same as the antepartum, number 5. Postpartum women would be thinking about many new things—feeding times and sleep patterns, in addition to their previous multiple responsibilities where high frequency of trouble relaxing would not be unusual.

Discussion of Study Aims

Each of the study aims and/or hypotheses will be discussed. Since the investigation of maternal expectations related to quality of life postpartum has not been quantitatively studied much, the first aim was to describe the expectations, attitudes toward parenting, and mood of the pregnant and newly delivered moms. In order to address this aim, participants’ scores on the PEM, IPAQ, EPDS, GAD-7, MSPSS, and QLI were used to compute mean scores and paired t-tests.

Aim 1: Expectations and Maternal Quality of Life During Pregnancy

Mean scores from these instruments were presented in the discussion of variables; this discussion of Aim 1 will continue the discussion.

Description of the antepartum woman. The women who were in this sample had higher scores on the expectations, attitudes towards parenting, and social support instruments. This is consistent with literature cited above in samples with similar demographic characteristics. This was further detailed by looking at the subscale scores to find that the highest scores centered on their significant other/partner. The expectations of the partner, belief in the partners’ equal contribution to parenting, and perception of them as a significant source of social support, indicate that the pregnant

primiparous woman considers her partner, more than any other person, important in this part of her life. Subscale scores on the QLI were highest in the family realm, indicating that the women were not only satisfied with their family, but reported them as important. Hill and Aldag (2007) used a modified version of the QLI to determine the quality of life in mothers who delivered at full term, near term, and preterm. The full term sample was married (67%) and white (71.6%) and had the highest scores in the relational/spouse subscale (23.6) while the relational family/friends subscale had the third highest score (20.1) at three weeks postpartum. A study on postpartum quality of life by Symon et al. (2002) using a demographically similar sample found that women reported contentment with their families and pleasure from the baby as the highest contributors to positive quality of life. Finally, scores that describe the mood of these antepartum samples were low for depression and anxiety. This is consistent with findings from demographically similar samples (Banti et al., 2011; Liu; Farr et al., 2014; Corrigan, Kwasky, & Groh, 2015).

Description of the postpartum woman. The second time point for completing the surveys was between 6–12 weeks postpartum. Most women had not gone back to work yet (89.8%), 55.9% had vaginal deliveries, while 42.4% had cesarean sections. When asked if they belonged to a new mom's group, only 11.9% responded yes, but 66.1% followed online blogs or read books on motherhood (62.7%). The experience of motherhood was evaluated using the PEM and it was found that scores in all but the partner subscale were higher, indicating the prenatal expectations had been met. The expectations of the partner, which were highest in the antepartum time point, had the only

decrease in value, indicating unmet expectations of the partner. This change, however, was not significant [$t(60)= .48$, $p=.64$]. The attitudes towards parenthood scores were higher in the essentialism subscale, indicating a stronger agreement in the belief that mothers are the best caregiver for the child. The social support subscale addressing the significant other remained highest also. So, similar to the antepartum time point, postpartum women in this study rated their partner as their primary support person. Quality of life scores remained highest for the family subscale as in the antepartum, and measures of mood, depression and anxiety, remained low in the postpartum.

Significant differences between antepartum and postpartum. Paired t-tests were used to assess changes in the variables of quality of life, attitudes towards parenting, expectations of motherhood, and mood over time. Limited studies are available to compare the findings to, but only a few of the scores had significantly changed from pregnancy to motherhood. Scores on the expectations measure revealed significant differences on the infant subscale. For this subscale, scores were higher in the postpartum time point indicating the experience of caring for an infant was better than expected [$t(60)= -2.41$, $p=.01$]. These trends are supported in the literature where a demographically similar sample also reported a better experience of self and infant but at 4 months postpartum (Harwood et al., 2007).

The pregnant women's agreement with intensive parenting beliefs showed a significantly higher belief in the postpartum period than in the antepartum. This score indicates that after 6–12 weeks of motherhood, women could identify with, and show a stronger belief in, the concepts of intensive parenting. Evaluating attitudes towards

parenthood from the intensive parenting perspective shows that women had not significantly changed their beliefs after being a mother for 6-12 weeks. The items that are on this questionnaire may be more pertinent to assess when the child is entering preschool. Most of the items refer to beliefs about child care, educational opportunities, and scheduling the child's activities/schooling which would not be experiences the mothers in this sample would have had yet. Most of the women had not returned to work at this point (89.8%), so using childcare was not part of their experience either.

All subscale score increased from the antepartum to postpartum time points, though only the essentialism subscale was significantly higher. The belief that mothers are the single best caregivers for children (essentialism) was still not in the 'agree' range; however, mean scores increased from 'disagree' to almost 'somewhat disagree' (*M*=2.14, *M*=2.51) between the two time periods. Mean scores on this subscale are similar to means scores in prior research. A qualitative study in married (100%), white (80%) women found the theme of essentialism present in discussions of being the primary caregiver of their children (Newman & Henderson, 2014). Quantitative studies using the IPAQ in similar samples of women—only those who were mothers—also reported the lowest mean score in the subscale of essentialism (Liss et al., 2012; Rizzo et al., 2012). Studies were not found that compared antenatal scores to postnatal scores on the IPAQ.

The outcome variable of quality of life measured satisfaction and importance of health and functioning, social and economics, psychological and spiritual, and family domains. For each of these domains, the mean scores increased from the antepartum to postpartum time point, except for the psychological/spiritual subscale. Literature using

similar domains where importance of the domain is also figured into the final score has only been found in postpartum samples; changes in quality of life from antepartum to postpartum have not been assessed prior to this study (Hill & Aldag, 2007; Symon et al., 2002). Out of the four subscales, only the family subscale was significantly higher in the postpartum time point ($t(59)= -2.17$, $p=.03$). This subscale assessed satisfaction with and the importance of children, spouse, friends, and family. The dramatic change in the woman's family may be the reason for this significant increase postpartum. Not only has their baby been born, solidifying the new family, but now the importance may naturally increase due to the concrete nature of motherhood at this time. Although this finding is statistically significant and theoretically evident, clinical significance is found when there is a difference of at least 2 points between measurements (C.E. Ferrans, personal communication, May 2, 2016). Thus, given this study's data, the change in family QLI would not be clinically significant.

The psychological/spiritual subscale included items related to being a new mother ("The life changes you have had to make since having your baby" and "Your ability to be a good mother"); however, despite the overall decrease in the subscale score, the change was not significant. Since other studies have not compared antepartum to postpartum quality of life, it is difficult to find support outside of this study. Most research has focused on only the postpartum time point between 1 and 8 weeks after delivery (Hill & Aldag, 2007; Symon et al., 2002). These studies have shown that most often, the physical realm of quality of life has lower scores and the family realm of quality of life has higher scores which is consistent with this study.

The slight increase in the psychological/spiritual domain of quality of life is consistent with the decrease in the EPDS and GAD-7 scores. The scores on these two instruments measuring mood were lower in the postpartum time point than the antepartum time point, though not significantly lower. For this sample of primarily Caucasian, employed and married mothers, scores on anxiety and depression tools were low. This finding is consistent with other research studies which have determined that women at risk for depression tend to be unemployed, unmarried minorities reporting poor social support (Austin et al., 2010; Beck, 2002; Eastwood et al., 2012; Gale & Harlow, 2003; & Glazier et al., 2004).

In summary, the findings of this descriptive study give insight into the expectations, attitudes, and quality of life of mothers who have minimal to absent risk factors for depression. This sample of women had higher scores related to higher quality of life, which significantly increased in the family domain after delivery. There was moderate overall agreement with the beliefs of intensive motherhood which were significantly higher postpartum, especially in the essentialism subscale. Finally, expectations and experience of motherhood scores showed that the experience of motherhood was better than expected, and it was significantly better regarding expectations of the infant. Though not significant, experience with their partner was actually worse than expected.

Aim 2: Predictors of Quality of Life

It was hypothesized that expectations, attitudes towards motherhood, and mood (anxiety and depression) would be predictive of quality of life during the antepartum and

postpartum time points. This hypothesis was partially supported by the data from this study. There was a positive, significant correlation between the variables of expectations and quality of life, while anxiety and depression were negatively correlated with quality of life. No literature was found to support this in pregnant or postpartum women, which is due to the lack of current studies done in this population; however, this is consistent with the literature in that one who had reported increasing expectations generally has good quality of life and less anxiety and depression. When a person is able to anticipate the future and create expectations in hopes for positive outcomes, they are generally not depressed (Vilhauer et al., 2012). Expectations in the antepartum time point were also negatively correlated to anxiety (r= −.23, p=.01) and depression (r=−.31, p=.01). Harwood's (2007) original study, that used the PEM to compare antepartum to postpartum using a sample with similar demographic characteristics, hypothesized this to be true; however, their hypothesis was not supported by the data. In Harwood's sample, expectations were inversely related to depression (r= −.14), but the relationship was not significant.

Social support was not found to be significantly related to any other variable, which contradicts most research on depression and anxiety in pregnant women (Corrigan, Kwasky, & Groh, 2015; Glazier et al., 2004; & Zhang & Jin, 2014). This finding is unclear and may be related to the difference in instruments used to measure anxiety, social support, and depression. Given the high social support scores, it would be expected that depression and anxiety would be minimized in this sample. Lastly, depression had a significant positive relationship to anxiety (r=.56, p<.001). Symptoms of depression and

anxiety in pregnant women have traditionally been related to each other in the literature, so this finding is supported (Hübner-Liebermann, Hausne, & Wittmann, 2012; Fleuriet, & Sunil, 2014; Whisman, Davila, & Goodman 2011). Due to the lack of variability in scores on the social support measure, the support of this variable being related to anxiety and depression is not shown as in previous research.

The results of the correlation analysis for the postpartum time point were similar to the antepartum time point, although social support was now found to be significantly correlated to quality of life (r=.31, $p< .05$) and expectations (r=.37, $p< .001$). Mean scores for social support were lower in postpartum—though not significantly lower—but may have attained significance in these relationships due to that change.

The second part of the analysis for this aim was to use general linear regression to determine which of the variables would be predictors of quality of life. The variables entered into the model were the scores from the PEM, IPAQ, EPDS and GAD-7 from the antepartum time point using the antepartum scores of quality of life as the outcome. Second, the postpartum scores from PEM, IPAQ, EPDS, and GAD-7 were examined as potential predictors of postpartum quality of life. For both time points, when all variables were included in the models, 51-60% of the variance was explained. The significant predictors of antepartum quality of life were expectations, anxiety, and depression. However, as reported previously, when the outlier score for depression was removed, it was no longer a significant predictor for the antepartum period. The postpartum predictor of quality of life was only expectations of motherhood. Since no previous

studies were found that used quality of life as an outcome and parenting expectations as a potential predictor, it is difficult to compare this finding to like research.

Studies done that have looked at expectations and depression, however, are comparable. Muscat, Thorpe, and Obst (2012) found that expectations during pregnancy were not predictive of depression after delivery. They included fathers (n=24) and multiparas in addition to primiparas (n=35). Characteristics of the mothers were similar in age (*M*=31.35, SD=4.32) and marital status (93% married) to the mothers in this study. This finding is contrasted with a study by Eastwood et al. (2012) where 91% of the women sampled were married/partnered; however, expectations were found to be a significant predictor of depression (β= .757, $p<.001$).

Aim 3: Met and Unmet Expectations

It was hypothesized that mothers who have high expectations during pregnancy which are unmet during postpartum will have lower maternal quality of life scores than those who have high expectations that are met. In this sample of women, most had expectations that were met postpartum (55%), though a large amount had expectations that were not met (45%). This distribution is similar to those reported by Harwood et al. (2007), where 35.2% of women with similar demographic characteristics reported unmet expectations reported on the PEM. Researchers in Australia examined unmet expectations regarding infant sleeping and feeding routines postpartum and found between 0 and 50% discrepancy frequency in a sample of mothers and fathers (Muscat, Thorpe, & Obst, 2012). Many studies, both quantitative and qualitative, have found that expectations of motherhood tend to be unrealistic and can affect the postpartum mother's

mood (Beck, 2002; Choi et al., 2005; Johnston & Swanson, 2003; Kalmuss et al., 1992; Tammentie et al., 2004).

Prior studies have not compared those who had expectations met and those who did not, on quality of life measures; however, this study found a significant difference in overall quality of life between the groups. Those mothers whose expectations were not met reported a significantly lower quality of life [$t(58)=3.68$, $p<.001$] score. These findings support hypothesis 2 and indicate that unmet expectations do have a negative effect on quality of life. It is also important to note that almost half of the sample had unmet expectations. Although quality of life scores remained higher, the difference at six weeks postpartum could theoretically be the beginning of a downward trend for mothers with unmet expectations. Both Symon et al. (2002) and Hill and Aldag (2007) used similar samples and found quality of life scores high. The scores for the negative experience group in the study of Symon et al. (2002) were similar at the six week then eight month time points; however, only two out of eleven women scored greater than 10 on the EPDS at six weeks, and that number increased to 6 out of 11 at eight months. Since quality of life was also found to be significantly related to anxiety and depression in prior studies, healthcare providers should be cautious in assuming this population does not have a risk for mood disorders. This finding is also necessary to investigate as discrepancies and their effects were found at only six weeks postpartum in a small sample of women.

It was also hypothesized that mothers who have high expectations during pregnancy which are unmet during postpartum will have more negative mood

(depression, anxiety) than those who have high expectations that are met. The study findings partially supported this notion. Those who had unmet expectations were not significantly different in depressive symptoms [$t(58)= -.70$, $p=.25$] from those whose expectations were met. However, levels of anxiety were found to be significantly different between groups; those with unmet expectations had higher scores on the GAD-7 than those whose expectations were met [$t(58)= -2.06$, $p=.03$]. This finding is unique in regards to prior research, though Harwood et al.(2007) found similar results related to depressive symptoms. They found that residualized expectation scores were predictive of depressive symptoms in a sample of 71 new mothers, who were low to middle income, primiparas living with a partner (Harwood et al., 2007). Anxiety has been shown in some studies to be more prevalent than depression in samples of antepartum and postpartum women (Austin et al., 2010; Wardrop & Popadiuk, 2013; Wenzel et al., 2003). The results from the first two aims highlighted the significant other as one who seemed to have a distinct influence on maternal quality of life and experience in the postpartum time point. Anxiety may be related to the shortcomings of the significant other as perceived by the new mother. These shortcomings could be found in performance of household duties, helping with child care, emotional support, and relationship changes found in parenthood. A longitudinal study by Whisman, Davila, and Goodman (2011) measured anxiety and relationship adjustment in 118 women from six weeks pregnant to six months postpartum at 14 time points. Relationship adjustment was found to be a significant predictor of anxiety where lower adjustment predicted higher levels of anxiety.

Study Limitations

Threats to internal validity were present in this study. Attrition of participants was experienced primarily due to not being able to contact the mothers if they did not complete the questionnaires at their six-week postpartum appointment. There were a total of 72 antepartum women who completed the first set of questionnaires, but due to attrition, only 61 completed the study. An examination of the differences between those who completed and did not complete the study revealed no significant differences. This contributed to another limitation, the small sample size. The sample size of 120 had been calculated based on the five variables being examined. This small, homogeneous sample may have contributed to the lower than average scores on the measures of depression and anxiety; though, as stated before, the sample in this study lacked the risk factors typically found in women with depression or anxiety. However, women without risk factors do experience postpartum depression, so examining other potential contributors to overall quality of life, such as expectations, may provide preliminary results that suggest further investigation of this variable is necessary.

Testing is a concern due to the sensitive nature of conditions such as depression and anxiety, especially in pregnancy or postpartum. When reviewing the consents face to face at the prenatal visit, the instruments were described as measuring feelings and participants were told that the EPDS and GAD-7 were not diagnostic tools. Testing is also a limitation due to the length of time it took to complete the questionnaires. Some women were able to complete the packet in 20 to 30 minutes if they were not interrupted. The women all completed the questionnaires for time point 1 at the

obstetrician's office and many had to stop while their visit took place, but then continued when they were done with the appointment. The postpartum visits primarily occurred at the doctor's office, though some were at participant's homes, or at an agreed-upon meeting place (one participant was met at a Starbuck's).

Since this was a prospective study, maturation is a threat to consider. Over the course of 6 to 12 weeks postpartum, the mothers may have naturally become more adapted to their role which may have decreased any feelings of depression, anxiety, or changes in quality of life. Finally, selection effects are a consideration as the study used convenience sampling and recruited from one outpatient prenatal clinic, and thus a major limitation was lack of diversity of the sample and lack of generalizability.

The lack of diversity in the sample made it difficult to determine if there were certain demographic characteristics that were more likely to be found in the groups. For example, those participants whose expectations were met were found to be no different in race, partner status, or income level when compared to those whose expectations were not met. The sample was also found to have high scores on the measure of social support at both time points, with a noticeable lack of variability in scores. This lack of variability limits interpretation of findings that include this variable. A more diverse sample would theoretically enhance the variability of scores and further validate the findings of this descriptive study.

The threats to external validity include the ability to generalize findings to other populations (Polit & Beck, 2008). This study had inclusion and exclusion criteria that limit generalizability to populations with the same characteristics as those in the study.

Based on inclusion and exclusion criteria, the findings can only be generalized to those who are over 18, 34+ weeks pregnant, able to read and speak English, not currently on bedrest for a prenatal complication, and are primiparas. This sample was also composed of women who reported being married or living with a partner, employment, and high levels of social support, so caution should be used to only generalize a similar population.

Nursing Implications

This descriptive study was done so that insight might be gained into the expectations and beliefs of pregnant women in their last six weeks of pregnancy and the effect on quality of life. Nurses who care for women during pregnancy and in the postpartum period should be aware of factors that may need to be addressed, especially during antenatal care. A diagnosis of postpartum depression not only affects the mother, but the entire family (Goodman et al., 2011). Antenatal nurses need to support the continued administration of a depression screening tool during the antepartum time period, and possibly advocate for anxiety screening as well. A follow-up depression and anxiety screen done at 6 to 12 months postpartum, in addition to the six-week screen, may also be necessary. This prolonged monitoring may be helpful in diagnosing women in the low risk category after the challenges of motherhood are compounded by returning to work. Nursing care is focused on optimizing patient outcomes, and perinatal nurses need to be concerned also with the outcomes of the family: mom, baby, and significant other.

One of these outcomes was found to be quality of life as reported by the postpartum women in this study. Although they were not depressed at this time, the women whose expectations were unmet had higher anxiety scores and lower scores of quality of life. This is important for nurses to be aware of, and can help to guide prenatal education related to parenthood. Nurses should ask their antepartum patients what expectations they have of their spouse/significant other regarding their relationship after delivery and responsibilities in child care. The nurse can help the patient to explore expectations of their partner to determine if they are reasonable, if not, help them to rethink their expectations. Knowing the potential negative affect on postpartum quality of life, the nurse can be proactive in helping to modify a risk factor that is predictive of poor quality of life postpartum.

Quality of life scores in this study incorporated importance of each domain to the mother. Calman's (1984) theory is also focused on the contribution of importance in determining overall quality of life. This is valuable information for the nurse to consider in assessing the physical and emotional signs and symptoms the new mother is reporting. The nurse should include questions regarding the importance of these concerns as perceived by the patient. Patient-centered care acknowledges the unique experience of each individual, where one new mother may feel that pain is most important; another may feel the loss of independence is a priority.

This study also used an open-ended question to develop a definition of a 'good mother' as described by pregnant women. A 'good' mother is someone who loves and cares for their child unconditionally. She is always there for the child, keeping them safe

and teaching them morals. A good mother puts her child's needs before her own and supports and nurtures her child in all ways. Using the same descriptions as other pregnant women, the nurse can enhance patient care by asking about the patient's own image of motherhood. The nurse may need to explore the responses of the patient in order to try to minimize unrealistic expectations of the self. These unrealistic expectations may be detrimental to the patient's postpartum quality of life. Perinatal nurses should also be aware that most women reported that their image of a 'good mother' was influenced primarily by their own mother. This information is pertinent to enhancing prenatal care in order to affect patient outcomes related to quality of life and mood.

Nurses should be aware that prior qualitative research has found that postpartum women consistently comment on unmet expectations (Choi et al., 2005; Mauthner, 1999; Wardrop, 2013). Beck (2002) has included unmet expectations in her revised theory as a risk factor contributing to postpartum depression. Although not shown in this study, a discussion about the mother's expectations with feedback from the nurse could help to decrease the incidence of postpartum depression and anxiety occurring from unmet expectations. The nurse can also help the mother identify strategies for coping if the reality of motherhood does not meet expectations.

Finally, quality of life findings can be useful to nursing as a more holistic approach to postpartum care. Research has shown that a discrepancy between expectations and experience can influence quality of life reports (Calman, 1984; Symon et al., 2003). Ante- and postpartum care is focused on physical signs and symptoms of

pregnancy and delivery, though depression screening has become a standard of care both during pregnancy and at six weeks postpartum. Using quality of life as a guide, nursing can address the emotional, spiritual, physical, and social aspects of pregnancy and motherhood as well. Research supports not only discussing the different aspects of quality of life, but also how important those problem areas are to the patient (Calman, 1984; Ferrans & Powers, 1992; Symon et al., 2003). While the patient may be having post-operative incisional pain from a cesarean section, and this may affect quality of life, it may not be as important as the difficulty of mothering a 'fussy' infant. When quality of life is addressed in this way, care becomes tailored to that patient's needs at the time, and outcomes, along with patient satisfaction, are improved.

Ultimately, when nursing care addresses the emotional needs of the mother, the family will also be affected. Facilitating a smooth transition to motherhood using knowledge of the contribution of expectations to quality of life is crucial to excellent nursing care. The early recognition of modifiable risk factors is one of the ways nursing can begin to address the static rates of postpartum depression.

Future Research

This descriptive study has begun to uncover the expectations, attitudes towards parenthood, and mood in antepartum and postpartum women. A significant limitation in this study was the small sample size. Recommendations for a follow-up study include recruitment of a larger sample from multiple locations, increasing the chance of a more representative sample. Variables of expectations and quality of life would be the focus of such a follow-up study, along with comparisons between women who are at risk for

mood disorders and those who are not, in order to identify differences in these populations. The participants would be given questionnaires to complete at the same time points, but adding additional time points throughout the first year of motherhood may give a better picture of the challenges women experience during the first year. Since this study's sample did not possess the risk factors typically found in those with postpartum depression, a further examination of this population should be done. Considering unmet expectations were found to be a contributor to postpartum depression based on Beck's (2001) theory, this population could be followed long term to see if postpartum depression develops as some point over the first year of motherhood. The study could also determine if any of the sample's demographic characteristics may be predictive of lowering their chance for postpartum depression. Finally, since postpartum depression has been shown to affect the children long term, follow up studies of those women who were diagnosed with PPD in this sample should be done to further validate these prior results (Goodman et al., 2011).

Attention needs to also be given to studies that would include a more diverse sample. Although this study used a sample of women not typically at risk for postpartum depression, a more thorough understanding of contributing factors to quality of life could be found in a sample that was representative of the general population. Using the PEM and M-QLI along with the EPDS and GAD, the differences between groups with met and unmet expectations could be more clearly defined. The variability of scores should improve with this larger, diverse sample, thus improving overall analyses. Trends in depression and anxiety related to quality of life can be assessed by using a longitudinal

design over a longer period of time. Comparisons between those at risk for depression and anxiety to those who are not at risk may help to determine factors that transcend race, marital status, and socioeconomic status. Common factors between both groups such as primiparity or unmet expectations may be significant predictors of mood or quality of life regardless of risk.

A follow up to this study should also be done using a qualitative approach. Interviews regarding expectations of motherhood during pregnancy followed by interviews 6–12 months after delivery may clarify the discrepancies reported in the quantitative instrument. Interviews could also include questions about social media's influence on the image of motherhood and expectations of the new mothers. This study found that most women did not believe that their image of motherhood was a result of the images portrayed by TV or movies. Further qualitative exploration of the image of motherhood may be able to find if descriptions match the portrayal of mothers in movies and TV.

Finally, studies examining attitudes towards parenting during pregnancy, but also examining these variables in a sample of mothers with preschool aged children, would be valuable. Since attitudes towards parenting did not significantly change from antepartum to postpartum, the sample of preschool mothers may be more appropriate as they may be more aware of intensive mothering beliefs. Quality of life in both groups should be assessed as an outcome to compare ratings in women who strongly adhere to the beliefs of intensive parenting with those who do not. Expectations that are unmet at both time

points could be examined to see how expectations change, and if they become more realistic with mothering experience.

The findings of this study are important in considering future research that will determine ways in which to minimize the occurrence of postpartum depression. It was shown in this small sample that almost half of the women reported unmet expectations which resulted in lower quality of life and higher anxiety. Future research should focus on discovering variables that would guide nursing care to enhance maternal quality of life, resulting in improved family outcomes.

APPENDIX A

SELF-REPORT QUESTIONNAIRES

Demographic Information *Antepartum*
ID# _____

1. Name _____
2. MR#_____
3. Age _____
4. Ethnicity: (please circle one)
    a. Hispanic
    b. Non-Hispanic
5. Race: (please circle one)
    a. Alaska Native
    b. American Indian
    c. Asian
    d. Black
    e. Native Hawaiian or other Pacific Islander
    f. White
    g. Preference not indicated
    h. Other
6. Marital Status: (please circle one)
    a. Married
    b. Divorced
    c. Separated
    d. Single, not living with partner
    e. Single, living with partner
7. Estimated due date _____
8. Please list any medications you are currently taking:

    _____ _____

    _____ _____

    _____ _____

    _____ _____

9. Number of pregnancies (gravida) _____
10. Did you conceive using an infertility procedure or medication? Yes No
11. Are you currently working outside the home? Yes No
12. Do you plan to return to work after having the baby? Yes No
13. Have you ever been diagnosed with depression? YES NO
14. Have you ever been diagnosed with anxiety? YES NO

15. What is your annual income?
    a. Less than $5000 _____
    b. $5000 to $9,999_____
    c. $10,000 to $19,999 _____
    d. $20,000 to $29,999 _____
    e. $30,000 to $39,999_____
    f. $40,000 to $49,999 _____
    g. $50,000 to $59,999 _____
    h. $60,000 to $69,999 _____
    i. Over $70,000 _____

16. What type of delivery do you expect to have? Vaginal _____ Cesarean Section _____

Demographic Information—*Postpartum*

ID# _____

1. Name _____
2. MR#_____
3. Type of delivery:
    a. Vaginal ___
    b. Vaginal delivery with 3rd or 4th degree laceration ____
    c. Scheduled cesarean section ____
    d. Unscheduled cesarean section ____
4. Have you returned to work? Yes No
5. Do you belong to a new mother's group? Yes No
6. Do you regularly read any online blogs regarding motherhood? Yes No
7. Have you read any books about motherhood? Yes No

Images of Motherhood Questionnaire—*Antepartum*

ID # ____

1. Please rank the following from 1 to 5 by how much they have helped to form your image of motherhood (1=most influence):
    a. My own mother or mother figure _____
    b. Books about motherhood _____
    c. Television or movies _____
    d. Friends who have children _____
    e. Other _____ _____

2. How would you describe a ‘good mother’:

Images of Motherhood Questionnaire—*Postpartum*

ID # _____

1. Please rank the following from 1 to 5 by how accurate you feel they were in portraying motherhood (1= most accurate):
    a. My own mother or mother figure _____
    b. Books about motherhood _____
    c. Television or movies _____
    d. Friends who have children _____
    e. Other _____ _____

2. Please tell me if there were any events that occurred since we last met that were unanticipated (hospitalization not for delivery, life events, new diagnoses).

3. Prior to delivery, you listed these words to describe a 'good mother':

4. Now that you have been a mother for a few weeks, are there any words you would add or remove from the list?

Multidimensional Scale of Perceived Social Support

ID # _____

Instructions: We are interested in how you feel about the following statements. Read each statement carefully. Indicate how you feel about each statement.

Circle the "1" if you **Very Strongly Disagree (VSD)**
Circle the "2" if you **Strongly Disagree (SD)**
Circle the "3" if you **Mildly Disagree (MD)**
Circle the "4" if you are **Neutral (N)**
Circle the "5" if you **Mildly Agree (MD)**
Circle the "6" if you **Strongly Agree (SA)**
Circle the "7" if you **Very Strongly Agree (VSA)**

	VSD	**SD**	**MD**	**N**	**MA**	**SA**	**VSA**
1. There is a special person who is around when I am in need	1	2	3	4	5	6	7
2. There is a special person with whom I can share joys and sorrows.	1	2	3	4	5	6	7
3. My family really tries to help me	1	2	3	4	5	6	7
4. I get the emotional help & support I need from my family.	1	2	3	4	5	6	7
5. I have a special person who is a real source of comfort to me.	1	2	3	4	5	6	7
6. My friends really try to help me	1	2	3	4	5	6	7
7. I can count on my friends when things go wrong.	1	2	3	4	5	6	7
8. I can talk about my problems with my family.	1	2	3	4	5	6	7
9. I have friends with whom I can share my joys and sorrows.	1	2	3	4	5	6	7
10. There is a special person in my							

life who cares about my feelings.	1	2	3	4	5	6	7
	VSD	**SD**	**MD**	**N**	**MA**	**SA**	**VSA**
11. My family is willing to help me make decisions.	1	2	3	4	5	6	7
12. I can talk about my problems with my friends.	1	2	3	4	5	6	7

Scale Reference:

Zimet GD, Dahlem NW, Zimet SG, Farley GK. The Multidimensional Scale of Perceived Social Support. *Journal of Personality Assessment* 1988; 52:30–41.

ID# _____

The Parenting Attitudes Questionnaire	***strongly disagree***	***disagree***	***somewhat disagree***	***somewhat agree***	***agree***	***strongly agree***
1. Both fathers and mothers are equally able to care for children	1	2	3	4	5	6
2. Although fathers may mean well, they generally are not as good at parenting as mothers	1	2	3	4	5	6
3. Parents should begin providing intellectual stimulation for their children prenatally, such as reading to them or playing classical music	1	2	3	4	5	6
4. Although fathers are important, ultimately children need mothers more	1	2	3	4	5	6
5. Parents never get a mental break from their children, even when they are physically apart	1	2	3	4	5	6
6. Ultimately, it is the mother who is responsible for how her child turns out	1	2	3	4	5	6
7. Being a parent brings a person the greatest joy he or she can possible experience	1	2	3	4	5	6
8. Parenting is exhausting	1	2	3	4	5	6
9. It is important for children to be involved in classes, lessons, and activities to engage and stimulate them	1	2	3	4	5	6
10. Parenting is not the most rewarding thing a person can do	1	2	3	4	5	6
11. The child's schedule should take priority over the needs of the parent's	1	2	3	4	5	6
12. Men do not recognize that raising children is difficult and requires skills and training	1	2	3	4	5	6

The Parenting Attitudes Questionnaire	***strongly disagree***	***disagree***	***somewhat disagree***	***somewhat agree***	***agree***	***strongly agree***
13. Child rearing is the most demanding job in the world	1	2	3	4	5	6
14. Holding his or her baby should provide a parent with the deepest level of satisfaction	1	2	3	4	5	6
15. Being a parent means never having time for oneself	1	2	3	4	5	6
16. Women are not necessarily better parents than men	1	2	3	4	5	6
17. Men do not naturally know what to do with children	1	2	3	4	5	6
18. A parent should feel complete when he or she looks in the eyes of his or her infant	1	2	3	4	5	6
19. Children should be the center of attention	1	2	3	4	5	6
20. Men are unable to care for children unless they are given specific instructions about what to do	1	2	3	4	5	6
21. Finding the best educational opportunities for children is important as early as preschool	1	2	3	4	5	6
22. It is harder to be a good parent than to be a corporate executive	1	2	3	4	5	6
23. To be an effective parent, a person must possess wide ranging skills	1	2	3	4	5	6
24. Children's needs should come before their parents	1	2	3	4	5	6
25. It is important to interact regularly with children on their level (e.g., getting down on the floor and playing with them)	1	2	3	4	5	6

Liss, M., Schiffrin, H.H., Mackintosh, V.H., Miles-McLean, H., & Erchull, M.J. (2012). Development and validation of a quantitative measure of intensive parenting attitudes. *Journal of Child and Family Studies*. Doi:10.1007/s10826-012-9616-y.

QUALITY OF LIFE INDEX©
MOTHERHOOD VERSION—Antepartum

PART 1. For each of the following, please choose the answer that best describes how ***satisfied*** you are with that area of your life. Please mark your answer by circling the number. There are no right or wrong answers.

HOW *SATISFIED* ARE YOU WITH:	Very Dissatisfied	Moderately Dissatisfied	Slightly Dissatisfied	Slightly Satisfied	Moderately Satisfied	Very Satisfied
1. Your health?	1	2	3	4	5	6
2. Your health care?	1	2	3	4	5	6
3. The amount of pain that you have?	1	2	3	4	5	6
4. The amount of energy you have for everyday activities?	1	2	3	4	5	6
5. The amount of rest and sleep you get?	1	2	3	4	5	6
6. Your ability to take care of yourself without help?	1	2	3	4	5	6
7 . How prepared you are for giving birth?	1	2	3	4	5	6
8. The amount of control you have over your life?	1	2	3	4	5	6
9. Your chances of living as long as you would like?	1	2	3	4	5	6
10. The life changes you have had to make preparing for the baby?	1	2	3	4	5	6
11. Your family's health?	1	2	3	4	5	6
12. Your children?	1	2	3	4	5	6
13. Your family's happiness?	1	2	3	4	5	6
14. Your sex life?	1	2	3	4	5	6

(Please Go To Next Page)

HOW *SATISFIED* ARE YOU WITH:	Very Dissatisfied	Moderately Dissatisfied	Slightly Dissatisfied	Slightly Satisfied	Moderately Satisfied	Very Satisfied
15. Your spouse, lover, or partner?	1	2	3	4	5	6
16. Your friends?	1	2	3	4	5	6
17. The emotional support you get from your family?	1	2	3	4	5	6
18. The emotional support you get from people other than your family?	1	2	3	4	5	6
19. Your ability to be a good mother?	1	2	3	4	5	6
20. Your ability to take care of family responsibilities?	1	2	3	4	5	6
21. Your ability to find time for everything you need to do?	1	2	3	4	5	6
22. How useful you are to others?	1	2	3	4	5	6
23. The amount of worries in your life?	1	2	3	4	5	6
24. Your neighborhood?	1	2	3	4	5	6
25. Your home, apartment, or place where you live?	1	2	3	4	5	6
26. Your job (if employed)?	1	2	3	4	5	6
27. Not having a job (if unemployed, retired, or disabled)?	1	2	3	4	5	6
28. Your education?	1	2	3	4	5	6
29. How well you can take care of your financial needs?	1	2	3	4	5	6
30. The things you do for fun?	1	2	3	4	5	6
31. Your chances for a happy future?	1	2	3	4	5	6
32. Your peace of mind?	1	2	3	4	5	6

33. Your faith in God?	1	2	3	4	5	6
34. Your achievement of personal goals?	1	2	3	4	5	6
35. Your happiness in general?	1	2	3	4	5	6
36. Your life in general?	1	2	3	4	5	6
37. Your personal appearance?	1	2	3	4	5	6
38. Yourself in general?	1	2	3	4	5	6

PART 2. For each of the following, please choose the answer that best describes how ***important*** that area of your life is to you. Please mark your answer by circling the number. There are no right or wrong answers.

HOW *IMPORTANT* TO YOU IS:	Very Unimportant	Moderately Unimportant	Slightly Unimportant	Slightly Important	Moderately Important	Very Important
1. Your health?	1	2	3	4	5	6
2. Your health care?	1	2	3	4	5	6
3. Having no pain?	1	2	3	4	5	6
4. Having enough energy for everyday activities?	1	2	3	4	5	6
5. The amount of rest and sleep you get?	1	2	3	4	5	6
6. Your ability to take care of yourself without help?	1	2	3	4	5	6
7. How prepared you are for giving birth?	1	2	3	4	5	6
8. Having control over your life?	1	2	3	4	5	6
9. Living as long as you would like?	1	2	3	4	5	6
10. The life changes you have had to make preparing for your baby?	1	2	3	4	5	6
11. Your family's health?	1	2	3	4	5	6
12. Your children?	1	2	3	4	5	6
13. Your family's happiness?	1	2	3	4	5	6
14. Your sex life?	1	2	3	4	5	6
15. Your spouse, lover, or partner?	1	2	3	4	5	6
16. Your friends?	1	2	3	4	5	6
17. The emotional support you get from your family?	1	2	3	4	5	6

HOW *IMPORTANT* TO YOU IS:	Very Unimportant	Moderately Unimportant	Slightly Unimportant	Slightly Important	Moderately Important	Very Important
18. The emotional support you get from people other than your family?	1	2	3	4	5	6
19. Your ability to be a good mother?	1	2	3	4	5	6
20. Taking care of family responsibilities?	1	2	3	4	5	6
21. Your ability to find time for everything you need to do	1	2	3	4	5	6
22. Being useful to others?	1	2	3	4	5	6
23. Having no worries?	1	2	3	4	5	6
24. Your neighborhood?	1	2	3	4	5	6
25. Your home, apartment, or place where you live?	1	2	3	4	5	6
26. Your job (if employed)?	1	2	3	4	5	6
27. Having a job (if unemployed, retired, or disabled)?	1	2	3	4	5	6
28. Your education?	1	2	3	4	5	6
29. Being able to take care of your financial needs?	1	2	3	4	5	6
30. Doing things for fun?	1	2	3	4	5	6
31. Having a happy future?	1	2	3	4	5	6
32. Peace of mind?	1	2	3	4	5	6
33. Your faith in God?	1	2	3	4	5	6
34. Achieving your personal goals?	1	2	3	4	5	6
35. Your happiness in general?	1	2	3	4	5	6
36. Being satisfied with life?	1	2	3	4	5	6

	Very Unimportant	Moderately Unimportant	Slightly Unimportant	Slightly Important	Moderately Important	Very Important
37. Your personal appearance?	1	2	3	4	5	6
38. Are you to yourself?	1	2	3	4	5	6

Ferrans and Powers
QUALITY OF LIFE INDEX©
MOTHERHOOD VERSION—Postpartum

PART 1. For each of the following, please choose the answer that best describes how ***satisfied*** you are with that area of your life. Please mark your answer by circling the number. There are no right or wrong answers.

HOW *SATISFIED* ARE YOU WITH:	Very Dissatisfied	Moderately Dissatisfied	Slightly Dissatisfied	Slightly Satisfied	Moderately Satisfied	Very Satisfied
1. Your health?	1	2	3	4	5	6
2. Your health care?	1	2	3	4	5	6
3. The amount of pain that you have?	1	2	3	4	5	6
4. The amount of energy you have for everyday activities?	1	2	3	4	5	6
5. The amount of rest and sleep you get?	1	2	3	4	5	6
6. Your ability to take care of yourself without help?	1	2	3	4	5	6
7 . Your ability to take care of your baby without help?	1	2	3	4	5	6
8. The amount of control you have over your life?	1	2	3	4	5	6
9. Your chances of living as long as you would like?	1	2	3	4	5	6
10. The life changes you have had to make since having your baby?	1	2	3	4	5	6
11. Your family's health?	1	2	3	4	5	6
12. Your children?	1	2	3	4	5	6
13. Your family's happiness?	1	2	3	4	5	6

HOW *SATISFIED* ARE YOU WITH:	Very Dissatisfied	Moderately Dissatisfied	Slightly Dissatisfied	Slightly Satisfied	Moderately Satisfied	Very Satisfied
14. Your sex life?	1	2	3	4	5	6
15. Your spouse, lover, or partner?	1	2	3	4	5	6
16. Your friends?	1	2	3	4	5	6
17. The emotional support you get from your family?	1	2	3	4	5	6
18. The emotional support you get from people other than your family?	1	2	3	4	5	6
19. Your ability to be a good mother?	1	2	3	4	5	6
20. Your ability to take care of family responsibilities?	1	2	3	4	5	6
21. Your ability to find time for everything you need to do?	1	2	3	4	5	6
22. How useful you are to others?	1	2	3	4	5	6
23. The amount of worries in your life?	1	2	3	4	5	6
24. Your neighborhood?	1	2	3	4	5	6
25. Your home, apartment, or place where you live?	1	2	3	4	5	6
26. Your job (if employed)?	1	2	3	4	5	6
27. Not having a job (if unemployed, retired or disabled)?	1	2	3	4	5	6
28. Your education?	1	2	3	4	5	6
29. How well you can take care of your financial needs?	1	2	3	4	5	6
30. The things you do for fun?	1	2	3	4	5	6

	Very Dissatisfied	Moderately Dissatisfied	Slightly Dissatisfied	Slightly Satisfied	Moderately Satisfied	Very Satisfied
31. Your chances for a happy future?	1	2	3	4	5	6
32. Your peace of mind?	1	2	3	4	5	6
33. Your faith in God?	1	2	3	4	5	6
34. Your achievement of personal goals?	1	2	3	4	5	6
35. Your happiness in general?	1	2	3	4	5	6
36. Your life in general?	1	2	3	4	5	6
37. Your personal appearance?	1	2	3	4	5	6
38. Yourself in general?	1	2	3	4	5	6

(Please Go To Next Page)

PART 2. For each of the following, please choose the answer that best describes how ***important*** that area of your life is to you. Please mark your answer by circling the number. There are no right or wrong answers.

HOW *IMPORTANT* TO YOU IS:	Very Unimportant	Moderately Unimportant	Slightly Unimportant	Slightly Important	Moderately Important	Very Important
1. Your health?	1	2	3	4	5	6
2. Your health care?	1	2	3	4	5	6
3. Having no pain?	1	2	3	4	5	6
4. Having enough energy for everyday activities?	1	2	3	4	5	6
5. The amount of rest and sleep you get?	1	2	3	4	5	6
6. Your ability to take care of yourself without help?	1	2	3	4	5	6
7. Your ability to take care of your baby without help ?	1	2	3	4	5	6
8. Having control over your life?	1	2	3	4	5	6
9. Living as long as you would like?	1	2	3	4	5	6
10. The life changes you have had to make since having your baby?	1	2	3	4	5	6
11. Your family's health?	1	2	3	4	5	6
12. Your children?	1	2	3	4	5	6
13. Your family's happiness?	1	2	3	4	5	6
14. Your sex life?	1	2	3	4	5	6
15. Your spouse, lover, or partner?	1	2	3	4	5	6
16. Your friends?	1	2	3	4	5	6

HOW *IMPORTANT* TO YOU IS:	Very Unimportant	Moderately Unimportant	Slightly Unimportant	Slightly Important	Moderately Important	Very Important
17. Emotional support you get from your family?	1	2	3	4	5	6
18. The emotional support you get from people other than your family?	1	2	3	4	5	6
19. Your ability to be a good mother?	1	2	3	4	5	6
20. Taking care of family responsibilities?	1	2	3	4	5	6
21. Your ability to find time for everything you need to do?	1	2	3	4	5	6
22. Being useful to others?	1	2	3	4	5	6
23. Having no worries?	1	2	3	4	5	6
24. Your neighborhood?	1	2	3	4	5	6
25. Your home, apartment, or place where you live?	1	2	3	4	5	6
26. Your job (if employed)?	1	2	3	4	5	6
27. Having a job (unemployed, retired, or disabled)?	1	2	3	4	5	6
28. Your education?	1	2	3	4	5	6
29. Being able to take care of your financial needs?	1	2	3	4	5	6
30. Doing things for fun?	1	2	3	4	5	6
31. Having a happy future?	1	2	3	4	5	6
32. Peace of mind?	1	2	3	4	5	6
33. Your faith in God?	1	2	3	4	5	6
34. Achieving your personal goals?	1	2	3	4	5	6
35. Your happiness in general?	1	2	3	4	5	6
36. Being satisfied with life?	1	2	3	4	5	6

	Very Unimportant	Moderately Unimportant	Slightly Unimportant	Slightly Important	Moderately Important	Very Important
37. Your personal appearance?	1	2	3	4	5	6
38. Are you to yourself?	1	2	3	4	5	6

EPD Screen **ID #_____**

Since you are either pregnant or have recently had a baby, we want to know how you feel. Please circle the answer that comes closest to how you have felt **IN THE LAST 7 DAYS**—not just how you feel today. Complete all 10 items. This is a screening test, not a medical diagnosis.

1. I have been able to laugh and see the funny side of things:
   As much as I always could
   Not quite so much now
   Definitely not so much now
   Not at all

2. I have looked forward with enjoyment to things:
   As much as I ever did
   Rather less than I used to
   Definitely less than I used to
   Hardly at all

3. I have blamed myself unnecessarily when things went wrong:
   Yes, most of the time
   Yes, some of the time
   Not very often
   No, never

4. I have been anxious or worried for no good reason:
   No, not at all
   Hardly ever
   Yes, sometimes
   Yes, very often

5. I have felt scared or panicky for no good reason:
   Yes, quite a lot
   Yes, sometimes
   No, not much
   No, not at all

6. Things have been getting to me:
   Yes, most of the time I haven't been able to cope at all
   Yes, sometimes I haven't been coping as well as usual
   No, most of the time I have coped quite well
   No, I have been coping as well as ever

7. I have been so unhappy that I have had difficulty sleeping:
   Yes, most of the time
   Yes, quite often
   Not very often
   No, not at all

8. I have felt sad or miserable:
   Yes, most of the time
   Yes, quite often
   Not very often
   No, not at all

9. I have been so unhappy that I have been crying:
   Yes, most of the time
   Yes, quite often
   Only occasionally
   No, never

10. The thought of harming myself has occurred to me:
    Yes, quite often
    Sometimes
    Hardly ever
    Never

Cox, J.L., & Holden, J.M. (2003). *A guide to the Edinburgh Postnatal Depression Scale.* Glascow, UK: Bell & Bain Limited.

	GAD-7	*Over the **last week,** how often have you been bothered by any of the following problems?*	*not at all*	*several days*	*more than half the days*	*nearly every day*
1.	Feeling nervous, anxious or on edge		*0*	*1*	*2*	*3*
2.	Not being able to stop or control worrying		*0*	*1*	*2*	*3*
3.	Worrying too much about different things		*0*	*1*	*2*	*3*
4.	Trouble relaxing		*0*	*1*	*2*	*3*
5.	Being so restless that it is hard to sit still		*0*	*1*	*2*	*3*
6.	Becoming easily annoyed or irritable		*0*	*1*	*2*	*3*
7.	Feeling afraid as if something awful might happen		*0*	*1*	*2*	*3*
	GAD-7 total score =					

ID# _____

Parenting Expectations Measure—Antepartum

ID # _____

This questionnaire consists of a number of parenting expectations commonly held by first-time parents. We are interested in your perceptions of what life as a parent of an infant would be like. Think about how you would expect life to be for you, if you were the parent of an infant. Read each statement and indicate the extent to which you agree or disagree with each statement by circling the response that most applies to you.

	Strongly Disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
1. I will have a feeling of "fulfillment"	1	2	3	4	5	6	7
2. I will have an increased appreciation for family tradition	1	2	3	4	5	6	7
3. I will have less contact with friends	1	2	3	4	5	6	7
4. My partner will help out more with household chores	1	2	3	4	5	6	7
5. I will enjoy my baby's company	1	2	3	4	5	6	7
6. Being a parent will make me feel frustrated	1	2	3	4	5	6	7
7. Caring for a baby will be very difficult	1	2	3	4	5	6	7
8. I will feel more distant from my partner	1	2	3	4	5	6	7
9. Breastfeeding will make me feel close to my baby	1	2	3	4	5	6	7

	Strongly Disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
10. There will be unwanted interference from other people in my life	1	2	3	4	5	6	7
11. My friends and colleagues will think that I am less interesting	1	2	3	4	5	6	7
12. My partner will show too little attention to the baby	1	2	3	4	5	6	7
13. I will feel “edgy” or emotionally upset	1	2	3	4	5	6	7
14. I will resent being the main caretaker of the baby	1	2	3	4	5	6	7
15. My partner will get on my nerves	1	2	3	4	5	6	7
16. My relationships with my relatives will be closer	1	2	3	4	5	6	7
17. Being a parent will make me feel happy	1	2	3	4	5	6	7
18. I will be disturbed by feelings I have towards my baby	1	2	3	4	5	6	7
19. I will enjoy breastfeeding my baby	1	2	3	4	5	6	7
20. My partner will be able to take care of the baby when I go out	1	2	3	4	5	6	7

	Strongly Disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
21. Being a mother will make me feel fulfilled as a woman	1	2	3	4	5	6	7
22. My life will change for the better	1	2	3	4	5	6	7
23. My partner will show less attention to me	1	2	3	4	5	6	7
24. I will feel proud to be a parent	1	2	3	4	5	6	7
25. Being a parent will be the most important thing in my life	1	2	3	4	5	6	7
26. I will feel disappointed by parenthood	1	2	3	4	5	6	7
27. I will be less sexually responsive	1	2	3	4	5	6	7
28. I will feel that my friends without children no longer understand me	1	2	3	4	5	6	7
29. I will return to my normal physical self within a few months of the birth of the baby	1	2	3	4	5	6	7
30. I will feel more vulnerable to being criticized by others	1	2	3	4	5	6	7
31. I will find breastfeeding uncomfortable	1	2	3	4	5	6	7

	Strongly Disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
32. My partner and I will have more fun together	1	2	3	4	5	6	7
33. My partner will be less sensitive to my feelings	1	2	3	4	5	6	7
34. I will be able to go to my family and friends for advice	1	2	3	4	5	6	7
35. I will be satisfied with my partner's involvement in the daily care of the baby	1	2	3	4	5	6	7
36. I will form new friendships	1	2	3	4	5	6	7
37. I will feel that my baby loves me	1	2	3	4	5	6	7
38. The arrival of the baby will cause difficulties in my relationship with my partner	1	2	3	4	5	6	7
39. I will continue my social activities as usual	1	2	3	4	5	6	7
40. I will feel confined to the house	1	2	3	4	5	6	7
41. My partner and I will enjoy spending time together	1	2	3	4	5	6	7
42. There will not be enough money for non-essential items or services (for example going to the movies, buying CDs or gifts)	1	2	3	4	5	6	7

43. I will become too dependent on others when the baby is born	1	2	3	4	5	6	7
44. I will have more periods of boredom	1	2	3	4	5	6	7
45. The messes that my baby will make will bother me a lot	1	2	3	4	5	6	7
46. I will sometimes regret having my baby	1	2	3	4	5	6	7
47. My life will lack variety	1	2	3	4	5	6	7
48. The demands of being a parent will restrict my social life	1	2	3	4	5	6	7
49. Being a parent will increase my sense of independence	1	2	3	4	5	6	7
50. Being a parent will make me feel satisfied	1	2	3	4	5	6	7
51. My baby will be fun to play with	1	2	3	4	5	6	7
52. Being a parent will fit into the life that I want to live	1	2	3	4	5	6	7
53. I will receive emotional support from my family and friends	1	2	3	4	5	6	7

Parenting Expectations Measure—Postpartum

This questionnaire consists of a number of statements that relate to the experiences of early parenthood. We are interested whether you have experienced any of the feelings or situations listed below. Read each statement carefully, and then indicate the extent to which you agree or disagree with each statement by circling the response that most applies to you.

	Strongly Disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
1. I have a feeling of "fulfillment"	1	2	3	4	5	6	7
2. I have an increased appreciation for family tradition	1	2	3	4	5	6	7
3. I have less contact with friends	1	2	3	4	5	6	7
4. My partner helps out more with household chores	1	2	3	4	5	6	7
5. I enjoy my baby's company	1	2	3	4	5	6	7
6. Being a parent makes me feel frustrated	1	2	3	4	5	6	7
7. Caring for a baby is very difficult	1	2	3	4	5	6	7
8. I feel more distant from my partner	1	2	3	4	5	6	7
9. Breastfeeding makes me feel close to my baby	1	2	3	4	5	6	7

	Strongly Disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
10. Becoming a parent is the best thing that ever happened to me	1	2	3	4	5	6	7
11. There is unwanted interference from other people in my life	1	2	3	4	5	6	7
12. My friends and colleagues think that I am less interesting	1	2	3	4	5	6	7
13. My partner shows too little attention to the baby	1	2	3	4	5	6	7
14. I feel “edgy” or emotionally upset	1	2	3	4	5	6	7
15. I resent being the main caretaker of the baby	1	2	3	4	5	6	7
16. My partner gets on my nerves	1	2	3	4	5	6	7
17. My relationships with my relatives is closer	1	2	3	4	5	6	7
18. Being a parent makes me feel happy	1	2	3	4	5	6	7
19. I am disturbed by feelings I have towards my baby	1	2	3	4	5	6	7
20. I enjoy breastfeeding my baby	1	2	3	4	5	6	7

	Strongly Disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
21. My partner is able to take care of the baby when I go out	1	2	3	4	5	6	7
22. My family and friends have helped me out since the baby has been born	1	2	3	4	5	6	7
23. Being a mother makes me feel fulfilled as a woman	1	2	3	4	5	6	7
24. My life is changed for the better	1	2	3	4	5	6	7
25. My partner shows less attention to me	1	2	3	4	5	6	7
26. I feel proud to be a parent	1	2	3	4	5	6	7
27. Being a parent is the most important thing in my life	1	2	3	4	5	6	7
28. I feel disappointed by parenthood	1	2	3	4	5	6	7
29. I am less sexually responsive	1	2	3	4	5	6	7
30. Il feel that my friends without children no longer understand me	1	2	3	4	5	6	7

	Strongly Disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
31. I returned to my normal physical self within a few weeks of the birth of the baby.	1	2	3	4	5	6	7
32. I feel more vulnerable to being criticized by others	1	2	3	4	5	6	7
33. I find breastfeeding uncomfortable	1	2	3	4	5	6	7
34. My partner and I have more fun together	1	2	3	4	5	6	7
35. My partner is less sensitive to my feelings	1	2	3	4	5	6	7
36. I am able to go to my family and friends for advice	1	2	3	4	5	6	7
37. I am satisfied with my partner's involvement in the daily care of the baby	1	2	3	4	5	6	7
38. I have formed new friendships	1	2	3	4	5	6	7
39. I feel that my baby loves me	1	2	3	4	5	6	7
40. The arrival of the baby is causing difficulties in my relationship with my partner	1	2	3	4	5	6	7

	Strongly Disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
41. I am continuing my social activities as usual	1	2	3	4	5	6	7
42. I feel confined to the house	1	2	3	4	5	6	7
43. My partner and I enjoy spending time together	1	2	3	4	5	6	7
44. There is not be enough money for non-essential items or services (for example going to the movies, buying CDs or gifts)	1	2	3	4	5	6	7
45. I have become too dependent on others since the baby was born	1	2	3	4	5	6	7
46. I have more periods of boredom	1	2	3	4	5	6	7
47. The messes that my baby makes bother me a lot	1	2	3	4	5	6	7
48. I sometimes regret having my baby	1	2	3	4	5	6	7
49. My life lacks variety	1	2	3	4	5	6	7
50. The demands of being a parent restrict my social life	1	2	3	4	5	6	7

	Strongly Disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
51. Being a parent has increased my sense of independence	1	2	3	4	5	6	7
52. Being a parent makes me feel satisfied	1	2	3	4	5	6	7
53. My baby is fun to play with	1	2	3	4	5	6	7
54. Being a parent fits into the life that I want to live	1	2	3	4	5	6	7
55. I receive emotional support from my family and friends	1	2	3	4	5	6	7

APPENDIX B

INFORMATIONAL LETTER

Dear Participant,

I would like to invite you to participate in a study regarding your expectations about being a new mother. I am conducting this study as a PhD student in the nursing program at Loyola University, Chicago. The study will examine the expectations that pregnant women have about being a new mother and how these expectations may impact their quality of life. Findings from this study may provide information for healthcare providers who treat and educate women during pregnancy and following delivery of their baby.

If you would like to participate, I will ask to meet with you about 30–45 minutes prior to your next prenatal visit at your doctor's office to sign the study consent form and complete the questionnaires. Six weeks after your baby is born, I would like you to complete the second set of questionnaires. Again, we will meet 30–45 minutes prior to your postpartum 6 week checkup at your doctor's office. In appreciation for your time, a $10 Target gift card will be given to you after completion of the questionnaires at each meeting.

Your participation is voluntary and there is no penalty if you choose not to participate. If you have any questions about the questionnaires or the study, you can contact me at (630) 962-2378 or at maradams@luc.edu.

Sincerely,

Mary K Adams, MSN, RN

APPENDIX C

INFORMED CONSENT FORMS

IRB NUMBER: 206789090414

LOYOLA UNIVERSITY CHICAGO

HEALTH SCIENCES DIVISION

MAYWOOD, ILLINOIS

DEPARTMENT OF NIEHOFF SCHOOL OF NURSING

INFORMED CONSENT

Participant's Name:

_____

Medical Record Number:

_____

PROJECT TITLE: "Expectations and Quality of Life during the Antepartum and Postpartum Periods"

THE APPROVAL FOR THIS PROJECT EXPIRES ON 09/04/2015.

Participant Information

PRINCIPLES CONCERNING RESEARCH: You are being asked to take part in a research project. It is important that you read and understand the principles that apply to all individuals who agree to participate in the research project described below:

1. Taking part in the research is entirely voluntary
   .
2. We do not know if you will benefit from taking part in the research but the knowledge obtained may help others
   .
3. You may withdraw from the study at any time without anyone objecting and without penalty or loss of any benefits to which you are otherwise entitled
   .
4. If we learn new information that would be important for you to know, you will be notified.

The purpose of the research, how it is to be done, and what your part in the research will be is described below. Also described are the risks, inconveniences, discomforts and other important information which you need to make a decision about whether or not you wish to participate. You are urged to discuss any questions you have about this research with the staff members.

PURPOSE OF RESEARCH: You are being asked to participate in this study because you are pregnant.

This purpose of this study is to gain a better understanding about expectations of motherhood and their relationship to quality of life during and following pregnancy. This information may provide insight into the realities of motherhood for those persons who provide care during this time.

This research is sponsored by Niehoff School of Nursing

Approximately 120 people will participate in this research.

DESCRIPTION AND EXPLANATION OF PROCEDURES

If you agree to participate in this study, you will be asked to complete the consent forms, questionnaires, and demographic information. The first interview will be during your 8th to 9th month of pregnancy at your scheduled doctor's office visit and the second will be after the delivery of your baby (anywhere from 6 to 12 weeks) at a time and place of convenience for you. Total time required for each visit will be 45 minutes. We will contact you via phone call, text, or email to schedule these interviews with you.

RISKS/DISCOMFORTS: Some of the questions ask about your description of motherhood, your mood, and expectations of motherhood. It is possible that you may become anxious when thinking about these things. If you respond positively to the items that ask if "you have thoughts of harming yourself" or "are feeling afraid that something awful might happen", your healthcare provider will be informed at your study visit so that they may speak to you about your feelings.

You do not have to answer any question that you do not wish to answer.

BENEFITS: You will not benefit from participating in this study, however, the findings may help future pregnant women as well as the individuals who provide care to these women.

ALTERNATIVES: You do not have to participate in this research project to receive care and treatment at Loyola University Medical Center.

FINANCIAL INFORMATION: You will not be charged for participating in this research.

After completing all of the questionnaires at your doctor visit while you are pregnant, you will receive a $10 Target gift card. Also, after completing all of the questionnaires at your doctor visit after having the baby, you will receive a second $10 gift card.You will be financially responsible for all costs associated with your care.If you receive payment for participating in this research, personal information about you, including your name, address, and Social Security number, will be released to the Loyola University Chicago Accounting Office for the purpose of recording the payment and for tax reporting to the United States Internal Revenue Service (IRS). You will need to complete a W-9 form. This form will be provided to you. If you choose not to complete the W-9, you will not receive reimbursement.

INFORMATION COLLECTED AND WHAT WILL HAPPEN TO IT: In order to meet the goals of the research study (see Purpose of Research section of this consent), we will collect information on you, your test results, and how you do from you and your Loyola University Medical Center (LUHS) medical records. The information will be collected by Mary Adams, MSN, RN, the study physician(s), the research nurses, data administrators and secretaries.

Information about you will be provided to Loyola University Chicago; data collection and study verification agencies; and/or government regulatory agencies such as the Food and Drug Administration.

The information you provide will help us to learn about the expectations and quality of life for women before and after the birth of their first baby.

The information we will collect and send includes:

__X__ DEMOGRAPHIC INFORMATION (e.g., name, address, phone number, Social Security Number)

__X__ MEDICAL RECORD (including, but not limited to, history and physical exam notes, progress notes, consultation reports, laboratory test results, AND/OR operative reports)

We will collect and provide this information about you for as long as you are in the study. Once the information is disclosed outside of LUHS, it may no longer be protected by federal privacy laws.

It is possible that the sponsor, research nurses, data collection and/or study verification agencies, data administrators or staff, or the Food and Drug Administration will come to LUHS and view the medical record (see above for description of content) and the research records. They may take notes or copy pages of the medical record. This is done to verify the accuracy of the information LUHS is sending to them.

The results of this research study may be published in a journal for the purpose of advancing medical knowledge. You will not be identified by name or by any other identifying information in any publication or report about this research.

Consent for LUHS to use and disclose your medical information is required in order for you to participate in the study.

WITHDRAWAL OF CONSENT: Your consent to use and disclose your medical information for the purpose of this research study is completely voluntary. You can withdraw your consent for LUHS to use and disclose your information and your consent to participate in this study at any time without affecting your ability to receive care and treatment at LUHS unrelated to the research study. Withdrawal means that all study procedures and follow-up will stop and we will not send any more information about you to the sponsor of this research or its designees. However, information already used and disclosed to the research sponsor prior to the time of your withdrawal from this study may continue to be used and disclosed by LUHS and the sponsor.

If you withdraw from the study, we will ask that you sign the form attached to this consent and send it to Mary Adams, MSN, RN or give it to the study staff. Your withdrawal from the study will not have any affect on any actions by LUHS taken before the attached form is received by LUHS.

Your study doctor, the Institutional Review Board, the regulatory authorities, or the sponsor, may terminate the study at any time with or without your consent.

CONSENT

I have fully explained to _____ the nature and purpose of the above- described procedure and the risks that are involved in its performance. I have answered and will answer all questions to the best of my ability. I may be reached at _____.

_____ Date:____/_____/____

Signature

Sue Penckofer, PhD, RN, the principal investigator for this study, or her associates will be available to answer any questions you may have. Mary Adams, MSN,RN can be reached at: 630-962-2378.

If you ever feel that you have been injured by participating in this study or if you have any questions concerning your rights as a research participant, you may contact either Kenneth Micetich, MD, Chair of the Institutional Review Board for the Protection of Human Subjects-Loyola University Chicago Health Sciences Division, at 708-216-2633 or Elaine Fluder, MSN, Director of the Human Research Subjects Protection Program at 708-216-4608.

Although you have the right to revoke this authorization, you accept that such revocation will not apply to any uses and disclosures of your information that are described in the Loyola University Health System Notice of Privacy Practices or otherwise allowable under any Federal or State laws. You will receive a signed copy of this informed consent document.

You have been fully informed of the above-described research program with its possible benefits and risks. Your signature below indicates that you are willing to participate in this research study and agree to the use and disclosure of information about you as described above. You do not give up any of your legal rights by signing this consent document.

_____Date:____/_____/____

Signature: Participant

_____Date:____/_____/____

Signature: Witness

PROJECT TITLE: Expectations and Quality of Life during the Antepartum and Postpartum Periods"

REVOCATION OF AUTHORIZATION TO

RELEASE PROTECTED HEALTH INFORMATION (PHI)

I, _____, hereby revoke my consent to participate in the study titled, “Expectations and Quality of Life during the Antepartum and Postpartum Periods" ”, at Loyola University Medical Center (“LUHS”). I also revoke my consent to release information I provided to LUHS that allowed LUHS to use and disclose my medical information to Mary Adams, MSN, RN as outlined on the consent form, which I signed on ____/_____/____ (INSERT DATE CONSENT WAS SIGNED ORIGINALLY). I understand that this revocation does not apply to any action LUHS has taken in reliance on the consent I signed earlier.

_____Date:____/_____/____

Signature: Participant

Please return this form to:

Mary Adams, MSN, RN

Loyola University Medical Center

2160 South First Avenue

Maywood, Illinois 60153

APPENDIX D

IRB APPROVAL LETTER

LOYOLA UNIVERSITY CHICAGO
Health Sciences Division
Institutional Review Board for the Protection of Human Subjects
2160 South First Avenue
Maywood, IL 60153

Project Summary

.U Number	206789	Status: **Full Approval**	
Title	Expectation and Quality of Life During the Antepartum and Postpartum Period		
Primary Investigator	Penckofer, Sue	IRB Number	206789090414
Contact	Mary Adams, Doctoral Student (maradams@luc.edu) x6-1048		
Department	Nursing	Protocol Source	In-House
Division	Health Promotion	In-House	

Contents

Grant Application	**NO**
Questionnaires, Inventories	**YES**
Retrospective	**NO**
Discarded Material	**NO**
Epidemiological Surveys	**NO**
Repository Material	**NO**
Investigational Drug(s)	**NO**
Investigational Device(s)	**NO**
Commercial Drugs(s)	**NO**
Commercial Device(s)	**NO**

Collaborating Investigators

Investigator	Department -Division
Penckofer, Sue	Nursing -Health Promotion

Disease: **Pregnancy**

Objective: **Aim 1- To describe expectations and maternal quality of life during pregnancy and the postpartum period as well as factors that may contribute to maternal quality of life at these points in time. Aim 2 – To determine how expectations, attitudes towards motherhood, and mood (anxiety, depression) will be predictive of maternal quality of life.**
Aim 3 -- Examine whether women who have a greater difference between expectations and experience of motherhood (higher or lower) report a similar change in maternal quality of life.
Exploratory Aim – To discover the characteristics of a 'good mother' as described by antepartum women and the factors influencing their description.

Procedures: **Interviews,Chart Review**

Drugs: NONE

Devices: NONE

Participants

# of Participants	120
Sex	Female
Age	<18 NO 18+ YES Min: 18 Max: 50
Normal Volunteer	YES
Source	
Expected Duration of Patient(s) in Project	20 Weeks

Study Design

Justification	YES
Interim Analysis	NO
Data & Safety Monitor Board	NO
Techniques	
Phases	
Patient Type(s)	Outpatient
Sites	Loyola Ambulatory Clinics

Treatments NONE

Financial Info

Charges paid by	Mary Adams. Doctoral Student
Protocol Events not charged to participant	No protocal events will be charge to the patient
Hospitalization required?	NO
# Days hospitalization increased by participation	
Non-standard Tests performed	No
Cost of Care for a research-related Injury paid by	Loyola
Participants Compensated?	YES
Compensation Amount($)	0
Compensation Schedule	Per Visit

Alternatives 1. Not participate
2.

Benefit	**Future patients may benefit.**
Risk	**Some of the questions ask about your description of motherhood, your mood, and expectations of motherhood. It is possible that you may become anxious when thinking about these things. If you respond positively to the items that ask if "you have thoughts of harming yourself" or "are feeling afraid that something awful might happen", your healthcare provider will be informed at your study visit so that they may speak to you about your feelings.**
Recruitment Methods	**1. Brochure/Pamphlet** **2. General Solicitation**
How will potential participants be identified?	**Healthcare providers (Dr. Jean Goodman and Dr. Paula White-Prock) will identify appropriate patients and refer them to the student. Student has already met with these physicians and they have approved process.**
How will potential participants learn about the study?	**At their doctor visit per doctor and/or nurse with use of flyer**
Special Populations	**Pregnant Women**
Who will obtain consent?	**Mary Adams Nurse or healthcare provider**
Where will consent be obtained?	**In the OB clinic (LUHS and satellites)**
When will consent be obtained?	**Patient will be given information about study by healthcare provider. Subsequently patient will contact Mary Adams about interest in participation. Mary Adams will meet with participant at the OB clinic before or after clinic visit to consent patient and have patient complete surveys.**
Importance	**Knowledge gained from this study will help nurses and health care providers better understand the expectations of pregnant women compared to the realities of motherhood. In addition, exploring the factors that impact quality of life during the antepartum and postpartum period will help women prepare for motherhood with a more realistic perspective.**
Competing Clinical Trials	None specified
Information Security Requirements	**APPROVED**

Marketing

Viewing Audience	**Internal/External**
Layperson Title of Trial	
Purpose (for laypersons)	
Eligibility criteria (for laypersons)	
Treatment Description (for laypersons)	
Exclusion Criteria (for laypersons)	
Number Of Patients Sought	**120**
Length Of Patient Enrollment	**20 Weeks**
Compensation?	1
Keywords	
Project Title	

Purpose (for medical audience)	Aim 1- To describe expectations and maternal quality of life during pregnancy and the postpartum period as well as factors that may contribute to maternal quality of life at these points in time. Aim 2 – To determine how expectations, attitudes towards motherhood, and mood (anxiety, depression) will be predictive of maternal quality of life. Hypothesis 1- Expectations, parental attitudes, and mood (anxiety, depression), will be predictors of maternal quality of life. Aim 3 – Examine whether women who have a greater difference between expectations and experience of motherhood (higher or lower) report a similar change in maternal quality of life.
Eligibility criteria (for medical audience)	

MarketingRequest (08/28/2014)

INITIAL REVIEW

ASSOCIATED DOCUMENTS:

08/28/2014 Protocal
08/28/2014 206789.082814
08/28/2014 InformationalLetter
09/04/2014 206789r (redlined ICD)
09/04/2014 206789r3.090414 (approved ICD)

Review Date	09/04/2014
(Note: This Project has been initially review by Expedited mechanism 45CFR46.110,b-1 Category 7.)	
Meeting Date	09/17/2014
Review Action	Full Approval
IRB Findings	1. The study is of minimal risk and qualifies for expedited review 45CFR46.110, b-1, HHS Secretary Category # 7). 2. Pregnant women and fetus can participate in the research in accordance with the findings of 45CFR46 subpart B. 3. Refer to conditions of approval.
Approval Date	09/04/2014
Review Frequency	Annual
Conditions of Approval	You are required to use the consent document attached as 206789r3.090414, version date: 09/04/2014 (see project summary). The redlined consent document is attached as 206789r so that you can easily see the changes we have made. Please review the consents. If you wish to make changes, submit an amendment.

APPENDIX E

EPDS SCORES IN SAMPLES

WITH COMPARABLE DEMOGRAPHICS

Source	Sample Size	Sample Characteristics	Percentage of Sample Depressed	Mean
Banti, Mauri, Oppo, Borri, Rambelli, Ramacciotti, Montagnani, Camilleri, Cortopassi, Rucci, & Cassano. (2011)	n=663 completed	32.3 years old Married or with partner 82.3% Employed 82% Medium SES 90.8%	8th month of pregnancy: 1.3% 3rd month postpartum: 1.5%	Not given
Brugha, Morrell, Slade, & Walters. (2010)	n=2241	32.2 years old 96.8% not living alone 48.2% first child 96.2% white		EPDS mean score at 6 weeks postpartum=5.2 (3.2)
Buist, Austin, Hayes, Speelman, Bilszta, Gemmill, Brooks, Ellwood, & Milgrom. (2008)	n=4109	31 years old 81.6% married income > $80000 AUD/year= 11.8%	6-8 weeks postpartum EPDS score>12= 6.1% EPDS score>12 in women using private hospital (higher socioeconomic status) = 3.6%	Not given
Corrigan. (2015)	n=61	Age 29.89 Married or with partner 60.7% White 49,2%		EPDS score mean postpartum=5.3
Farr. (2014)	n=2012	Age 25-34: 64.8% Medicaid: 75.2% White 65.2%	5.5%>10 at delivery 1.6% >10 at both delivery and postpartum	Not given
Liu & Tronick.(2013)	n=1043	Age 20-34 Income> 50,000 58.5% White 100%	2.6% postpartum	Not given

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Preliminary results of this study were presented at the Midwest Nursing Research Society's annual conference and at the University of California Los Angeles Evidence-Based Practice Conference. The final study results were presented in April, 2016, at the annual research conference of the Western Institute of Nursing in Anaheim, California.