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Rural Nebraska Women's Explanatory Models Of Postpartum Depressive Symptomatology

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**RURAL NEBRASKA WOMEN'S EXPLANATORY MODELS OF
POSTPARTUM DEPRESSIVE SYMPTOMATOLOGY**

By

Elizabeth Mollard

A DISSERTATION

Presented to the Faculty of
the University of Nebraska Graduate College
in Partial Fulfillment of Requirements
for the Degree of Doctor of Philosophy

Nursing Graduate Program

Under the Supervision of Professor Diane Brage Hudson

University of Nebraska Medical Center
Omaha, Nebraska

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RURAL NEBRASKA WOMEN'S EXPLANATORY MODELS OF POSTPARTUM DEPRESSIVE SYMPTOMATOLOGY

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University of Nebraska, 2016

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The purpose of this study was to construct the explanatory models of postpartum depressive symptomatology (PPDS) from the perspective of rural Nebraska women and to compare these models with the medical model of PPDS. A sample of 20 rural Nebraska women were interviewed in a one-on-one qualitative descriptive telephone interview using questions based on Kleinman's (1980) explanatory model of illness. This study used feminist pragmatism as a guiding philosophical paradigm. Qualitative data were analyzed using content analysis, and results were compared and contrasted with the medical model of PPDS, which included the onset, symptoms, and duration listed in the *DSM-5* for major depressive disorder with a peripartum onset specifier; a primarily physiological etiology; and pharmacological antidepressants as the treatment of choice. Rural women were more likely to attribute their PPDS to nonphysiological causes than physiological causes. Rural women reported the onset, duration, and symptomatology of PPDS were similar to what is outlined in the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders (DSM-5)*. Women considered the effects of PPDS on their lives far-reaching and serious. Rural women in this study preferred nonpharmacological treatment options and care from informal networks to that available from health care providers. Although the rural women in this study did not believe PPDS could be prevented, they believed women could better prepare themselves for PPDS by having a

support system in place and by planning for practical life concerns. Health care providers and researchers should consider rural women's explanatory models of PPDS when considering interventions and program development for women in rural communities.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS	ii
ABSTRACT	iii-iv
CHAPTER 1: INTRODUCTION	1-45
CHAPTER 2: MANUSCRIPT #1	46-69
Exploring Paradigms in Postpartum Depression Research: The Need for Feminist Pragmatism	
CHAPTER 3: MANUSCRIPT #2	70-94
A Qualitative Metasynthesis and Theory of Postpartum Depression	
CHAPTER 4: MANUSCRIPT #3	95-134
Rural Women's Explanatory Models of Postpartum Depressive Symptomatology	
CHAPTER 5: CONCLUSIONS AND DISCUSSION	135-146
APPENDICES	147-155

CHAPTER 1: INTRODUCTION

Postpartum depression is a depressive episode with onset in the first 4 weeks to 12 months after giving birth (O'Hara & McCabe, 2013). The prevalence of postpartum depression is approximately 8–19% in the United States (Centers for Disease Control and Prevention [CDC], 2013; Gaynes et al., 2005; O'Hara & McCabe, 2013). Postpartum depression is known to have deleterious effects on both mother and child and the interactions between them (CDC, 2013; O'Hara & McCabe, 2013).

Mental health, including postpartum depression, remains understudied in rural communities even though rural women have high rates of depression outside of the postpartum period (Groh, 2013; Simmons, Yang, Wu, Bush, & Crofford, 2015). Rural areas have specific challenges in mental health care accessibility, availability, and acceptability (Smalley et al., 2010; United States Department of Health and Human Services (USDHHS), 2005). Rural communities face difficulty in recruiting health care providers, especially those who are trained mental health care specialists. Rural citizens often live in remote and isolated areas that create travel-related barriers to seeking care. Additionally, many rural individuals are uninsured or self-insured and lack comprehensive mental health coverage (Smalley et al., 2010; USDHHS, 2005). Rural individuals who show signs of mental illness may avoid seeking care because of misconceptions and stigma surrounding mental illness (Corrigan, Druss, & Perlick, 2014; Smalley et al., 2010).

The medical model grounded in postpositivism, which values objectivity in explanation and prediction, is commonly applied to postpartum depression diagnosis and treatment (Beck, 2002; Mollard, 2014a). In the medical model, a diagnosis may require

meeting a checklist of symptoms, and treatment may be generalized for all patients who fit the checklist. However, women do not tend to view or explain their own experience of postpartum depression in the same way it is defined by the medical model (Mollard, 2014b; Ugarriza, 2002).

Despite the widespread use of the term “postpartum depression,” there is discrepancy in clinical practice among diagnostic methods for postpartum depression. Multiple screening instruments and sets of diagnostic criteria exist with minimal overlap in resultant diagnosis (Tissot, Favez, Frascarolo-Moutinot, & Despland, 2015). Rural women who may have limited access to mental health care, or do not seek care, are consequently less likely to have an official diagnosis of postpartum depression. Postpartum depressive symptomatology (PPDS) includes the depressive symptoms that may be experienced by a woman in the postpartum period whether or not she has a health care provider’s diagnosis of postpartum depression. Because of the discrepancy that exists in what is considered diagnosable postpartum depression, in addition to the likelihood that a rural woman may not have received a diagnosis of postpartum depression, this study’s focus was on PPDS. PPDS is a more inclusive term, which also has implications for those with a diagnosis of postpartum depression.

Because little is known about PPDS in rural communities, before this study, it had not been explored how rural women viewed and explained PPDS, or what they viewed as the best treatment options. Additionally, it was unknown whether current practices, including treatment options offered in the medical model, were appropriate or acceptable for rural women with PPDS. This study also clarified how rural women explained PPDS in ways that could guide health care providers to develop appropriate screening,

intervention, and treatment plans that would better serve this patient population. Initial research into the explanatory models of PPDS also lays the groundwork for a future trajectory of research on this area of study.

Purpose

The purpose of this study was to construct the explanatory models of postpartum depressive symptomatology (PPDS) from the perspective of rural Nebraska women and to compare these models with the medical model of PPDS. By eliciting these explanatory models of PPDS from the perspective of rural Nebraska women and comparing them to the medical model, this study aids in clarifying whether common health care practices surrounding PPDS are appropriate for rural women. Additionally, by understanding the explanatory models of PPDS from rural Nebraska women, appropriate screening protocols, interventions, treatment, and research can be developed for PPDS in this population.

Specific Aims

There were two specific aims in this study.

Specific Aim 1. The first specific aim was to construct the explanatory models of PPDS for rural Nebraska women using Kleinman's (1980) explanatory model of illness. This method explored, through qualitative interview, what participants believed was the etiology, time, and mode of onset of symptoms; pathophysiology; course of illness, including severity; and treatment of PPDS (Kleinman, 1980).

Twenty rural Nebraska women who had given birth in the past year were recruited for one-on-one qualitative descriptive interviews. The interview guide was based on Kleinman's (1980) explanatory model of illness. Content analysis was conducted to

uncover themes and to draw conclusions about the explanatory models of PPDS in rural Nebraska women.

Specific Aim 2. The second specific aim was to compare and contrast the explanatory models of PPDS by rural Nebraska women with the medical model of PPDS.

Once content analysis was complete, the explanatory models of PPDS by rural Nebraska women were compared and contrasted with the medical model of PPDS. For the purposes of this study, the medical model of PPDS included the symptoms listed for major depressive disorder in the Diagnostic and Statistical Manual of Mental Disorders (5th ed.; DSM-5; American Psychiatric Association [APA], 2013), the view of the etiology of PPDS as physiological, and the use of pharmacological methods as the treatment of choice. Traditionally, the medical model views PPDS in an exclusively clinical manner with little room for contextual factors such as culture (Beck, 2002; Mollard, 2014a).

Background

In her classic work, Beck (1999) described postpartum depression as a dangerous thief that robs a mother of precious time with her infant. Postpartum depression causes not only suffering in the mothers who experience it, but also serious health consequences for their infants. Women with postpartum depression are more likely to experience breastfeeding problems and to prematurely discontinue breastfeeding (Dennis & McQueen, 2007; Gagliardi, Petrozzi, & Rusconi, 2012). Depressed women are less likely to take their infants to well child appointments or immunize them (Minkovitz et al., 2005; Zajicek-Farber, 2009). Postpartum depression predicts poorer cognitive outcomes such as intelligence quotient level and language ability (Brand & Brennan, 2009) and is related to

decreased growth and increased gastrointestinal and lower respiratory tract illness in children (Ban, Gibson, West, & Tata, 2010; Ertel, Koenen, Rich-Edwards, & Gillman, 2010; Gress-Smith, Luecken, Lemery-Chalfant, & Howe, 2012).

The main diagnostic tool for postpartum depression used in the medical model is major depressive disorder in the DSM-5 (APA, 2013). The DSM-5 describes a clinical picture that involves depressed mood, weight change, disturbed sleep patterns, agitation, fatigue, feelings of worthlessness or inappropriate guilt, difficulty concentrating, and recurrent thoughts of death with or without suicidal ideation for at least a 2-week period of time (APA, 2013). The medical model tends to explain the etiology of postpartum depression as physiological in nature and uses antidepressant medication as the most common, and often exclusive, treatment modality (O'Hara & McCabe, 2013). Despite this, multiple theories exist about what causes postpartum depression, what its course of illness is, and how best to treat it (O'Hara & McCabe, 2013).

Rural women with PPDS face issues of access to mental health care, but, when care is available in rural areas, there remains the barrier of the acceptability of mental health care. There is a stigma associated with receiving mental health treatment that is amplified in rural communities (Robinson et al., 2012; Smalley et al., 2010). Stigma has been conceptualized as a situational process that involves negative labeling, stereotyping, separation, status loss, and discrimination (Link & Phelan, 2001). Being affected by stigma can greatly alter one's chances in life, such as in gaining employment, housing, relationships, and one's overall well-being (Link & Phelan, 2001).

Mental illness has been stigmatized in the general public, and those affected by mental illness are often stigmatized as being dangerous, lazy, or to blame for their mental

illness (Angermeyer & Dietrich, 2006). Mental illness stigma is concerning because it reduces the likelihood that an individual will seek or adhere to needed care (Corrigan et al., 2014).

Postpartum depression has been used as an exemplar case in conceptualizing mental illness stigma (Pinto-Foltz & Logsdon, 2008). Women who display PPDS may be labeled as bad mothers or as trying to escape the responsibility of motherhood by taking medication to treat postpartum depression (Pinto-Foltz & Logsdon, 2008). Women may feel the need to keep their PPDS hidden to avoid stigma (Beck, 2002; Mollard, 2014b).

Additionally, there is some confusion in the public about the differences between postpartum psychosis and PPDS, and they are at times erroneously looked at as one and the same. Postpartum psychosis is extremely rare (0.1-0.2%) and dangerous for both mothers and infants. Women with PPDS are, in general, not at risk for harming their infants, yet those uneducated about perinatal mental illness may think women with PPDS are psychotic or unsafe to parent (Sit, Rothschild, & Wisner, 2006). Because of these stigmas, mothers may feel that exposing their PPDS to friends or health care providers will result in having child protective services called or a loss of custody of their infant (Byatt et al., 2013).

Rural culture adds an additional layer of stigma for mental illness. Confidentiality is more difficult to maintain in rural areas. If a mental health care provider is available in a rural community, seeking care from that provider can result in increased chances of stigmatization. For example, parking one's vehicle at a mental health care provider's office in a community where everyone's car is recognized could result in being labeled dangerous, incompetent, or even immoral (Corrigan et al., 2014).

In rural culture, individuals value self-reliance and avoid seeking care until they reach the point of being unable to work (Long & Weinert, 1989). Individuals may choose to go to a friend or family member for advice or help before seeking out a health care provider (Long & Weinert, 1989). The stigma related to seeking any health care services in rural communities is compounded with mental illness stigma for rural women with PPDS.

Only 11 articles had been published in the United States on postpartum depression in rural women at the time of conducting this study (Mollard, Hudson, Ford, & Pullen, 2015). Two were qualitative (Dennis & Moloney, 2009; Gjesfjeld, Weaver, & Schommer, 2012); one was mixed methods (Drake, Howard, & Kinsey, 2014); one discussed program creation (Smith & Kipnis, 2012); and seven were quantitative research studies (Baker, Cross, Greaver, Wei, & Lewis, 2005; Baker & Oswalt, 2008; Crockett, Zlotnick, Davis, Payne, & Washington, 2008; Dolbier, Rush, Sahadeo, Shaffer, & Thorp, 2013; Hutto, Kim-Godwin, Pollard, & Kempainen, 2011; Price & Proctor, 2009; Reighard & Evans, 1995). Although rural populations make up a large percentage of the U.S. population, research on this important topic has been conducted in just eight U.S. states. Texas, for example, has the largest number of rural citizens in the United States, and Vermont has the largest proportion of rural residents (U.S. Census Bureau, 2014), yet there are no studies available on postpartum depression in rural women in either of these states.

The findings from the body of literature on postpartum depression in rural U.S. women shows that prevalence of postpartum depression is elevated in rural populations (Baker et al., 2005; Baker & Oswalt, 2008; Dolbier et al., 2013; Hutto et al., 2011; Price

& Proctor, 2009; Reighard & Evans, 1995; Smith & Kipnis, 2012), screening and postpartum depression-related programs are acceptable to rural populations (Crockett et al., 2008; Smith & Kipnis, 2012), and rural women with postpartum depression face issues of access to health care (Crockett et al., 2008). Five of the studies on postpartum depression in rural U.S. women included questions about racial disparities. Baker et al. (2005) and Dolbier et al. (2013) found no statistically significant differences in rates of postpartum depression in rural women by race. Baker and Oswalt (2008) found that rural Hispanic women had lower rates of postpartum depression. They also noted that rural Hispanic women tended to have higher rates of breastfeeding and conjectured that breastfeeding may be a protective factor against postpartum depression in rural Hispanic women.

Another theme in the literature on postpartum depression in rural women was the importance of social support for women transitioning to motherhood (Dennis & Moloney, 2009; Gjesfjeld et al., 2012; Hutto et al., 2011). Gjesfjeld et al. (2012) found that social support, specifically from female family members, was protective against postpartum depression for rural women. The support described by participants from their family members was often in the form of practical assistance with household work or child care and child-rearing advice. Women in their study who did not have strong family support seemed “to be at particular risk of loneliness, isolation and depression” (Gjesfjeld et al., 2012, p. 443). Dennis and Moloney (2009) found that rural women with postpartum depression underutilized their social support network out of fear of being revealed as bad mothers and the associated stigma of mental illness. If women were willing to seek help,

they were more likely to turn to the social support of friends and family before turning to a health care provider.

Significance

Rural women ages 18 and older make up approximately 22% of the population of women in the United States (USDHHS, 2011). Rural women are considered a health disparities group, and rural health experts rate maternal, infant, and child health as a top ten concern in rural populations (Bolin & Bellamy, 2012). The National Rural Health Association has called for more research focused on rural women's overall health status, as well as perinatal health and mental health issues (Bennett, Lopes, Spencer, & van Hecke, 2013).

In an international systematic review of postpartum depression in rural women, researchers found that postpartum depression prevalence rates were higher in rural women than nonrural women (Villegas, McKay, Dennis, & Ross, 2011). Villegas et al. (2011) calculated the overall prevalence rate of postpartum depression in rural women at 27%. The findings in the U.S. literature support the probability of elevated levels of postpartum depression in rural U.S. women. The call for increased research in this health-disparate population, combined with the potentially higher rate of PPDS in rural women, made a strong case for the importance of conducting this dissertation study.

Guiding Philosophical Paradigm

This study used feminist pragmatism as a guiding philosophical paradigm (Mollard, 2014a). Explanatory models of PPDS in rural populations were complex, involved multiple factors, and had variation based on diverse life experiences. This study benefited from feminist pragmatism, a guiding philosophical paradigm that takes into

account all parts of the whole woman. Feminist pragmatism considers not only the physiological aspects that are the exclusive focus of the postpositivist medical model of PPDS but also contextual factors, such as power, oppression, and culture, that are more commonly addressed in paradigms like critical theory and constructivism (Mollard, 2014a). Feminist pragmatism-based research has a high potential for impact on rural women with PPDS because it acknowledges an especially important aspect of rural culture, the community within which a woman lives (Gillberg, 2012). Feminist pragmatism allows for cultural, geographical, and racial differences in its understanding of the phenomenon of PPDS as a whole, which made it a good fit with the use of Kleinman's (1980) explanatory model of illness as a theoretical framework.

Theoretical Framework

Kleinman's (1980) explanatory model of illness was chosen as the theoretical framework for this study. Kleinman's (1980) explanatory model of illness explores how illness is perceived, interpreted, and explained from the patient's own point of view. Kleinman (1980) developed his explanatory model of illness after noticing incongruities between health care providers' and laypeople's understanding and explanation of illness. In addition to the variation that often exists between professional and lay opinion, individuals' views of a particular illness are embedded in their cultural, social, and personal experience. Health care providers cannot assume they know how an illness is perceived and explained by an individual unless they ask.

Kleinman's (1980) explanatory model has been used with several mental health topics in a variety of cultures, countries, and ethnicities. In the United States, research has been conducted on depression in African American women (Waite & Killian, 2009),

depression in older Hispanics (Sadule-Rios, Tappen, Williams, & Rosselli, 2014), and postpartum depression in nonrural women (Ugarriza, 2002), among others. In Ugarriza's (2002) study conducted in the late 1990s, women with postpartum depression had a different explanatory model of their postpartum depression in comparison to the diagnostic criteria at the time outlined for postpartum depression in the DSM-4 (APA, 1994). Ugarriza (2002) found that women with postpartum depression were not suicidal, complained about sleep deprivation, were worried about hurting their babies, and found their illness severe and distressing in effects on their day-to-day lives and relationships. Women suggested further public education about postpartum depression and greater support for mothers (Ugarriza, 2002). There have been no studies using Kleinman's (1980) explanatory model in rural women with postpartum depression or PPDS.

Kleinman (1980) illustrated how explanatory models are formed through the intersection of the popular sector, the professional sector, and the folk sector (Figure 1). The popular sector is the largest factor and "the most poorly understood" (Kleinman, 1980, p. 50). The popular sector includes the individual, family, social network, and community; the beliefs held by this sector could be described as the layperson's common understanding of an illness. The professional sector includes health care professionals, who commonly adhere to the medical model in their views of an illness. In Western medicine, the professional sector relies on diagnostic checklists for symptoms and treatment guidelines that are generalized for groups of patients displaying those symptoms. The folk sector includes nonprofessionals who may provide treatment or folk expertise on a certain illness, but have not been trained in a professional sense. In some countries that lack Westernized medicine, the combination of the folk sector and the

popular sector make up the country's entire health care system (Kleinman, 1980). An example of the folk sector in the United States might include untrained individuals marketing themselves as homeopathic specialists and prescribing non-evidence-based alternative therapies.

This study focused on the individual's explanatory model, which is included in Kleinman's (1980) popular sector. A rural woman's explanatory model of PPDS is formed by multiple factors, including her ethnic cultural beliefs, personal experiences, rural cultural beliefs, and what she understands to be the social and medical explanation of PPDS. The individual's explanatory model affects how she will experience her illness, whether or not she will seek care, and what type of care she will choose. Figure 2 was created based on these factors.

Through understanding a rural woman's explanatory model of PPDS, health care providers may be able to provide through the professional sector appropriate prevention, screening, and treatment plans specifically for this population. Although the explanatory model is not a diagnostic tool, through being conscious of the patient's viewpoint on illness, health care providers may be more effective and better able to care for patients (Kleinman, Eisenberg, & Good, 1978).

The explanatory model utilizes a qualitative interview guide to explore the individual's description of what causes the illness (etiology), how it works (time and mode of onset of symptoms, course of illness), how it affects the body (pathophysiology), and how it should be treated (Kleinman & Good, 1986). This model may not only improve interventions, but also help health care providers understand why some patients are noncompliant with particular treatments. Kleinman (1980) recommends the use of

eight questions as a qualitative interview guide to elicit the participant's explanatory model:

KLEINMAN'S QUESTIONS TO ELICIT EXPLANATORY MODELS

1. What do you call your problem? What name does it have?
2. What do you think has caused your problem?
3. Why do you think it started when it did?
4. What does your sickness do to you? How does it work?
5. How severe is it? Will it have a short or long course?
6. What do you fear most about your sickness?
7. What are the chief problems your sickness has caused for you?
8. What kind of treatment do you think you should receive? What are the most important results you hope to receive from the treatment?

Research Design

A qualitative descriptive design was used in this study. Qualitative descriptive methodology is naturalistic; it attempts to create a close description of participants' experiences in their own voice (Sandelowski, 2000). Qualitative descriptive methods focus on the "what," "why," and "how" of human experience and are appropriate methods for understudied areas of research (Lambert & Lambert, 2012).

Rationale for qualitative research design. Qualitative research allows a researcher to enter into the life of another individual. Through the use of qualitative means, the researcher hopes to bring forth the voice of the participant so that others may better understand what it is like to undergo a given experience (Creswell, 2012).

Qualitative methods are a good choice for use with vulnerable populations because they allow participants to speak openly about their experiences in their own words. Rural women are a vulnerable population that is often unaccounted for in research, and the use of qualitative methods allows for their voices to be heard.

Rationale for qualitative descriptive design. When choosing a qualitative method, researchers must decide what they are aiming to capture. Whereas phenomenology uses interpretive meaning and grounded theory focuses on development of new theory, the aim of qualitative descriptive methods is “a rich, straightforward description of an experience or an event” (Neergaard, Olesen, Andersen, & Sondergaard, 2009, p. 53).

Qualitative descriptive studies are committed to the study of a topic in its natural state with straightforward questions such as “why,” “how,” or “what” (Lambert & Lambert, 2012). Before researchers can move into a thicker description, such as in ethnography, or a deeper interpretation such as in phenomenology, they must be able to describe the direct experiences of the participants, as occurs with qualitative descriptive methods. Because of the naturalistic and straightforward methods of qualitative description, the researcher will stay much closer to the “words and events” as described by the study participants (Neergaard et al., 2009; Sandelowski, 2000).

Qualitative descriptive methods were a good choice for this study because many issues that surround the lives of rural women are culturally and contextually complex and may not lend themselves well to traditional quantitative methods or even to more interpretive qualitative methods (Sullivan-Bolyai, Bova, & Harper, 2005). Qualitative descriptive methods are able to use the voice of the participants in their own language

and their own circumstance and accept the participants' experiences as they are. Any analysis stays close to the original source data, and results are not put into an overly academic and culturally incongruous perspective but into terms that are understandable by those being studied and the general community (Sullivan-Bolyai et al., 2005).

Another important difference between qualitative descriptive methods and other qualitative methods is the interview guide that is used. Qualitative descriptive methods use more structure in the questions to focus in on areas that are not well understood (Neergaard et al., 2009). Qualitative descriptive methods worked well with the semi-structured interview guide based on the suggested questions in Kleinman (1980).

Definition of Rural

To be considered for this study participants had to reside in a rural community. Rural was defined as a nonmetropolitan county as defined by the White House Office of Management and Budget (OMB; 2013).

Sample

The purposive, criterion-based sample consisted of rural Nebraska women who self-identified as having depressive symptoms in the postpartum period. Inclusion criteria were having given birth within the past year, being at least 19 years old (the legal age of majority in Nebraska), and residing in a rural setting. Women who were currently pregnant were excluded from this study so that possible pregnancy related depressive symptoms would not be confused with PPDS. Additionally, due to the conversational nature of qualitative methods, non-English-speaking women were excluded from this study.

Recruitment

This study used multiple methods of recruitment.

- Contact was made with health care providers in selected rural communities. These providers were given information about the study and were given a set of recruitment cards (Figure 3) that were handed out to patients who were displaying PPDS.
- Flyers were posted at rural Women, Infants, and Children (WIC) clinics throughout the state of Nebraska (Figure 3).
- The flyer was placed on social media (Figure 3).
- A mailing list with the names and addresses of women who had recently given birth in rural communities was purchased. Women on this list were mailed a recruitment letter (Figure 4) inviting them to join the study.

Procedures

Primary data collection consisted of an interview guide (Figure 5). At the end of the interview guide, participants were asked a series of demographic questions (Figure 6). In this section, the data collection process will be outlined.

1. Institutional Review Board (IRB) approval was obtained through the University of Nebraska Medical Center (UNMC).
2. Selected rural health care providers and WIC clinics were given information and recruitment materials for their practices. Women on the purchased direct mailing list were mailed a recruitment letter. The flyer was posted to social media.
3. Potential participants made contact with the researcher by telephone, text message or email message to schedule an interview time.

4. Written informed consent was obtained. This process included education about the purpose of the study and an opportunity for participants to ask questions.
5. Participants were interviewed in a one-on-one, audio-recorded, semi-structured interview. Demographic questions were asked at the end of the interview.
6. Participants were sent a follow-up thank you note with a \$25 gift card for participating in the study (Figure 7). This letter included telephone numbers for mental health resources for any participant wishing to seek care.
7. Audio recordings were transcribed and analyzed.

Data Management

Semi-structured interviews were audio-recorded and transcribed by a professional transcriptionist. Data were analyzed after each individual interview because of the large amount of data, and because it was important to identify the themes of each individual interview before moving on to the next. Data were later reanalyzed in groups as new information and categories were discovered.

Audio recordings and all paperwork were stored in a locked briefcase to which only the researcher had access. Any data available on a computer was saved to a password-protected and encrypted drive available.

Measurement

An approximately 60-minute qualitative descriptive interview method was employed. The interview method was both informal and interactive in order to elicit the explanatory model of PPDS. Although a list of questions was prepared in advance, questions could be varied, altered, or not used at all depending on participant response.

Each interview began with a social conversation aimed at creating rapport and building a comfortable atmosphere. The interview guide was used to structure the interview and support the purpose of the study (Figure 5).

Data Analysis Methods

Data analysis methods included descriptive statistics for the demographic component of the study, and content analysis for the qualitative component. Content analysis is a reflexive and interactive form of data analysis that is informational and summarizes the data (Sandelowski, 2000). Content analysis is a suitable form of analysis for unstudied areas where a simple reporting of the data and a straightforward description of the phenomena of study are desired (Vaismoradi, Turunen, & Bondas, 2013).

Miles and Huberman (1994) describe six analysis methods that were applied to the qualitative descriptive content analysis of this study:

1. Coding: Assigning categories and codes to data from transcribed interviews and notes.
2. Recording: After reading through coded data, reflecting and recording ideas and insights.
3. Sorting: Arranging data into similar quotations, patterns, themes, or important features.
4. Comparing and contrasting: Searching for common features and differences among data, then reflect on these similarities and differences for further analysis.
5. Creating groups: Deciding on generalities and common traits that can group data.
6. Looking at generalizations and conclusions in comparison to existing knowledge on the topic.

Data were analyzed after each interview and returned to upon subsequent interviews. The data analysis consisted of the researcher being immersed in the data and

returning to the data with each new category, theme, or commonality. Each interview was reviewed on an individual basis and with a peer reviewer (committee chair) to discuss and confirm or deny thematic findings. Approximately halfway through the analysis process, a committee meeting was scheduled to share the data and our findings and ensured that the methods were appropriate. Further details on the data analysis process can be found in Chapter 5.

Upon completion of data analysis, the explanatory models of PPDS by rural Nebraska women were compared and contrasted with the medical model of PPDS. Elements of the medical model of PPDS used for comparison in this study were the symptoms listed in the DSM-5 for major depressive disorder, a primarily physiological etiology, and pharmacology as the treatment of choice (O'Hara & McCabe, 2013).

Issues of Trustworthiness

Several researchers have proposed measurement of validity and reliability for qualitative methods similar to those that exist for quantitative methods. Instead of validity and reliability, the word trustworthiness is most appropriate for qualitative descriptive methods because the aim is not to uncover "truth" but to describe experience from the participant's perspective in a naturalistic manner (Milne & Oberle, 2005).

Whittemore, Chase, and Mandle (2001) undertook a synthesis of validity, rigor, and trustworthiness standards for qualitative methods that produced a framework of four concepts to determine trustworthiness: (a) credibility, or whether the results portray the experiences of the participants in an accurate and believable way; (b) authenticity, or whether the voices of the participants are true to individual experience; (c) criticality, whether the research process is identified, detailed, and critically appraised; and (d)

integrity, identified by thorough checks of trustworthiness throughout the study and removal of bias by the researcher.

The specific question to be asked to ensure credibility is “Do the results of the research reflect the experience of participants or the context in a believable way?” (Whittemore et al., 2001, p. 534). For authenticity, the question is “Does a representation of the emic perspective exhibit awareness of the subtle differences in the voices of all participants?” (Whittemore et al., 2001, p. 534).

Several steps, as identified by Milne and Oberle (2005), were taken to increase credibility and authenticity including ensuring the freedom of participants to speak by (a) using purposeful sampling; (b) using participant driven data, meaning being flexible with interviews and allowing participants to speak about what is relevant and important to them; ensuring participants' voices are heard by using interview techniques such as probing for clarification and depth; (c) ensuring participants' perceptions are accurately represented by careful audio recording, and taking appropriate notes; and (d) using professional transcription in a timely manner. Within content analysis, steps were taken to ensure data-driven coding and categorizing by (a) not making data fit into codes, but creating categories and codes based on transcriptions; (b) returning to the data to ensure appropriate codes and categories; and (c) paying close attention to the context.

The specific question to be asked to increase criticality is “Does the research process demonstrate evidence of critical appraisal?” (Whittemore et al., 2001, p. 534). For integrity, the question is “Does the research reflect recursive and repetitive checks of validity as well as a humble presentation of findings?” (Whittemore et al., 2001, p. 534). To answer the questions of credibility and integrity, Milne and Oberle (2005) offer three

suggestions: (a) reflecting on researcher bias, (b) respondent validation, and (c) peer review.

To reflect on researcher bias bracketing was used. Bracketing is a process in which a researcher suspends his or her biases, assumptions, theories, and previous experiences to engage in research (Gearing, 2004). Biases had already unintentionally been formed on this area of study by engaging in a review of the qualitative literature (Mollard, 2014b) and exploring philosophical aspects of the topic (Mollard, 2014a). It was important that these biases were made clear to the committee and peer reviewers. Steps taken to reduce bias included writing notes and keeping a journal to reflect on the researcher's relationship with the data, and engaging in debriefing with a peer researcher (the committee chair) in order to uncover any bias that remains or is interfering with the research process (Tufford & Newman, 2010).

To ensure respondent validation, the participants were engaged in a method of member check. Member check is generally a process employed at the end of a research study in which the conclusions and interpretations of the overall study are presented to one or two participants to verify that this is indeed a depiction of their experience. Although it was appealing to return to members at the end of the study, some researchers have noted that this is an unverified process that may threaten validity (Elo et al., 2014; Morse, Barrett, Mayan, Olson, & Spiers, 2002). Participants may be unable to verify results of a study, because their individual experience may not be recognized in the synthesized data (Pyett, 2003). Instead, a method of member check outlined by Milne and Oberle (2005) was used in which member check is an ongoing process of clarifying and summarizing major points during the interview. With this method, all individual

participants were given the opportunity to change their account as it is had been portrayed to the researcher. Participant responses were confirmed with probing questions, and at the end of the interview questions, a summarization of the participant's experience as portrayed to the researcher was relayed to the participant.

The peer review process coincided with the peer debriefing process since the committee chair served in both roles. The role of the peer reviewer was to ask difficult questions, challenge biases, and push the researcher toward the next level in methodology, analysis, and interpretation (Lincoln & Guba, 1985). The peer reviewer/debriefer was also there to aid in sorting through any unexpected feelings that were encountered during the study.

In addition to the above steps, an audit trail was kept to ensure transparency of the research process. The audit trail included the following data as recommended by Lincoln and Guba (1985): (a) raw data, including field notes and documents; (b) data analysis products, including notes from the process and summaries; (c) data synthesis products, including the structure of categories such as themes, definitions, relationships, findings, conclusions, and connections to existing literature; (d) process notes, including notes on the execution of the methodology, trustworthiness notes, and notes about the audit trail; (e) materials relating to intentions and dispositions, including inquiry proposal, personal notes, and expectations; and (f) instrument development information, including pilot forms, preliminary schedules, and observation formats. To ensure that this large amount of paperwork and information were retained, anything pertaining to the study, whether private or shared, was saved and securely stored.

Limitations and Delimitations

The population of rural Nebraska women who were experiencing PPDS at the time of recruitment was likely small, which may have created challenges in recruitment. The use of a gift card incentive may have helped increase the number of participants who otherwise may not have been interested in participation.

An additional issue was establishing trust and rapport. Opening up to an “outsider” to rural communities may have been difficult for participants. Using telephone interviews may have decreased the personal interaction that would occur at a face-to-face interview. Establishing relationships with community health care providers who referred for the study aided in bridging the gap between outsider and insider and may have increased the willingness of referred participants to speak openly. In contrast, some participants may have felt more comfortable with the sense of anonymity provided through telephone interview (Greenfield, Midanik, & Rogers, 2000).

Finally, speaking about PPDS can uncover uncomfortable feelings, depending on the woman’s experience. Besides working toward making the woman feel comfortable, it was also made clear to participants that they were free to withdraw from the study at any time without penalty and that if a question made them uncomfortable they may refuse to answer. There was a plan in place to give a telephone number that provides mental health resources in a woman’s community at the end of the interview if she became sad. All participants received a mental health resource phone number on their follow-up thank you note. An emergency, such as a participant disclosing suicidal ideation, would have been handled by calling 911.

Summary

The purpose of this study was to construct the explanatory models of postpartum depressive symptomatology (PPDS) from the perspective of rural Nebraska women and to compare these models with the medical model of PPDS. Exploring the explanatory models of PPDS in rural Nebraska women and comparing and contrasting this model with the medical model may aid in the future development of tailored assessments and interventions designed to prevent and treat PPDS in this population as well as future research in this important area. A qualitative descriptive method guided by a feminist pragmatist philosophical paradigm and an interview guide based on Kleinman's (1980) explanatory model of illness were used to guide the study. Several steps were taken to ensure a sound methodology that was rigorous and trustworthy.

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Figure 1. Intersection between explanatory models

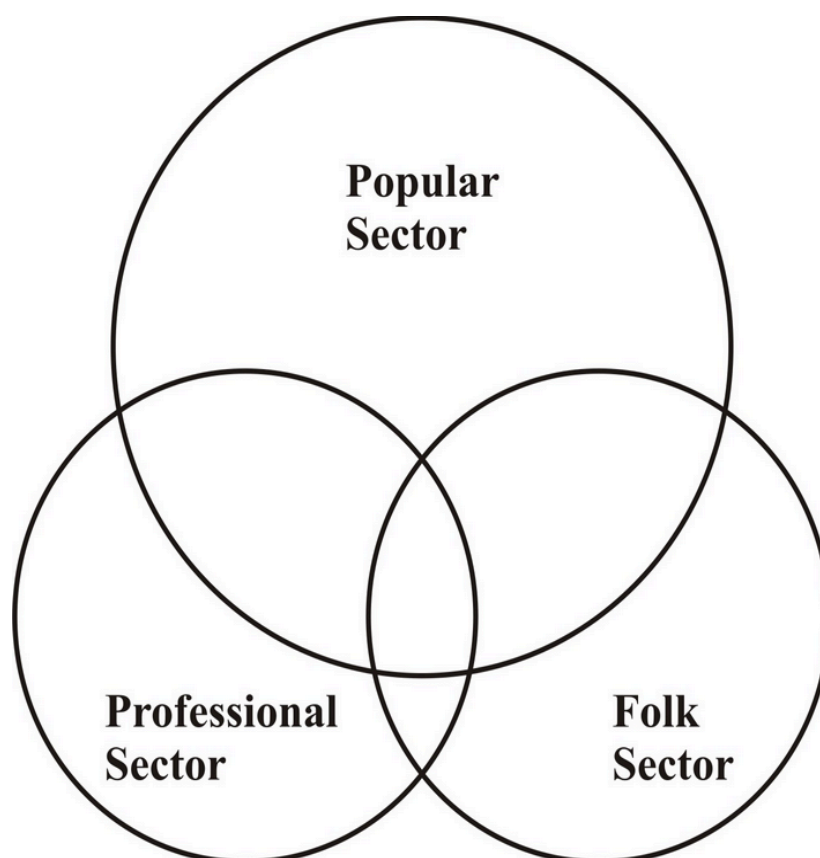


Figure 1. The intersection between popular, professional, and folk sectors in explanatory models

Figure 2. Rural individual's explanatory model

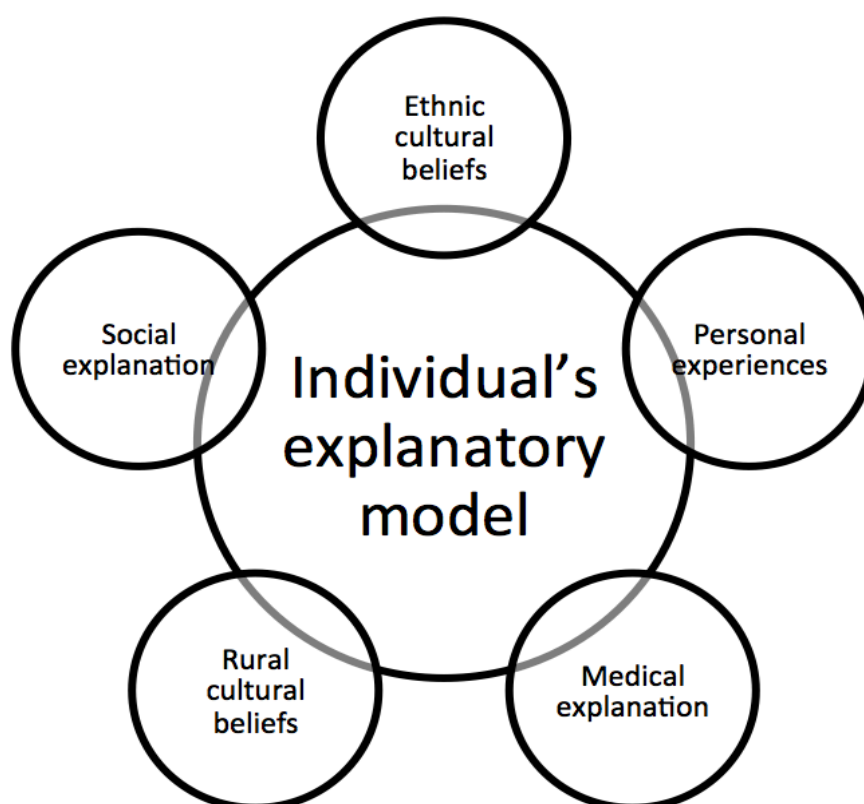


Figure 2. A rural individual's explanatory model is formed based on a variety of factors.

Are you a new mom who has felt sad, down, or out of sorts?

- Do you live in a rural Nebraska area?
- Was your baby born within the past year?
- Are you between the ages of 19-55?

I invite you to share your experiences in a confidential, one-time interview.

- If eligible, you will receive compensation for your participation

Please contact Elizabeth at elizabeth.mollard@UNMC.edu or (402) 413-5028 (call or text) for details about this confidential research study. UNMC IRB #392-15-EP

Figure 3. Recruitment Flyer

Figure 4. Recruitment Letter



NEBRASKA'S HEALTH SCIENCE CENTER

COLLEGE OF NURSING

Ms. XXXXX
 Address
 City, NE Zip

Dear XXXXX,

If you are a woman who has given birth in the past year and have experienced sad or down feelings or felt out of sorts, you may be interested in participating in my research study. I am recruiting women who currently reside in a rural community or county. I invite you to consider participating in this research study conducted by the University of Nebraska Medical Center College of Nursing. The study is titled New Mothers in Rural Nebraska and Sad, Down, or Out of Sorts Feelings, IRB #

The study is funded by me, a PhD student at UNMC, and will explore how new mothers in rural Nebraska experience and describe sad, down, or out of sorts feelings. Depending on your location, this study will consist of a face-to-face or telephone interview about your experiences. The interview will take about one hour and will be audio-recorded, although all responses will be kept strictly confidential.

If you are able to complete the study, you will receive the following at no charge:

- A \$25 gift card to Walmart OR Amazon.com

Women who are interested in enrolling in the study will be screened to see if they meet the eligibility criteria. For more information about the study and to schedule a telephone screening, please contact Elizabeth Mollard at 402-413-5028 (call or text), or Elizabeth.Mollard@UNMC.edu

Sincerely,

Elizabeth Mollard, RN, MSN, APRN-WHNP, PhD Student

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 College of Nursing
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 Lincoln, NE 68506
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 (402) 413-5028

Figure 5. Interview Guide

Interview Guide

Introduction: I want to thank you for taking the time to interview with me today. My name is Elizabeth Mollard and I am a Women's Health Nurse Practitioner and PhD student at the University of Nebraska Medical Center. The study I am conducting is focused on new mothers who feel out of sorts or down after they have a baby. I am particularly interested in how sad or down feelings work for women who live in rural communities. My questions will be about your personal experiences with having sad or down feelings as a new mother as well as about rural women in general who experience sad or down feelings after having a baby.

Grand Tour questions: First, just to get to know you a little better, tell me a little bit more about yourself? Tell me about your baby? How would you describe your pregnancy? How would you describe your birth experience? Tell me about how it has been since your baby has been born?

Etiology

1. What do you think causes some new mothers to experience sad or down feelings?
 - a. Did you have any of those experiences after having your baby? If so, did they contribute to feeling sad or down? Tell me more about that?
2. Why do some women get down and sad feelings after having a baby and others do not?
 - a. Do you believe that is why you experienced sad or down feelings?

Onset of Symptoms

1. What makes sad or down feelings start for new moms when they do?

- a. So it is usually this specific event? Tell me more about that. OR Tell me more about that time period.
2. Tell me about how your sad or down feelings started

Pathophysiology

1. When a new mother has sad or down feelings—how does that affect her?
 - a. Tell me more about how it affects her (health, sleep, family life, relationship, work, etc.)—depending on participant response.
2. Was that your experience? OR how did having sad or down feelings after having your baby affect you?

Course of Illness

1. When new mothers have sad or down feelings, how long do those feelings last?
 - a. Does it get better or worse as time passes? How long does it take for those feelings to go away? Do you think it always gets better? If so, why or why not?
2. How long did your sad or down feelings last?
3. What kind of problems do those sad or down feelings cause for a mother who experiences them?
 - a. Tell me more about (insert particular problem). How serious are those problems?
 - b. So you think it is serious for women; tell me more about why that is.

Treatment

1. What can a new mother do to take care of her sad or down feelings?
 - a. So ---- helps; why do you think that helps?
2. Tell me about what you did to take care of sad or down feelings?

- a. How did you come to find this as a way to take care of your sad feelings? How well did it work?
3. What doesn't work to take care of sad or down feelings for new mother?
 - a. Tell me more about why that doesn't work?
4. Did you try anything to take care of your sad or down feelings that didn't work?
 - a. Tell me more about that, like how you knew it wasn't working
5. Should a new mother seek help from another person if she has sad or down feelings? Who should that person be?
 - a. Why is it that a woman should seek help from ----?
6. Did you try to seek help from anyone for your sad or down feelings?
 - a. How did you decide on that person? Tell me how that worked for you?
7. Is there anyone a new mother should not go to for help when having sad or down feelings?
 - a. Why is that?
8. Did you go to anyone for your sad or down feelings that you think you shouldn't have gone to?
 - a. Tell me more about that experience?
9. Is there any way to prevent a new mother from experiencing sad or down feelings?
 - a. Do you think mothers are aware of this? Tell me more about why you can't prevent these feelings?
10. Do you think your sad or down feelings could have been prevented?
 - a. Tell me more about that? OR if not, why do you think they couldn't be prevented?

Conclusion

This concludes the interview questions. Do you have any questions for me? (Answer questions)

Thank you again for taking the time out of your schedule to help me with my study by answering these questions. You can expect a letter in the mail from me in the next few days. The letter will include your \$25 gift card for participating. If you don't receive it within a week, please give me a call.

Figure 6. Demographic Questionnaire

- ID #
Date
1. What is your age?
 2. What is your race?
 3. What is your occupation?
 4. What is your marital status? (circle one)

a. Single	b. Married	
c. Divorced	d. Seperated	e. Widowed
 5. What is the highest level of education you have completed? (circle one)

a. Some High school	b. College Degree
c. High school diploma or GED	d. Graduate or professional degree
f. Some College	
 6. How many children do you have?
 7. How old is your baby?
 8. Are you currently breast or bottlefeeding?
 9. Do you live on a ranch, farm or in a rural town?
 10. How many people live in the closest rural community?
 11. How long have you lived in or near this rural community?

12. Did you grow up in a rural area? (circle one)

yes no

13. How long does it take you to reach your doctor's office?

14. How long does it take you to reach the closest hospital?

15. Do you feel you have enough financial support?

16. Do you feel you have enough support from your friends?

17. Do you feel you have enough support from your family?

18. Do you feel you have enough support from your spouse/significant other?

Figure 7. Follow Up Letter



COLLEGE OF NURSING

«Preface». XXXXX

Address

City, «State» Zip

Dear XXXXX,

Thank you for taking the time to talk with me earlier this week, and providing input for my research study, UNMC IRB #392-15-EP, titled New Mothers in Rural Nebraska and Sad, Down, or Out of Sorts Feelings.

Enclosed is a \$25 gift card to (insert Amazon.com or Walmart) as a thank you for participating in my research study.

If at any time you have questions about the study, or if something comes up related to the study, please contact me at my email or telephone number. If you would like more information about counseling or other available services in your community, please contact a local health care provider. If you do not have a local provider whom you can contact, a possible resource is the Nebraska Family Helpline at (888)-866-8660, a service available 24/7 that can provide resources, make recommendations, and provide referrals in your community.

Sincerely,

Elizabeth Mollard, MSN, APRN-WHNP
402-413-5028
Elizabeth.Mollard@UNMC.EDU

College of Nursing
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Exploring Paradigms in Postpartum Depression Research:

The Need for Feminist Pragmatism

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Postpartum depression (PPD) is a complex and at times devastating mental health disorder that commonly affects women in the year following childbirth. In Western societies, PPD occurs in up to 19% of women (Gavin et al., 2005) and is likely to occur at similar levels internationally, although prevalence rates vary (Halbreich & Karkun, 2006). It is unknown whether issues such as culture or geographic location affect the phenomenon of PPD or if reporting varies due to cultural stigma or measuring practices (Bina, 2008; Halbreich & Karkun, 2006). Women are suffering from PPD across the globe, yet the phenomenon is not fully understood. In spite of what is unknown about PPD, research often approaches PPD as a universal, pathological condition, which limits research application and the trajectory of future research.

PPD deserves further research with a common guiding philosophical paradigm that allows research to be more generalizable to women on a global scale and that translates to multiple disciplines. A philosophical paradigm is “a general organizing framework for theory and research that includes basic assumptions, key issues, models of quality research, and methods for seeking answers” (Neuman, 2006, p. 81). It is important for researchers to begin their study with a guiding paradigm as it influences what is studied, how questions are asked, and how the results are interpreted (Kuhn, 2012).

The purpose in writing this article is to determine a “best fit” philosophical paradigm to guide PPD research internationally. This commentary builds on the work of Doucet, Letourneau, and Stoppard (2010), which explored four paradigms in women’s mental health research. I present a background on PPD, followed by an overview of the paradigms discussed in Doucet and colleagues (2010). I then discuss an overview of

feminist ideology and its relationship to PPD, and combine this ideology with each of the previously identified paradigms. I conclude with a discussion and argue for the need for feminist pragmatism as a guiding philosophical paradigm in international PPD research.

Background on Postpartum Depression

Depression is a debilitating condition and the leading cause of illness-related disability among women (Kessler, 2003). The postnatal period has been recognized as a risk factor for a depressive episode commonly referred to as PPD. PPD is distinct from the mild and short-lived mood disturbance often called the “baby blues,” which occurs in up to 80% of postpartum women within the first few days postdelivery (Buttner, O’Hara, & Watson, 2012). PPD is also significantly different from postpartum psychosis, an acute, psychotic episode, which occurs in less than .5% of women and has onset within 2 weeks of delivery (Sit, Rothschild, & Wisner, 2006).

According to the Diagnostic and Statistical Manual of Mental Disorders (5th ed.; DSM-5; American Psychiatric Association [APA], 2013), the main clinical picture of a depressive episode involves depressed mood, a loss of interest or pleasure, or both. In addition, other symptoms can include weight change, disturbed sleep patterns, agitation, fatigue, feelings of worthlessness or inappropriate guilt, difficulty concentrating, and recurrent thoughts of death with or without suicidal ideation (APA, 2013). A PPD diagnosis would be included under the umbrella of “peripartum onset” of major depressive disorder, which includes onset during pregnancy or within the first 4 weeks postpartum (APA, 2013). Clinicians commonly recognize that, despite what the DSM-5 claims, PPD has symptom onset in the first 6–12 months postpartum (O’Hara & McCabe, 2013).

Internationally, the prevalence of PPD is unknown. A commonly cited prevalence statistic in the United States is 10%–15%, yet Halbreich and Karkun (2006) found that prevalence ranged from 0% to 60% when reviewing 143 international studies. Reviews of prevalence and incidence of PPD are scarce and what is available is limited by methodological quality (Mann, Gillbody, & Adamson, 2010). Gavin and colleagues' methodologically sound study found that at least 7% of women suffer from major depressive disorder in the postpartum period, and around 19% meet criteria for depressive disorder (2005). It is unknown whether prevalence rates are affected by culture, poverty, nutrition, genetics, or other biological vulnerabilities or whether there are differences in reporting (Halbreich & Karkun, 2006). More research is necessary to determine true prevalence on an international scale.

Even though the prevalence of PPD is unknown internationally, it is known that PPD has harmful effects on both the mother and the child. It not only lowers the quality of life of the woman who experiences it, it changes her ability to care for and bond with her child. Children of mothers who have untreated depression often show poor cognition, insecure attachment, emotional and social impairment, and impaired growth (Deave, Heron, Evans, & Emond, 2008).

Exploring Paradigms

Doucet and colleagues (2010) discussed four paradigms related to women's mental health research: (a) postpositivism, (b) critical theory, (c) constructivism, and (d) pragmatism, identified as an alternative paradigm. Here I will summarize each of these paradigms as identified in Doucet and colleagues (2010).

Postpositivism

Doucet and colleagues (2010) identify postpositivism as a commonly used paradigm in women's mental health research. Ontologically, postpositivists embrace critical realism or that a true reality exists. Epistemologically, objectivity is at the core of postpositivism. Postpositivism recognizes that the researcher and participants are not independent of one another, however, so a true objectivity will never be achieved. Methodology includes approaching the phenomenon from various angles. Most often, postpositivism uses quantitative methods. Mental health is viewed as a condition or disease containing symptom sets that are either present or absent. Standardized questionnaires are used to determine presence or absence of symptoms, even when symptomology varies greatly between individuals.

Critical Theory

Ontologically, critical theory takes into consideration that reality is shaped by multiple factors including “social, political cultural, economic, ethnic, and gender values” (Doucet et al., 2010, p. 302). Epistemologically, the researcher and participant are interconnected, both influencing the inquiry process and the findings. Research hopes to empower the oppressed to overcome their marginalization. Methods focus on what is most likely to reduce oppression, but they often are qualitative due to the recognition of the interrelatedness of researcher and participant. The focus is on the voice of the participants and their lived experience. Mental health problems are viewed as something closely related to oppression, marginalization, and disadvantage.

Constructivism

In regards to ontology, constructivists believe that multiple social constructions of reality exist, as opposed to one true reality. Truth is therefore relative to the individual,

and reality can change for the individual when new knowledge is acquired.

Epistemologically, constructivists share the same belief as critical theorists in that knowledge is created through the interrelations of researcher and participant. Findings stem from the inquiry process itself as opposed to discovering preexisting truths.

Constructivism uses a hermeneutic approach involving searching for meaning from the human experience that is found through deep interactive dialogue. Methods are primarily qualitative, due to the interactive relationship between researcher and participant, but quantitative methods have been utilized. Mental health research in the constructivist paradigm hopes to improve situations rather than just uncover further information on how to diagnose and treat conditions.

Pragmatism

Doucet and colleagues (2010) did not go into as much depth with pragmatism, but they did offer the basic tenets. Ontologically, knowledge is based in nonduality, where truth is drawn from the objective world in which one lives as well as from the socially constructed world that humans have created. Pragmatist epistemology is also nondualist in that it is able to use both objective and subjective approaches, as well as view their interactions.

Methodologies are chosen based on what works best for the researchers' needs and what will help them gain the best understanding of the research question. Qualitative, quantitative, and mixed methods all hold merit in pragmatism.

Doucet, Letourneau, and Stoppard (2010) Discussion

Doucet and colleagues (2010) cover a large amount of information within the constraints of a short article. Not only must they speak in generalities because they are covering a vast amount of philosophy, but also because they are looking at the all-encompassing term of "women's mental health." Even so, they have done a fine job of

exploring a summarized view of the way women's mental health issues are researched.

A major school of thought that is missed in their discussion is feminism. Perhaps this is because there are several "feminisms." Some may view feminism as a theory or a philosophical paradigm, some as a political stance, and others will view it as an ideological position. Feminist ideology is especially valuable when applied to paradigms that are dealing with women's issues, most specifically PPD since this phenomena is not fully understood by those who do not have first-hand experience. First, I will begin by looking at the phenomenon of PPD through a feminist ideological worldview. Next, I will examine feminist ideology applied to the previously discussed paradigms. Finally, I will draw conclusions on which the identified paradigm by Doucet and colleagues (2010) is best suited for PPD research when combined with a feminist ideology.

Feminist Ideology

A common ground of feminist ideology is an interest in the woman's experience, personally and socially, as well as their marginalization (Routledge, 2007). In general, feminism critiques existing thinking in order to be activist in improving the lives of women and all persons (Campbell & Bunting, 1991). Varying beliefs exist amongst feminist thinking, including causes and solutions to oppression (Campbell & Bunting, 1991). Feminist ideology is not grounded in one single way of knowing but is knowledge and context).

Feminism is less about absolutes or uncovering objective information. Instead, it gives merit to the subjective, emphasizing the context and perceptions of the lived experience (Campbell & Bunting, 1991). As people experience the world with their body and mind, they are viewed as experts of their own life. Each individual's experience has merit. "The experiences of men are not the experiences of women, nor are the experiences of women homogeneous" (Kralik et al., 2008, p. 38).

Concepts such as feelings and intuition are acknowledged as valid. Not only is the voice of the woman heard in feminist research, it is put into the context of the voice of those who have been the oppressor, as well as those who may continue to be oppressed and unheard (Kralik et al., 2008). It is important for the researchers to identify their experience and point of view, as all knowledge is considered relational and contextual.

Feminist Ideology and Postpartum Depression

The feminist view of PPD takes into account all factors surrounding the woman's experience including psychological, biological, and cultural factors. Feminist ideology would advocate that a woman experiencing PPD not be viewed as someone defective, nor should one treat every woman's experience as the same. Mauthner (1999) points out that feminist application of PPD "[offers] a radically different way of researching and theorizing postpartum depression by legitimizing a qualitative approach in which women's own accounts are prioritized, and by drawing clear links between women's 'private' lives and 'public' conditions and constraints" (p. 146).

Biological considerations. Feminism does not disregard the physiological components of PPD. Women are embodied individuals, meaning they are not to be broken down into parts, and their body is included in the whole. A woman interlinks her psychological experiences with her biological experiences. During the postpartum period, several physiological changes will occur that may affect the woman's experience. The actual labor and delivery process, breastfeeding, changes in sleep, hormonal fluctuations, and other physiological considerations will affect each woman in a different way. It is important when viewing PPD through a feminist perspective that one does not make quick judgments that biological factors are exclusively causative. At the same time, this is not to say that the physiological changes could not be considered as the leading cause

of the PPD, again being dependent on the woman and her experience.

Cultural considerations. Feminism points out that virtually nothing about the contemporary understanding of PPD is free of societal and cultural bias. Within the Western medical tradition, the period regarded as postpartum is approximately the 6 weeks after delivery and there is little, if any, consideration of specific women's health issues or of possible sources of maternal stress (Bina, 2008). Additionally, there is little emphasis in Western societies of extended community support for mothers after delivery (Bina, 2008).

By contrast, in many non-Western societies PPD is considered comparatively rare (Bina, 2008). Alternatively, those who do experience symptomatology of PPD label and view it differently (Goldbort, 2006). In non-Western cultures, the underlying cause of depressive symptoms is not grounded in the medical model of pathology. There is no mention in the research about recommendations for treatment such as psychopharmacology or psychotherapy in non-Western cultures, despite the predominance of this care model in Western societies (Goldbort, 2006). Instead, any symptomatology is seen to be a product of societal or environmental factors such as poverty or lack of social support (Goldbort, 2006).

When applying feminist ideology to PPD, there are differences in society and culture surrounding the treatment of pregnant women and new mothers that likely affect PPD. Specifically, in many non-Western cultures, the mother and her entire perinatal experience are acknowledged from the first awareness of pregnancy throughout the period of breastfeeding (Bina, 2008). First-time mothers receive considerably more attention than mothers who have already experienced becoming mothers and, in general,

there is considerably greater continuity of care after delivery. Mothers and infants are treated as a dyad unit rather than as individual patients, in spite of the relative absence of standardized prenatal care (Bina, 2008).

Maternal role considerations. When viewing the complexities of a woman's experience with PPD, an important consideration is cultural constructions of what it means to be a mother. Beck (2002a) found that women commonly reported their PPD was related to differences between their expectations of what motherhood was supposed to be like versus the reality of their experience. Expectations of motherhood are created based on a woman's societal and cultural experiences.

Mercer (1985) identified maternal role attainment as the stages that a woman progresses through toward finding joy and satisfaction in motherhood or the "maternal role." Logsdon, Wisner, and Pinto-Foltz (2006) found that depression might have a negative effect on maternal role attainment. Using a feminist critique, however, one would just as easily see that unmet expectation in attaining the ideal maternal role could lead to depression. Instead of assuming that the woman's depression is pathological and prevents her from attaining the maternal role, a feminist ideology would look at the rigidity of the maternal role. Cheryl Beck identified a need to "lead the movement to dispel the destructive myths of blissful motherhood in our society. These unrealistic norms for motherhood set women up to label themselves as failures as mothers" (2002b, p. 287).

Combining Philosophical Paradigms With Feminist Ideology

When viewing PPD with a feminist ideology, which of the identified paradigms is the most suitable for research? Doucet and colleagues (2010) call for interdisciplinary

research that is grounded in all methods for women's health research. While I agree with this, I argue that feminist pragmatism is a philosophical paradigm that needs heavier emphasis to further advance research in PPD. Doucet and colleagues (2010) see pragmatism as a paradigmatic approach for "research problems related to the mental health of women that do not align exclusively with either the postpositivist, critical theory or constructivist paradigm" (p. 308). Rather than view pragmatism as an alternative paradigm, I would argue that feminist pragmatist research is the ideal form of researching women's experiences of PPD. To do this, I will look closer at each of the identified paradigms combined with a feminist ideology and in relation to PPD.

Postpositivism With Feminist Ideology

The traditional model of medicine, grounded in empirically based methods such as postpositivism, is commonly applied to PPD research, diagnosis, and treatment (Beck, 2002b). The medical model from a postpositivist perspective values objectivity in explanation and prediction, which is contradictory to the feminist emphasis on the subjective. Most postpositivist research conceptualizes PPD as an illness or disease that is best treated through medical intervention. Research is heavily devoted to describing, predicting, preventing, and treating PPD (Mauthner, 1999). Feminist ideology would look at the social, economic, cultural, and other variables that may contribute to PPD, whereas postpositivism would rarely consider these factors as part of the "pathology." As stated by Beck (2002b), "Mothers are portrayed in the medical model as passive individuals; biological factors upon them" (p. 283).

That being said, postpositivism has been successfully applied to PPD research in certain circumstances. It clearly fits in such cases where there are measurable and

objective components to childbearing and the postpartum experience. Some of these include biological factors such as fluctuations in hormone levels and changes in the makeup of the woman's body as she recovers from childbirth and returns to a prepregnancy physiology. Postpositivist research has also helped with the discovery of potentially successful treatments for PPD including antidepressants, hormone replacement, and electroconvulsive therapy (Beck, 2002b).

Although the biology of postpartum changes may have effects upon the woman's psychological state, looking at it as the exclusive cause of PPD is restrictive. It disregards the holism of a feminist worldview where a woman should not be reduced to parts. This has been confirmed in some qualitative research, where mothers' explanatory frameworks of their PPD are only partially biological. They tend to attribute their PPD to nonphysiological circumstances such as role change, sleep changes, and maternal and child health (Ugarriza, 2002).

Abrams and Curran (2009) suggest that clinicians approach PPD without assuming an exclusively postpositivist medical frame. Without discounting the possibility of a medical component to PPD, they encourage the use of the feminist concept of listening to mothers' explanatory frameworks: "The voices of these mothers tell us clearly that they do not understand their depressive symptoms to be a medical condition or a psychiatric disorder, but rather as a psychosocial experience related to their material and social conditions" (Abrams & Curran, 2009, p. 360).

In principle, the postpositivist approach to understanding human disease and illness regards them as necessarily definable by clear symptoms that can be referred to, as a checklist, to determine whether a patient's symptoms fit a recognizable pattern

associated with a specific illness or disease (Thomas, 2006). In some contexts, the postpositivist approach is both appropriate and useful, such as in the case of illnesses that manifest themselves with easily defined physical symptoms. In other contexts, the postpositivist approach is much less appropriate or useful, such as in connection with conditions that do not necessarily manifest in clearly identifiable symptoms that are highly consistent among different patients. Postpositivism is much more valuable for answering questions about empirically testable hypotheses for which quantifiable data exist. Conversely, postpositivism is less valuable as an exclusive approach to understanding more complex situations such as PPD that reflect the coincidental or combined influence of multiple variables and subjective or unique circumstances (Thomas, 2006).

Critical Theory With Feminist Ideology

Doucet and colleagues (2010) categorize feminism as a critical theory paradigm, and they are not the first to draw this conclusion. Although they share similarities, this author will view critical theory examined with a feminist ideology, and not equate feminism and critical theory.

Critical theory shares traits with feminist ideology such as hope for equality and a transformed society benefiting all individuals (Campbell & Bunting, 1991). Both paradigms emphasize the importance of historical context, which in itself begs for differentiation between the schools of thinking so as not to emphasize one over the other (Campbell & Bunting, 1991).

Critical theory with a feminist ideology would look at the historical context of oppression through gender roles. Critical theorists may emphasize social class and

socioeconomic status as potentially causative of PPD. Adding feminist ideology can take these factors and urge the researcher to look closer at the woman specific circumstances surrounding these variables.

Campbell and Bunting (1991) note that the interview process, from an exclusively critical theory standpoint, would allow the researcher to better understand the woman and her oppression in regards to her place in society. When the researcher adds a feminist stance, however, he or she would be able to offer support and give knowledge that the interviewees desired.

While critical theory in research seems to be getting closer to the needs of women suffering from PPD, it still leaves something to be desired. It may not be able to get to the woman's personal experience or the study of everyday ordinary life (Doucet et al., 2010).

Constructivism With Feminist Ideology

Feminist ideology and constructivism share many traits but also have incompatibilities. Many feminists would embrace that there are inherent differences and values in women that separate them from men, but these values and differences have been misunderstood, undervalued, or oppressed. In contrast, constructivist feminist thinking would embrace that the differences between men and women are socially and culturally constructed. Like constructivists, Western feminists embrace the social construction of gender roles (Locher & Prügl, 2001). A truly feminist viewpoint, however, will look at nature with culture combined with other experiences of the woman when examining her oppression.

International relations (IR) constructivism looks closely at power relations, and from a feminist constructivist point of view it would attribute women's marginalization to

these constructed power issues. IR constructivists and feminists share an ontology of “becoming” not looking at the world as something that “is” but rather focusing on its continual transformation. The major difference between feminism and constructivism in regards to the ontology of becoming is the way gender is viewed. Feminists see gender as something pervasive to the issues, whereas constructivists will see it as something marginal (Locher & Prügl, 2001).

Despite differences, Locher and Prügl (2001) note that feminism and constructivism “add to each other and in combination can yield better theoretical and empirical understandings of the world” (p. 113). Shared ontology with many feminist viewpoints leads to a shared commitment to research focusing on “concepts such as norms, rules, identities and institutions” (p. 122).

A feminist constructivist view could be helpful with the research of PPD since many issues focus on “constructs” such as those of motherhood and woman. This does not seem to be the ideal lens with which to examine PPD, however, as it is difficult to ignore the physiological and biological experiences that accompany this phenomenon.

Pragmatism With Feminist Ideology

Feminism and pragmatism have both evolved out of frustration with the limitations of “traditional” philosophy, most especially with its usefulness in helping solve problems and better understand the world in which we live (Rooney, 1993).

According to Rorty (1991), to be a feminist pragmatist you will have to drop notions of realism and universalism that some feminist thinkers still firmly embrace. Like in constructivism, truth is always changing. Both feminism and pragmatism emphasize

political awareness and focus on lived experience, activism, and change as the basis of philosophy (Rooney, 1993).

Seigfried (1991) identifies three main commonalities between feminist and pragmatist thinking: (a) both begin with the experience of the person; (b) the goal in research is to benefit the person or resolve the problem; and (c) the researcher is not a neutral party but rather is the investigator, and his or her experience always shapes knowledge.

Similarly, Gillberg (2012) identifies three main concepts between the schools of thought: (a) community, (b) reciprocity, and (c) the concept of study and action, science and social reform. Community acknowledges that we live in shared communities of interest and that solutions based on the lived experience and shared knowledge will benefit all members of the community, not just women. In the example of PPD, this concept of community would be especially true since the problem does not only affect the woman, but often involves a father, other family members, and a child. Research is not focused exclusively on the woman, therefore, but also examines the experiences of the involved community. The concept of community also emphasizes the power imbalances in community, which is a shared concept with critical theory and constructivism. Community in feminist pragmatist research would emphasize the importance of relationships and face-to-face communication. The next concept, reciprocity, “encompasses both the acknowledgment of the power asymmetries within communities as well as the will to overcome them” (Gillberg, 2012, p. 227). Important to the concept of reciprocity is reciprocal learning, or learning from one another and developing a stance from multiple perspectives. Finally, the concept of study and action, science and social

reform builds naturally upon the concepts of community and reciprocity. This means that one does not philosophize for the sake of philosophy; rather, philosophical techniques are means to make a difference and not ends in themselves (Seigfried, 1991).

One of the most valuable attributes of feminist pragmatism in PPD research is the concept of embodiment (Radin, 1989). Pragmatists recognize that the way an individual thinks and experiences the world is related to one's biological makeup. In the circumstance of PPD, feminist pragmatism would take into account physiological changes as a major part of experience. This further accounts for the rejection of dichotomies: we as humans are not our minds and our bodies separately but rather a whole being. In addition, we all come with our life experiences, cultural differences, and general biases toward the world.

Discussion

By viewing the philosophical paradigms identified by Doucet and colleagues (2010) through the lens of a feminist ideology, there becomes a clearer picture of which paradigms are suited in guiding PPD research. Although there will always be a place for postpositivist study, especially in determining quantifiable data such as prevalence, research should not end there. PPD is not a clearly enough understood phenomena to focus solely on the measurable nuances of it. Additionally, although various treatments for depression have been utilized with some success in women with PPD, this has not contributed to a better understanding of the etiology of PPD. Postpositivist research should be looked at as a baseline method of gathering information that can contribute to other research studies that will better define the holistic concept of PPD.

Critical theory with a feminist ideology adds important elements to PPD that are not always emphasized such as the importance of research as a step toward equality for all persons. Additionally, the emphasis on historical context is important when looking at various locations and cultures on an international level. Class, socioeconomic factors, and other societal-based factors do contribute to a woman's experience; however, at times critical theory takes an overly macrolevel view, which loses the individual and her experience.

Constructivism with a feminist ideology may add important information about socially and culturally constructed roles, whether it is gender or mothering, but at the same time, this view is very limiting to understanding the phenomena of PPD as a whole. Constructs vary greatly by location, culture, and time period, making constructivism difficult to use from a global perspective. The postpartum period is also known for physiological fluctuation, and constructivism leaves little room for physiological contributors in PPD research.

Pragmatism with a feminist ideology is especially useful in PPD because of its focus on problem solving and its emphasis on the holistic view of the woman, her body, and her circumstances. It fits well from an international, interdisciplinary viewpoint since it can employ a variety of qualitative, quantitative, and mixed methods research across multiple disciplines.

Of the paradigms examined, postpositivism, constructivism, and critical theory are of limited use in PPD research. On the other hand, pragmatism with a feminist ideology appears to be an excellent fit in guiding PPD research across cultures and disciplines.

Conclusion: The Need for Feminist Pragmatism in Postpartum Depression Research

After further examination of the paradigms identified by Doucet and colleagues (2010) in combination with a feminist ideology, I conclude that feminist pragmatism is the ideal paradigmatic stance to take when conducting research on PPD.

PPD is a complex and multifactorial phenomenon that will benefit from a paradigm that takes into account all parts of the whole. Feminist pragmatism can take the biological and physical characteristics that are commonly emphasized with postpositivism and combine these with social issues such as power, oppression, and culture that are more common in critical theory and constructivism.

Feminist pragmatist-based research has a high potential for impact on women who suffer from PPD since it aims to solve problems and to be transformative. Feminist pragmatism allows for cultural, geographical, and racial differences in its understanding of the phenomena of PPD as a whole.

There is a pressing need for further PPD research, especially at an international level. Of what is understood about PPD, there is more that is not understood. Feminist pragmatism allows researchers to ask diverse macrolevel questions about culture, gender, and geographic differences while still maintaining a microlevel focus on the woman and her individual experience. It allows for the use of various research methodologies as well as the mixing of methodologies. Feminist pragmatism is a paradigm for all areas of discipline, and it will be especially beneficial to those conducting interdisciplinary research since it is able to draw conclusions from multiple areas of thinking to better understand PPD.

While there will always be room for a diversity of paradigms in PPD research, I recommend that more researchers begin their study with the guiding paradigm of feminist pragmatism. Finding a common guiding paradigm not only unites researchers in a diversity of cultures and disciplines, it unites research results, which has the potential to advance the study of PPD at a more rapid pace.

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A Qualitative Meta-Synthesis and Theory of Postpartum Depression

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Postpartum Depression (PPD) is a serious mental health concern for mothers and their infants. Up to 19% of women will suffer from PPD (Gavin et al., 2005) making it the most common complication of childbirth (Beck, 2008). Not only does PPD present a serious mental health concern for the mother, it can also result in insecure attachment and poor cognition in her infant (Deave, Heron, Evans & Emond, 2008). The etiology of PPD is not fully understood and successful treatments have not been fully realized. There is a pressing need for further PPD research especially with additional focus on the woman and her firsthand experience. This author aims to explore and synthesize concepts from the body of qualitative research on firsthand experience of PPD to gain a better understanding of the experience of PPD.

Background

Depressive symptoms in the postpartum period have been recognized since the time of Hippocrates, who speculated it was potentially caused by issues with lactation, twins, or illegitimacy (Evins & Theofrastous, 1997). Despite some recognition in the medical literature at the end of the 19th century, it wasn't until the 1950s in the United States that there was general acknowledgement that some women struggled with mental health issues after having a baby, although these struggles were often associated with character flaws (Held & Rutherford, 2012).

Since then theories on PPD have run from self-limiting, to issues of role change, unfulfilled expectations, lack of support, diet, biochemical predisposition, grief, work-life balance, discrimination, and more (Beck, 2008; O'Hara & McCabe, 2013). Held & Rutherford (2012) suggest that the problem may lie in the "deeply held and unexamined assumption...that negative emotions following childbirth should not be allowed to persist

and that unhappiness and motherhood are incompatible, rather than truly part of the story.” (p. 119). Although there are several theories surrounding PPD, it is unclear which are valid, or if perhaps all play an important role. It is clear that more research is needed, and returning to the woman and her firsthand experience through qualitative research is often the best way to gain a fundamental understanding of a phenomenon.

Qualitative methods enable researchers to put themselves in the shoes of the participant to better understand her experiences. A synthesis of the qualitative research may help to discover new themes, concepts, and theory related to PPD. Results will be compared to Beck’s (1993, 2007, 2011) extensively developed and amended 4-stage theory of PPD entitled “Teetering on the Edge”. The findings from this meta-synthesis will be compared and contrasted with Beck’s body of work for confirmation and validation of results.

Method

Meta-synthesis combines the findings of multiple qualitative studies using a systematic process that involves induction and interpretation, similar to the qualitative methods used in the studies it aims to synthesize (Britten et al., 2002). Translating studies into one another helps find concepts, discover contradictions, and organize new theory (Barnett-Page & Thomas, 2009). Combining findings can increase the depth of knowledge and increase insight into previously undiscovered aspects of a particular phenomenon.

Difficulties with use of qualitative meta-synthesis include combining findings from studies with different underlying philosophical assumptions such as phenomenology with grounded theory, and how to go about combining and synthesizing taking this into

account. Another difficulty is that meta-synthesis is a process of interpretation, and the importance of context in the findings of each individual study may be lost in the process.

Noblit and Hare's (1988) meta-ethnography aims to find a holistic view of a phenomenon by combining findings from multiple studies. Barnett-Page & Thomas (2009) discuss that, "this construction of the whole is essentially characterized by some degree of innovation, so that the result is greater than the sum of its parts" (p. 5). The use of Noblit and Hare's meta-ethnography works as a way to form an innovative and holistic view of a phenomenon of study and at times leads to theory generation. I chose to use Noblit and Hare's (1988) meta-ethnography as I believed that searching for holistic meaning was important for the phenomena of PPD that often shows variance related to cultural and contextual factors. Additionally, Beck (2002) conducted an exemplary qualitative meta-synthesis of PPD research using the seven phases of meta-ethnography originally developed by Noblit and Hare (1988).

The seven steps of meta-ethnography identified by Noblit and Hare (1988) used in this meta-synthesis include (1) Getting started, (2) Deciding what is relevant to the initial interest, (3) Reading the studies, (4) Determining how the studies are related, (5) Translating the studies into one another, (6) Synthesizing translations and (6) Expressing the synthesis.

Search strategy

Online academic literature search engines were used, including PubMed, Academic Search Premier, Google Scholar and the Cumulative Index to Nursing and Allied Health Literature (CINAHL). A 10-year time period, 2003–2013, was used.

Keywords used were: *PPD, postnatal depression, qualitative research, narrative, lived*

experience and descriptive. Additional studies were found by selecting the secondary search “Qualitative Research Methods” in CINAHL with the keyword *PPD*.

Inclusion criteria

Inclusion criteria were that the study be focused on the woman and her firsthand account of PPD, and that the research design was qualitative. Studies that were excluded included those about postpartum psychosis, partners of women with PPD, care providers of women with PPD, those that focused exclusively on care seeking behaviors of women with PPD and literature reviews. All non-English studies were excluded.

Sample

The sample for this meta-synthesis consisted of 12 qualitative studies, published between 2003 and 2013 (Table 1). Two studies by Abrams and Curran (2009, 2011) included the same population of 19 low-income women, but included different conclusions based on the constant comparative analyses as well as different direct quotations of the study participants.

Five studies were from nursing; four were from psychology; and there was one study each from the fields of psychiatry, sociology, and public health. Four studies used grounded theory, two used phenomenology and six used descriptive qualitative methods. This review included 485 participants. In addition to the United States, Australia, Norway, the United Kingdom, India, Sweden and Canada were included. There was also a large study⁵ that included participants from France, Ireland, Italy, Portugal, Austria, Switzerland, Japan, and Uganda. Within countries several cultures and ethnicities were represented.

Findings

In this meta-synthesis, five major themes were found on the firsthand experience of PPD (Table 2) (1) practical life concerns, (2) crushed maternal role expectations, (3) going into hiding, (4) loss of sense of self and (5) intense feelings of vulnerability. The first theme, practical life concerns, is not unique to the experience of PPD, although it does affect it. The other four themes make up this author's proposed theory of a 4-step process women experience as PPD.

Practical life concerns

Every study mentioned factors that can be classified as practical life concerns related to PPD, and include many factors that can be expected of most women who experience childbirth. Pain and postpartum recovery, and lack of sleep and fatigue, were physical characteristics commonly mentioned. Work and money concerns, increased workload in terms of childcare, housework, and cooking were also noted. Health concerns for the mother and baby as well as relationship strain between the partner and mother were also common themes.

The studies that focused on cultural differences in PPD often found strong themes of practical life concerns. For example, women in Uganda stressed concerns about not having enough food and losing weight (Oates et al., 2004). Other women recognized that there were cultural differences regarding help given to the mother after the birth in their culture of origin versus where they reside now, meaning extra work and stress for the mother (Mamisachvilli et al., 2013; Oates et al., 2004; Rodrigues, Patel, Jaswal & De Souza, 2003; Templeton, Velleman, Persaud & Milner, 2003). In a population of minority women living in the UK, help with housework was the support most often requested (Templeton et al., 2003). Low-income women reported concerns of safety in

their living situations, worries about having adequate health care coverage and car problems (Abrams & Curran, 2009). Nearly all women reported lack of sleep as a factor in their PPD. Many women mentioned cooking, cleaning, and housework. Other women had other serious stressors such as an abusive relationship or a spouse or partner with a drug or alcohol problem.

Crushed maternal role expectations

A common theme throughout all of the studies was having unmet expectations about what motherhood would be like. Beck (2002) identified this in her qualitative meta-synthesis as an “incongruity between expectations and reality of motherhood.” Women are given several messages about what “ideal motherhood” is. In reviewing the literature, it became apparent that this is not a universal ideal, but rather an ideal constructed by a woman based on her own life experiences and culture.

The concept of the “good” mother and the “bad” mother were common in the voice of the woman. A “good mother” should be happy that she has a healthy child, be selfless, be patient, and always breastfeed (Edhborg, Friberg, Lundh & Widström, 2005). When a woman feels she isn’t meeting her expectations of the “good” mother, she feels she is a “bad” mother.

In a population of first- and second-generation immigrants to Canada researchers found that Canadian culture had deemed motherhood as something that was supposed to be blissful and fulfilling, which are common stereotypes. “I never thought being a mother was going to be like this... it caught me by surprise, and I think it’s the expectation that was a big problem.” (Mamisachvili et al., 2013, p. 5). Women from other countries who were first-generation immigrants also found differences between their expectations and

reality based on culture: “...back home people come to see the baby and help the mother and stuff like that... we are very friendly people in Chile and here is more, I don’t know, cold.” (Mamisachvili et al., 2013, p 6).

Other women identified that multiple roles and tasks were stressful. One woman felt that her experience as a successful lawyer had given her a false sense of ability in being able to meet her ideals of motherhood (Buultjens & Liamputtong, 2007). One woman judged her own mothering based on her mother’s ability to be strong despite hardship (Amankwaa, 2003). Other women measured what they thought to be a “good” mother by having a similar postpartum experience as other women in their culture, such as being given a 40-day rest period (Oates et al., 2004). Rodrigues et al. (2003) found: “The failure to observe rituals and dietary practices associated with childbirth, such as the use of special diets perceived to be nutritious, and body massages with oil, was associated with the experience of depression.” (Rodrigues et al., 2003, p. 1803). One might interpret this to show that the childbearing rituals prevent PPD, but it is more likely that these rituals had importance in the expectation of ideal motherhood for the woman.

Bilszta, Ericksen, Buist and Milgrom (2010) found that some women not only felt badly for not meeting the idealized expectation they had for motherhood, they begin to feel bad for their depressive symptoms: “...when you’ve got a beautiful baby, you’ve got a beautiful home, why would you be sad?”(p. 47). Women in this study felt that they should be “strong and organized,” and felt fear in the fact that they were depressed.

Going into hiding

Ultimately the woman experiences a sense of shame or guilt from being unable to meet her idealized expectation of what motherhood is supposed to be like. She feels

compelled to maintain a facade to the outside world that she is still an ideal mother, but because she feels like she is a fraud and doesn't represent a "good mom," she goes into hiding. "I don't think any of the other people around me, except for my husband of course, could see how awful I felt. But I gave the impression that things were really great and I was so happy and everything was going fine. And that's what they saw when they came to see us, a lovely baby and a nice house." (Roseth, Binder & Malt, 2011, p. 84).

Edhborg et al. (2005) found that women felt that they shouldn't talk about their problems unless they wanted to be found out as a bad mother: "... I didn't want to talk with anybody about it, I always had to pretend that I was doing just great... I thought that wasn't normal, that I was a bad mom who felt that way..." (p. 264). Many women also seemed to feel that although hidden from the world as a fraud, their baby still knew that they weren't good mothers: "He doesn't like me, he just cries as soon as he sees me." (Edhborg et al., 2005, p. 264).

Many studies mentioned isolation as a factor in PPD, although not all studies related it to failure in the maternal role. The review of this body of literature suggested that the feeling of failure and the need to hide the true self were what led many women to isolate themselves. Some women found their reasons to hide grounded in their culture: "... as African American [women], we, in order to survive, historically, have learned to wear the mask. And I was able to, especially the second go around—you know, I could get through the day, you know, smiling." (Amankwaa, 2003, p. 312).

Loss of sense of self

A theme found throughout much of the literature was loss of sense of self, although not explicitly identified as such. Loss of sense of self was a depersonalizing

feeling of detachment from the self. Depersonalizing feelings can range from feeling a slight detachment from one's experience to a feeling of being unreal (Michal et al., 2007). Studies where loss of sense of self was not mentioned often had no mention of the woman's identity (Oates et al., 2004; Rodrigues et al., 2003; Buultjens & Liamputtong, 2007; Sword, Clark, Hegadoren, Brooks & Kingston, 2012.). This may be because questions were not asked that led the woman to discuss this aspect of her experience, the researchers chose not to present this information or that the woman's culture did not emphasize identity.

Loss of sense of self experiences that stood out in this literature review were described as depersonalizing feelings of going through the motions, feeling like you are in a dream or fog, and experiences of feeling a detachment from the body (Simeon, 2004). Roseth et al., 2011 presented loss of sense of self as a strong theme identified in their phenomenological study. Several references to feeling out of touch with the self and a lack of awareness were identified, as well as the sense that the body was a heavy and obtrusive structure that got in the way. One woman describes the sensation: "Trapped, I can't get out, I can't start doing anything. I can't start to live the life I want to live and the way I was... There are a lot of things I plan on doing and want to get done, but I can't do them because I'm kind of not really me." (Roseth et al., 2011, p. 186).

Several other studies had themes of loss of sense of self without identifying it as such. Amankwaa (2003) shares examples of loss of sense of self in her theme "losing it": "Mothers described PPD as being in a daze, feeling distant, seeming as if a 'cloud descended on me,' "everything looking cloudy and distorted..." (p 303).

Edhborg et al., (2005) also identified this phenomenon as a product of identity change: “Several of the mothers experienced that having a child was revolutionary and they found it difficult to recognize themselves. The mothers experienced themselves as changed in physical appearance but more often they expressed surprise and confusion because they did not recognize themselves emotionally.”(p. 263).

Abrams and Curran (2011) described mothers framing their experience as “alien to their core, internal or authentic selves.”(p. 382). One woman from their low-income population study described additional feelings of unreality: “... a large part of it doesn’t feel real. It’s like the baby’s here and I’m taking care of him, but it’s like I’m more numb, it feels like, I’m there, like just going along with what I have to do... I always pictured being happier with the baby, and now I don’t really feel anything.” (p. 378).

Intense feelings of vulnerability

Intense feelings of vulnerability involves the woman developing feelings of helplessness and dependency, at times almost reverting back to an earlier stage of development. The woman might revert back to a place in time where she feels safe, where the current stresses were not known and where she was able to depend on a caretaker. Throughout this meta-synthesis, intense feelings of vulnerability consisted of qualities such as severe irrational anxiety, an inability to take care of the self or others, extreme sensitivity to infant crying, and a high need for caretaking most especially by their mothers. This is similar to the regressive state recognized in psychotherapy: “The patient’s regressive tendency... is not just a relapse into infantilism but an attempt to get at something necessary... the universal feeling of childhood innocence, the sense of security, or protection, of reciprocated love, of trust.”(Jung & Hull, 1993, p. 32).

Roseth et al. (2011) also found that women became very dependent on others and felt they were unable to regulate their emotions or trust their own judgment. Some women looked for reassurance from their infant, and even relied on their child's temperament as a measure of their self-worth. Some women began to identify with their baby so much that their baby became an extension of themselves: "They had difficulty in separating their emotions from the baby's perceived emotions." (Roseth et al., 2011, p. 181). In one study the woman was able to verbalize that the baby being upset meant the mother too felt upset: "I've grown to think he does not like me and I can't make him happy. I feel that my feelings are directly related to him because if he has a good day, then I have a better day." (Buultjens & Liamputtong, 2007, p. 83).

Many studies identified a high need for caretaking. Much of this had to do with women having a large set of responsibilities falling on their shoulders, but for some women even the smallest tasks became difficult: "Simple day to day activities are such an effort. I'm constantly feeling anxious about things. I have not even been down to the shops on my own yet. Mum comes with me." (Buultjens & Liamputtong, 2007, p. 83).

Anxiety is the universal emotion that fits under the theme of intense feelings of vulnerability. Women experienced intense anxiety over harm happening to their babies and did not trust that they could care for them. The sounds of infants crying often exacerbated anxiety, confirming the women's perception she was unable to properly attend to their child. "Even though he had been only crying for 2 minutes...it sounded like he was crying for hours." (Sword et al., 2012, p. 57).

Theory generation

Not only were the five themes identified, it seemed through the translation and synthesis process that these concepts revealed a possible way that PPD progresses. In this meta-synthesis, PPD worked as a 4-step process (Figure 1) beginning with crushed maternal role expectations, moving to going into hiding, then to loss of sense of self and finally to intense feelings of vulnerability. All aspects were affected by practical life concerns. The possibility that these themes work in a step-wise process deserves further examination and study.

Discussion

Pregnancy, childbirth, and bringing a new infant home produce many new practical concerns for the mother. Although every woman who has a baby faces these practical concerns, not every mother develops PPD. The practical life concerns in this model of PPD can be seen as a catalyst to the onset of PPD by adding weight to the woman's maternal role expectations and her inability to meet them. While these practical life concerns are not to be disregarded, they do not get at the experience of PPD.

Crushed maternal role expectations have been identified under other titles in the literature (Beck, 2002) and are confirmed in this meta-synthesis as an essential contributing factor to women developing PPD. It seems that the higher the woman's expectations of herself as an idealized mother, the more likely she thinks she is failing. Adding practical life problems exacerbate her stress. The woman feels the need to maintain face, as the notion of being a "bad mother" to the rest of the world is extremely distressing to her. She maintains a facade of "having it together" in front of others, but goes into hiding once she feels she cannot maintain this facade.

The next steps in the process of PPD as identified in this meta-synthesis are loss of sense of self and intense feelings of vulnerability. These themes seem to be critical to the experience of PPD, yet have not been acknowledged as such in the research. Several qualitative studies quote women who sense a feeling of being “unreal,” “not with it,” or “out of the self,” yet these sensations are often attributed to other factors. This meta-synthesis of the literature suggests that loss of sense of self may be a key component to recognizing PPD as distinct from other regular depressive symptoms. For example, a woman in Uganda who is lacking in food as identified in Oates et al. (2004) has a stressful experience that may cause her to be depressed whether or not she were in the postpartum period. Recognition of loss of sense of self as a symptom of PPD may have a substantial impact on our understanding of how depressive symptoms differ in PPD versus outside of the postpartum experience.

In this proposed theory, the woman, feeling “out of it” due to the loss of sense of self process, moves to a state of need and anxiety, identified as intense feelings of vulnerability. The intense feelings of vulnerability increase the woman’s feelings of need for caretaking as she desires to feel safe and cared for when she has felt very little of these things since giving birth. She is overwhelmed by anxiety when faced with responsibilities such as caring for a crying baby and she feels almost like she is unable to care for herself. She has difficulty regulating her emotions and at times begins to identify the needs and emotions of her baby as her own. An upset baby mirrors to the mother an upset feeling. All interpersonal relationships are strained as the mother feels an intense need for caretaking and many are unaware of her need or how to meet it.

This meta-synthesis of the woman's firsthand account of PPD may have revealed that PPD can work as a process that includes 4 steps. Critical elements of this process would include loss of sense of self and intense feelings of vulnerability, which have not been identified as such in the literature.

Comparison of findings with “Teetering on the Edge”

Cheryl Beck's (1993, 2007, 2011) theory, “Teetering on the Edge” is an extensively developed 4-stage theory of PPD. Beck's four stages include (1) encountering terror, (2) dying of self, (3) struggling to survive and (4) regaining control. (1) Encountering terror, involves severe anxiety, feelings of fogginess and obsessive thinking. (2) Dying of self, includes feelings of unreality, isolation and unwanted feelings of harm for self or baby. (3) Struggling to survive, includes women having a difficult time participating in life, having difficulty seeking treatment, but ultimately finding solace in support groups and prayer. Finally in (4) regaining control, the women begins an up and down transition towards feeling better, feeling that they have missed out on what has been lost through their depression and fearing that depression will reoccur.

This meta-synthesis focused on the experience of depression within PPD, therefore the concepts of Beck's stage 4 “regaining control” were not a part of this meta-synthesis. When looking at the first 3 stages of Beck's theory compared to this meta-synthesis there are several similarities, yet significant differences. The similarities are in some shared concepts, the differences lie in the way concepts of PPD are grouped and classified. Here I will look at each theme of my proposed theory, compared to Beck's first 3 stages of “Teetering on the Edge”.

Crushed maternal role expectation has been similarly identified by Beck in her previous work (2002) but is not explicitly included in “Teetering on the Edge”. It would likely fall into her stage 1. Going into hiding would be included in Beck’s stage 2, dying of self, where she includes the concept of isolation.

The two themes in this meta-synthesis that were the most significant, loss of sense of self, and intense feelings of vulnerability, gather concepts from several stages of Beck’s theory. For example, loss of sense of self, included components of both stage 1 and stage 2 of Beck’s theory including fogginess from stage 1 and feelings of unreality in stage 2. Intense feelings of vulnerability identified in this meta-synthesis include components from Beck’s stage 3, such as the feeling of being unable to participate in daily life, and the feeling of need for caretaking but not necessarily receiving it from family, friends or caretakers. Additionally, concepts such as anxiety from Beck’s stage 1 are included in my theme of intense vulnerability.

The similarities between concepts identified in this meta-synthesis and Beck’s “Teetering on the edge” serve as a sort of mutual validation of aspects of the experience of PPD. Since Beck’s theory focuses on the recovery aspect of PPD as opposed to purely the experience of depression in PPD it is difficult to draw correlations beyond key concepts. The critical difference between theories lies in the ordering of experiences, and in my meta-synthesis, the 4-step progression through the themes as ordered. Future researchers should pay particular attention to commonly identified themes as well as the potential that PPD progresses as I have presented it.

Implications

This proposed theory needs further development and study. If women commonly experience PPD as I propose, awareness of the process would add to existing methods of diagnosis, prevention and treatment. Identifying what step of PPD the woman is experiencing could help clinicians better treat PPD, and prevent further progression through the following steps. If a woman is experiencing the initial crushed maternal role expectations, seeking social support and general awareness may prevent her from going into hiding. A woman who has gone into hiding may benefit from a support group that encourages her to leave the safety of her hidden place. Women who have moved further along the spectrum to the state of loss of sense of self and intense feelings of vulnerability might need more intensive intervention. Of course, each case should be judged on its own accord, but understanding PPD as a 4-step process would offer significant guidance in a woman's treatment plan.

Limitations

Qualitative meta-synthesis is not an exact science, and allows for and demands interpretation by the researcher. Findings may not always be repeatable, and conclusions drawn may be different depending on the researcher(s) undertaking the meta-synthesis. Data is not original, but rather the highlighted work pulled out by the researchers who published the analyzed works. This data is then reinterpreted in the meta-synthesis, which makes the final interpretation quite far from the voice of the original participants. Despite the distance from the original work, the interpretation found in this meta-synthesis still adds value to the body of research on PPD.

Conclusion

PPD has been studied extensively in both qualitative and quantitative capacities without significant changes in how it is viewed or treated. Going back to the source—the women who are living with PPD—and synthesizing common themes has uncovered more about how this phenomenon may unfold. It also suggests new aspects that can be targeted for diagnosis, treatment, and prevention.

This theory of PPD as a process includes four major themes: crushed maternal role expectations, going into hiding and loss of sense of self, followed by intense feelings of vulnerability. Each is exacerbated by practical life concerns. The proposed theory contributes to the literature by helping to identify PPD distinctly from depression outside the postpartum period. However, further study (and analysis) is needed to assess its full impact.

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Table 1

Studies Included in Meta-Synthesis

Reference	Research question	Country/ies of Study	Discipline
Abrams & Curran (2009)	What are low-income mothers' explanatory frameworks for their PPD?	USA	Psychology
Abrams & Curran (2011)	How do low income women experience PPD?	USA	Psychology
Amankwa (2003)	What is the lived experience of PPD in African American Women?	USA	Nursing
Bilszta, Ericksen, Buist & Milgrom (2010)	How do women experience PPD and perceive their stress ?	Australia	Nursing
Baulliens, & Liamputtong (2007)	How do women describe their own experience of PPD and what do they see as contributing factors?	Australia	Public Health
Edhborg, Friberg, Lundh & Widstrom (2005)	What do Swedish women with signs of PPD two months postpartum experience the first months with their child?	Sweden	Nursing
Mannisachvili, Ardiles, Manewicz, Thompson, Rabin, & Ross (2013)	What role does culture play in a woman's experience of PPD?	Canada	Nursing
Oates, Cox, Neema, Asten, Glangaud-Freudenthal, Figueiredo, et al (2004).	Is PPD universally recognized, attributed and described?	France, Ireland, Italy, Sweden, USA, Uganda, UK, Japan, Portugal, Austria, Switzerland	Psychiatry
Rodrigues, Patel, Jaswal & De Souza (2003)	What is the cultural validity of the construct of PPD and its social and cultural contexts?	India	Psychology
Roseth, Binder & Malt (2011)	What is the essential meaning structure in the experience of PPD?	Norway	Psychology
Sword, Clark, Hegadoren, Brooks & Kingston (2012)	What is the main mechanism associated with PPD in women without a history of depression, and those without a history of depression?	Canada	Nursing
Templeton, Velleman, Persaud & Milner (2003)	What are the experiences like of women with postpartum depression in black and minority ethnic communities?	UK	Sociology

Table 2

Five Themes from Meta-Synthesis

Reference	Crushed Maternal Role Expectations	Going into Hiding	Loss of Sense of Self	Intense Vulnerability
Abrams & Curran (2009), (2011)	poverty, single parent threatens ideal	emotional and social isolation	feeling alien, feeling inhuman, unreal	bitter memories from own childhood, anxiety, extreme sensitivity to crying infant
Amankwaa (2003)	unmet expectations of motherhood	withdrawal from friends and family, alienating and isolating self, keeping secrets	Losing myself, being in a daze and "out of it"	inability to care for baby or self, extreme sensitivity to crying
Biszta, Eriksen, Buist & Milgrom (2010)	Differences between expectation and reality of motherhood	keeping up appearances so as not to be seen as failure	inability to see own depression	Lacking decision making capabilities, inability to care for self
Buulfjens, & Liamputung (2007)	expectations that motherhood would be joyful, different	feeling isolated		Relationship issues with own mother, needing mother's help, anxiety
Edhborg, Friberg, Lundh & Widstrom (2005)	unfulfilled expectations	not wanting to talk about it, hiding self to live up to image of "good mother"	difficulty recognizing self as a mother	feeling abandoned and alone, feelings that baby cries when she sees her, scared all of the time
Mannisachvili, Ardiles, Mancewicz, Thompson, Rabin, & Ross (2013)	expectations that motherhood is blissful, feeling robbed of that	Avoid disclosing feelings for fear of it "getting around"	loss of identity, "don't know what I do... who I am"	
Oates, Cox, Neema, Asten, Glangcaud-Freudenthal, Figueiredo, Yoshida, et al (2004).	Unhappiness in not meeting cultural expectations of motherhood			extreme sensitivity to crying baby
Rodrigues, Patel, Jaswal & De Souza (2003)	unmet expectations in receiving rituals of childbearing, disappointment with gender of baby and how that has affected experience	don't confide feelings in others		Caretaking by spouse not adequate, wanting to return home (cultural)
Roseth, Binder & Malt (2011)	unable to live up to expectations	Withdrawal and Isolations, Shame	unaware of process, body as a physical obstacle, feelings of unreality	unbearable anxiety, looming threatening world
Sword, Clark, Hegadoren, Brooks & Kingston (2012)	Failure, expectations	Isolation, housebound despite available social contacts		extreme sensitivity to crying baby
Templeton, Velleman, Persaud & Milner (2003)	Unmet expectations about motherhood, unmet cultural expectations	Stigma about getting help, don't hang out dirty laundry, isolation	not recognizing self	Childhood issues brought up

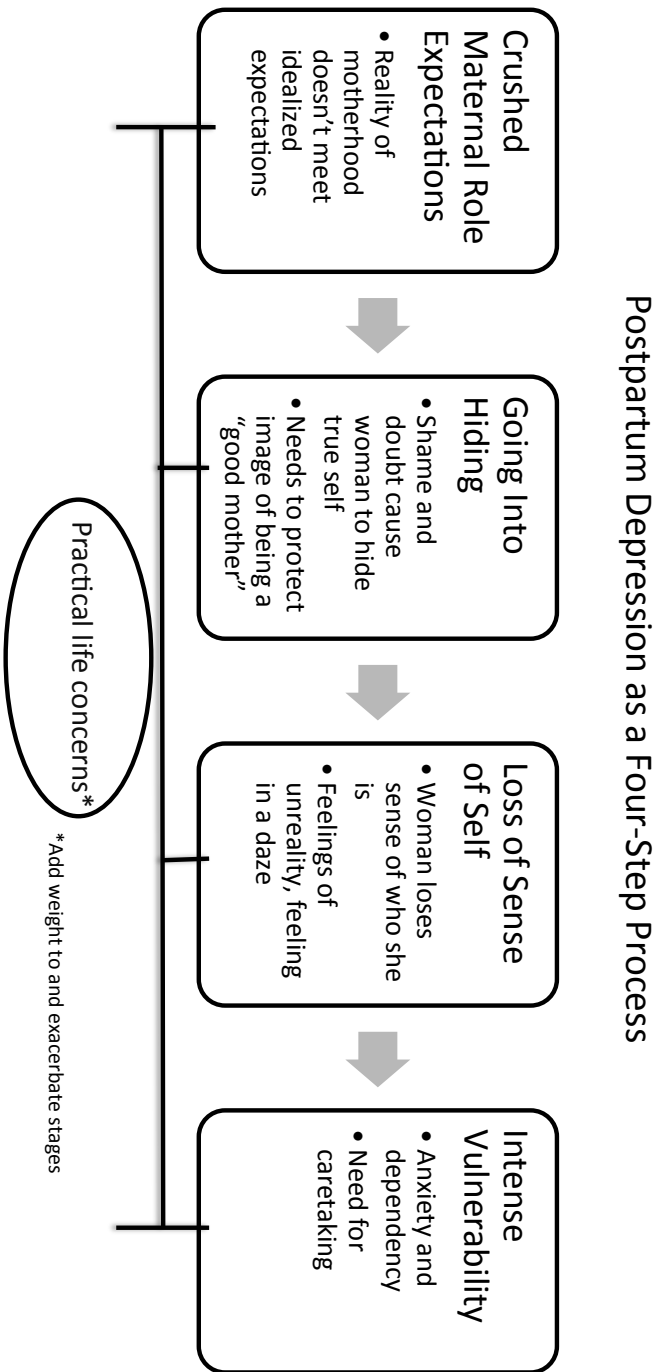


Figure 1. Postpartum Depression as a Four-Step Process.

Chapter 4: Manuscript # 3

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Explanatory Models of Postpartum Depressive Symptomatology in Rural Women

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Rural Women's Explanatory Models of Postpartum Depressive Symptomatology

Postpartum depressive symptomatology (PPDS) occurs in 8–19% of women and may include symptoms of sadness, anxiety, weight change, sleep disruption, and loss of interest in life, with onset in the weeks and months following the delivery of a baby (American Psychiatric Association [APA], 2013; Centers for Disease Control and Prevention [CDC], 2013; O'Hara & McCabe, 2013). PPDS differs from the “baby blues,” a mood disruption experienced by most women during the first 2 weeks after giving birth, and from postpartum psychosis, a rare and severe condition that may endanger the safety of the mother and child (Jones, Chandra, Dazzan, & Howard, 2014).

Rural women may be at greater risk for PPDS (Mollard, Hudson, Ford, & Pullen, 2015; Villegas, McKay, Dennis, & Ross, 2011). Health care providers need to understand how a target population views and explains illnesses and symptomatology in order to relate to their patients and to provide the best interventions and treatment options with which the population is most likely to comply (Kleinman, Eisenberg, & Good, 1978; Buus, Johannessen, & Stage, 2012). Because PPDS is understudied in rural populations, it is unknown how rural women view PPDS and what they consider their best treatment options. Studies that elucidate how rural women view and explain PPDS can help health care providers develop appropriate screening, intervention, and treatment plans that will better serve the rural patient population.

The purpose of this study was to construct explanatory models of postpartum depression symptomatology from the perspective of rural women and to compare these models to those of the traditional Western health care “medical model” of PPDS.

Background

PPDS is primarily viewed as a medical phenomenon in the United States even though women do not always describe the etiology of their symptoms as medical (Abrams & Curran, 2009; Ugarriza, 2002). Health care providers diagnose what is commonly referred to as postpartum depression based on the criteria listed in the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders (DSM-5)* under major depressive disorder, with a peripartum onset specifier (APA, 2013). Before the release of the *DSM-5* in 2013, there was discussion in the medical community about the diagnostic criteria for postpartum depression (O'Hara & McCabe, 2013). The fourth edition had a postpartum onset specifier for major depressive disorder, which many health care providers agreed was important to maintain because the properties of depression during pregnancy are different from those during the postpartum period (APA, 1994; Sharma & Khan, 2010). Many advocacy groups and medical professionals expected the fifth edition to include updated criteria for diagnosis, such as onset within the first 6 months postpartum rather than within the first 4 weeks (Jones & Cantwell, 2010; O'Hara & McCabe, 2013). Despite the discussion, when the *DSM-5* was released, the diagnostic criteria for what is commonly referred to as postpartum depression now fell under the potentially more ambiguous category of the peripartum onset specifier of major depressive disorder. To fit into these diagnostic criteria, women must have an onset of symptoms during either pregnancy or the first 4 weeks postpartum. PPDS is not a diagnostic term but includes postpartum depressive symptoms whether or not the women who experience them meet all *DSM-5* criteria for peripartum onset specifier of major depressive disorder.

In addition to the issues with diagnostic criteria, health care providers using traditional Western health care practices, to which will now be referred to as the “medical model,” have treated PPDS as having an exclusively physiological etiology (Beck, 2002; Brummelte & Galea, 2015). Theories of a physiological cause of PPDS have included changes in hormone levels, nutritional status, and delivery method, among others, and the treatment of choice in the medical model is usually pharmacological antidepressant therapy (Brummelte & Galea, 2015; O’Hara & McCabe, 2013). Yet in previous research, women who had experienced PPDS did not describe their experience as corresponding with the medical model (Abrams & Curran, 2009; Ugarriza, 2002).

Kleinman (1980) developed his explanatory model of illness as a medical anthropologist who noticed cultural variations in the way illness was viewed and explained and in treatment preference. Health care providers view illness differently from the patients who experience it (Kleinman, 1980). An individual’s explanatory model of a particular illness is formed by ethnic and cultural beliefs, personal experiences, and medical explanations of the illness. Kleinman’s (1980) model is based on the idea that by understanding how the patient views her illness, including its cause, symptoms, effects, and best treatment the health care provider will be better able to care for the patient. For example, a health care provider may believe a specific medication is the best treatment option for an illness. If the patient believes the prescribed medication is unacceptable and will not comply, then the illness remains untreated. Additionally, by gaining an understanding of the patient’s explanatory model, otherwise unrecognized causal or other mechanisms of illness may be discovered (Kleinman, 1980).

Kleinman's (1980) explanatory model has been applied in research to several mental health topics in many cultural variations across the world. In the United States, researchers have applied his model to depression in African American women (Waite & Killian, 2009), depression in older Hispanics (Sadule-Rios, Tappen, Williams, & Rosselli, 2014), and postpartum depression in nonrural women (Ugarriza, 2002). Ugarriza (2002) found that, unlike the medical literature at the time, her study participants did not provide an exclusively physiological explanation for their experience. Additionally, in Ugarriza's (2002) study, participants described the need for further public education about postpartum depression and greater support for mothers (Ugarriza, 2002).

Rural women may be at greater risk for depression throughout their life span (Groh, 2013; Simmons, Yang, Wu, Bush, & Crofford, 2015) and specifically during the postpartum period (Mollard et al., 2015; Villegas et al., 2011). As a health-disparate population, rural women are, in general, understudied. Due to increased levels of stigma of mental illness in rural communities (Robinson et al., 2012; Smalley et al., 2010), mental health is understudied as well. These factors, combined with the particular stigma of PPDS during a time often portrayed as universally happy and peaceful for new mothers (Pinto-Foltz & Logsdon, 2008), may leave PPDS under recognized in rural women. Although PPDS may seem an elusive or taboo topic to those in rural communities, rural women experience PPDS and therefore need treatment and understanding from health care providers and rural community members alike. The best way to understand a woman's experience is to ask her about it, because women are the

experts on their own lives. To the researchers' knowledge, there have been no studies using Kleinman's (1980) explanatory model in rural women with PPDS.

Methods

Sample

The purposive, criteria-based sample consisted of 20 rural women from one Midwestern state who self-identified as having depressive symptoms in the postpartum period. Data saturation was reached at 12 participants. Data was collected on 8 additional participants to strengthen and confirm findings. To be included in the study, a participant had to be a woman who had given birth within the past year; be at least 19 years old (the legal age of majority in this state); and reside in a rural setting, defined as a nonmetropolitan county (a county with no urban areas $\geq 50,000$) by the White House Office of Management and Budget (OMB; 2013). Women who were currently pregnant were excluded from this study so possible pregnancy-related depressive symptoms would not be confused with PPDS. Additionally, due to the interviewer's language abilities and the conversational nature of qualitative methods, non-English-speaking women were excluded from the study.

Recruitment

After Institutional Review Board (IRB) approval, recruitment materials were distributed through several means in a Midwestern state. Recruitment materials were posted at rural Women, Infants, and Children (WIC) clinics and rural health care providers' offices. An advertisement was placed on social media, and a recruitment letter was mailed to rural women who had given birth in the past year who were identified through a purchased direct mail list. Six women were recruited through WIC

clinics, five through health care providers, four through social media, four through word of mouth, and one through the letter campaign.

Women were given the option to call, text, or send e-mail messages to the researcher to screen for eligibility. Twenty-three women contacted the researcher. One woman did not meet the inclusion criteria because she had not given birth in the past year. Two women were eligible but did not complete the consent form and were lost to follow-up (Figure 1). Fifteen participants made initial contact through text message, two through telephone, and three through e-mail message. A \$25 gift card was offered as a participation incentive.

Data Collection

Participants were interviewed by telephone for 30 to 60 minutes using a qualitative interview guide that explored the individual's description of what causes PPDS (etiology), how it works (time and mode of onset of symptoms, course of illness), how it affects the body (pathophysiology), and how it should be treated (Kleinman, 1980). Interviews were audio-recorded and transcribed verbatim. All participant transcripts were assigned a pseudonym to ensure anonymity.

Data Analysis Methods

Data analysis methods included descriptive statistics for the demographic quantitative component of the study and content analysis for the transcribed qualitative component.

Descriptive statistics for quantitative data. The variables on the demographic questionnaire that were used in the descriptive statistical analysis included: age of participant, age of infant in months, race, education level, delivery method (cesarean or

vaginal delivery), infant feeding method (breast-feeding or bottle-feeding), population in participant's community, and distance in minutes to the participant's health care provider. The mean and standard deviation, frequency or percentage was calculated on these quantitative variables where appropriate.

Content analysis for qualitative data. Content analysis is a reflexive and interactive form of data analysis that is informational and summarizes the collected qualitative data (Sandelowski, 2000). Content analysis is an appropriate form of analysis for understudied areas in which a simple reporting of the data and a straightforward description of the phenomena of study are desired (Vaismoradi, Turunen, & Bondas, 2013).

The content analysis process began with a mindful strategy to ensure the trustworthiness of the results. The researchers utilized four concepts of trustworthiness as identified by Whittemore, Chase, and Mandle (2001), to guide content analysis: (a) criticality, (b) authenticity, (c) credibility, and (d) integrity. The study maintained criticality by identifying a research analysis process that was detailed and rigorous. To make sure the results were authentic, the voice of each participant was portrayed in a way that was true to her individual experience. To ensure credibility, the experiences of the participants were depicted in an accurate and believable way. And finally, to ensure the study's integrity, the researchers worked as a group to conduct thorough checks of trustworthiness and removal of bias by the researchers. The steps taken to ensure trustworthiness are displayed in the detailed data analysis process as identified below.

Miles and Huberman's (1994) methods of content analysis were employed on the qualitative data in this study. Two investigators analyzed the data and met over a series

of four meetings to interpret and discuss findings. The lead investigator had interviewed the study participants, and the second investigator served as the peer reviewer. The role of the peer reviewer was to ask difficult questions, challenge biases, and push the investigation toward the next level in analysis, and interpretation (Lincoln & Guba, 1985). Upon completion of the two investigator's analysis, three additional peer reviewers verified the results and interpretation of the study.

The individual investigators began by coding the data independently. In the process of coding, they were mindful of the major categories of Kleinman (1980), including etiology, time and mode of onset of symptoms, course of illness, pathophysiology, and treatment. The second step of content analysis was recording, which included the co-investigators meeting, reflecting on the data, and recording thoughts. The data were then sorted by arranging similar quotations into groups in order to make important features more recognizable. The individual investigators then returned to the data independently to reanalyze the sorted data and to compare these data to the original transcripts. This reanalysis ensured the quotations and codes that had been developed were true to the participants' experiences. The co-investigators met again and compared and contrasted the gathered and sorted data to strengthen their interpretation and to identify areas needing further analysis. The individual investigators then returned to the data independently and grouped the data by putting the sorted and analyzed data into final categories. At this point, the co-investigators met to discuss the grouped data and engaged in the final step of looking for generalizations and conclusions, and compared their results to what was known about PPDS. After content analysis was completed by the researchers independently and as co-

investigators, the data were returned to on an independent basis to review all individual transcripts in relation to their final conclusions. After this step, the researchers met again as co-investigators to verify and confirm the findings of the content analysis.

Upon completion of analysis, the researchers compared the explanatory models of the participants with the medical model of PPDS. Again, comparisons were made first as independently and then as co-investigators. The medical model of PPDS used for comparison in this study included the onset, symptoms, and duration listed in the *DSM-5* for major depressive disorder with a peripartum onset specifier; a primarily physiological etiology; and pharmacological antidepressants as the treatment of choice (O'Hara & McCabe, 2013).

To ensure transparency of the research process an audit trail was kept as recommended in Lincoln and Guba (1985). The audit trail included raw data, including field notes and study related documents; data analysis products, including both individual and group notes from the research and analysis process; data synthesis products, including the categories, codes, themes, conclusions, and connections to existing PPDS literature; process notes, including notes on the execution and trustworthiness of the methodology after each interview, personal notes about the experience, and study predictions so as to anticipate researcher bias. To ensure that this large amount of information was retained, any documentation pertaining to the study, whether private or shared, was saved and securely stored.

The researchers used a method of member check outlined by Milne and Oberle (2005) during the participant interview. This process included clarifying and summarizing what the researcher believed were participants' major points so that, if

necessary, participants could clarify and change their accounts to be better understood by the researchers. An example might be, “I am hearing you say you believe your symptoms got better as time went on. Do you agree with that?”

Results

Demographic statistics

The mean age of participants was 27.25 years ($SD = 5.55$). The mean number of children each woman had was 2.55 ($SD = 1.23$). The mean age of the infants was 5.2 months ($SD = 3.90$). Fifteen women identified as Caucasian, three as Hispanic, one as Native American, and one as African American/biracial. Fourteen women had a high school education, three women had bachelor’s degrees, two had associate degrees, and one woman had not completed high school. Eleven women had given birth by cesarean section. Seventy percent of women were bottle-feeding. The average community size was 14,380 persons ($SD = 17,831$), and the mean distance from a participant’s home to her health care provider was 21.75 minutes ($SD = 18.9$).

Etiology

The etiology of the explanatory model included what participants believed caused PPDS. The majority of participants ($n = 19$) named multiple causes for PPDS. The main categories of etiology included physiological, lack of support, and trouble adjusting to the maternal role (Figure 2).

Physiological. Ten women attributed PPDS to a physiological cause. Seven women specifically mentioned hormones as causative of PPDS. Five women attributed their symptoms to having had a cesarean delivery, including one woman who named her cesarean delivery as the sole cause of her PPDS.

Although Nicole thought her PPDS was multifactorial, physiological changes played the largest part in causing her PPDS.

I didn't know why I was feeling like that, and just the hormone side of it . . . especially C-sections too. You're pregnant. You go into a room. You come out. You're not pregnant. So your body just sort of freaks out because it doesn't know what to do now. It's just like when somebody gets their leg chopped off and their body doesn't realize it. It's kind of similar.

Support. Ten women attributed their PPDS to lack of support. Natalie said she lacked support from the beginning of her pregnancy. "I felt I had absolutely no help or support at all. Like nobody made my experience exciting . . . I felt like it was a bad thing that I got pregnant and was having a baby."

Sara believed she was unsupported due to her rural location and that lack of support played a role in her PPDS.

If I was living in a bigger town, I think I would feel completely different, you know? But I just don't have any friends here. I don't have any family here. I don't work here. You know, so it's kind of—for me it's situational.

Kylie stated not only was her PPDS related to lacking a support system but being unable to ask for support when she needed it.

Just not having enough support, I was really overwhelmed, and a lot of times didn't want to ask for help. You know, I'm a new mom, I got this, I don't need your help—I also didn't have anybody to ask.

Maternal role. Ten women attributed their PPDS to difficulty in transitioning to the maternal role, whether in relation to self-efficacy ($n = 5$), feeling overwhelmed with

the maternal workload ($n = 5$), feeling like a failure as a mother because of problems breast-feeding ($n = 3$), or the role change that occurs when moving from a professional role to a maternal role ($n = 3$).

Catherine explained, after the birth of her baby, she did not think she was suited to be a mother, and this caused her PPDS.

I feel like I don't have that motherly touch. Like some moms are excited to have a baby. They're thrilled. Me, I was thrilled, but then as soon as the baby was here, I was scared. I was nervous because I'm like, I've never been taught how to take care of a baby. I was never loved like this by my mom.

Andrea believed being overwhelmed in the maternal role caused her PPDS.

“You're bringing another human life into this world, you know? That whole overwhelmed feeling, are you gonna be good enough? Are you doing the right thing? Are you gonna make it? For me, that's what it was.”

Laura thought the transition from a professional role to a maternal role at home was challenging and caused her PPDS.

My transition from working 40-plus hours a week to being home full-time was really overwhelming. I missed people. I got really lonely, and I am a people person. I need to be around people to feel better, and that's one thing I really learned . . . The lonely part of motherhood is one of the hardest parts for me.

Onset of Symptoms

Seventeen women stated their depressive symptoms began sometime in pregnancy or during the first month postpartum. Six of those 17 women identified onset of depressive symptoms during pregnancy, two immediately after birth, and nine at one

month postpartum or earlier. One woman described onset of PPDS at 2 months, one at 3 1/2 months, and one at 4 months.

Most women could not identify exactly when their PPDS started. However, some women had a specific moment when they believed their PPDS began. Steph said,

I had him on a Friday and I went back to school on a Tuesday. And I thought I was fine . . . When I came out of my first class and walked outside I felt like the whole world was looking at me and I felt like pure shame and embarrassment that I wasn't pregnant.

Rachel thought the onset of PPDS began in the first month. "Around two to three weeks . . . the newness kind of wears off and that's when you're really needing your sleep. You're not getting sleep."

Christina believed her PPDS began once her maternal workload increased, and she stopped caring for herself, about two weeks after childbirth.

When you bring the baby home . . . I didn't want to overdo it. I didn't want to mess my incision up so I was kind of taking it slow and having other people help. But then I think I got to the point to where I think I was overworking myself and not giving myself that time that I needed because I was so worried about doing mom things versus just tending to me and the baby.

Pathophysiology

The pathophysiology of PPDS for this explanatory model included the manifested symptoms. The symptoms reported by participants in this study corresponded closely with those identified in the *DSM-5* for major depressive disorder. Every woman reported

sadness or loss of interest or pleasure. The other most commonly reported symptoms were sleep disruption, eating change, anxiety, and agitation.

Megan explained her depressive symptomatology included fatigue, feeling down, and lacking motivation.

I would have good days, and then other days where I didn't feel like even getting myself out of bed. I just felt exhausted, and I just felt degraded, and I didn't have energy to—I felt like I didn't have energy to deal with the world I guess, like life. I was just tired.

Nicole described how her self-care decreased with the demands of caring for an infant and how it played a part in her PPDS.

Now that I have the baby to worry about, you forget to eat. You forget to shower. You don't brush your hair every day, and just everything for yourself kind of goes downhill because you now have to worry about this other little person.

Natalie's PPDS included thoughts of death, which were especially distressing when she had the workload of mothering a new infant. "For me, there were days I just didn't want to be here anymore, you know what I mean? It's just like so much on my plate, and then I had a baby too. It was pretty hectic."

Irene had symptoms of pervasive sadness and bouts of uncontrollable crying. "I felt embarrassed if I was in the store and would start crying for no reason. I'd be embarrassed about it because I couldn't control it."

Jessica's PPDS included guilty feelings that the reality of her motherhood did not meet the cultural ideal and that she had quit breast-feeding.

Everyone kind of has this idealistic picture of what it's like to have a baby. Sort of the warm, fuzzy feelings of love and contentment, and when you don't have that, you feel guilt, and you feel like, "Why is my experience not like that? Is it something I'm doing, or not doing? Is it because I'm not breast-feeding anymore?"

Course of Illness

The course of illness included the duration, seriousness, and effects of PPDS. Nineteen out of 20 women stated the course of illness was greater than two weeks. Many women, including Natalie, thought PPDS was long-lasting or were unsure of how long it might last. Natalie reflected, "Sometimes I think it's going to last forever, that's how I feel. Like I see the light at the end of the tunnel, but I feel like it's a far tunnel, like it's a long tunnel I'm going through."

When asked whether PPDS is serious, most women told stories of women whom they had heard about on television or the Internet who had hurt their children or committed suicide. One participant attributed the behavior of a woman who robbed a local bank to PPDS.

Most women, including Sara, made clear they believed PPDS could be serious, but they would never hurt their children.

Oh, I think it's very serious . . . I don't say that out of like me experiencing anything, but just seeing and hearing all the stories that a mother killed her kid or, you know, just the crazy things that happen. It's a serious thing, just like a mental disorder. I think it's almost like a mental disorder.

Andrea mentioned how PPDS had serious consequences in people she knew who had hurt themselves or neglected their children.

I thank God that I didn't go into a deep depression. But I have seen people who have gone to the point where they hurt themselves or they start to believe that nothing is good for them, and that's when they start neglecting their kids—you know? And that is something that is very serious.

Lindsey, who had experienced suicidal thoughts, was clear about the seriousness of PPDS and the need for resources for women who have suicidal ideation.

Knowing that with my experience, and with my friend's experience, that it actually comes down to wanting to kill yourself or commit suicide, I think it's very serious, and I don't think there's enough information out there that it could happen, or what to do when it does happen.

The effects of PPDS were seen in almost all aspects of participants' lives. Jessica discussed how her PPDS affected multiple areas, including the bond she formed with her infant.

I think it makes the relationship with the spouse difficult, and it makes the relationship with the new baby difficult. Bonding is definitely impaired, and relationships with other kids suffer as well because you're just kind of trying to make yourself feel better, and don't have a lot of energy for your spouse or kids.

Nearly all women with a significant other mentioned the impact their PPDS had on their relationship. Elena discussed her husband's lack of understanding of her feelings and its effect on their relationship.

He asked me what was wrong, and I just couldn't explain it to him at that time. I started crying over just simple things. I started crying, and I tried to explain to him how I was feeling. But he just took it as being overdramatic.

Rachel stated she wanted her husband's support, but, because of her symptomatology, she remained distant. She explained,

There's nothing that your husband can do, but you want your husband or spouse to be there, and they're not. If they're not there, then you want them to be home. But when they're home, it's almost like sometimes you just don't want them around.

Every woman who had multiple children mentioned the strain her PPDS placed on her family and the lives of her children. Christina discussed how having trouble getting out of bed affected her children. "The kids were worried about me. I was worried about them. They thought 'Oh, mom is sick again,' you know."

Andrea shared how her children noticing her PPDS increased her own awareness of it.

I was giving less attention to the other kids—I think that's when my other kids started noticing it—you know, "Hey mom, what's wrong?"—and at that point I wasn't really noticing it. I mean, I guess you don't notice it. It was just a feeling.

Best Course of Treatment

When asked what is the best treatment for PPDS, most women mentioned multiple methods of treatment, most commonly nonpharmacological methods (Figure 3).

Christina believed the best way to treat PPDS was to focus on and care for herself, even if that meant going against medical advice not to bathe after a cesarean.

I took long baths even though I wasn't supposed to; I got a cesarean, like, I don't care. That helped. I got the sleep that I needed after I realized that she's going to be okay, and I started to force feed myself . . . I was like, I've got to eat, even if it's just a couple crackers or a piece of sucking candy here, I need to put something into my body.

Several women, including Steph, expressed the importance of talking to others, especially to women who had experienced PPDS. "You have to talk to somebody because just hearing that it happens, and it happens with other people, and other people's experiences. It resets in you that it's okay, and that it happens, and it goes away."

Rachel mentioned having someone in her life who cared about her and did not focus only on the baby was helpful.

Just one person just making the attempt to talk to you as a person and not talk about like the baby all the time. It kind of makes you feel like you're important too. You're not just the host for this little creature.

Many women mentioned pharmacological antidepressants as a treatment option for PPDS. Sara was positive about her experience with antidepressants.

Before I was on medication, I was sad all the time. I didn't want to leave the house. And you know, since being on medication, I have energy, I don't want to sleep all the time, I get things done, I'm productive—you know, it's like night and day.

In contrast, Andrea thought her health care provider's offer of medication to treat her PPDS was dismissive of her experience.

I do not agree with a lot of the doctors that for every depression they suggest a pill . . . I literally believe that a pill is gonna make it worse, or just addict you in one way or another to a chemical, because it's another chemical going in your body. And to live, you need to be emotional, you know?

Overall, six women were positive about antidepressant therapy as a treatment option, five women thought it was a bad option, and the remaining nine women did not mention it as a treatment for PPDS.

Nine women said improving practical life by having either child care or more spousal and familial support was a way to improve PPDS. Elena knew practical support would be helpful but was unsure of how to get help.

With my children being so close, you know, I guess I've been kind of the mom that I can do everything. I don't need to ask nobody for help. So I tried to do it all on my own so nobody gets the idea that I need help. And I'm not that kind of person that says, "Oh, I need help."

Other women mentioned such coping mechanisms as reading books, gathering further information from the Internet, or getting out of the house. Five women described maladaptive ways to feel better such as isolating oneself or just forcing oneself to "get over it." Autumn had the misinformed view that a woman has the ability to willfully stop her depression. "It lasts as long as you want it to last. Like, you have to open your eyes and realize that you have a child you need to take care of."

Where to Seek Treatment

When asked where a woman should seek treatment for her PPDS, the majority of women (14) recommended an individual from an informal network, such as a friend or

family member. Seven of those 14 women recommended using only an informal network. Twelve women recommended going to a health care provider, with 5 of the 12 recommending exclusively using a health care provider for care.

Wendy recommended reaching out to one's informal network and finding a confidant who is nonjudgmental. She said, "Anybody that's going to sit there and listen to you and not judge you, because there are so many people that judge, you know. You can't trust everybody either."

Irene mentioned accessing one's informal network before considering a health care provider. She said,

I'm able to get through it just by talking to family, so that would be my first recommendation, somebody that they trust, and somebody they're close with. If they don't have that, I would probably tell them to go talk to a doctor.

Kylie reached out to Internet forums for support since she lacked an informal network of support.

In my situation, there wasn't really anybody who could listen. There's not, 'Yeah, you know, I've been there too,' nothing like that. You know, I'm a Google queen. I'm always googling something, and I'll read the forums of the moms talking back and forth and stuff like that.

After her positive experience with her doctor, Autumn recommended seeking help from a health care provider.

She would tell me it's normal for mothers that are like this, even if you're a young mother, or an older mother. She would say that there are mothers that have had previous kids, and then all of a sudden they get postpartum with the kid they just

had. So she told me it's normal. I thought I was the only one that ever felt like that.

Other mothers, such as Laura, explained seeing a health care provider seemed risky because of misconceptions that a health care provider might declare a woman unfit as a mother for having PPDS. She said, "I think most people would go to their friends, and I think it's scary for anyone to reach out to anyone in health care because they are required to report it."

Megan, who had not yet sought help for her PPDS, described the shame surrounding PPDS and similar misconceptions about seeking care from health care providers.

I do think moms who feel this way should get help, and I think a lot of moms feel embarrassed to get help, or if they do get help, they'll have their baby taken away or, you know, things like that. I know a lot of moms say things like that. That they're afraid to talk to their doctor about it because I guess there's this negative image about feeling this way.

Steph believed a woman with PPDS needs not only a listening ear, but also someone who would be able to offer resources for help for PPDS. She said,

It's really hard to find who do you talk to that's not going to judge you . . . And that person really has to hear you, and understand that you're truly needing help. You have to find somebody that's not just going to listen and walk away. You have to find somebody that I hope, when you talk, that they know what to do to help you.

Prevention

All of the women in this study believed PPDS could not be prevented. Lindsey, who had a history of PPDS, described how she tried to prevent a subsequent episode. “I actually tried everything this time. I tried being open. I tried talking to people about it before it happened. I don’t know. I feel it’s just either you get it, or you don’t.”

Christina agreed. “No, I don’t think there’s a way to prevent it at all. I thought I was doing everything perfectly fine, and then it just came out of nowhere . . . I think it just happens.”

Most women believed although PPDS could not be prevented, a woman could prepare herself for the possibility of it. Sara took steps to prepare for her third baby and the possibility of PPDS.

We did things to kind of make our lives easier so it wouldn’t be so hectic when the baby did come. We did freezer meals ahead of time . . . and we started buying diapers beforehand so it wouldn’t be such a financial burden on us. And we had, we kind of had our careers lined up a little better this time.

Discussion

Rural women’s explanatory models were different from the “medical model” of PPDS in this study. For the purpose of comparison, the “medical model” of PPDS included the onset, symptoms, and duration listed in the *DSM-5* for major depressive disorder with a peripartum onset specifier; a primarily physiological etiology; and pharmacological antidepressants as the treatment of choice. In regard to onset, duration, and manifested symptoms, rural women’s explanatory models and the “medical model” corresponded. The differences between the medical model and rural women’s

explanatory models of PPDS were in the etiology, treatment preference, and recommended sources of help for PPDS (Figure 4).

In the medical model of PPDS, grounded in postpositivism, the cause of PPDS is considered physiological (Brummelte & Galea, 2015; O'Hara & McCabe, 2013). Yet only two of 20 rural women in this study named physiological factors as the sole cause of their PPDS. Both of these women (Megan and Steph) had delivered by cesarean section and cited their delivery method as contributors to their PPDS. In addition, Megan stated hormones caused her PPDS. Eight other women named physiological causes for PPDS, although they attributed PPDS to additional and multifactorial causes. The mean number of stated causes was 2.95 ($SD = 1.2$). Due to the small sample size and qualitative nature of this study, it is impossible to draw conclusions about the actual etiology of PPDS. However, it is interesting that, although half of the women believed physiological factors were causative, the majority of women did not see physiology as the sole cause of their PPDS. The role physiological factors play in PPDS is an example of an incongruity between models and is notable when considering health care practices surrounding PPDS. Additionally, even if it was discovered PPDS was of physiological origin, health care providers should address patients' perception of its cause. Health care providers staying in tune with their patient's experience and explanatory model will allow for appropriate treatment and improved patient satisfaction (Callan & Littlewood, 1998).

Ten women thought their PPDS was caused by a lack of support. Support, whether it is social or in practical tasks, is a potential target for interventions in rural populations. An example might be targeting support systems with awareness and strategies to support the new mother in rural communities. Twelve women mentioned

causal factors related to the maternal role. Interventions focusing on improved maternal self-efficacy, breast-feeding support, and maternal workload management, including child care and practical life support, may alleviate PPDS in some women.

When the *DSM-5* was released, there was criticism of the removal of the postpartum mood onset specifier for major depressive disorder and its replacement with the peripartum onset specifier, which states onset may occur at the end of pregnancy or during the first month after delivery. Health care providers had long recognized PPDS could appear in the first year postpartum (O'Hara & McCabe, 2013). Despite the controversy surrounding the *DSM-5* peripartum onset specifier for major depressive disorder (Sharma & Mazmanian, 2014), the majority of rural women in this study were in agreement with the “medical model” regarding onset and believed their PPDS had begun in pregnancy or during the first month postpartum. Additionally, the rural women in this study reported duration and manifested symptoms that matched the criteria stated in the *DSM-5* and medical model.

Unlike the medical model, which is focused on antidepressant therapy as the primary treatment for PPDS, the majority of rural women reported the best treatment option for PPDS was nonpharmacological. Six women reported a positive response to antidepressant use; however, five women reported strongly negative opinions about it, and the remainder did not mention it at all. Of those women who had negative feelings about antidepressants, some either had misconceptions or did not take them for the appropriate amount of time to experience therapeutic effects. With further education and appropriate expectations about antidepressant therapy, more rural women might prefer or consider antidepressant therapy for PPDS treatment.

Most commonly, women in this study recommended some form of self-care as an important element in treating PPDS, including attention to necessary self-care, such as eating and bathing, and such suggestions as checking in with oneself and taking time to meditate or relax. The next most common suggestions were talking to someone, and seeking practical and social support.

Health care providers who are treating a woman for PPDS should consider nonpharmacological treatment options as sole or adjunct therapies for PPDS. When considering antidepressant therapy, the health care provider should discuss patient beliefs about antidepressants and educate the patient on the expected effects (Bauer et al., 2014; Fawzi et al., 2012). When appropriate, providers should offer treatment modalities such as talk therapy, a support group, or other resources that may aid in practical and social support (Hofmann, Asnaani, Vonk, Sawyer, & Fang, 2012; Uebelacker et al., 2013).

Although women universally said PPDS could not be prevented, most women thought there were ways one could prepare for the possibility. Health care providers should educate themselves and their patients on the nonpharmacological options that may alleviate stress and depressive symptoms such as meditation, self-care, and physical activity (Cooney et al., 2013; Marchand, 2012). Additionally, providers should encourage women to plan ways to reduce stressors after their babies are born.

Rural women in this study had a tendency to prefer informal networks for advice and care before seeing a health care provider. This finding confirms rural nursing theory that emphasizes the importance of the informal network to rural individuals (Long & Weinert, 1989). Some participants had the misconception that disclosing PPDS to a health care provider would result in the loss of custody of their infant. These

misconceptions have been reported in the literature (Byatt et al., 2013) and should be made known to health care providers. Health care providers caring for rural women should focus on making themselves approachable and correcting misconceptions. Those researchers or health care providers planning PPDS interventions in rural communities should consider targeting awareness and support campaigns to new mothers' informal networks.

Although the seriousness and effects of PPDS are not focused on in the medical model of PPDS, rural women's explanatory models of PPDS found PPDS serious and its effects far-reaching. Women particularly emphasized how PPDS affected relationships with their significant others and older children and impaired bonding with their infants. Health care providers operating under the medical model may not consider these nonphysiological effects of PPDS, but should be cognizant that these effects may be more distressing for the woman than her depressive symptomatology. Taking the relational factors of PPDS into account strengthens the argument for creating awareness and intervention campaigns that include or target mothers' informal networks.

Limitations

Using qualitative methods is indicated in baseline research on an understudied area such as the subject of this study, but limits the generalizability of the results. Participation did not require a diagnosis of depression, so the experiences of women in this study may not be transferable to women with a diagnosis of major depressive disorder. The recruitment efforts did not reach all rural women who self-identified as having PPDS. The use of a gift card incentive may have influenced recruitment and thus affected the trustworthiness of results.

The use of telephone interview limited the interview experience to verbal communication. It is unknown whether the use of telephone as opposed to in-person interviews decreased rapport or trustworthiness of the researcher to the respondents. It is also unknown whether the anonymity provided through telephone interview discouraged or encouraged women's participation.

Implications

The data supported that rural women seek care from informal networks before formal networks and that they prefer nonpharmacological treatment options. Health care providers should take a proactive approach in making themselves available as a care source to rural women by discussing PPDS during pregnancy and the postpartum time frame. When appropriate, health care providers should consider recommending nonpharmacological interventions first. When prescribing antidepressant therapy, providers should increase education on the expected effects in order to increase compliance. Providing resources for practical life support, such as referrals to social support services, may decrease PPDS for some rural women.

Rural dwellers need further education on the prevalence of PPDS, the associated symptoms, and treatment options. Nurses, public health officials, and other health care providers should take the explanatory models described above into consideration when designing education and outreach programs for this population. Relationships and informal networks are important to rural women and should be considered and potentially targeted when planning PPDS educational and awareness campaigns.

This study underscores the need for additional research in this important area. Additional qualitative studies including those focused on explanatory models are needed

in rural populations throughout the United States. Qualitative studies focused on specific variables identified in this study, such as etiology or treatment could provide additional insight and detail on the rural woman's PPDS experience. Grounded theory studies would be useful in creating theory that could guide intervention studies.

More comprehensive and robust quantitative studies assessing the prevalence of PPDS in rural populations are necessary. Further research about variables such as maternal self-efficacy and social support networks, and their association and interaction with PPDS among rural women, are indicated. Further study on the relationship between PPDS and breastfeeding, as well as PPDS and cesarean section are needed. This study highlighted that rural women have polarized views on pharmacological methods as a treatment for PPDS without a strong indication as to why this variation in existed. Future studies focused on pharmacological treatment for PPDS and rural patient opinion on this treatment method are important. Additionally, intervention studies focused on preparing for and treating PPDS in rural women are needed. Studies focused on explanatory models of PPDS in rural health care providers would add to the findings in this study, and to the overall picture of rural health care practices surrounding PPDS.

Conclusion

In this qualitative descriptive study informed by Kleinman's (1980) explanatory model of illness, rural women attributed their PPDS to nonphysiological causes and reported the onset, duration, and symptomatology of PPDS were similar to what is outlined in the *DSM-5*. The effects of PPDS on rural women's lives were far-reaching and considered serious. Rural women in this study preferred nonpharmacological treatment options and care from informal networks to that available from health care

providers. Although the rural women in this study did not think PPDS could be prevented, they believed women could better prepare themselves for the experience of PPDS by having a strong support system and preparing for practical life concerns prior to delivery. Health care providers and researchers should consider the attributes of the rural women's explanatory models of PPDS when considering interventions and program development for women in rural communities.

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Figure 1. Recruitment and Retention in Explanatory Models of PPDS in Rural Women

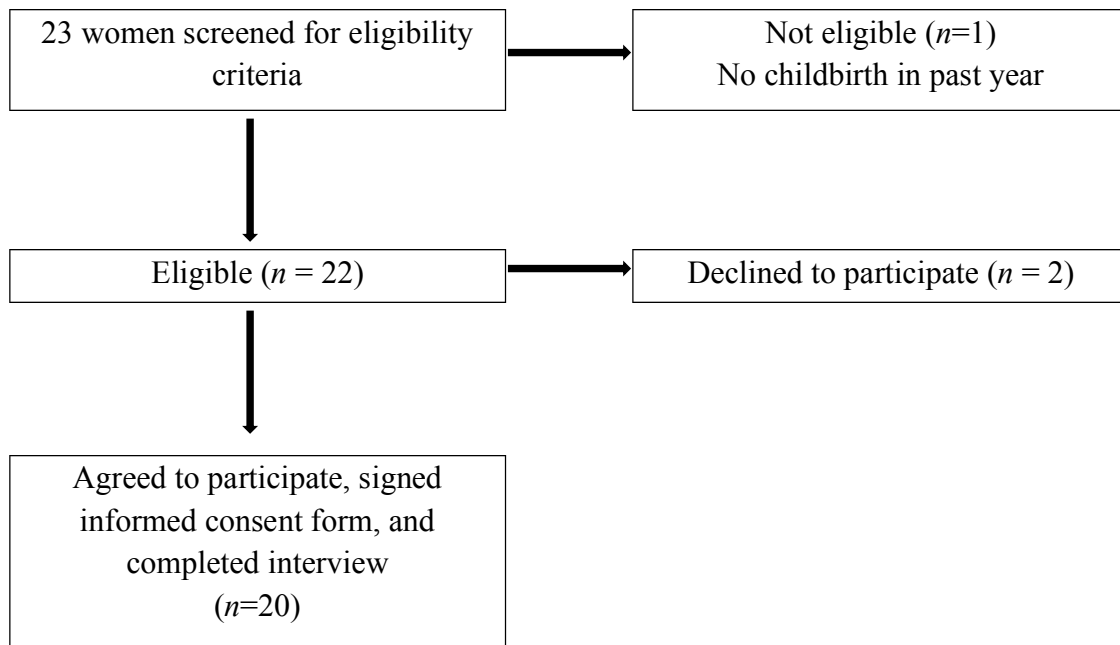


Figure 2. Participant Causes of PPDS

Pseudonym	Genetic predisposition	Cesarean	Hormones	Lack of sleep	Lack of support	Isolation	Self-efficacy in maternal role	Failure at breastfeeding	Role change	Overwhelmed with maternal workload	Medical complications for baby	High needs baby	Finances	Miss being pregnant	Unplanned pregnancy	Age	Unresolved childhood issues	Number of Causal Factors
Laura						x			x	x			x	x				5
Brittany					x	x												2
Megan		x	x															2
Rachel			x		x	x								x				4
Irene							x				x			x				3
Wendy					x	x	x											3
Steph		x																1
Autumn										x			x		x			3
Emma						x	x											2
Natalie					x										x			2
Catherine							x										x	2
Nicole		x	x				x				x							4
Tiffany									x	x								2
Sara					x		x											2
Lindsey		x	x	x	x							x						5
Elena			x										x					2
Kylie			x		x								x					3
Christina		x						x		x								3
Andrea			x		x					x					x	x		5
Jessica	x			x				x	x									4

Figure 2. Participant causes of PPDS. What rural women believed to be the cause of their PPDS and the number of stated causes.

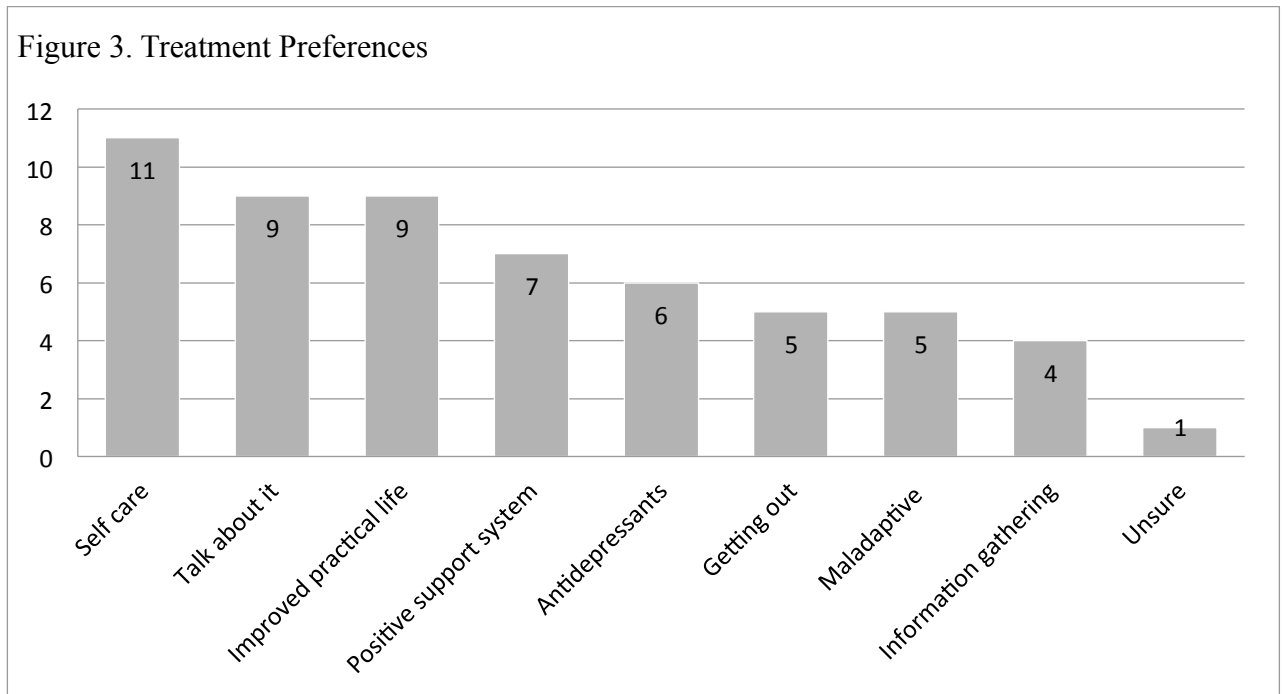


Figure 3. Rural women's treatment preferences for PPDS. Each bar represents the number of participants who recommended each treatment type for PPDS.

Figure 4. Comparison of the Medical Model with Rural Women's Explanatory Model of PPDS

	Medical Model PPDS	Number of Rural Women who agreed with Medical Model	Agreement between models?
Cause	Physiological	10/20	No
Onset	Pregnancy- 4 weeks postpartum	17/20	Yes
Duration	2 weeks or greater	19/20	Yes
Symptoms	Sadness or loss of pleasure, weight and eating changes, sleep disruption, agitation, frustration, fatigue, guilt, diminished ability to think, thoughts of death	20/20, 2 or more listed symptoms	Yes
Treatment	Pharmacological	5/20	No
Where to seek treatment	Physician/health care provider	5/20	No

Figure 4. Comparison of models. The first column displays the “medical model’s” views on cause, onset, duration, symptoms, treatment and where to seek treatment in regard to PPDS. The second column shows the number of rural women whose explanatory model agreed with the “medical model.” The third column displays whether the majority of rural women’s explanatory models were in agreement with the “medical model” of PPDS in this study.

CHAPTER 5: CONCLUSIONS AND DISCUSSION

This dissertation represents a progression of knowledge that moves systematically from problem identification to a qualitative research study focused on constructing the explanatory models of postpartum depressive symptomatology (PPDS) of rural Nebraska women.

In Chapter 1, the research problem of PPDS in rural women, the guiding theoretical framework of Kleinman's explanatory model of illness, and the methodology of the dissertation study were identified. In Chapter 2, a reflexive consideration of philosophical research paradigms applied to PPDS was presented (Mollard, 2014a). In Chapter 3, a thorough review and metasynthesis of the available qualitative research literature on PPDS was detailed (Mollard, 2014b). These chapters laid the groundwork for conducting the dissertation research study in the area of PPDS in rural Nebraska women. In Chapter 4, the results of the dissertation study were presented of which the purpose was to construct the explanatory models of PPDS from the perspective of rural Nebraska women and to then compare these models with the medical model of PPDS.

Two specific aims were used to conduct the dissertation research study. The first specific aim was to construct the explanatory models of PPDS for rural Nebraska women using Kleinman's (1980) explanatory model of illness. To meet the first aim, qualitative interviews were conducted exploring what participants believed was the etiology, time, and mode of onset of symptoms; pathophysiology; course of illness, including severity; and best treatment of PPDS (Kleinman, 1980). The second specific aim was to compare and contrast rural Nebraska women's explanatory models of PPDS with the medical model of PPDS. To meet the second aim, a comparison of the medical model and rural

women's explanatory models was undertaken by the researchers after the completion of content analysis. In the current chapter (Chapter 5), the progression of knowledge as presented in Chapters 1–4 will be reviewed and the results and implications of the dissertation study will be discussed.

Chapter 1 began by introducing the problem of PPDS in rural women. Although current estimates suggest 8–19% of women suffer from PPDS (Centers for Disease Control and Prevention [CDC], 2013), emerging evidence indicates the prevalence of PPDS among women residing in rural areas may be significantly higher (Mollard, Hudson, Ford & Pullen, 2016; Villegas et al., 2011). Despite the potential that rural women may have a higher prevalence of PPDS, very little research has been conducted on PPDS in this population. Kleinman's (1980) explanatory model of illness was presented as a guiding theoretical framework for introductory research focused on the current gap of knowledge regarding rural women's explanatory model of PPDS, including its etiology; time and mode of onset of symptoms; pathophysiology; course of illness, including severity; and treatment. Overall, in Chapter 1, the gap in the literature related to PPDS in rural women was identified, the guiding theoretical framework was presented and the methodology of the dissertation research study was outlined, which was intended to further knowledge in the area of PPDS in rural women.

In Chapter 2, a philosophical discussion of potential paradigms to guide research on PPDS was detailed to ensure an appropriate and rigorous foundation for the dissertation research study. Several philosophical paradigms commonly used in women's health research as outlined in Doucet, Letourneau, and Stoppard (2010) were reviewed, underscoring the importance of utilizing a feminist perspective to meet this study's aims

and objectives. The feasibility and practicality of integrating a feminist ideology with one or more of these paradigms was examined, followed by an articulation of the rationale for employing feminist pragmatism as the best-fit philosophical paradigm for the exploration of PPDS in rural women.

As a guiding philosophical paradigm, feminist pragmatism is notable for the emphasis it places on women's lived experiences and beliefs over both those of researchers and conventional academic or medical wisdom. The trajectory for subsequent research on PPDS was set by grounding the present study in the feminist pragmatist paradigm, and by encouraging future studies to employ similar approaches in the interest of enhancing data true to the participant's experience. Feminist pragmatism works well with Kleinman's (1980) explanatory model as the dissertation study's theoretical framework because it aims to elucidate women's explanations and beliefs about their lived experience.

Following this largely philosophical discussion of research paradigms in general and feminist pragmatism more specifically, in Chapter 3, essential background and context for the current understanding of the topic area was presented through a review and metasynthesis of the qualitative literature regarding PPDS. The review included the 12 available qualitative studies focused on the lived experience of PPDS published over a 10-year time period (2003–2013) (Mollard, 2014b).

Upon completion of the metasynthesis in Chapter 3, the theory PPDS works as a process was proposed. This theory of PPDS as a process included four major themes in the following order: (a) crushed maternal role expectations, (b) going into hiding, (c) loss of sense of self, and (d) intense feelings of vulnerability. Each theme was shown to be

exacerbated by practical life concerns. This metasynthesis and thematic summary of the available qualitative literature on PPDS, in addition to a view of how PPDS may operate laid the groundwork for the dissertation study. Additionally, the importance of asking a woman how, in her experience PPDS works, or, essentially, for her explanatory model was identified.

In Chapter 4, the results of the dissertation study were presented, which elucidated the explanatory models of PPDS in rural Nebraska women and compared them to the medical model of PPDS. Rural Nebraska women were recruited to participate in this study at various locations throughout the state (Appendix A; Appendix B). Participants included 20 rural Nebraska women who self-identified as having PPDS between July 2015 and December 2015. Participants completed a 30 to 60 minute telephone interview based on an interview tool developed by Kleinman (1980) (Appendix C). Participants completed a demographic questionnaire at the completion of the qualitative interview portion (Appendix D). The interview was audio-recorded and transcribed verbatim. The participants received a \$25 gift card and a letter with mental health resources after completing the interview (Appendix E). Content analysis was conducted on the transcripts, and the data were summarized into each of Kleinman's (1980) identified categories. Rural Nebraska women's explanatory models were then compared to the medical model of PPDS in order to identify points of congruence and divergence between the two models. The medical model of PPDS used for comparison in this study included the onset, symptoms, and duration listed in the *Diagnostic and Statistical Manual of Mental Disorders (DSM-5)* for major depressive disorder with a peripartum onset specifier (American Psychiatric Association [APA], 2013); a primarily physiological

etiology; and pharmacological antidepressants as the treatment of choice (O'Hara & McCabe, 2013). This process illuminated key aspects of the functional contexts and constraints underlying the illness narratives of this population of rural Nebraska women with PPDS. In contrast to the medical model, rural Nebraska women most commonly believed the cause of their PPDS was nonphysiological, preferred nonpharmacological treatment, and preferred to seek care and support from informal networks such as friends and family members before seeing a health care provider. Some rural women in this study had misconceptions about antidepressant therapy and feared that disclosing PPDS to a healthcare provider meant that they would be reported to Child Protective Services. In regard to onset, duration, and manifested symptoms, the explanatory model of rural Nebraska women was in agreement with the medical model of PPDS. Specific details, figures, and tables of the data are presented in the results section of Chapter 4.

Implications

These findings have a number of important implications with respect to practice, education, and research. Nurses should take note of these implications so as to become leading advocates for women with PPDS.

Practice Implications

First, and most clearly, PPDS is prevalent among women in rural communities, and this population tends to understand and explain PPDS in ways that diverge from prevailing medical models. Rural women's explanatory models of PPDS are not only culturally relevant but also clinically significant insofar as they shape coping behaviors, treatment preferences, patients' openness to health care providers' explanatory models

that often emphasize a physiological etiology, and the likelihood of noncompliance with pharmacological treatment plans.

The data revealed a preference for nonpharmacological treatment options. Although some women felt positive about pharmacological therapy, the majority of women in this study reported strongly negative feelings or did not mention pharmacological methods as a treatment for PPDS. Health care providers who decide to present antidepressant therapy as an option to rural women should be aware of the potential for increased noncompliance with this treatment plan. These data should serve to encourage providers to make additional efforts to educate rural patients on the need for compliance and the expected effects of antidepressant medication (e.g., it may take several weeks for patients to notice the intended effects). Where appropriate, nonpharmacological interventions should be emphasized, such as interventions to reduce practical life concerns, therapies to improve maternal self-efficacy, or cognitive-behavioral therapy.

Health care providers should be aware they are not necessarily first-line care providers for rural women with PPDS. Rural women may not access formal health resources until they have exhausted informal and nonmedical possibilities. This observation has diagnostic and treatment implications. From a diagnostic perspective, by the time a patient from this population presents depressive symptoms to a health care provider during the postpartum period, it is likely she has already exhausted other coping mechanisms and informal avenues of care. Thus, health care providers should inquire carefully to determine time of onset, as well as details of any informal treatment modalities she has used. In regard to treatment, health care providers should consider

what measures have and have not worked to improve the patient's PPDS. For example, if finding respite child care has improved the patient's PPDS, perhaps her symptomatology may improve further with resources for child care assistance.

Since there may be hesitation among rural women to seek formal health care, health care providers should position themselves to take a proactive approach in making themselves available to at-risk patients. Health care providers should broach the topic of PPDS during the mid-to-late stages of pregnancy and schedule check-ins and screenings as needed during the postpartum time period. Health care providers should make it clear to rural women that having PPDS does not threaten parental custody or require a report filed with child protective services (Byatt et al., 2013). Finally, nurses, and other health care providers should take the explanatory models described into consideration when designing practice policies and strategies for treatment, education, and outreach for this population.

Education Implications

There are two types of educational implication to be considered from the results of this study. The first educational implication is in public education, and the second is in nursing education. In regard to public education, nurses should consider targeting rural communities with public educational campaigns about PPDS. Due to the stigma of mental health in rural communities (Corrigan, Druss, & Perlick, 2014; Smalley et al., 2010), the fact that rural women go to informal networks for care before health care providers, and a potential lack of available services for screening, it is important rural dwellers know the signs and symptoms of PPDS and how to get help. Public education on PPDS could be disseminated through media outlets frequently used in rural communities,

such as the newspaper. Nurses could organize patient education programs so that women and their support systems are more aware of PPDS. Flyers, posters, and other types of advertisements could be placed in health care facilities and other areas families commonly frequent.

Concerning nursing education, nurses themselves should be given education and preparation on PPDS and mental health in rural populations. Nurses should know the signs and symptoms of PPDS and understand the incongruities between the medical model and the explanatory models of rural women. Nurses who currently or eventually practice in rural communities should have a strong understanding of the explanatory models of PPDS in rural cultural settings. By understanding the explanatory models of PPDS in rural women, nurses can recognize PPDS, relate better to their patients and appropriately treat or refer. With proper education, nurses are ideal candidates to spearhead PPDS policy and practice changes in their rural communities.

Research Implications

Perhaps the most important implication from this study is the need for additional research in this important area. Additional qualitative studies exploring specific aspects of the explanatory model of PPDS, and specifically qualitative grounded theory research aimed at developing further research studies are necessary. More comprehensive and robust studies assessing the prevalence of PPDS in rural populations are needed. Further research into social support networks, their association and interaction with PPDS among rural women, and the implications for education, diagnosis, and treatment are also strongly indicated. Rigorous empirical investigations exploring the relationship between maternal self-efficacy and PPDS among rural women are needed. Finally, intervention

studies using support systems and targeting maternal self-efficacy could open the door to new, cost-effective public health and clinical treatment strategies.

Limitations

Several limitations were noted with this dissertation study. Using qualitative methods is good for baseline research in an understudied area such as the subject of this study, but limits the generalizability of the results. The sample size in this study was small, as is common in qualitative research.

Health care providers did not diagnose women in this study with postpartum depression or PPDS. Although the women identified what they believed to be their own depressive symptomatology, there may have been greater variation in experience among participants than there would have been if participants had received official diagnoses. The population of rural Nebraska women who self-identify as having PPDS is likely low, and it was difficult to reach all rural women who may be affected by PPDS through the recruitment efforts.

Recruitment sites included several Women, Infants, and Children clinics (WIC), which serve low-income women. Therefore, it is unknown whether socioeconomic status affected the results. The use of a gift card incentive may have influenced recruitment and thus affected the trustworthiness of results.

The use of telephone interview limited the interview experience to verbal communication. The use of telephone as opposed to in-person interviews may have decreased rapport or trustworthiness of the researcher to the respondents. Additionally, it is unknown whether the anonymity provided through telephone interview discouraged or encouraged women's participation.

Conclusions

PPDS is an important but largely unexplored problem among the female population of rural communities. The data presented in this dissertation study suggest rural women conceptualize, understand, and explain PPDS using a model that is only partially congruent with the current medical model likely to be utilized by health care providers. This research demonstrates the utility of qualitative research methodologies, the philosophical paradigm of feminist pragmatism, and the use of Kleinman's (1980) explanatory model of illness in elucidating the explanatory models of PPDS among rural Nebraska women. In terms of public health, diagnosis, and treatment, health care providers and public health officials should take these explanatory models and the use of informal care networks into consideration when evaluating patients; designing treatment plans; and formulating policies and designing community-level interventions, such as education and outreach. Apart from these conclusions, it is clear further research on PPDS in rural women is strongly indicated.

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Appendix A

Are you a new mom who has felt sad, down, or out of sorts?

- Do you live in a rural Nebraska area?
- Was your baby born within the past year?
- Are you between the ages of 19-55?

I invite you to share your experiences in a confidential, one-time interview.

- If eligible, you will receive compensation for your participation

Please contact Elizabeth at elizabeth.mollard@UNMC.edu or (402) 413-5028 (call or text) for details about this confidential research study. UNMC IRB #392-15-EP

Appendix B



NEBRASKA'S HEALTH SCIENCE CENTER

COLLEGE OF NURSING

Ms. XXXXX
 Address
 City, NE Zip

Dear XXXXX,

If you are a woman who has given birth in the past year and have experienced sad or down feelings or felt out of sorts, you may be interested in participating in my research study. I am recruiting women who currently reside in a rural community or county. I invite you to consider participating in this research study conducted by the University of Nebraska Medical Center College of Nursing. The study is titled New Mothers in Rural Nebraska and Sad, Down, or Out of Sorts Feelings, IRB #

The study is funded by me, a PhD student at UNMC, and will explore how new mothers in rural Nebraska experience and describe sad, down, or out of sorts feelings. Depending on your location, this study will consist of a face-to-face or telephone interview about your experiences. The interview will take about one hour and will be audio-recorded, although all responses will be kept strictly confidential.

If you are able to complete the study, you will receive the following at no charge:

- A \$25 gift card to Walmart OR Amazon.com

Women who are interested in enrolling in the study will be screened to see if they meet the eligibility criteria. For more information about the study and to schedule a telephone screening, please contact Elizabeth Mollard at 402-413-5028 (call or text), or Elizabeth.Mollard@UNMC.edu

Sincerely,

Elizabeth Mollard, RN, MSN, APRN-WHNP, PhD Student

University of Nebraska Medical Center
 College of Nursing
 PO Box 6344
 Lincoln, NE 68506
elizabeth.mollard@unmc.edu
 (402) 413-5028

Appendix C

Interview Guide

Introduction: I want to thank you for taking the time to interview with me today. My name is Elizabeth Mollard and I am a Women's Health Nurse Practitioner and PhD student at the University of Nebraska Medical Center. The study I am conducting is focused on new mothers who feel out of sorts or down after they have a baby. I am particularly interested in how sad or down feelings work for women who live in rural communities. My questions will be about your personal experiences with having sad or down feelings as a new mother as well as about rural women in general who experience sad or down feelings after having a baby.

Grand Tour questions: First, just to get to know you a little better, tell me a little bit more about yourself? Tell me about your baby? How would you describe your pregnancy? How would you describe your birth experience? Tell me about how it has been since your baby has been born?

Etiology

1. What do you think causes some new mothers to experience sad or down feelings?
 - a. Did you have any of those experiences after having your baby? If so, did they contribute to feeling sad or down? Tell me more about that?
2. Why do some women get down and sad feelings after having a baby and others do not?
 - a. Do you believe that is why you experienced sad or down feelings?

Onset of Symptoms

1. What makes sad or down feelings start for new moms when they do?

- a. So it is usually this specific event? Tell me more about that. OR Tell me more about that time period.
2. Tell me about how your sad or down feelings started

Pathophysiology

1. When a new mother has sad or down feelings—how does that affect her?
 - a. Tell me more about how it affects her (health, sleep, family life, relationship, work, etc.)—depending on participant response.
2. Was that your experience? OR how did having sad or down feelings after having your baby affect you?

Course of Illness

1. When new mothers have sad or down feelings, how long do those feelings last?
 - a. Does it get better or worse as time passes? How long does it take for those feelings to go away? Do you think it always gets better? If so, why or why not?
2. How long did your sad or down feelings last?
3. What kind of problems do those sad or down feelings cause for a mother who experiences them?
 - a. Tell me more about (insert particular problem). How serious are those problems?
 - b. So you think it is serious for women; tell me more about why that is.

Treatment

1. What can a new mother do to take care of her sad or down feelings?
 - a. So ---- helps; why do you think that helps?
2. Tell me about what you did to take care of sad or down feelings?

- a. How did you come to find this as a way to take care of your sad feelings? How well did it work?
3. What doesn't work to take care of sad or down feelings for new mother?
 - a. Tell me more about why that doesn't work?
4. Did you try anything to take care of your sad or down feelings that didn't work?
 - a. Tell me more about that, like how you knew it wasn't working
5. Should a new mother seek help from another person if she has sad or down feelings?
Who should that person be?
 - a. Why is it that a woman should seek help from ----?
6. Did you try to seek help from anyone for your sad or down feelings?
 - a. How did you decide on that person? Tell me how that worked for you?
7. Is there anyone a new mother should not go to for help when having sad or down feelings?
 - a. Why is that?
8. Did you go to anyone for your sad or down feelings that you think you shouldn't have gone to?
 - a. Tell me more about that experience?
9. Is there any way to prevent a new mother from experiencing sad or down feelings?
 - a. Do you think mothers are aware of this? Tell me more about why you can't prevent these feelings?
10. Do you think your sad or down feelings could have been prevented?
 - a. Tell me more about that? OR if not, why do you think they couldn't be prevented?

Conclusion

This concludes the interview questions. Do you have any questions for me? (Answer questions)

Thank you again for taking the time out of your schedule to help me with my study by answering these questions. You can expect a letter in the mail from me in the next few days. The letter will include your \$25 gift card for participating. If you don't receive it within a week, please give me a call.

Appendix D

ID #
Date

1. What is your age?
2. What is your race?
3. What is your occupation?
4. What is your marital status? (circle one)
 - a. Single
 - b. Married
 - c. Divorced
 - d. Seperated
 - e. Widowed
5. What is the highest level of education you have completed? (circle one)
 - a. Some High school
 - b. College Degree
 - c. High school diploma or GED
 - d. Graduate or professional degree
 - f. Some College
6. How many children do you have?
7. How old is your baby?
8. Are you currently breast or bottlefeeding?
9. Do you live on a ranch, farm or in a rural town?
10. How many people live in the closest rural community?
11. How long have you lived in or near this rural community?

12. Did you grow up in a rural area? (circle one)

yes no

13. How long does it take you to reach your doctor's office?

14. How long does it take you to reach the closest hospital?

15. Do you feel you have enough financial support?

16. Do you feel you have enough support from your friends?

17. Do you feel you have enough support from your family?

18. Do you feel you have enough support from your spouse/significant other?

Appendix E



COLLEGE OF NURSING

«Preface». XXXXX

Address

City, «State» Zip

Dear XXXXX,

Thank you for taking the time to talk with me earlier this week, and providing input for my research study, UNMC IRB #392-15-EP, titled New Mothers in Rural Nebraska and Sad, Down, or Out of Sorts Feelings.

Enclosed is a \$25 gift card to (insert Amazon.com or Walmart) as a thank you for participating in my research study.

If at any time you have questions about the study, or if something comes up related to the study, please contact me at my email or telephone number. If you would like more information about counseling or other available services in your community, please contact a local health care provider. If you do not have a local provider whom you can contact, a possible resource is the Nebraska Family Helpline at (888)-866-8660, a service available 24/7 that can provide resources, make recommendations, and provide referrals in your community.

Sincerely,

Elizabeth Mollard, MSN, APRN-WHNP
402-413-5028
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College of Nursing
University of Nebraska Medical Center
Lincoln, NE