KNOWLEDGE OF PERIPARTUM MENTAL HEALTH CONDITIONS
AMONG SOCIAL WORK GRADUATE STUDENTS

A Project

Presented to the faculty of the Division of Social Work
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MASTER OF SOCIAL WORK

by

Sontine Kalba

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by

Sontine Kalba

Approved by:

____________________________________

Date

____________________________________

, Committee Chair

Maria Dinis, Ph.D., M.S.W.

Date
Student: Sontine M. Kalba

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______________________, Graduate Program Director
Dr. S. Torres, Jr.

Division of Social Work

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Abstract

of

KNOWLEDGE OF PERIPARTUM MENTAL HEALTH CONDITIONS

AMONG SOCIAL WORK GRADUATE STUDENTS

by

Sontine Kalba

The primary aim of this study was to describe the knowledge that social work graduate students at California State University, Sacramento possess regarding peripartum mental health conditions. A secondary aim was to explore the existence of relationships between student demographic characteristics and student knowledge of peripartum mental health. In this quantitative survey research descriptive study, a non-probability convenience sampling method was used to acquire 62 Master of Social Work student participants. Study participants responded to survey statements that assessed their knowledge of peripartum mental health conditions and treatment recommendations. Data analysis revealed no statistically significant relationships between demographic variables and knowledge of peripartum mental health conditions. Some demographic variables showed trend-level relationships with knowledge variables. Implications for social work practice are discussed.

________________________________________, Committee Chair
Maria Dinis, Ph.D., M.S.W.

________________________________________
Date
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Chapter 1

INTRODUCTION

Approximately one in seven American women are estimated to experience a peripartum mental health condition, which is a mental illness experienced during pregnancy or following childbirth (Wisner et al., 2013). Left untreated, peripartum mental health conditions can last for years and can have major, long-lasting, detrimental effects on the mother, her children, and other family members (Field, 2011; Forman et al., 2007; Lindahl, Pearson & Colpe, 2004; Moehler, Brunner, Wiebel, Reck, & Resch, 2006; Murray, Firori-Cowley, Hooper, & Cooper, 1996). An understanding of the symptoms and effects of, and treatments for, peripartum mental health conditions is important for all social workers who work with parents, children, families and/or pregnant women and teens.

While the Division of Social Work at California State University, Sacramento (CSUS) prepares Master of Social Work (MSW) students for generalist practice, many graduates of the program will encounter clients or work with populations impacted by peripartum mental health conditions. This can include social workers who work in hospitals, schools, mental health clinics, child welfare agencies, homeless assistance organizations, and even prisons and disaster relief organizations as well as other agencies. Therefore, it would be advantageous for all MSW students at CSUS to be educated about peripartum mental health conditions. This research seeks to assess the knowledge of second year MSW students at CSUS regarding peripartum mental health conditions. If the research implies that second year MSW students do not possess basic knowledge of
the symptoms and treatments of peripartum mental health conditions, then it would be beneficial for the CSUS Division of Social Work to include information about peripartum mental health conditions in the MSW curriculum.

In this chapter, the background of the research problem and the statement of the research problem are introduced. Next, the purpose of the study, the research question and theoretical framework are discussed. In addition, definitions of terms, assumptions, justification, and delimitations of the research are presented.

**Background of the Problem**

Peripartum mental health symptoms have been observed by physicians for thousands of years. Around 400 B.C. Greek physician Hippocrates described the onset of severe restlessness and insomnia in a female patient six days after she gave birth to twins. Despite this early acknowledgment of mental health symptoms in postpartum women, the American Psychiatric Association did not officially recognize any peripartum mental health conditions until relatively recently. For example, while depression has long been recognized as a mental health disorder by the American Psychiatric Association, it was not until 1994 that Major Depressive Disorder with postpartum onset was listed in the Diagnostic and Statistical Manual of Mental Disorders IV (DSM-IV).

The current version of the DSM, the DSM-5, now not only recognizes that mood disorders can have a postpartum onset, but they can begin during pregnancy, and therefore, the DSM-5 includes perinatal onset as an optional specifier for depressive disorders and bipolar disorders (American Psychiatric Association, 2013). In recent years many researchers, clinicians, public health professionals and advocacy groups have
begun to recognize and research other peripartum mental health conditions, such as psychosis, anxiety disorders, OCD, and PTSD, which can begin, re-occur or become exacerbated during pregnancy or following childbirth. Because most of the research about peripartum mental health conditions that has been conducted to date has focused on postpartum depression, this study primarily references research on postpartum depression.

Perinatal mental health conditions can significantly impact the woman, her infant and her family. Clinical levels of depression, anxiety disorders and bipolar disorder, for example, can cause extremely sad mood, difficulty concentrating, decreased energy levels, inappropriately high levels of energy, loss of interest, motor retardation, agitation, and other symptoms that can interfere significantly with a mother’s ability to care for herself, her baby, other children she may have, maintain employment if she is employed, and manage her other responsibilities. The suffering can be immense for the woman experiencing the perinatal mental health condition and can even lead to suicide. While deaths due to suicide may be lower during pregnancy and the postpartum period than suicide deaths in the general population, suicide is a leading cause of postpartum mortality and accounts for 20% of postpartum deaths in the United States (Lindahl, Pearson, & Colpe, 2004).

Perinatal mental health conditions are associated with various negative outcomes for children. Prenatal depression in mothers, for example, has been linked to premature births, low birthweight, sleep disturbances, and decreased responsiveness to stimuli in infants (Field, 2011). At 6 months postpartum, depressed mothers have been found to
experience greater parenting stress, be less responsive to their babies, and view their infants more negatively than other mothers (Forman et al., 2007). Maternal depressive symptoms during the postpartum period are linked to impairment in mother-child bonding (Moehler, Brunner, Wiebel, Reck, & Resch, 2006) and poorer cognitive abilities in 18 month olds (Murray, Fiori-Cowley, Hooper, & Cooper, 1996). Later in childhood and adolescence, infants who had depressed mothers are more likely to have attentional, behavioral and emotional problems, and in adulthood are more likely to suffer from chronic illnesses (Field, 2011).

Perinatal mental health conditions can also negatively impact marital and partner relationships, which can put stress on families (Leinonen, Solantaus, & Punamaki, 2003; Letourneau et al., 2012). For example, anger, disagreements and hostility between partners is associated with maternal mental health problems (Leinonen et al., 2003). Furthermore, perinatal mental health conditions can occur in men with an estimated 10 percent of new fathers experiencing mental health challenges (Singley & Edwards, 2015).

A systematic meta-analysis of the prevalence and incidence of perinatal depression found 19.2% of women experience a depressive episode during the first 3 months postpartum with 14.5% being new episodes of depression (Gaynes et al., 2005). A study by the Centers for Disease Control conducted in 17 U.S. states found prevalence rates of self-reported postpartum depression ranged from 11.7% in Maine to 20.4% in New Mexico (Brett, Barfield, & Williams, 2008).

Very little research has been conducted on the prevalence rates of other peripartum mental health conditions, such as anxiety disorders and bipolar disorders.
Lifetime prevalence rates of bipolar disorders, including bipolar I, bipolar II and other bipolar disorders, are estimated to be 1.8% of the U.S. population (American Psychiatric Association, 2013), and one study found that 71% of women with a bipolar disorder studied had a mood episode during pregnancy (Viguera et al., 2007). Generalized anxiety disorder has a prevalence rate of 8.5% or more during pregnancy and 4.4% or more during the postpartum period (as cited in Misri, Abizadeh, Sanders, & Swift, 2015). Postpartum psychosis, which receives much media attention, has been found to be very rare and occurs in one or two out of every 1000 women (Bennett & Indman, 2015).

Taking into account the broad range of mental health conditions that can begin, recur, or be exacerbated during the perinatal period, such as depression, bipolar disorder, generalized anxiety disorder, panic disorder, obsessive-compulsive disorder, posttraumatic stress disorder, and psychosis, a conservative estimate is that 14.5 percent or one in seven women experience a mental health disorder during pregnancy or during the first year postpartum. Furthermore, according to research, up to 50 percent of postpartum depression cases are not detected by health care providers or the individuals who experience the condition (Abrams & Curran, 2007). Given the prevalence of peripartum mental health conditions and the long-lasting, negative impacts that these conditions can have on the affected mother, her baby, her other children, and her partner, this is a major mental health and family issue that most social workers will encounter in their careers.
Statement of the Research Problem

There is a need for social workers to be able to work competently with the one in seven women who experience peripartum mental health disorders and the family members impacted by those disorders. Social workers can have a significant positive influence on these clients through psychoeducation, referral for services, providing therapeutic interventions, and advocacy. Therefore, MSW students need to be informed about these peripartum mental health conditions. If CSUS second year MSW masters students are not knowledgeable about these conditions, then they will be less likely to have the knowledge they need to help the clients and families impacted. Prior to this research project, it has been unknown what knowledge social work students have regarding peripartum mental health conditions.

Purpose of the Study

This research is designed to assess the knowledge that second year social work masters students at CSUS have regarding peripartum mental health conditions. The further purpose of this study is to evaluate whether students with various demographic profiles have different levels of knowledge or different views about what might be appropriate treatment for individuals with peripartum mental health conditions. The results of this study may influence, or at the very least, begin a conversation within, the Division of Social Work at CSUS regarding the educating of master’s level students in peripartum mental health conditions.
Research Question

The research question posed for this study is: What is the knowledge that second year social work graduate students at California State University, Sacramento have regarding peripartum mental health conditions?

Theoretical Framework

The theoretical framework guiding this research is systems theory, which is compatible with the social work profession’s emphasis on the person-in-environment perspective. In this section, an overview of systems theory is presented followed by a discussion of the theory’s application to this research project.

Systems Theory

Systems theory was first developed by biologist Karl Ludvig von Bertalanffy in the 1960s and has since been applied to many fields, including psychology, sociology and social work (Greene, 2008). Systems theory describes social systems as organized wholes made up of interrelated parts. Through this theory social systems are viewed as more than the sum of the participants’ actions, and instead are seen as “a network of unique, interlocking relationships with discernible structural and communication patterns” (Greene, 2008, p. 166).

In systems theory, social systems are viewed as having boundaries and identified membership. An assumption of systems theory is that a change in any one member of the social system affects the other members of the system and changes the social system as a whole (Carich & Willingham, 1987). Therefore, each part of the system cannot be
examined independently because there is always a dynamic interaction between the components of the system.

**Application of Systems Theory**

Systems theory can be used to analyze societies, communities, families, individuals and even individual cells. In family systems, individual family members are viewed as the components of the system (Wedemeyer & Grotevant, 1982). When applied to families, systems theory proposes that each family member’s thoughts, feelings and actions impact other individuals within the family as well as the family as a whole (Greene, 2008, p. 188). Therefore, from a systems theory view, if a problem occurs that is seriously distressing to an individual or to other family members, this problem will affect family members and impact the family system as a whole. Furthermore, the resolution of a problem may require participation from multiple family members.

In the case of peripartum mental health conditions, systems theory may explain research findings that these conditions not only can have long-lasting impacts on the parent experiencing the condition, but can also seriously impact the infant, other children within the family, the parent’s partner or co-parent, and relationships such as the relationship between partners or spouses as well as other relationships within the family. Systems theory, when applied to this research project, helps to explain the importance of assessing the knowledge that social worker graduate students have regarding peripartum mental health conditions. Not only may these conditions cause suffering and impairment for the individuals affected, they can have broad and long-lasting impacts on entire families.
Definition of Terms

The following terms are used throughout this project and relate directly to peripartum mental health and social work:

Antepartum: Before childbirth (Merriam-Webster, 2016). For the purposes of this study, antepartum is defined as the time period during a woman’s pregnancy. If a particular research study cited in this paper defines the antepartum period differently, that different definition is described.

Baby blues: A normative experience of mild mood swings in a mother, which is not considered a disorder, and that occurs and resolves during the first four weeks after giving birth (Bennett & Indman, 2015).

Cultural competence: “a set of congruent behaviors, attitudes, and policies that come together in a system or agency or among professionals and enable the system, agency, or professionals to work effectively in cross-cultural situations” (National Association of Social Workers, 2001, p. 13).

CSUS: California State University, Sacramento.

Mental health condition: In this paper this term is used interchangeably with “mental disorder,” “mental illness,” “psychiatric disorder,” “psychiatric illness,” and “mental health challenge.”

MSW II students: In this study MSW II students are defined as graduate students enrolled in the second year of the Master of Social Work program at California State University, Sacramento.
**Risk factor:** Something that increases the likeliness that a person will develop a disease or condition (Merriam-Webster, 2016).

**Perinatal:** See peripartum. Perinatal and peripartum are used interchangeably in this study.

**Perinatal mood and anxiety disorders (PMADS):** Mood and anxiety disorders that occur during pregnancy or in the year following childbirth and are clinically significant, non-normative experiences that make it difficult for the individual to function on a day-to-day basis (Bennett & Indman, 2015).

**Peripartum:** Occurring in the period preceding or following childbirth (Merriam-Webster, 2016). For the purposes of this study, peripartum is defined as the period of time that includes both pregnancy and one year following childbirth.

**Postpartum:** Occurring in the period following childbirth (Merriam-Webster, 2016). For the purposes of this study, postpartum is defined as the period of time that begins at childbirth and continues through one year following childbirth.

**Postpartum depression:** Moderate to severe depression in a woman after she has given birth or in the first year following childbirth. It may occur within the first month after childbirth or up to a year later (MedlinePlus, 2016). Symptoms last more than two weeks and can include low mood, hopelessness, decreased interest in activities, insomnia or hypersomnia, feelings of worthlessness, excessive guilt, diminished ability to think or concentrate, and/or recurrent thoughts of death or suicidal thoughts (American Psychiatric Association, 2013)

**Prenatal:** see peripartum. Peripartum and prenatal are used interchangeably in this study.
Assumptions

This study is based on three assumptions. The first assumption is that peripartum mental health conditions exist and are definable. The second assumption is that it is beneficial for social work graduate students to have knowledge about peripartum mental health conditions in order to serve their clients in their future work as social workers. The third and final assumption is that research participants in this study will respond truthfully when completing the survey.

Justification

Social workers serve a wide range of clients and the National Association of Social Workers’ (NASW) Code of Ethics (2008) includes a mandate to provide competent services across cultures, age, and among a variety of conditions that may affect a population. Therefore, it is essential that social workers have at least some basic knowledge regarding peripartum mental health conditions, which affect 14.5 percent of women who give birth and has ripple effects on their children and families. Because this researcher is unable to find any research studies that assess what Master of Social Work students know about peripartum mental health conditions to ensure competence among students regarding this clinical issue, this study may be one of the first of its kind. Assessing what social work students know at CSUS Sacramento can at a minimum provide information to help the CSUS social work department determine if they want to make any changes to the MSW curriculum. This research can also be informative and might inspire other social work educators in California and across the U.S. to examine their own curriculum.
Delimitations

This research study provides a snapshot of the knowledge of social work graduate students currently attending CSUS, and therefore, is limited in its generalizability to other geographic regions, graduate programs, and university systems. For example, other universities may have different student populations who vary by race, ethnicity, gender, age, or other cultural factors or may differ in their curriculum. Furthermore, the participants were selected using a nonprobability, convenience sampling method, which favored MSW students who chose to enroll in mental health focused elective courses. In addition, this research is limited in its scope. The social work profession has a variety of approaches that are used to explain and work with issues of mental health, and not all of them have been represented in this research project.

Summary

This chapter introduced the topic of peripartum mental health disorders and its relationship to the social work field. This chapter also discussed the following: background of the problem, statement of the research problem, purpose of the study, research question, theoretical framework, definition of terms, assumptions, justification and delimitations. Chapter two provides a review of the academic literature on peripartum mental health disorders, including the modern medical approach to these disorders, social work perspectives of these disorders, and cultural beliefs surrounding peripartum mental health. In chapter three, the methodology used for this research study is explained. In chapter four, the results are presented on the quantitative analysis of the
data collected from this study’s research participants. In chapter five, conclusions and implications for future research are discussed.
Chapter 2

LITERATURE REVIEW

This chapter presents a review of the literature on peripartum mental health conditions. First, the historical background of peripartum mental health conditions are briefly reviewed followed by a review of the modern medical approach to diagnosing, describing and treating those health conditions. Next a review is presented regarding the social work perspective, including the biopsychosocial model, of peripartum mental health conditions. Then the author reviews literature on various cultural considerations and cultural beliefs regarding peripartum mental health. Finally, the chapter concludes with a section about the gaps in the literature followed by a summary of the chapter.

Historical Background of Peripartum Mental Health Conditions

Peripartum mental health conditions were described in medical literature as early as two and a half millennia ago. In approximately 400 B.C., the Greek physician Hippocrates documented a postpartum mental illness that included severe insomnia and restlessness which began in a female patient six days after she gave birth (Tovino, 2010). In 11th century Italy, a physician named Trotula di Ruggiero wrote about several postpartum women experiencing sadness and shedding tears (Tovino).

In American popular culture one of the first references to peripartum mental health disorders was in a short story written by 19th century author Charlotte Perkins Gilman. Originally published in 1892, “The Yellow Wallpaper” describes a new mother’s descent into postpartum depression and psychosis (Gilman & Schwartz, 1989). Gilman’s
protagonist labels her condition “nervousness,” which was a term used in that time period for a broad array of mental illnesses (Theriot, 1993).

It was not until a century later, in 1994, that the American Psychiatric Association included a peripartum-related mental health disorder in the Diagnostic and Statistical Manual of Mental Disorders (Segree & Davis, 2013). The Diagnostic and Statistical Manual of Mental Disorders (DSM) is the standard classification system of mental illnesses used by medical doctors and mental health professionals in the United States. It was first published in 1952 and has been revised by the American Psychiatric Association six times since then, with the most recent update, the DSM-5, being published in 2013. The diagnoses of depression, bipolar disorder, and other disorders have changed and evolved with each DSM revision (Segree & Davis).

In 1994, with the publication of the DSM-IV, the American Psychiatric Association defined specifiers for describing mood episodes, including the specifier “with postpartum onset.” This new specifier was defined as the time period within four weeks after delivering a child, and could be used with the following diagnoses: Major Depressive Disorder, Bipolar I Disorder, Bipolar II Disorder or Brief Psychotic Disorder (American Psychiatric Association, 1994). With the publication of the DSM-5 in 2013, the postpartum onset specifier was changed to “with peripartum onset” and is defined as the time period occurring during pregnancy through four weeks following childbirth (American Psychiatric Association, 2013).

According to this author’s search of the academic literature, research on social work and postpartum depression first appeared in the 1990s. Since then, within the
medical, psychology and social work fields, there has been debate regarding whether peripartum mental health disorders are distinct from mental health disorders that occur in other phases of the life cycle. Even the definition of the postpartum period has been debated with most researchers defining the postpartum period as three to 12 months following childbirth, which is different than the four weeks specified in the DSM-IV and DSM-5 (Norhayati, Nik Hazlina, Asrenee, & Wan Emilin, 2015). Furthermore, different models have been developed that include or exclude biological, environmental, social and psychological causes of peripartum mental health disorders (Leight, Fitelson, Weston, & Wisner, 2010).

**Modern Medical Approach**

While the general public uses terms such as “postpartum depression,” as stated above, the American Psychiatric Association and the medical establishment do not define peripartum mental health disorders as different from other mental health disorders. As the American Psychiatric Association has defined it, there are no distinct peripartum mental health disorders. A peripartum-related specifier is only used to indicate when an episode of a disorder began. The disorders themselves, such as Major Depressive Disorder, Bipolar I Disorder, Bipolar II Disorder and Brief Psychotic Disorder, are defined based on symptoms that can occur at any phase of life (American Psychiatric Association, 2013). The criteria for clinical diagnosis, therefore, are the same except for the specifier used if the onset is in the peripartum period.
Depression and Bipolar Disorders

The term “baby blues” is sometimes used as a synonym for postpartum depression, but it is not a medical disorder. The baby blues describes mild, temporary mood swings that begin and resolve within the first 3 weeks postpartum (Abrams & Curran, 2007; Bennett & Indman, 2015). Experiencing the baby blues is a normative experience that occurs in 50 to 80 percent of women following childbirth (Abrams & Curran, 2007; Bennett & Indman). Because the baby blues is a normal and typical postpartum experience for women, and the symptoms are mild and cause only minor impairment for less than one week, the baby blues is not considered to be a peripartum mental health disorder.

The DSM-5 describes the three following mood disorders that can occur “with peripartum onset”: Major Depressive Disorder, Bipolar I Disorder, and Bipolar II Disorder. Major Depressive Disorder lasts a minimum of two weeks, causes significant impairment or distress, and includes five or more symptoms such as feelings of sadness or hopelessness, diminished interest or pleasure in most activities, significant weight loss or gain, insomnia or increased sleep, psychomotor agitation or decreased psychomotor activity, fatigue, feelings of worthlessness or inappropriate guilt, difficulty concentrating, and/or recurrent thoughts of death or suicide.

Major Depressive Disorder with peripartum onset is defined in the DSM-5 as an episode of Major Depressive Disorder that began during pregnancy or within 4 weeks following delivery of a baby. However, many mainstream medical researchers have studied peripartum depression with the window of evaluation being a period of three to
12 months following childbirth (Norhayati, Nik Hazlina, Asrenee, & Wan Emilin, 2015). Within the medical community there is debate about how the onset period should be defined with some researching finding a longer onset period than the 4 weeks defined by the DSM-5. Many researchers have found onset periods of postpartum depression to be in the three to 12 month range (Leight, Fitelson, Weston, & Wisner, 2010; Sharma & Corpse, 2008; Wisner, Perel, Peindl, & Hanusa, 2004).

Postpartum depression is the most commonly studied among the mood disorders with peripartum onset, and it is viewed as a chief public health issue that has major impacts on the women who experience the symptoms, her children and family (Wisner, Scholle, & Stein, 2008). Prevalence rates of peripartum and postpartum depression have been found to be as high as 56 percent depending on how it is defined and which population is studied with most studies in the United States estimating the prevalence to be between 10 to 15 percent of women (Leight, Fitelson, Weston, & Wisner, 2010; Misri et al., 2012). According to the DSM-5, half of peripartum depressive episodes occur during pregnancy and women with major depressive episodes in the peripartum period “often have severe anxiety and even panic attacks” (American Psychiatric Association, 2013, p. 186-187). Studies have also shown that the baby blues or mood or anxiety symptoms during pregnancy increase the risk of a woman experiencing a postpartum major depressive episode (American Psychiatric Association).

Bipolar I Disorder and Bipolar II Disorder are typically characterized by periods of abnormally elevated, expansive or irritable mood, and increased energy levels alternating with periods of depression. Similar to Major Depressive Disorder, the DSM-5
does not define the peripartum versions of the bipolar disorders as symptomatically different from bipolar disorders that occur in other periods of life (American Psychiatric Association, 2013). Again, the DSM-5 offers the specifier “with peripartum onset” for bipolar episodes that begin during pregnancy or in the first four weeks following childbirth.

Women are at increased risk of having a first episode of bipolar disorder or a worsening of bipolar symptoms in the postpartum period (Chessick & Dimidjian, 2009). For women who have previously met the diagnostic criteria for a bipolar disorder, studies have shown that approximately 60 to 70 percent of those women will experience a mood episode in the peripartum period (Chessick & Dimidjian; Viguera et al., 2007).

According to the DSM-5, lifetime prevalence rates of bipolar disorders are estimated to be 1.8% of the U.S. population (American Psychiatric Association, 2013), which is much lower than the rates of major depressive disorder that have been found to be approximately 16.6 percent (Kessler et al., 2005). This author’s search of medical research listed in the PubMed database revealed hundreds of articles about postpartum bipolar disorders versus thousands of articles about postpartum depression. Despite the lower prevalence rates and research studies of peripartum bipolar disorders, these disorders can have major negative impacts on the adults, children and families who are touched by these disorders.

**Anxiety Disorders**

The DSM-5 states that “women with peripartum major depressive episodes often have severe anxiety and even panic attacks” and that when mood and anxiety symptoms
occur during pregnancy, the woman is at increased risk of experiencing a postpartum major depressive episode (American Psychiatric Association, 2013, pp. 186-187). A large-scale study by Wisner et al. (2013) found that 66 percent of women with postpartum major depression also concurrently experienced an anxiety disorder. Despite these findings of the common comorbidity of depression and anxiety in the peripartum period, most medical research on postpartum mental health focuses only on depression and mood symptoms.

Among the research studies about peripartum anxiety is a meta-analysis performed by Goodman, Watson, and Stubbs (2016) that examined 58 studies on anxiety disorders in postpartum women. The researchers found that postpartum anxiety disorders may be more common than postpartum depressive disorders in some study populations. However, the average prevalence of primary postpartum anxiety disorders found in most studies is estimated to be approximately 8.5 percent (Austin et al., 2010; Goodman et al., 2016), which is less than the average prevalence of postpartum depression at 10 to 15 percent. One research study found that generalized anxiety disorder—a disorder characterized by excessive worry and anxiety that interferes significantly with daily functioning—may be three times more likely to occur in peripartum women than in the general population (Misri, Abizadeh, Sanders, & Swift, 2015). This may indicate that the peripartum period places women at increased risk of experiencing generalized anxiety disorder.

While a broad range of anxiety disorders are common in postpartum women, the prevalence of obsessive compulsive disorder is twice as high among postpartum women
(2.4 percent) as it is among the general population (Goodman et al., 2016). According to Goodman et al., research also suggests that the first onset of panic disorder or obsessive compulsive disorder often occurs during the postpartum period. Despite these research findings, there are no classifications in the DSM-5 of peripartum or postpartum anxiety disorders. As discussed above, the mood disorders diagnostic categories in the DSM-5 are the only ones that include the peripartum onset specifier. This may be because more research is needed on peripartum anxiety disorders or because of the common comorbidity of anxiety and depression, which is captured by the mood disorder categories.

Some research studies have found that breastfeeding can prevent, minimize or delay the onset of mood and anxiety symptoms during the postpartum period (Leight, Fitelson, Weston, & Wisner, 2010). Other studies have also found that anxiety symptoms, including panic, can increase after weaning (Leight et al.). The medical community usually explains the connection between breastfeeding and decreased anxiety as a result of oxytocin production and suppression of autonomic arousal that occurs through breastfeeding, but not bottle feeding (Leight et al.).

Psychosis

The American Psychiatric Association (2013) describes peripartum psychosis—the experience of delusions or hallucinations—as a feature of a peripartum mood episode such as major depressive disorder or bipolar disorder. The prevalence of peripartum mood episodes with psychotic features in the DSM-5 is stated to be very rare as it occurs in only one or two out of 1,000 births, which is 0.1 to 0.2 percent (American Psychiatric
Postpartum psychosis, while rare, is 100 times more likely in women with bipolar disorder versus the general population, often begins rapidly after childbirth, and is more likely to occur following a woman’s first childbirth experience as opposed to subsequent births (American Psychiatric Association, 2013; Kennedy & Tripodi, 2015; Spinelli, 2009). Like peripartum depression, peripartum psychosis increases the likelihood of negative outcomes for the baby such as low baby weight and impaired mother infant attachment (Leight et al., 2010; Kennedy & Tripodi, 2015). While media attention has focused on incidents of infanticide committed by psychotic postpartum women, research studies show infanticide is committed by four percent of women with postpartum psychosis (as cited in Spinelli, 2009). Delusions and hallucinations experienced by women with postpartum psychosis sometimes relate to their infant and sometimes do not (American Psychiatric Association, 2013).

Causes

The medical model of peripartum mental health disorders primarily focuses on biological determinants such as hormonal shifts, neurotransmitters, genetic predispositions, and nutritional factors (Leight et al., 2010). Some researchers have proposed that a genetic predisposition can cause some women to be more sensitive to the hormonal changes that occur during pregnancy and the postpartum period (O’Hara & Wisner, 2014). Other researchers are studying the role of inflammation in perinatal mood disorders (Osborne & Monk, 2013). While many medical researchers recognize that there may be psychological and environmental factors that contribute to peripartum mental illness, the primary focus of the medical model is on biological causes.
Impacts

Perinatal mental health disorders can have major impacts on the women who experience them, their infants and their families. As mentioned above, perinatal mood and anxiety disorders can cause extremely low mood, interfere with the ability to focus and concentrate, lead to decreased or inappropriately high levels of energy, result in loss of interest, motor retardation, agitation, or other symptoms. These symptoms can significantly reduce a mother’s ability to care for herself, her baby, or other children. Furthermore, these disorders can impair a mother’s ability to remain employed to maintain her family’s financial stability. In some cases, these disorders can lead to suicide. Suicide is one of the primary causes of postpartum mortality and accounts for 20% of postpartum deaths in the United States (Lindahl, Pearson, & Colpe, 2004).

Perinatal mental health disorders are linked to numerous negative outcomes for children. For example, prenatal depression in mothers has been associated with delayed fetal growth, low birthweight, premature births, sleep disturbances, and decreased responsiveness to stimuli in their infants (Field, 2011). Postpartum depression can lead to lower rates of breastfeeding and more difficulties with breastfeeding (Fitelson, Kim, Baker, & Leight, 2011). Depression in the postpartum period is linked to lower cognitive functioning in 18 month olds (Murray, Fiori-Cowley, Hooper, & Cooper, 1996). Parenting behaviors can be affected, including reduced use of preventive health care services and poorer family sleep habits (Fitelson et al., 2011). Infants who had depressed mothers in the postpartum period are more likely to have attentional, behavioral and
emotional problems later in childhood and adolescence, and in adulthood are more likely to suffer from chronic illnesses (Field, 2011).

**Treatments**

The medical community has primarily focused on pharmacological treatments for peripartum mental health disorders. Because the medical model conceptualizes peripartum mental health conditions as variants of standard mood disorders, it is not surprising that antidepressant medications have been the primary focus of researched treatments for peripartum mental health disorders. Some antidepressant medications have been found to be effective and mostly safe during pregnancy and in breastfeeding mothers (Fitelson et al., 2011; Grote & Bledsoe, 2007). Another medical treatment that is being researched is hormone replacement therapy, such as estrogen patches (Fitelson et al.). Because of concerns about safety risks posed by exposure of the fetus or infant to medications or hormone supplements, psychological treatments have also been studied by the medical community. Research findings support the use of psychological interventions such as cognitive-behavioral therapy and interpersonal therapy or a combination of pharmacological and psychological treatments (Fitelson et al.). Medical research has also found electroconvulsive therapy, commonly referred to as “electric shock treatment,” to be effective, provide a fast response, and allow for safe breastfeeding in women with postpartum depression (Gressier, Rotenberg, Cazas, & Hardy, 2015).

**Social Workers’ Understanding of Peripartum Mental Health**

The social work field tends to not only emphasize the physiologic changes that occur in pregnancy and postpartum, but also incorporate the person-in-environment
perspective and theories such as risk and resilience theory. Also, social work research on peripartum mental health emphasizes the strengths-based perspective, client empowerment and a collaborative or relational emphasis in working with clients.

**Person-in-environment and Biopsychosocial Perspectives**

The person-in-environment perspective is a common theme in social work that emphasizes the importance of focusing on both the person and the environment throughout the helping process with clients (Greene, 2008, p. 14). When an individual is experiencing a decrease in functioning of any kind, social workers often evaluate the interaction of biological, psychological, social and cultural factors impacting the client. This biopsychosocial approach is often used in social work research as well as in the assessment and intervention phases of direct practice (Greene, p. 31).

Boland-Prom and MacMullen’s research (2012) on postpartum depression uses the biopsychosocial and person-in-environment frameworks. The authors recommend evaluation of biological factors such as underlying health, illness, substance use, sleep patterns, nutrition and medical care; psychological factors such as anxiety, bipolar disorder and obsessive compulsive disorder; and social factors such as social support for mothers through partner and family relationships, support for infant characteristics such as fussiness and colic, and environmental factors such as income, occupational satisfaction/dissatisfaction and the mother’s feelings of control at work and home. Unlike the typical medical model, Boland-Prom and MacMullen’s model of perinatal mental health views mothers within a complex personal and environmental framework, expands the time frame of postpartum mental depression to include the first year after childbirth,
and includes additional diagnosable postpartum clinical disorders such as anxiety and obsessive compulsive disorder.

Misri et al. (2012) examined biopsychosocial factors and their influence on pharmacological treatment outcomes in women with postpartum mood and anxiety disorders. The researchers found that women with a family history of psychiatric illness or childhood sexual abuse history did not improve as much on selective serotonin reuptake inhibitor (SSRI) medication as other women with postpartum mood and anxiety symptoms. Research on perinatal maternal mental health by Fahey and Shenassa (2013) includes analysis of new mothers’ ability to meet their own individual needs while also effectively transitioning into motherhood. Fahey and Shenassa propose a model of intervention that includes the mother’s community, social network and family through helping the mothers to enhance four health-promoting skills. These four skills are (1) the ability to mobilize social support, (2) self-efficacy, (3) positive coping strategies, and (4) realistic expectations. Akincigil, Munch, and Niemczyk (2010) examined marital status and quality of partnership relationships and found that relationship quality, but not marital status, had an impact on maternal depression in first year postpartum.

**Risk and Resilience Theory**

Risk and resilience theory focuses on explaining how people successfully cope after a traumatic event or disruptive change in their lives. (Greene, 2008) The theory is based on several major assumptions, one of which is that human beings experience cumulative risks, which are defined as multiple distressing life conditions or events. Another primary assumption of risk and resilience theory is that people are capable of
adapting, or learning to adapt, to major stressors, where certain events and conditions may serve as protective factors that minimize risk and help the person to cope. Within the risk and resilience framework, an individual’s resilient behavior is viewed as being influenced by the various systems in his or her life, such as social systems, relationships and other environmental factors that affect the person’s life (Greene).

Grote and Bledsoe (2007) used a risk and resilience theoretical framework to examine optimism and its impact on postpartum depressive symptoms. They found in their sample of 179 women that optimism of expectant mothers was associated with decreased depression severity at six and 12 months postpartum. Other research by Sexton, Hamilton, McGinnis, Rosenblum, and Muzik (2015) assessed resilience through the Connor-Davidson Resilience Scale, a questionnaire that measures a person’s protective factors, in 214 postpartum mothers. The researchers found that higher resiliency scores were associated with (1) reduced symptoms of depression and posttraumatic stress disorder and (2) greater feelings of wellbeing in postpartum mothers.

In addition to finding that resilience helps buffer against mental health symptoms in postpartum mothers who experienced childhood trauma, the authors also concluded that resilience-enhancing interventions can improve perinatal wellness and reduce intergenerational transmission of depression and posttraumatic stress disorder in postpartum women.

**Diagnosis and Treatment**

Social workers have a unique perspective on diagnosis and treatment of peripartum mental health disorders that incorporates the person-in-environment and
biopsychosocial frameworks. With increased emphasis within the medical community to screen postpartum women for depression, some social work researchers and psychologists have expressed concern about the potential for the over-pathologizing of mood symptoms and overdiagnosis of peripartum mental health disorders (O’Hara, 2009). While recognizing that postpartum depression is a serious health problem, O’Hara suggests that due to the paucity of research on perinatal mental health screening, current screening methods may over-identify women at risk of postpartum depression and over-pathologize mood symptoms that are part of a normative experience in postpartum women.

Other researchers in the social work and psychology fields have studied the effectiveness of various psychotherapeutic interventions for peripartum mental health disorders. A meta-analysis conducted by Bledsoe and Grote (2006) found support for the following interventions: medication alone, medication with cognitive behavioral therapy, group therapy with cognitive behavioral therapy, cognitive behavioral therapy alone, psychoeducation, and interpersonal psychotherapy. A literature review by Fitelson, Kim, Baker, and Leight (2010) found research supporting the effectiveness of interpersonal psychotherapy, cognitive behavioral therapy, nondirective “person-centered” counseling, peer support, and partner support. Fahey and Shenassa (2013) propose psychosocial interventions aimed at helping postpartum mothers to mobilize social support, develop positive coping strategies and form realistic expectations about the postpartum period and motherhood. Other research has emphasized the importance of social workers delivering responsive and compassionate care to pregnant and postpartum women through providing
emotional and psychosocial support along with appropriate referrals to medical professionals who can prescribe pharmaceutical treatments (Bentley, Price, & Cummings, 2014).

Some researchers have studied perinatal mental health in men and have examined the impact that transition to parenthood can have on men. Singley and Edwards (2015) found that approximately 10 percent of new fathers experience difficulties with their mental health, including depression and anxiety. These researchers point to lack of sleep, increased stress, changes in partner relationships, logistical aspects of caring for a child, struggles with gender role conflict, and increased challenges associated with maintaining work-life balance as factors that influence men’s mental health as they transition to fatherhood. Singley and Edwards recommend increased awareness of perinatal mental health issues in men, screening for expectant and new fathers, encouragement of engagement between fathers and their partners, and interventions that increase fathers’ perinatal self-efficacy.

**Culture and Peripartum Mental Health Conditions**

While peripartum mental health conditions effect approximately 1 in 7 women in the United States, some researchers have compared these conditions across countries and within various cultural and economic groups within the United States. Cross-cultural research by Goldbort (2006) examined whether postpartum depression is universal or primarily specific to Western, industrialized countries. Goldbort’s analysis included a review of studies conducted in Europe, the Middle East, Africa, Asia and North America. She concluded that postpartum depression is a universal phenomenon. Goldbort also
found that many non-Western cultures describe mothers as sometimes having “unhappiness” after birth; and in many cases, people in those cultures recommended extra support from family and community to alleviate the postpartum “unhappiness.” Additionally, those non-Western cultures do not recognize those symptoms as a mental disorder or endorse Western medical treatments such as medication or psychotherapy for treatment.

A different literature review conducted by Bina (2008) was inconclusive about whether there are significant differences between various cultures in terms of prevalence of postpartum depression. Bina, however, reports that the beliefs and rituals of different cultures may impact the severity of postpartum depression. Bina’s analysis concludes that women’s perceptions of cultural rituals play a role such that if women do not believe the rituals are helpful, then the rituals can negatively impact postpartum mood. Alternatively, Bina reports that some studies found when women do perceive cultural rituals as positive, the rituals can alleviate the impact of postpartum depression.

Within the United States, cultural differences based on race, ethnicity and income have also been studied in relation to peripartum mental health. While prevalence rates of postpartum depression among women are estimated to be one in seven American women or approximately 13 percent, rates are significantly higher for low-income and minority women (Abrams & Curran, 2007; Gress-Smith, Luecken, Lemery-Chalfant, & Howe, 2011). Because limited research has been conducted on postpartum mood disorders in U.S. populations other than samples of primarily White, middle class women, it is not known why prevalence rates of postpartum depression are estimated to be higher in low-
income, minority women. Some researchers have proposed that low-income environments and minority status create high stress, which may contribute to higher rates of postpartum depression (Gress-Smith et al., 2011). In addition to prevalence rates of postpartum depression being higher in low-income and minority women in the United States, most low-income and minority women do not get diagnosed or receive treatment for it (Abrams & Curran, 2007; Gress-Smith et al., 2011).

In a study of low-income and predominantly African American women, Price and Handrick (2009) found that nearly 32 percent of the women in their sample had major postpartum depression. While Price and Handrick’s qualitative interviews revealed beliefs among African American women to include, “African Americans do not have the privilege of being ‘depressed’ because we have to be strong, go forward, take care of our own,” (p. 708) the study found the prevalence of postpartum depression in African American women to be twice the rate found in typical samples of primarily middle class, White women. Price and Handrick, who used a screening instrument determined to be culturally relevant in urban, low-income, African Americans, found that postpartum depression in their study sample was often expressed through anger and irritability.

Latina women also experience higher rates of prenatal and postpartum depression that are double or triple the prevalence rates of the general population of the United States (Gress-Smith et al., 2011; Kieffer et al., 2012; Zayas, Jankowski, & McKee, 2003). For example, Gress-Smith et al. found within their study sample of low-income and predominantly Hispanic women that 33 percent had clinically significant levels of depression at five months postpartum and 38 percent had clinically significant levels of
depression at nine months postpartum. Gress-Smith et al. report that other studies have found 21 to 53 percent of Mexican-American mothers have significant symptoms of depression in the postpartum period. Kieffer et al. attribute the increased prevalence in Latina women to be related to their experience of stressful life events, low socioeconomic position, and financial adversities, which are associated with symptoms of postpartum depression in various populations. Kieffer et al. also report that higher levels of acculturation are linked to higher risk of depression in postpartum Latina women.

Regarding postpartum depression and Hmong women in the United States, this author’s literature search revealed only two research studies. In an abstract presented at a conference of the National Perinatal Association, researchers reported on 60 postpartum Hmong women in the United States who were interviewed and assessed through a Hmong interpreter (Abstracts Presented at the Clinical conference and Exposition of the National Perinatal Association, 2000). The researchers found that 43 percent of the postpartum Hmong women studied were classified as experiencing depression. In a previous study by Stewart and Jambunathan (as cited in Bina, 2008), Hmong women in the United States were found to benefit from a 30-day rest period with support from family members following the birth of a baby. This cultural tradition serves as a protective factor that reduces severity of depression symptoms. Few Hmong women in the study reported that their mood symptoms were linked to postpartum depression. More often they viewed their symptoms as related to the stresses of living within a foreign culture, lack of education, and financial difficulties.
Gaps in the Literature

An area of peripartum mental health research that is lacking is studies of the experiences and needs of various cultural groups and populations such as low-income women, minority women, immigrant populations, LGBT persons, and men. For example, very little is understood about why low income and minority women have higher rates of peripartum mental disorders. Furthermore, research focused on the development and testing of culturally competent screening instruments and interventions is limited. Further research on these topics is needed to serve the community populations that social workers often work with and to intervene at multiple levels and in multiple settings.

Within the research literature on peripartum mental health conditions, including the medical and psychology fields, research on peripartum mental disorders that is not classified as postpartum depression is limited. For example, the research is sparse on peripartum anxiety, bipolar disorder, obsessive compulsive disorder, posttraumatic stress disorder and other peripartum mental health conditions. In addition, the period of vulnerability related to peripartum mental health conditions has not been agreed upon by various researchers. Some, like the American Psychiatric Association, argue it is one month after childbirth, some state it is six months, while others insist it is one year or several months after weaning that the period of vulnerability for these mental disorders ends. Additional research conducted on this topic could lead to a more commonly accepted definition of when the peripartum period concludes.
Another area where the literature is lacking is research about the impacts of social factors on perinatal mental health. For example, some researchers have found that women who have experienced domestic violence are at increased risk of developing perinatal mood or anxiety disorders. However, research about this topic is scarce, and further studies are needed to develop interventions to improve perinatal mental health outcomes for the families who are impacted by domestic violence (Howard, Oram, Galley, Trevillion, & Feder, 2013). Another social factor that can impact peripartum mental health is childhood trauma history. Very few research studies have explored the relationship between childhood trauma and perinatal mental health, but some researchers have found that childhood maltreatment, such as childhood abuse or neglect, is a risk factor that increases the likelihood of a woman developing postpartum depression or postpartum posttraumatic stress disorder (Sexton, Hamilton, McGinnis, Rosenblum, & Muzik, 2015). Further research is needed to not only develop an understanding of how these risk factors impact peripartum women, but also to create targeted interventions that mediate the risk and improve perinatal mental health outcomes.

In addition, in order for social workers to make informed decisions about practice and policy related to peripartum mental health, social workers need to be informed about peripartum mental disorders and conduct research on these disorders which affect 13 percent of mothers. Unfortunately, Abrams and Curran (2007) conducted a literature search of articles with the key words “postpartum depression” or “postnatal depression” and found that only nine articles were published in peer-reviewed social work journals between 1977 and 2006. Keefe, Brownstein-Evans, Lane, Carter, & Polmanteer (2015)
conducted a broader search that went beyond postpartum depression and included multiple mood disorders in pregnancy and postpartum. Keefe et al. found only 26 articles focusing on perinatal mood disorders were published in social work journals between 1980 and 2015. As Keefe et al. state, the majority of research on peripartum mental health disorders has been published in the fields of medicine, nursing, psychiatry, and psychology. Keefe et al. conclude that this has resulted in a focus on individual-level treatments such as antidepressant medication, cognitive-behavioral therapy, and interpersonal therapy, but has not led to research about community-level factors that social workers could use when working on the problem of perinatal mental disorders at all levels, including the micro, mezzo and macro levels of intervention.

Furthermore, a related gap in the research literature is a complete lack of studies that assess social workers’ knowledge about peripartum mental health conditions. This researcher’s literature search did not identify a single research article about social workers’ knowledge of postpartum depression or any other peripartum mental disorder. Nor can this researcher find any other study that assesses the knowledge of social work students regarding postpartum depression or peripartum mental health. Keefe et al. (2015) report that not only is there limited social work research on postpartum depression, but very little research has been included in advanced-level social work textbooks. Furthermore, Keefe et al. argue that even less information has been published about how social work educators can include content on postpartum depression in their courses. This study is intended to begin to address the extent of the research literature gap
in the knowledge level that social work graduate students in the Division of Social Work at CSUS have on peripartum mental health disorders.

**Summary**

In this chapter, the research literature pertaining to peripartum mental health disorders was reviewed. The topics addressed were historical background, the modern medical treatment approaches to the various disorders, social workers’ understanding of peripartum mental health, biopsychosocial model approach, cultural considerations, and gaps in the literature. The following chapter will describe the research methodology used in this study.
Chapter 3

METHODOLOGY

The purpose of this study is to assess the knowledge among social work graduate students at California State University, Sacramento (CSUS) of peripartum mental health conditions. This chapter provides a description of the methodology used to carry out the research. Aspects of the study methods presented in this section include the research question, study design, study population, instrumentation, data gathering procedures, statistical analysis plan, and human subjects protections.

Research Question

The research question posed for this study is: What is the knowledge that CSUS social work graduate students have regarding peripartum mental health conditions?

Study Design

In this study, a descriptive quantitative survey research design is utilized. Currently, it is unknown to what degree CSUS social work students are familiar with the facts about and recommended treatments for individuals with peripartum mental health conditions. As Rubin and Babbie (2013) state, descriptive studies aim to describe situations and events rather than test theories or explain why events occur. This researcher, therefore, chose to perform a descriptive study as the study’s purpose is to describe the knowledge that CSUS social work graduate students have regarding peripartum mental health conditions. The research was conducted through a self-report, questionnaire-format survey, and the data was analyzed statistically.
Survey research uses formal interviews or written questionnaires to collect information about people’s knowledge, beliefs, attitudes or behaviors (Neuman, 2014). According to Neuman, survey researchers do not perform an experiment or manipulate a condition to observe how people behave. Instead, survey researchers record answers from many individuals who have been asked the same set of questions. Surveys can be used in several different kinds of research, including descriptive research and research that assesses people’s knowledge (Neuman), which is why it was chosen for this research study. Survey questions are designed to allow the researcher to measure and compare variables. Statistical analysis of survey data allows researchers to detect correlational, but not causal, relationships between variables (Neuman).

According to Rubin and Babbie (2013), survey research may be the best method for describing a population that is too numerous to directly observe, although surveys in research have both strengths and weaknesses. Rubin and Babbie state that surveys can be useful when describing characteristics or qualities of a large population, particularly if the researcher has properly selected a representative sample and created a well-crafted, standardized questionnaire. Surveys can also enable researchers to analyze multiple variables simultaneously, thus identifying relationships between variables. Also, surveys typically have high reliability because of the standardization of their wording, which reduces the possibility of unreliability that can result, for example, from observational research.

Rubin and Babbie (2013) identify as a weakness of survey designs the possibility that responses collected through standardized questions may not represent the true, broad
array of people’s experiences, attitudes and orientations, and instead “represent the least common denominator” of people’s experiences (p. 148). In addition, quantitative surveys are less flexible than direct observation in that they cannot be modified during the study. Also, surveys are artificial, according to Rubin and Babbie, because a person’s answers on a survey may not match their true experiences or beliefs. Furthermore, surveys are unable to measure all research topics, such as social action. Despite these weaknesses, a survey research design was selected for this study because of its strong fit for a descriptive study of a student population.

**Variables**

The independent variables are the demographic information regarding each survey respondent. These independent variables include age, gender, ethnicity, if any of the respondent’s graduate coursework included education about peripartum mood disorders, and if any of the respondent’s graduate coursework included education about peripartum anxiety disorders. These variables are self-reported by the respondents, and the survey is designed to provide the researcher with the ability to assess the impact of self-reported demographic information on the dependent variables. The independent variables use a nominal level of measurement, except for age, which is measured at the ordinal level.

The dependent variables are knowledge of peripartum mental health conditions. There are 22 questions in the survey that assess knowledge of peripartum mental health conditions to which survey respondents used a Likert scale to express whether they strongly agree, agree, disagree, or strongly disagree with the statement presented. These
dependent variables use an ordinal level of measurement. In addition, one survey question asks respondents which treatment interventions they would recommend for a client experiencing a peripartum mood or anxiety disorder. There are eight interventions listed in the survey, and respondents were instructed to check off all of the interventions they would recommend. Each of the eight treatments is a dependent variable using a nominal level of measurement.

**Study Population**

The population for this study was graduate students in the Master of Social Work (MSW) program at California State University, Sacramento (CSUS). This was defined as students currently enrolled in their second year of the MSW program or students who may have taken longer than two years to complete their MSW degree, but are expecting to complete their master’s degree in 2016. This population includes students of varying ages, genders and ethnic backgrounds. Participants were not required to have a particular amount of experience working in a human services field.

**Sample Population**

Sampling of the MSW student population was conducted using a nonprobability, convenience sampling method. Nonprobability, convenience sampling is a less accurate sampling technique than probability sampling, which is considered the “gold standard” of sampling (Neuman, 2014). While probability sampling creates a more accurate sample that is representative of the population being studied and has “mathematically predictable errors,” nonprobability, convenience sampling allows the researcher to select research participants who are easy to reach, readily available or convenient (Neuman). According
to Neuman, nonprobability, convenience sampling may be used for some exploratory and preliminary studies even though it is not the recommended method for obtaining a sample that accurately represents a population.

The researcher chose nonprobability, convenience sampling for this research project because it is inexpensive, feasible, provided a method that ensured data from second year MSW students was collected, and is acceptable for a preliminary study such as this one. Participants were recruited through two SWRK 204C/D (Multi-Level Practice with Vulnerable Life Conditions) classes, a SWRK 224 (Advanced Mental Health Practice) class, and a SWRK 232 (Spirituality and Social Work) class. In addition, study participants were recruited through CommuniCare Health Centers, a community mental health agency that provides field instruction to approximately eight CSUS second year MSW students. The researcher was given permission to attend classes and field supervision meetings to introduce the research project and survey the MSW II students.

There were a total of 64 research surveys collected for this study, but only 62 met the study criteria. Two of the research surveys were not included in the analysis because those participants did not identify themselves as second year MSW students on their survey questionnaires. Therefore, 62 research surveys were analyzed in this study. Both of the SWRK 204C classes chosen by the researcher and the SWRK 224 class place particular emphasis on mental health throughout the course. Also, the MSW students receiving their field instruction at CommuniCare are working with mental health and substance abuse client populations. The SWRK 232 class focuses on the role of spirituality in social work, and is the only sample group recruited that does not emphasize
education about mental health. Therefore, a risk of bias in favor of social work students who are more interested in mental health than the average social work graduate student may result from this sampling method.

**Instrumentation**

A questionnaire was administered to determine the information that second year MSW students have regarding peripartum mental health conditions (Appendix A). The researcher designed the questionnaire with the purpose of identifying knowledge of facts about—and recommended treatments for—peripartum mental health conditions. The anonymous survey was administered in paper form during class time and during field supervision meetings.

In the survey, the first two questions asked whether the participant has learned about peripartum mood or anxiety disorders in any of their graduate level courses. Then there were 22 survey questions that relate to basic knowledge of peripartum mental health conditions. Those questions use Likert scale response categories. One question asked respondents to select from a list all of the treatments they would recommend to a client with a peripartum mood or anxiety disorder. Finally, there are four questions that identify demographic characteristics such as age, gender, ethnicity and year of graduate study. In this study, no specific reliability or validity tests were conducted. However, the survey instrument primarily used Likert scale response statements to ensure that responses could be analyzed with minimal interpreter bias, and face-validity was conducted on this study.
Data Gathering Procedures

As mentioned above, a non-probability, convenience sampling method was used. The researcher requested and was granted permission from four social work faculty members to administer the survey during four graduate classes. The researcher also asked and was given permission by a social work field instructor to administer the survey to MSW II interns at CommuniCare Health Centers during clinical supervision meetings.

Following the approval of the human subjects research application, the researcher collected data during one field placement supervision meeting and four class meetings. The researcher began the data collection process by handing out a consent form (Appendix B) and questionnaire (Appendix A) to each student. The researcher verbally invited the students to participate in the survey, read the informed consent letter aloud, and stated that participation was optional and could be declined or stopped at any time. The students were told by the researcher that by completing the survey and turning it in they were indicating their consent to participate in the research study. For any questions that the students might have, contact information was provided for the researcher, thesis advisor and the CSUS Office of Research Affairs. Students were asked to refrain from completing a questionnaire if they had already completed it in another class or during their field supervision.

After informed consent was reviewed with the students, the researcher read aloud the definition of peripartum mental health conditions exactly as it is listed at the top of the first page of the questionnaire. The students were then encouraged to notice that some questions ask for one reply per question while others ask participants to check all answers.
that apply. The researcher instructed the students to place their completed surveys in a manila envelope that was placed in plain sight. The researcher stepped out of the room for 10-12 minutes while the surveys were being completed. The researcher then thanked participants for their time and for their contribution to this research study.

**Data Analysis**

After the surveys were collected from the participants, the researcher entered the data using Statistical Package for the Social Sciences (SPSS). All of the variables were coded for the analysis. Descriptive statistics, frequency distributions and charts were completed as part of the univariate analysis to describe the independent variables (gender, age, ethnicity, and whether or not the study participant had learned about peripartum mental health disorders in graduate level coursework) and dependent variables (knowledge of peripartum mental health conditions and treatment recommendations). Bivariate chi-square analyses were performed to examine the relationships between the independent and dependent variables. A p-value less than .05 was considered significant and a p-value between .05 and .10 was considered to be approaching significance.

**Protection of Human Subjects**

A human subjects application was submitted to the California State University, Sacramento Division of Social Work Research Review Committee. The study was approved as an exempt research study on November 10, 2015 with human subjects protocol number 15-16-035 (Appendix C—copy of the approval letter). The research participants’ rights to privacy and protection were protected because the survey responses were anonymous and identifying information was not collected.
Survey participants were not coerced to participate in the survey. Prospective participants were verbally invited to participate and were given an informed consent letter (Appendix B), which was read aloud to them by the researcher. The informed consent notified research subjects that their participation in the study was entirely voluntary and that they could end their participation in the study at any time. Informed consent was obtained through implied consent, because the students were told that if they chose to complete and turn in the survey, it would indicate that they consented to participate. The purpose of the research, confidentiality, the risk of participating, and the protection of data were also explained to the prospective participants. In addition, prospective participants were provided with contact information for the researcher, the project advisor and the CSUS Office of Research Affairs in case they had any further questions.

After the researcher provided information and explained the informed consent to the students, she stepped out of the room. Subjects who were willing to participate in the research study completed the survey questionnaire and returned it to the manila envelope left at the front or middle of the room. Subjects were told that if they were not willing to participate, or if they chose to stop their participation during the completion of their survey, that they could also return their survey to the manila envelope if they desired.

Risks of discomfort or harm to survey participants was minimized because participation was entirely voluntary, survey responses were anonymous and confidential, and the researcher left the room during the response period to reduce any potential discomfort that the students might experience regarding their decision to participate or
not. In addition, participants were given the option to stop their participation at any time for any reason.

To ensure confidentiality of the research subjects, participants were not asked to provide any identifiable information such as their name, student identification number or date of birth, and the questionnaire did not include any questions that could be used to identify the research participant. In addition, no identifying class information was recorded such as class title, section number, day or time. All hard copies of the survey data were maintained in a locked file cabinet, which only the researcher had access to the files. All hard copies were then destroyed by August 31, 2016.

Summary

This chapter discussed the methodology that was used to conduct this research project. Information regarding the research question, study design, study population, sample population and recruitment methods was provided. The instrumentation, data gathering and data analysis procedures were also outlined. Finally, the methods used to ensure protection of human subjects was described. The next chapter will present the details of the data analysis.
Chapter 4

RESULTS

This chapter presents the analysis of the quantitative data collected from the 62 second year MSW students who participated in this research and met study criteria. Frequency distributions of the demographic characteristics of the research participants and some of the participants’ key knowledge of peripartum mental illness are presented. Chi-square analyses are presented where a p-value of less than .05 is considered significant and a p-value between .05 and .10 is considered to be approaching significance.

Demographics of Study Participants

In this research, a total of 64 CSUS students completed the survey questionnaire, but only 62 met the study criteria. Two of the research surveys were not used in the analysis because the participants did not identify themselves as second year MSW students on their survey forms. The surveys from the remaining 62 participants were analyzed. As shown in Figure 1, 79 percent of the participants were female and 21 percent were male. None of the study participants identified their gender as “other” in the survey. In Figure 2, 40 percent of the study participants were 18-25 years old, 47 percent were 26-35 years old, eight percent were 36-45 years old, and five percent were age 46 or more.
Figure 1. Gender of study participants.
Figure 2. Age of study participants.

The ethnic backgrounds of the study participants are displayed in Table 1, which shows that the highest percentage of participants identified themselves as White (32.3%), 22.6 percent identified as “other” or selected multiple ethnicities, 21.0 percent identified as Latino or Hispanic, 16.1 percent identified as Asian, 6.5 percent identified as Black/African-American, and 1.6 percent identified as American Indian or Alaskan Native.
Table 1

_Ethnic Background of Study Participants_

<table>
<thead>
<tr>
<th>Ethnic Background</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Indian or Alaskan Native</td>
<td>1</td>
<td>1.6</td>
</tr>
<tr>
<td>Asian</td>
<td>10</td>
<td>16.1</td>
</tr>
<tr>
<td>Black/African-American</td>
<td>4</td>
<td>6.5</td>
</tr>
<tr>
<td>Latino or Hispanic</td>
<td>13</td>
<td>21.0</td>
</tr>
<tr>
<td>Native Hawaiian or Other Pacific Islander</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>White</td>
<td>20</td>
<td>32.3</td>
</tr>
<tr>
<td>Other or Multiple Ethnic Backgrounds</td>
<td>14</td>
<td>22.6</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>62</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

In the survey questionnaire, study participants were asked whether they had learned about peripartum or postpartum _mood disorders_ in their graduate level social work courses. Over one-third reported they had, 61.3 percent reported they had not, and 3.2 percent reported they did not remember if they had learned about peripartum or postpartum mood disorders in any of their coursework (Figure 3). The survey also separately asked the study participants to report whether they had learned about peripartum or postpartum _anxiety disorders_ in their graduate level social work courses. Over one fifth reported they had, 69.4 percent reported they had not, and 9.7 percent reported they did not remember if they had learned about peripartum or postpartum anxiety disorders in any of their coursework (Figure 4).
Figure 3. Coursework on peripartum mood disorders.
Figure 4. Coursework on peripartum anxiety disorders.
Knowledge of Peripartum Mental Health Conditions

There were questions in the survey that assessed the study participants’ knowledge of peripartum mental health conditions. The participants rated whether they strongly agreed, agreed, disagreed, or strongly disagreed with various statements. For survey items where the statement being rated would be true according to most medical and social work research, this researcher considered a response of “strongly agree” or “agree” to be a correct response. Alternatively, on survey items where the statement being rated would be untrue according to most medical and social work research, this researcher considered a response of “disagree” or “strongly disagree” to be a correct response.

In Table 2, there are five statements that 90 percent or more of the students responded correctly. Over 90 percent of the MSW students who participated in this study correctly disagreed or strongly disagreed with the following two statements: “Pregnancy protects against depression” and “If a postpartum mother is able to take care of her child and her household, then she is not clinically depressed.” Also, over 90 percent of the study participants correctly agreed or strongly agreed with the following three statements: “Peripartum depression can begin during pregnancy,” “Women who previously experienced a mental health condition are at increased risk of developing a peripartum mental health condition,” and “An untreated peripartum mood or anxiety disorder can have detrimental effects on infant and child wellbeing.”
Table 2

*Knowledge-related Survey Items Where 90 Percent or More of Students Responded Correctly (by Percent)*

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pregnancy protects against depression.</td>
<td>1.6</td>
<td>3.2</td>
<td>46.8</td>
<td>48.4</td>
</tr>
<tr>
<td>If a postpartum mother is able to take care of her child and her household, then she is not clinically depressed.</td>
<td>0</td>
<td>6.6</td>
<td>42.6</td>
<td>50.8</td>
</tr>
<tr>
<td>Peripartum depression can begin during pregnancy.</td>
<td>29.0</td>
<td>61.3</td>
<td>9.7</td>
<td>0</td>
</tr>
<tr>
<td>Women who previously experienced a mental health condition are at increased risk of developing a peripartum mental health condition.</td>
<td>24.6</td>
<td>67.2</td>
<td>8.2</td>
<td>0</td>
</tr>
<tr>
<td>An untreated peripartum mood or anxiety disorder can have detrimental effects on infant and child wellbeing.</td>
<td>35.5</td>
<td>56.5</td>
<td>6.5</td>
<td>1.6</td>
</tr>
</tbody>
</table>
In Table 3, there are three statements where fewer than 75 percent of the study participants responded correctly. More than two-fifths (44.1 percent) of the students surveyed were correct in agreeing or strongly agreeing with the statement, “Postpartum mental health disorders can worsen when a woman stops breastfeeding.” Nearly three-quarters (71.6 percent) of study participants were correct in agreeing or strongly agreeing that “Women with peripartum major depressive episodes often have severe anxiety.” In addition, 74.2 percent of study participants were correct in their agreement or strong agreement that “Women living in poverty are more likely to experience postpartum depression.”

Table 3

Knowledge-related Survey Items Where Fewer Than 75 Percent of Students Responded Correctly (by Percent)

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Postpartum mental health disorders can worsen when a woman stops breastfeeding.</td>
<td>1.7</td>
<td>42.4</td>
<td>49.2</td>
<td>6.8</td>
</tr>
<tr>
<td>Women with peripartum major depressive episodes often have severe anxiety.</td>
<td>8.3</td>
<td>63.3</td>
<td>28.3</td>
<td>0</td>
</tr>
<tr>
<td>Women living in poverty are more likely to experience postpartum depression.</td>
<td>21.0</td>
<td>53.2</td>
<td>22.6</td>
<td>3.2</td>
</tr>
</tbody>
</table>
The researcher estimated study participants’ overall knowledge of peripartum mental health disorders by scoring the participants based on the accuracy of their responses. Twenty of the knowledge questions from the survey were included in the researcher’s score calculation. If a participant selected “strongly agree” or “agree” on a knowledge-based statement that was true, then the item was considered to be answered correctly, and vice versa. If a participant selected “disagree” or “strongly disagree” on a knowledge-based statement that was true, then the item was considered to be answered incorrectly, and vice versa. Two of the knowledge-based survey statements were not included in the scoring because the researcher believed those statements were not clearly stated questions with a clear correct or incorrect response. Those items were questions 5 and 11 (see Appendix A). The knowledge scores were calculated on a 100 point scale where 100 indicates a perfect score and a score of 70 indicates 70 percent accuracy. Displayed in Figure 5 is a histogram of the knowledge scores. The average knowledge score was 80.1, and the standard deviation was 11.4. The vast majority (87 percent) of the study participants had knowledge scores of 70 or higher.
The study participants were also asked in the survey which treatments they would recommend to a client with a peripartum mood or anxiety disorder. A list of potential treatments was included in the survey and participants were instructed to place a checkmark beside all of the treatments they would recommend. The majority of the research participants indicated they would recommend medication, psychoeducation group, one on one therapy, cognitive behavioral therapy, peer support group, and partner

*Figure 5. Participants’ knowledge scores.*

**Treatment Recommendations**

The study participants were also asked in the survey which treatments they would recommend to a client with a peripartum mood or anxiety disorder. A list of potential treatments was included in the survey and participants were instructed to place a checkmark beside all of the treatments they would recommend. The majority of the research participants indicated they would recommend medication, psychoeducation group, one on one therapy, cognitive behavioral therapy, peer support group, and partner
support for the partner or spouse to a client with a peripartum mood or anxiety disorder (Table 4). Medication, however, was not endorsed by as many of the MSW students as other treatments. Most of the treatment options for peripartum mood and anxiety disorders were recommended by 85 percent or more of the study participants, while medication was endorsed by 64.5 percent of the participants. Some participants hand wrote on their surveys that they would not recommend medication to a client because it is outside their scope of practice. Psychodynamic psychotherapy received the lowest endorsement with 43.5 of the study participants listing it as a recommended treatment for peripartum mood and anxiety disorders.

Table 4

*Study Participants’ Responses Regarding Recommended Treatments (by Percent)*

<table>
<thead>
<tr>
<th></th>
<th>Recommended</th>
<th>Not Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medication</td>
<td>64.5</td>
<td>35.5</td>
</tr>
<tr>
<td>Psychoeducation group</td>
<td>91.9</td>
<td>8.1</td>
</tr>
<tr>
<td>One on one therapy</td>
<td>93.5</td>
<td>6.5</td>
</tr>
<tr>
<td>Group therapy</td>
<td>85.5</td>
<td>14.5</td>
</tr>
<tr>
<td>Cognitive Behavioral Therapy</td>
<td>71.0</td>
<td>29.0</td>
</tr>
<tr>
<td>Psychodynamic psychotherapy</td>
<td>43.5</td>
<td>56.5</td>
</tr>
<tr>
<td>Peer support group</td>
<td>91.9</td>
<td>8.1</td>
</tr>
<tr>
<td>Partner support for the partner or spouse</td>
<td>87.1</td>
<td>12.9</td>
</tr>
</tbody>
</table>
Demographics and Knowledge of Peripartum Mental Health

Possible relationships between knowledge of peripartum mental health conditions and demographic variables (gender, age, ethnicity, former coursework about peripartum mood disorders, and former coursework about peripartum anxiety disorders) were analyzed using chi-square analyses. None of the analyses showed significant relationships between the independent and dependent variables. However, some trend-level relationships that were approaching significance were found, and those are presented below.

Ethnicity and Knowledge of Peripartum Mental Health Conditions

For the purposes of the chi-square analysis, the seven categories of the ethnicity variable were recoded into two categories identifying the research participants as either “White” or “Non-White or multiple ethnicities.” The survey questions that assessed knowledge of peripartum mental health conditions were also recoded into two categories such that those variables were divided into “Agree and Strongly Agree” or “Disagree and Strongly Disagree.” The chi-square analyses of the recoded ethnicity and knowledge variables did not reveal statistically significant interactions between ethnicity and the knowledge variables. However, two chi-square analyses display trends that are approaching significance.

One relationship between variables that approaches significance is the relationship between ethnicity and the knowledge that women with peripartum major depressive episodes often have severe anxiety, which is a statement affirmed in the DSM-5 (American Psychiatric Association, 2013). In Table 5, 55 percent of White MSW
students surveyed agreed or strongly agreed with the statement, “Women with peripartum major depressive episodes often have severe anxiety” while 80 percent of students who were non-White or multi-ethnic agreed or strongly agreed with that statement. The continuity correction chi-square test shows this relationship is approaching significance (p=.085).

Another relationship that approaches significance is the relationship between ethnicity and endorsement of the statement, “Feeling anxious or overwhelmed during pregnancy is not cause for concern.” Thirty percent of White MSW students surveyed agreed or strongly agreed with that statement while 7.1 percent of students who identified as non-white or multi-ethnic agreed or strongly agreed (Table 6). The continuity correction chi-square test appears significant (p<.05), however, one cell count was less than five.
Table 5

Relationship Between Ethnicity and Statement That Women With Peripartum Major Depressive Episodes Often Have Severe Anxiety ($N=60$)

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Agree and Strongly Agree</th>
<th>Disagree and Strongly Disagree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>11</td>
<td>9</td>
<td>20</td>
</tr>
<tr>
<td>% within Ethnicity</td>
<td>55.0%</td>
<td>45.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>% within Statement About Severe Anxiety</td>
<td>25.6%</td>
<td>52.9%</td>
<td>33.3%</td>
</tr>
<tr>
<td>% of Total</td>
<td>18.3%</td>
<td>15.0%</td>
<td>33.3%</td>
</tr>
<tr>
<td>Non-white or Multiple Ethnicities</td>
<td>32</td>
<td>8</td>
<td>40</td>
</tr>
<tr>
<td>% within Ethnicity</td>
<td>80.0%</td>
<td>20.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>% within Statement About Severe Anxiety</td>
<td>74.4%</td>
<td>47.1%</td>
<td>66.7%</td>
</tr>
<tr>
<td>% of Total</td>
<td>53.3%</td>
<td>13.3%</td>
<td>66.7%</td>
</tr>
<tr>
<td>Total</td>
<td>43</td>
<td>17</td>
<td>60</td>
</tr>
<tr>
<td>% within Ethnicity</td>
<td>71.7%</td>
<td>28.3%</td>
<td>100.0%</td>
</tr>
<tr>
<td>% within Statement About Severe Anxiety</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>% of Total</td>
<td>71.7%</td>
<td>28.3%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>
### Table 6

*Relationship Between Ethnicity and Statement That Feeling Anxious or Overwhelmed During Pregnancy is Not Cause for Concern (N=62)*

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Count</th>
<th>Agree and Strongly Agree</th>
<th>Disagree and Strongly Disagree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>White</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>42</td>
<td>11</td>
<td>9</td>
<td>20</td>
</tr>
<tr>
<td>% within Ethnicity</td>
<td>55.0%</td>
<td>45.0%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>% within Statement About Cause for Concern</td>
<td>25.6%</td>
<td>52.9%</td>
<td>33.3%</td>
<td></td>
</tr>
<tr>
<td>% of Total</td>
<td>18.3%</td>
<td>15.0%</td>
<td>33.3%</td>
<td></td>
</tr>
<tr>
<td><strong>Non-white or Multiple Ethnicities</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>32</td>
<td>8</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>% within Ethnicity</td>
<td>80.0%</td>
<td>20.0%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>% within Statement About Cause for Concern</td>
<td>74.4%</td>
<td>47.1%</td>
<td>66.7%</td>
<td></td>
</tr>
<tr>
<td>% of Total</td>
<td>53.3%</td>
<td>13.3%</td>
<td>66.7%</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>43</td>
<td>17</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>% within Ethnicity</td>
<td>71.7%</td>
<td>28.3%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>% within Statement About Cause for Concern</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>% of Total</td>
<td>71.7%</td>
<td>28.3%</td>
<td>100.0%</td>
<td></td>
</tr>
</tbody>
</table>
**Age and Knowledge of Peripartum Mental Health Conditions**

MSW students who were aged 25 or younger were less likely than those aged 26 or older to know that postpartum mental health disorders can worsen when a woman stops breastfeeding. In Table 7, 29.2 percent of surveyed MSW students aged 25 or younger agreed or strongly agreed with the statement, “Postpartum mental health disorders can worsen when a woman stops breastfeeding” while 54.3 percent of surveyed students aged 26 or older agreed or strongly agreed with the statement. This finding was not significant, but was approaching significance according to the continuity correction chi-square test (p=.101).

**Demographics and Treatment Recommendations**

The chi-square analyses of the associations between the demographics of the MSW students surveyed and the treatments they stated they would recommend did not reveal statistically significant interactions. However, two chi-square analyses display trends that are approaching significance. In Table 8, 28 percent of students aged 25 or younger indicated on their surveys that they would recommend psychodynamic psychotherapy to a client with a peripartum mood or anxiety disorder while 54.1 percent of students aged 26 or older would recommend that treatment. This trend was approaching significance according to the continuity correction chi-square test (p=.077).
Table 7

Relationship Between Age and Knowledge That Postpartum Mental Health Disorders Can Worsen When a Woman Stops Breastfeeding (N=59)

<table>
<thead>
<tr>
<th>Age</th>
<th>Agreement</th>
<th>Disagree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Agree and Strongly Agree</td>
<td>Disagree and Strongly Disagree</td>
<td></td>
</tr>
<tr>
<td>Aged 25 or Younger</td>
<td>Count: 7</td>
<td>17</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>% within Age</td>
<td>29.2%</td>
<td>70.8%</td>
</tr>
<tr>
<td></td>
<td>% within Statement About Breastfeeding</td>
<td>26.9%</td>
<td>51.5%</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>11.9%</td>
<td>28.8%</td>
</tr>
<tr>
<td>Aged 26 or Older</td>
<td>Count: 19</td>
<td>16</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>% within Age</td>
<td>54.3%</td>
<td>45.7%</td>
</tr>
<tr>
<td></td>
<td>% within Statement About Breastfeeding</td>
<td>73.1%</td>
<td>48.5%</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>32.2%</td>
<td>27.1%</td>
</tr>
<tr>
<td>Total</td>
<td>Count: 26</td>
<td>33</td>
<td>59</td>
</tr>
<tr>
<td></td>
<td>% within Age</td>
<td>44.1%</td>
<td>55.9%</td>
</tr>
<tr>
<td></td>
<td>% within Statement About Breastfeeding</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>44.1%</td>
<td>55.9%</td>
</tr>
</tbody>
</table>
Table 8

*Relationship Between Age and Psychodynamic Psychotherapy Treatment Recommendation (N=62)*

<table>
<thead>
<tr>
<th>Age</th>
<th>Count</th>
<th>Psychodynamic Psychotherapy Recommendation</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Aged 25 or Younger</td>
<td></td>
<td>7</td>
<td>18</td>
</tr>
<tr>
<td>% within Age</td>
<td>28.0%</td>
<td>72.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>% within Psychodynamic Psychotherapy Recommendation</td>
<td>25.9%</td>
<td>51.4%</td>
<td>40.3%</td>
</tr>
<tr>
<td>% of Total</td>
<td>11.3%</td>
<td>29.0%</td>
<td>40.3%</td>
</tr>
<tr>
<td>Aged 26 or Older</td>
<td></td>
<td>20</td>
<td>17</td>
</tr>
<tr>
<td>% within Age</td>
<td>54.1%</td>
<td>45.9%</td>
<td>100.0%</td>
</tr>
<tr>
<td>% within Psychodynamic Psychotherapy Recommendation</td>
<td>74.1%</td>
<td>48.6%</td>
<td>59.7%</td>
</tr>
<tr>
<td>% of Total</td>
<td>32.3%</td>
<td>27.4%</td>
<td>59.7%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>27</td>
<td>35</td>
</tr>
<tr>
<td>% within Age</td>
<td>43.5%</td>
<td>56.5%</td>
<td>100.0%</td>
</tr>
<tr>
<td>% within Psychodynamic Psychotherapy Recommendation</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>% of Total</td>
<td>43.5%</td>
<td>56.5%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>
Among the MSW students surveyed, an association approaching significance was found between whether the student had learned about peripartum anxiety disorders in their graduate level courses and whether the student would recommend partner support for the partner or spouse of a client with a peripartum mood or anxiety disorder. In Table 9, 61.5 percent of the students who had learned about peripartum or postpartum mood disorders in their graduate level social work courses indicated that they would recommend partner support for the partner or spouse while 93.9 percent of those who did not learn about those disorders, or did not remember if they had learned about it in their coursework, would recommend partner support. The association between the variables was approaching significance according to the continuity correction chi-square test (p=.009). However, one of the cell counts was less than five and one cell count was equal to five.
Table 9

**Relationship Between Having Learned About Peripartum or Postpartum Mood Disorders and Treatment Recommendation of Partner Support (N=62)**

<table>
<thead>
<tr>
<th>Learning About Peripartum Anxiety Disorders</th>
<th>Did Learn</th>
<th>Partner Support Recommended for Partner or Spouse</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Count</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Did Learn Count</td>
<td>8</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>% within Learning</td>
<td>61.5%</td>
<td>38.5%</td>
<td>100.0%</td>
</tr>
<tr>
<td>About Peripartum Anxiety Disorders</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% within Partner Support Recommended</td>
<td>14.8%</td>
<td>62.5%</td>
<td>21.0%</td>
</tr>
<tr>
<td>% of Total</td>
<td>12.9%</td>
<td>8.1%</td>
<td>21.0%</td>
</tr>
<tr>
<td>Didn't Learn or Don't Remember</td>
<td>Count</td>
<td>46</td>
<td>3</td>
</tr>
<tr>
<td>% within Learning</td>
<td>93.9%</td>
<td>6.1%</td>
<td>100.0%</td>
</tr>
<tr>
<td>About Peripartum Anxiety Disorders</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% within Partner Support Recommended</td>
<td>85.2%</td>
<td>37.5%</td>
<td>79.0%</td>
</tr>
<tr>
<td>% of Total</td>
<td>74.2%</td>
<td>4.8%</td>
<td>79.0%</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>54</td>
<td>8</td>
</tr>
<tr>
<td>% within Learning</td>
<td>87.1%</td>
<td>12.9%</td>
<td>100.0%</td>
</tr>
<tr>
<td>About Peripartum Anxiety Disorders</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% within Partner Support Recommended</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>% of Total</td>
<td>87.1%</td>
<td>12.9%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>
Summary

In this chapter, the demographics of the participants of this study were presented. This chapter also presented frequencies of the responses to some of the survey questions regarding knowledge of peripartum mental health conditions and treatment recommendations for individuals with peripartum mood and anxiety disorders. In this chapter, the analysis of the relationships between the demographics of the study participants and their survey responses was presented. The next chapter will discuss conclusions, limitations of this study, and implications for social work practice and policy.
Chapter 5

CONCLUSION & FINDINGS

In this chapter, the conclusions drawn from the key findings of this study are presented. Research findings regarding the study participants’ demographics, knowledge of peripartum mental health conditions, and treatment recommendations are summarized and discussed. Trends in relationships between the independent and dependent variables are analyzed. In addition, recommendations for further research are described, including the limitations of this study. Finally, implications for social work policy and practice are discussed.

Summary

Because little to no research has measured the knowledge of social work students regarding peripartum or postpartum mental health, the primary goal of this research project has been to assess the knowledge that second year Master of Social Work students at California State University, Sacramento have regarding these mental health conditions. A secondary goal has been to explore the existence of any relationships between student knowledge of peripartum mental health conditions and student demographic characteristics.

Participants in this study were most likely to be female (79%) and between the ages of 18 and 35 (87%). Study participants represented a broad range of ethnic backgrounds, with the most prominent ethnicities being White (32.3%), Other or Multiple Ethnic backgrounds (22.6%), Latino or Hispanic (21.0%), and Asian (16.1%). Nearly two thirds (61.3%) of the study participants reported they had not learned about peripartum or
postpartum mood disorders in their graduate level social work courses. More than two thirds (69.4%) reported they had not learned about peripartum or postpartum anxiety disorders in their graduate level social work courses.

Knowledge of peripartum mental health condition variables included Likert-response statements about the symptoms, risk factors, causes, and treatments of peripartum mental health disorders. This researcher estimated the study participants’ knowledge by scoring participants based on the accuracy of their responses to twenty of the knowledge questions in the survey. The average knowledge score of the study participants was 80.1 percent accuracy; and only 13 percent of the participants scored below 70 percent accuracy.

Regarding treatment recommendations for clients with a peripartum mood or anxiety disorder, psychoeducation, one-on-one therapy, group therapy, peer support group, and partner support for the partner or spouse were endorsed by more than 85 percent of study participants. Cognitive behavioral therapy was recommended by 71 percent and medication was recommended by 64.5 percent of students surveyed. The treatment least endorsed by the study participants was psychodynamic psychotherapy, which was recommended by only 43.5 percent of the participants.

Chi-square analyses that examined possible relationships between knowledge variables and demographic variables did not result in any significant associations being discovered. However, some relationships were found to approach significance. White study participants were less likely than non-White or multi-ethnic participants to agree or strongly agree with the correct statement that, “Women with peripartum major depressive
episodes often have severe anxiety.” In addition, student responses to a question related to clinical assessment of risk appears to have an association with ethnicity that is approaching significance. Thirty percent of White students surveyed agreed or strongly agreed with the statement, “Feeling anxious or overwhelmed during pregnancy is not cause for concern,” while only 7.1 percent of non-white or multi-ethnic students agreed or strongly agreed with the statement.

In addition, age of the study participant approached significance in its relationship to one knowledge statement. While over half of students aged 26 or older correctly agreed or strongly agreed that, “Postpartum mental health disorders can worsen when a woman stops breastfeeding,” only 29 percent of students aged 25 or younger correctly endorsed the statement.

Chi-square analyses that examined relationships between demographic variables and treatment recommendations did not reveal any statistically significant interactions. However, two trends were found to approach significance. MSW students aged 26 or older were almost twice as likely to recommend psychodynamic psychotherapy for a client with a peripartum mood or anxiety disorder as students aged 25 or younger. Students who had learned about peripartum anxiety disorders in their coursework were less likely to recommend partner support for the partner or spouse than students who reported they did not learn—or did not remember learning—about those disorders. However, the cell counts for this result were particularly low where one cell count was less than five and one cell count was equal to five.
Discussion

The findings of this research project presents a picture of MSW students at CSUS who are knowledgeable about peripartum mental health conditions. Furthermore, the data analysis indicates that students who had learned about peripartum mood or anxiety disorders in their graduate level coursework did not differ in their knowledge of these disorders compared to students who did not learn—or did not remember learning—about those disorders in school. It is possible that because most of the students surveyed were selected from social work classes which emphasized mental health that the study participants were more likely to have advanced general knowledge of mental health that could be applied to the survey questions. It is also possible that the students who participated in this study had gained knowledge of peripartum mental health conditions through popular culture, the media, family members or friends. Regardless, with only 13 percent of study participants scoring below 70 percent accuracy, this study shows that the students surveyed were knowledgeable about peripartum mental health.

The knowledge-related survey statement that study participants were least likely to answer correctly was related to breastfeeding. Most of the surveyed MSW students did not know that postpartum mental health disorders can worsen when a woman stops breastfeeding. However, chi-square analyses approaching significance indicated that students aged 26 or older were more likely to correctly endorse that survey statement than younger MSW students. This may be because older students are more likely to have experienced a mood shift after stopping breastfeeding or known a peer, sibling or partner who experienced a mood shift associated with weaning.
Research studies that have examined cultural influences on peripartum mental health have found that prevalence rates of postpartum depression are significantly higher for minority women (Abrams & Curran, 2007; Gress-Smith, Luecken, Lemery-Chalfant, & Howe, 2011). Ethnic differences may explain why chi-square analysis in this study approached significance, indicating that White MSW students studied were less likely to know that women with peripartum major depressive episodes often have severe anxiety than non-White or multi-ethnic students. This information about anxiety in peripartum depression is in the DSM-5 (American Psychiatric Association, 2013), but non-White students appear less knowledgeable about this symptom of peripartum depression. If minority women have higher prevalence rates of postpartum depression, then minority MSW students may have more personal experience with symptoms of postpartum depression, such as anxiety, due to increased likelihood of exposure to family members with those symptoms.

Studies have also found differences in the ways people of different ethnic and cultural backgrounds describe, experience and express peripartum depression. For example, Price and Handrick (2009) found in their sample of urban, low-income, African Americans, that postpartum depression was often expressed through anger and irritability. Further research may reveal that anxiety is a more common feature of postpartum depression in minority populations in the United States or that anxiety is more or less of a concern to people of differing ethnic backgrounds.

This research study also found a relationship approaching significance between ethnicity and another anxiety-related statement. White students surveyed were four times
more likely than non-White or multi-ethnic students to agree or strongly agree that, “Feeling anxious or overwhelmed during pregnancy is not cause for concern.” It is possible that an individual’s cultural or ethnic perspective influences their evaluation and level of concern about anxiety.

Regarding common treatments recommended for peripartum mood and anxiety disorders, the research literature supports the use of medication, psychoeducation, one-on-one therapy, group therapy, cognitive behavioral therapy, peer support and partner support (Bledsoe & Grote, 2006; Fiteelson, Kim, Baker, & Leight, 2010). All of these treatments were endorsed by a majority of the MSW students who participated in this research study. The clinical intervention least recommended by this study’s research participants (43.5 percent) was psychodynamic psychotherapy, which is an intervention with very little research supporting its effectiveness in peripartum mental health conditions.

Furthermore, the likelihood of psychodynamic psychotherapy being recommended by a study participant was found to have a relationship approaching significance with the age of the study participant. MSW students studied, who were aged 26 or older, were nearly twice as likely as younger MSW students to recommend psychodynamic psychotherapy for a client with a peripartum mood or anxiety disorder. As Shedler (2010) argues, psychodynamic psychotherapy has fallen out of fashion in recent years. This change in perception of psychodynamic approaches may explain why younger MSW students are less likely to recommend it as a treatment. This study’s trend-
level finding may not be a result particular to peripartum mental health, but rather a reflection of the overall decrease in the popularity of psychodynamic psychotherapy.

One final finding of this study is a relationship between the study participant’s prior coursework about peripartum anxiety disorders and the likelihood of the study participant recommending partner or spouse support for the partner of a client experiencing peripartum mood or anxiety disorder. A chi-square analysis approaching significance found that this study’s participants were more likely to recommend support for a partner or spouse if they did not learn or did not remember learning about peripartum anxiety disorders in their graduate level coursework. The cross-tabulation, however, had particularly low cell counts in two of the four cells where one cell count was less than five and one cell count was lower than five. This researcher has not found a way to explain or understand the reason for this potential relationship. Because partner support has been found to have a positive impact on families affected by peripartum mental health disorders, it is a surprising potential finding that students who learned about peripartum anxiety disorders in their coursework would be less likely to recommend partner support for partners and spouses.

**Recommendations**

The purpose of this study has been to gain a greater understanding of MSW students’ knowledge of peripartum mental health conditions. Based on this study’s findings and the literature reviewed by this researcher, recommendations for further research can be made. Although the second year MSW students who participated in this study had a fair amount of knowledge about peripartum mental health conditions, the
knowledge of other social work students and practicing social workers is unknown because extremely little research has been conducted about this topic. More research is needed with various MSW and social worker samples throughout the United States to determine what knowledge these populations actually possess. Research studies that employ random sampling are particularly recommended.

Future studies that examine how students have attained knowledge about peripartum mental health disorders would also illuminate this research topic. Research surveys that assess both knowledge and sources of knowledge, such as personal experience with the disorders, observation of family member or friends with peripartum disorders, particular coursework such as a DSM course or elective courses that emphasize mental health, are recommended. With those survey items included, future research may lead to significant associations between sources of knowledge and the knowledge itself.

Furthermore, as Keefe et al. (2015) reports, very little research has been included in advanced-level social work textbooks and even less information has been published about how social work educators can include content on postpartum depression in their courses. Research is needed to determine what information about peripartum mental health disorders should be included in graduate level coursework and how that information should be presented.

Limitations

The limitations of this study primarily relate to the number of research participants, the sampling technique used, and the survey questions created by this researcher. The sample population recruited by this researcher (N=62) was not large
enough to conduct many of the chi-square analyses due to low cell counts. A larger sample may have yielded more significant results or clarified the findings that approached significance. In addition, because the students who participated in this study were all students in one social work graduate program in a single geographic region, the findings are not easily generalizable to students from other MSW programs.

Another limitation of this study is the convenience sampling method that was used. This sampling method, which favored MSW students who chose to enroll in mental health-focused elective courses, was simple and timely for this researcher, but most likely produced a sample that did not accurately represent the broader CSUS MSW student population. Furthermore, because completion of the survey was optional for the students recruited by this researcher, it is possible that students who were less knowledgeable about peripartum mental health conditions were less likely to complete the survey or submit their survey to this researcher due to potential discomfort with their lack of knowledge. This may have created a biased sample that was more knowledgeable about mental health or peripartum mental health than typical CSUS MSW students.

In addition, some of the survey items created by this researcher, while intended to assess knowledge, were not well constructed. Some of the knowledge assessment statements were double-barreled, meaning they asked study participants for a single response to a statement that combined multiple issues, which can confuse respondents and make it difficult for them to rate the statement. For example, the statement, “Antidepressants are not safe for women to take during pregnancy or breastfeeding because there is a high risk of adverse health effects for the baby,” would have been
clearer if it had been divided into separate questions about the pregnancy and breastfeeding periods. Also, “high risk” should have been phrased simply as “risk” to allow respondents to express their opinion of safety even if they thought the risk was moderate or low. Furthermore, that survey statement, even if not double-barreled, assesses clinical opinion more than knowledge. Another survey item that was not well written is the statement, “Feeling anxious or overwhelmed during pregnancy is not cause for concern.” That statement was intended to measure knowledge, but instead, assesses clinical opinion.

Also, an important knowledge question that was not asked in the survey was a question that identified whether the study participant had knowledge about the prevalence of peripartum mental health conditions. It would be interesting to know whether MSW students have accurate knowledge about the prevalence or if they over- or underestimate it. Furthermore, it can be useful for social workers to know that these disorders are so common that they affect one in seven women. Having knowledge of prevalence enables social workers to be mentally primed to screen pregnant and postpartum clients for these disorders.

Finally, some important and useful questions about how students obtained knowledge of peripartum mental health conditions—and mental health in general—were not asked in the survey. It would have been beneficial to have included survey questions that asked the study participants whether they had taken a DSM course, taken an elective course that focused on mental health, known a family member with a peripartum mental health condition, known a friend with a peripartum mental health condition, or
experienced one of those conditions first hand. Without questions that assess sources of information, this study is limited in its ability to determine why some students were more knowledgeable than others about peripartum mental health conditions. Questions such as those, if included in the study, may have allowed this researcher to determine if the MSW curriculum at CSUS is sufficient or could be improved in a particular way to better educate students about peripartum mental health.

**Implications for Social Work Practice and Policy**

One in seven American women are estimated to experience a mental health disorder during pregnancy or in the postpartum period (Wisner et al., 2013). Without treatment, these disorders can have long-term, damaging impacts on mothers, children and entire families, (Field, 2011; Forman et al., 2007; Lindahl, Pearson & Colpe, 2004; Moehler, Brunner, Wiebel, Reck, & Resch, 2006; Murray, Fiorini-Cowley, Hooper, & Cooper, 1996). As a result, peripartum mental health is an important topic in social work. As the National Association of Social Workers (NASW) Code of Ethics (2008) states, social workers must ensure competence in their work. Because peripartum mental health disorders are so widespread, social workers must have knowledge of these disorders regardless of whether their work setting is in a mental health clinic, school, hospital, child welfare agency, homeless assistance organization, prison or even a mezzo or macro level setting.

Implications for micro level social work practice include the need for social workers to have knowledge of the symptoms, risk factors, impacts, and treatments of peripartum mental health conditions. There is an understanding of how to screen clients
for these mental health disorders, including male and female clients, children, spouses, partners, grandparents and other family members who may be part of the family system. Even if social workers are not providing treatment to individuals with these disorders, social workers need to be prepared to provide screening and appropriate referrals.

To provide competent care to clients, social workers must educate themselves and seek out training to ensure they are competent in this area as most micro level social workers will likely come into contact with clients impacted by peripartum mental health disorders. This will include continued learning to remain updated on new research developments on peripartum mental health. Furthermore, while CSUS MSW students may have sufficient knowledge about peripartum mental health conditions, clients may not know. Social workers must be prepared to provide psychoeducation and empathy to clients impacted by these disorders. Finally, macro level social workers must be aware that minority and low-income populations are disproportionately affected by peripartum mental health disorders, and be prepared to provide culturally competent care to those clients.

At the mezzo level of practice, social workers who work closely with hospitals, healthcare agencies, and community organizations, are encouraged to educate treatment teams, other staff and clients about peripartum mental health. Some agencies and local public health departments are already engaged in this, but many are not. Social workers can initiate the formation of local collaborative committees to design and implement programs and services that better assist clients with peripartum mental health challenges.
Mezzo level social workers can also develop workshops and host presentations to raise awareness and increase knowledge among individuals and families in the community.

This research project also has implications for macro level social work conducted by researchers and university educators. As mentioned above, there are gaps in the research literature, which include peripartum mental health in minorities, refugees, low income populations and men. This project calls attention to the need for continued research by social workers on these disorders. As Keefe et al. (2015) have identified, a very limited amount of research on peripartum mental health has been conducted by social workers and published in social work journals. Significantly more research on peripartum mental health has been conducted by researchers in the fields of medicine, nursing, psychiatry and psychology (Keefe et al.). Because social workers are specially trained to provide community-level interventions, social workers are uniquely qualified to contribute to research on interventions at all levels (Keefe et al.).

In addition, very little research has been published assessing social worker and social work student knowledge about peripartum mental health. This research study is one of the first to examine knowledge of peripartum mental health conditions among social work graduate students. More studies are needed to assess student knowledge and make recommendations regarding curriculum development for social work graduate students. As new research emerges, social work departments and the Council on Social Work Education (2015) should create standards regarding knowledge of peripartum mental health to be met by undergraduate and graduate level social work students. Currently, there are no standards to guide social work educators in this subject area.
Conclusion

The primary purpose of this research study was to assess the knowledge that second year MSW students at CSUS possess regarding peripartum mental health conditions. The secondary purpose of the study was to evaluate whether students with various demographic profiles have different levels of knowledge or different views about appropriate treatment for individuals with peripartum mental health conditions. The findings of this study suggest that MSW students at CSUS are knowledgeable about mental health conditions. The ethnic background and age of the student was found to approach significance in its association with a few aspects of knowledge and treatment recommendations, but further research is needed to better clarify these findings. Additional study is needed to assess student knowledge in other social work programs throughout the United States.

This study also makes recommendations for research into other areas within the topic of peripartum mental health and offers recommendations to practitioners of social work. The concluding chapter of this study discusses implications of this research project on practice and policy at the micro, mezzo and macro levels of social work. One major implication of this project is that educational standards should be created to guide educators in the development of curriculum about peripartum mental health. Although this study contains limitations in design and generalizability, it has contributed to the extremely limited research on this topic and may inspire social work educators to evaluate their own curriculum regarding peripartum mental health.
Appendix A

Survey Questionnaire

FOR THE PURPOSES OF THIS QUESTIONNAIRE, THE WORD "PERIPARTUM" IS DEFINED AS OCCURRING DURING PREGNANCY OR IN THE PERIOD AFTER CHILDBIRTH.

FOR QUESTIONS #1-#24: PLEASE CIRCLE ONE RESPONSE PER QUESTION

1. Did you learn about peripartum or postpartum mood disorders (such as postpartum depression) in any of your graduate level social work courses?
   (a) Yes    (b) No    (c) I don’t remember

2. Did you learn about peripartum or postpartum anxiety disorders in any of your graduate level social work courses?
   (a) Yes    (b) No    (c) I don’t remember

3. Pregnancy protects against depression.
   (a) Strongly agree    (b) agree    (c) disagree    (d) strongly disagree

4. Women who report intrusive mental images of harm or violence to their children are always at significant risk of carrying out that violence.
   (a) Strongly agree    (b) agree    (c) disagree    (d) strongly disagree

5. Feeling anxious or overwhelmed during pregnancy is not cause for concern.
   (a) Strongly agree    (b) agree    (c) disagree    (d) strongly disagree

6. If a postpartum mother is able to take care of her child and her household, then she is not clinically depressed.
   (a) Strongly agree    (b) agree    (c) disagree    (d) strongly disagree

7. Peripartum depression can begin during pregnancy.
   (a) Strongly agree    (b) agree    (c) disagree    (d) strongly disagree

8. Men do not get postpartum depression.
   (a) Strongly agree    (b) agree    (c) disagree    (d) strongly disagree

9. The “Baby Blues” and “Postpartum Depression” are the same thing.
   (a) Strongly agree    (b) agree    (c) disagree    (d) strongly disagree

10. Mothers who love their children also love the responsibilities of being a mother.
    (a) Strongly agree    (b) agree    (c) disagree    (d) strongly disagree

11. Postpartum depression will usually go away on its own.
    (a) Strongly agree    (b) agree    (c) disagree    (d) strongly disagree

12. Women with postpartum depression often hurt their kids.
    (a) Strongly agree    (b) agree    (c) disagree    (d) strongly disagree
13. **Women with postpartum depression usually experience psychosis concurrently.**
   (a) Strongly agree  (b) agree  (c) disagree  (d) strongly disagree

14. **Postpartum mental health disorders can worsen when a woman stops breastfeeding.**
   (a) Strongly agree  (b) agree  (c) disagree  (d) strongly disagree

15. **Postpartum depression most likely results from a combination of physical and emotional factors.**
   (a) Strongly agree  (b) agree  (c) disagree  (d) strongly disagree

16. **During the postpartum period most mothers experience some type of mood disturbance.**
   (a) Strongly agree  (b) agree  (c) disagree  (d) strongly disagree

17. **Women with peripartum major depressive episodes often have severe anxiety.**
   (a) Strongly agree  (b) agree  (c) disagree  (d) strongly disagree

18. **Mood and anxiety symptoms during pregnancy increase the risk for a postpartum major depressive episode.**
   (a) Strongly agree  (b) agree  (c) disagree  (d) strongly disagree

19. **Research has shown that talk therapy and medication can successfully treat peripartum mood and anxiety disorders.**
   (a) Strongly agree  (b) agree  (c) disagree  (d) strongly disagree

20. **Without treatment, postpartum depression can last for years.**
   (a) Strongly agree  (b) agree  (c) disagree  (d) strongly disagree

21. **Women living in poverty are more likely to experience postpartum depression.**
   (a) Strongly agree  (b) agree  (c) disagree  (d) strongly disagree

22. **Women who previously experienced a mental health condition are at increased risk of developing a peripartum mental health condition.**
   (a) Strongly agree  (b) agree  (c) disagree  (d) strongly disagree

23. **An untreated peripartum mood or anxiety disorder can have detrimental effects on infant and child wellbeing.**
   (a) Strongly agree  (b) agree  (c) disagree  (d) strongly disagree

24. **Antidepressants are not safe for women to take during pregnancy or when breastfeeding because there is a high risk of adverse health effects for the baby.**
   (a) Strongly agree  (b) agree  (c) disagree  (d) strongly disagree
25. Which treatments would you recommend to a client with a peripartum mood or anxiety disorder?

Please check all that apply:

____ Medication
____ Psychoeducation group
____ One on one therapy
____ Group therapy
____ Cognitive Behavioral Therapy
____ Psychodynamic Psychotherapy
____ Peer support group
____ Partner support for the partner or spouse

DEMOGRAPHIC QUESTIONS ABOUT YOU:

What is your age? (please check one)

___ between 18-25 years
___ between 26-35 years
___ between 36-45 years
___ 46 or more years

What year in the MSW program are you currently in?
(a) MSW I  (b) MSW II  (c) Other (please specify): ________________

What is your gender? (please check one)
(a) Female  (b) Male  (c) Other (please specify):_________________

What is your ethnic background? Please check all that you identify with:

___ American Indian or Alaska Native
___ Asian
___ Black/African-American
___ Latino or Hispanic
___ Native Hawaiian or Other Pacific Islander
___ White
___ Other (please specify): ________________________________
Appendix B

Letter of Informed Consent

INFORMED CONSENT
Knowledge of Peripartum Mental Health Conditions Among Social Work Graduate Students

You are invited to participate in an IRB approved research study which will involve a survey to assess the knowledge among social work graduate students regarding peripartum mental health conditions. My name is Sontine Kalba and I am a second year graduate student at California State University, Sacramento (CSUS), in social work.

Your participation in this project is voluntary. Even after you agree to participate, you may decide to leave the study at any time. You may also decline to answer any of the questions.

The purpose of this research is to assess the knowledge among CSUS social work graduate students of peripartum mental health conditions where peripartum refers to the time during pregnancy or in the period after childbirth. If you decide to participate, you will be asked to complete a paper survey. Your participation in this study will last approximately 10-15 minutes. Risks associated with this study are not anticipated to be greater than those risks encountered in daily life.

I am appreciative of your time. Please feel free to contact me, Sontine Kalba sontinekalba@csus.edu. You may also contact Dr. Maria Dinis, the advisor of this project at (916) 278-7167 or dinis@csus.edu. If you have any questions about your rights as a participant in a research project please call the Office of Research Affairs, California State University, Sacramento, (916) 278-5674, or email irb@csus.edu.

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission. The data obtained will be maintained in a safe, locked location and will be destroyed after a period of one year upon completion of the study by August 31, 2016.

By completing the attached anonymous questionnaire you are indicating that you have read and understood the information provided above and you agree to participate in the study.

I highly appreciate your time and participation.

Thank you,
Sontine Kalba
MSW II Student
Appendix C
Human Subjects Approval Letters

CALIFORNIA STATE UNIVERSITY, SACRAMENTO
DIVISION OF SOCIAL WORK

To: Sontine Kalba
Date: November 10, 2015

From: Research Review Committee

RE: HUMAN SUBJECTS APPLICATION

Your Human Subjects application for your proposed study, “Knowledge of Peripartum Mental Health Conditions Among Social Work Graduate Students”, is Approved as Exempt. Discuss your next steps with your thesis/project Advisor.

Your human subjects Protocol # is: 15-16-035. Please use this number in all official correspondence and written materials relative to your study. Your approval expires one year from this date. Approval carries with it that you will inform the Committee promptly should an adverse reaction occur, and that you will make no modification in the protocol without prior approval of the Committee.

The committee wishes you the best in your research.

Research Review Committee members Professors Teiahsha Bankhead, Maria Dinis, Kisun Nam, Francis Yuen

Cc: Dinis
TO: Sontine Kalba

FROM: Committee for the Protection of Human Subjects

DATE: September 15, 2016

RE: HUMAN SUBJECTS APPLICATION

Per your request the Division of Social Work Committee for the Protection of Human Subjects approves your request for an extension on your proposed study, “Knowledge of Peripartum Mental Health Conditions Among Social Work Graduate Students,” with the understanding that you will promptly inform the committee if any adverse reactions should occur while conducting your research.

Your application is Approved as Exempt. Your Human Subjects approval number is 15-16-035. Please use this number in all official correspondence and written materials relative to your study. Your approval will expire one year from this date. Approval carries with it that you will make no modification in the protocol without prior approval of the committee.

cc: Dinis
References


doi:10.1080/00981380903213055


