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A supportive-educative program for perinatal depression utilizing Orem's Theory of Self-Care

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A SUPPORTIVE-EDUCATIVE PROGRAM FOR PERINATAL DEPRESSION UTILIZING OREM'S THEORY OF SELF-CARE

A Thesis

Presented to the

Faculty of

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In Partial Fulfillment

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ABSTRACT

Perinatal depression in childbearing women is quite significant. Incidence rates of perinatal depression are estimated at 15% and higher in the United States and worldwide population. Women experiencing this condition are often unable to perform the tri-dimensional structure for self-care operations as delineated in Orem's theory of self care. Guided by the conceptual tri-dimensional requirements that must be performed to meet therapeutic self-care demands, this study proposes an extension of these deficits to infant care and maternal-infant bonding; providing a nursing role to support therapeutic self-care techniques.

A supportive-educative model was developed, utilizing the Orem Self-Care framework. Pregnant and postpartum women (n=11) from a WIC program were voluntarily enrolled in this IRB- approved study. The Edinburgh Postnatal Depression Scale (EPDS) and NCAST Parent-Child Interaction (PCI) Feeding Scales were administered to monitor progress throughout the 10-week program. The program, entitled "New Mother's Support Group," addressed maternal self-care and infant care and bonding.

The theme of anxiety was identified within categories of: infant care, relationships with significant other, and financial constraints. A relationship between complications in pregnancy and perinatal depression was also identified. Nine out of eleven participants scored lower on the EPDS and 5/6 postpartum participants improved on NCAST-PCI Feeding Scales at the completion of the program.

Involvement in this supportive-educative program utilizing the Orem Self-Care Framework decreased depressive symptoms and increased maternal-infant attachment, in the majority of participants. Orem's Self-Care theory can be extended to both maternal and infant care, within a perinatal depression support group; which provides a nursing role to decrease this deficit.

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CHAPTER ONE

BACKGROUND AND SIGNIFICANCE

Introduction

According to the World Health Organization, depression among women in the childbearing years is one of the most disabling disorders a person can experience (O'Hara, 2009). Depression in women, 14 to 44 years, is second only to the human immunodeficiency virus (HIV)/acquired immunodeficiency syndrome (AIDS) in terms of a disease causing total disability (O'Hara, 2009). Perinatal depression is a common complication of pregnancy and postpartum effecting 10 - 19 % of all women worldwide in comparison to a prevalence rate of only 2-5 % for gestational diabetes (Meltzer-Brody, 2009 & Zauderer & Galea, 2010). However, the rates are even higher for women living in poverty ranging up to 30 % (Meltzer-Brody, 2009).

Perinatal depression has been recorded throughout time. Dr. George Savage first described perinatal depression in his 1875 research article, "Observations on the Insanity of Pregnancy and Childbirth" (Meltzer-Brody, 2009, p.4). Symptoms of this disorder can begin during

pregnancy, at birth or anytime during the first year to 18 months postpartum (Brown University, 2009 & Davis et. al., 2008). Common symptoms include the following: sad feelings, severe anxiety, irritability, insomnia or excessive sleeping, concentration or recall difficulty, loss of self-interest, loss of interest in eating or eating too much, excessive fatigue, lack of concern or too much concern for one's baby, and loss of pleasure in regular activities (Brown University, 2009). Extreme symptoms may include: psychosis, extreme confusion, hopelessness, extreme insomnia, refusing to eat, paranoia, hallucinations, and suicidal and/or homicidal thoughts (Brown University, 2009). According to Meltzer-Brody (2009) women who suffer from perinatal depression can experience morbid consequences, such as family breakdown in family units, low maternal weight gain, preterm birth, a reduction in bonding between mother and infant and increased risk for suicide and infanticide (Meltzer-Brody, 2009).

Risk factors that are associated with the development of perinatal depression include prior experiences with depression or other mental health disorders, age (especially teen pregnancy), ethnicity, education, lack of support, single marital status, problems in close

relationships e.g. marriage, complicated pregnancy, labor or postpartum experience, unemployment, poverty, physical health problems, and stressful life events (Beeghly et. al., 2003; Benoit et. al., 2007; Bilszta, J., 2008; Figueiredo et.al., 2007; Roux et. al., 2002; Rubertsson et. al., 2005; Segre et. al., 2006).

There are five perinatal mood and anxiety disorders.

1. Depression during pregnancy and/or postpartum.
2. Anxiety during pregnancy and/or postpartum.
3. Postpartum Obsessive Compulsive Disorder.
4. Postpartum Post-Traumatic Stress Disorder.
5. Postpartum Psychosis (Postpartum Support International, 2010). (For definitions of these terms please see Appendix A).

Currently, the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders, (DSM IV) does not distinguish any of the perinatal mood or anxiety disorders from its nonpuerperal equivalent except by their timing (Epperson, 1999; American Psychiatric Association (APA), 1994). It is recommended that any major depressive, manic or mixed episode, anxiety disorder, bipolar I disorder, bipolar II disorder, brief psychotic disorder be identified

with a postpartum specifier if it occurs within four weeks of delivery (Halbreich, 2005).

Although a historical, prevalent, and disabling disorder, perinatal depression in women is often not diagnosed and treated. Few medical practices include routine screening in their perinatal depression protocols. Thus symptoms often go unnoticed because women minimize or hide their symptoms from themselves and others due to a variety of reasons (Meltzer-Brody, 2009 & Abrams & Dornig, 2007, Meltzer-Brody, 2009). For example, past experiences with mental health providers, financial barriers e.g. a lack of money, insurance, stigma around depression, religious beliefs and elevated perceptions of new motherhood can influence mothers to minimize or hide perinatal depression symptoms from medical personnel(Abrams & Dornig, 2007).

Research shows that a combination of counseling, (e.g. group, individual or both) and medication is the best plan of care for perinatal depression. However, as aforementioned in the Abrams and Dornig's (2007) study, there are many barriers to mothers' mental health care. The mothers' surveyed in this prior study reported many

informal self-help activities that assisted them in managing their symptoms. These practices included:

1. Religious or spiritual practices such as prayer, reading the bible and going to church.
2. Emotional practices such as crying and releasing emotions, talking with other moms and preventing isolation.
3. Cognitive practices such as positive self-talk and positive thinking.
4. Behavioral practices such as eating right, exercising, journaling or emotional refueling (Abrams & Dornig, 2007, p.5).

This study explores if mothers' perinatal depression symptoms can improve after being involved in such self-help activities through a support group medium in Riverside County.

Statement of the Problem

Even though there is a high prevalence of perinatal depression, there are currently no perinatal depression support groups in Riverside County or San Bernardino County.

In February 2009, Lori Burchett, a 38-year old Riverside mother was charged with the murder and assault on a child resulting in the death of her son, 17-month old Garrison Burchett. Garrison died as a result of a blunt force trauma to the head and a puncture wound to the abdomen (Press Enterprise, 2010). The new article indicated that the mother had a history of bipolar disorder and was diagnosed with postpartum psychosis (Press-Enterprise, 2010). After hearing this, Lisa Dryan, Director of Mental Health for the Wylie Center, who had worked with women suffering with postpartum depression (PPD)in the past, started working to form a task force to fill the void for mental health services for perinatal mood and anxiety disorders in this community.

As a result, the Inland Empire Perinatal Mental Health Collaborative was established in September 2009. The Collaborative currently has 15-20 members consisting of California State University San Bernardino Nursing School, Riverside County Public Health Nursing, Riverside County Maternal Child Health, Riverside County Mental Health and Child Protective Services, San Bernardino Mental Health and Child Protective Services, San Bernardino Public Health Nursing, and many other community programs.

The Inland Empire Perinatal Mental Health Collaborative has established subcommittees to create legislation, strategic planning/needs assessment, grand rounds for hospitals, media/public relations, grant writing and a support group for Riverside County and San Bernardino County to address four major issues lacking in these two counties. These issues are the:

1. lack of education regarding perinatal depression and other disorders of all people in Riverside and San Bernardino counties.
2. lack of screening routinely for perinatal depression by medical providers.
3. lack of treatment specifically for perinatal depression
4. and the lack of treatment specifically for children and families affected by their wives/mothers suffering from perinatal depression.

This study looks to specifically explore the third inadequate issue - lack of treatment - by establishing a support group for prenatal and postpartum women suffering from perinatal depression in Riverside and San Bernardino counties.

According to Penny, Gardner and Harris 2010, a total of 32,866 women gave birth to at least one baby in 2008. In 2003, it was estimated that 66 % of women fell under federal poverty guidelines and utilized Women, Infants, and Children (WIC) services (WIC, 2010). By generalizing this percentage in 2003 (i.e. 66%) to the total population of women giving birth in 2008, it seems that 21,692 postnatal women in Riverside County could have been living in poverty and utilizing WIC services. In addition, with inferring Meltzer-Brody's (2009) finding that up to 30% of women living in poverty experience perinatal depression, one could estimate that up to 6,500+ postnatal women in 2008 suffered from perinatal depression in Riverside County, and this figure excludes prenatal women. Further, from prior research (Goldsmith, 2007), at least 50% of these 6,500 women with postnatal depression are possibly undiagnosed. Thus up to 3250+ women in Riverside County were potentially suffering from postnatal depression without the appropriate medical services and care, again this figure excludes prenatal women suffering from similar depressive symptoms. Upon estimation it would seem that 307,250 women utilize WIC services in which 30 % or approximately 92,175 may be affected by Perinatal Depression in Riverside County.

Though this conclusion is speculative, the estimation shows the potential seriousness of this issue in Riverside and other counties alike. Furthermore, if perinatal depression goes untreated, negative outcomes can occur not only for the mother but for the child as well. These may include but are not limited to the following: a reduction in maternal-child bonding, insecure attachment, cognitive and emotional delays in children (which may lead to permanent impairments) child abuse and neglect, antisocial behavior in children (e.g. severe temper tantrums, less sharing, less sociability with strangers, uncontrollable behavior), and in severe cases infanticide (Logdson, et.al., 2006).

From the Burchett incident and the above estimation, there is suggestive evidence that perinatal depression is a problem in Riverside County; unfortunately, before 2009 there are no treatments available specifically for women suffering from this detrimental disorder. Because research has shown that many women prefer to utilize self-help approaches in their treatment of perinatal depression (e.g., Abrams and Dornig, 2007), the Inland Empire Perinatal Mental Health Collaborative created a support group for women suffering from perinatal depression.

In this study, two research questions are examined, (1) "can a perinatal depression support group decrease group participants' depression and symptoms as measured by scores on the Edinburgh Postpartum Depression Scale (EPDS) scores?" and (2) "can participation in a perinatal depression support group improve participants' maternal/infant communication and interaction as measured by scores on the Nursing Child Assessment Satellite Training (NCAST) Feeding Scale?"

Purpose of the Study

Riverside County has mental health programs with psychiatrists, psychologists and social workers qualified to treat an array of mental illnesses. However, there are no mental health programs that are currently targeting women with perinatal mood and anxiety disorders. Dorothea Orem's self-care theory offers a pathway for nurses to deliver appropriate supportive-education for women suffering from perinatal depression by identifying self-care demand and self-care agency deficits (Comly, 1994).

Women who are not treated for depression may have suicidal ideations, severe anxiety that may impede sleep, care-giving abilities, and overall functioning, and days,

weeks or even months of feeling isolated. By identifying a mother with perinatal depression and placing her into a support group with other mothers experiencing many of the same symptoms nurses, could help prevent and reduce many of the consequences experienced by mothers and infants due to lack of such treatment. Thus the purpose of this study is to provide a support group, utilizing Dorothea Orem's self-care model, for perinatal depression in Riverside County.

CHAPTER TWO

LITERATURE REVIEW

Introduction

The purpose of this study is to explore whether a support group, utilizing Dorothea Orem's self-care model, for perinatal depression in Riverside County, can improve participants' depressive symptoms, and their maternal/ infant communication and interaction. This chapter presents a perinatal depression literature review including: (1) incidence and prevalence of perinatal depression; (2) risk factors; (3) barriers to screening and care; (4) screening standards; (5) screening tools; (6) treatments; (7) effect on maternal bonding and child interaction; (8) importance of Support; and (9)Dorothea Orem's self-care theory.

Incidence and Prevalence of Perinatal Depression

According to the National Institute for Health Care Management (NIHCM) (2010) depression affects approximately 18 million Americans every year. American women, during their childbearing years, account for the largest percentage of this depression prevalence (NIHCM, 2010).

In the 2001 California Health Interview Survey (CHIS), a quarter (24.7 %) of women in California felt downhearted and sad all, most, or some of the time. In 2005, only 10.1% of women saw a health care professional for emotional/mental health problems (CHIS, 2001).

Riverside County's 2008 Community Health Profile stated that nearly 25 % of adult female residents experienced seven or more days of poor mental health. Women in Riverside County are also at greater risk for depression than men, in 2008, 33% were identified verses 17% of men (Riverside County's Community Health Profile, 2008).

In Los Angeles County, 5,211 mothers responded to the 2005 Los Angeles Mommy and Baby Project (LAMB) survey (Ochoa et.al., 2009). The results showed a relation between race and depression: African American and Latina mothers were more likely to self-report depressive symptoms than White and Asian women (Ochoa et. al., 2009). The survey also showed an association between maternal age and income with depression (Ochoa et. al., 2005). Pregnant women under 20 years of age were more likely to encounter or report more severe symptoms of depression than older women (Ochoa et. al., 2005). Pregnant women with incomes under $20,000 a year were also more likely to experience or report more

severe depression symptoms (Ochoa et. al., 2005). Overall, the LAMB survey identified the following prevalence rates:

> "One in six women reported pregnancy was a hard time." "One in three women reported depressive feelings." "One in three women lost interest in work during pregnancy." "One in 100 women reported having been diagnosed with a mental health problem" (Ochoa et. al., 2005, p.10).

Gavin et. al. (2005) completed a systematic review of the prevalence and incidence of perinatal depression. In their review, the researchers found that major and minor depression prevalence rates were 18.4 % during pregnancy and 19.2% during postpartum (i.e. three months after delivery). Major and minor depression incidence rates were 14.5 % during pregnancy as well as during postpartum (Gavin et. al., 2005 & NIHCM, 2010).

Heilemann et. al. (2004) and Rich-Edwards et. al. (2006) reported that the prevalence rate of perinatal depression appears to increase from 20 % to 51 % among women of low socioeconomic status in comparison to middle class women. The two groups of researchers also indicated that 16 %- 56 % of pregnant Latinas in the United States

had depressive symptoms during pregnancy (Heilemann et. al., 2004; Rich-Edwards et. al., 2006).

Seguin et. al. (1999) reported that between 9.3 % and 23.1 % of women may experience perinatal depression during the first few months after delivery. In a meta-analysis of perinatal depression studies, the researchers also found that, on average, there is a 13 % prevalence rate of PPD occurring during the first three months of postpartum (Seguin et. al., 1999).

In a non-random sample of a rural community, 1,086 pregnant and postpartum women were screened for depression using the 9 item Patient Health Questionnaire (PHQ-9) (Price & Proctor, 2009). Thirteen percent of the women met the PHQ-9 criteria for major depression, 10 % met the PHQ-9 criteria for minor depression and 15 % met the author's subthreshold standards for depression (Price & Proctor, 2009). Overall, 36 % of the low income women met the criteria for depression which is consistent with other research findings regarding low income women (Price & Proctor, 2009).

Goedhart et. al., (2010) found high levels of depression as well; 30.6 % of women were depressed from a 2,465 multiethnic sample. The researchers also found that

young women with multiple births and women with a low educational level had statistically high levels of depressive symptoms. (Goedhart, et.al., 2010).

In other studies, the prevalence rate is much wider, ranging from 8 % to 51 % (Bennett, et. al., 2004 & Marchesi et. al., 2009). These groups of researchers hypothesized that the large variation may be due to different research methodologies, diagnostic protocols or the inclusion of depressive symptoms versus depression diagnosis in determining prevalence rates (Marchesi et. al., 2009 & Bennett, et. al., 2004). Nevertheless, there are significant prevalence and incidence rates for perinatal depression.

Perinatal Depression Risk Factors

Reid, Power and Cheshire, 2009, investigated the factors influencing antenatal depression, anxiety, and stress via questionnaires by community midwives. The investigators assessed the participants with EPDS, Depression Anxiety Stress Scale (DASS-21), Social Support Measure and the Significant Others Scale (SOS) (Reid, Power & Cheshire, 2009). Reid and colleagues found that the lack of support from a partner, mother or other (identified most

frequently as a sibling or friend) were significant predictors of antenatal depression, anxiety and stress symptomatology (Reid, Power, & Cheshire, 2009).

Effects of exercise and social support on mothers reporting depressive symptoms were evaluated in a 12 week randomized control trial (Armstrong & Edwards, 2003). Participants in the multi-intervention group, which consisted of walking and engaging in a support group with childcare provided, decreased their depressive symptoms significantly more than the control group (Armstrong & Edwards, 2003).

Brockington et. al., (2006) discussed two 2004 studies. These studies found that anxiety was more common during pregnancy, depression more common after delivery and prepartum anxiety was a predictor of PPD (2006). In Brockington and colleagues' 2006 study, among 23 women who had obsessive-compulsive personality disorder and 5 who had obsessive-compulsive disorder, the onset of the disorder for 8 of these women was triggered during pregnancy. Maina et. al., (1999) also studied triggers of obsessive compulsive disorder and found that pregnancy was a major triggering event. (1999).

Curtis et. al., (2007) completed an online survey with 252 women who had experienced a postpartum mood disorder. The researchers found that 130 women of these women had more than one child and 43 (33.1%) stated that their symptoms worsened with their second child (Curtis et. al., 2007). The symptoms occurred immediately after the second birth in 46.6 % of these women and prior mental health issues were also noted in 57.5 % of this sample (Curtis et. al., 2007).

Heilemann et. al., (2004) and Rich-Edwards et. al (2006) discussed the prevalence of perinatal depression appears to increase among women of low socioeconomic status ranging from 20 - 51 %. The authors also discussed that 16 - 56 % of pregnant Latinas in the United States had depressive symptoms during pregnancy (Heilemann et. al., 2004; Rich-Edwards et. al., 2006).

Pregnant women in Mexico have a perinatal depression prevalence range of 22 - 30.7 %, Colombians have a 66 % and Brazilians have 46.5 % prevalence rate (Lara et. al., 2006). Regardless of the women's cultures perinatal depression characteristics and low socioeconomic status were similar (Lara et. al., 2006).

Isaac and Schlife (2007) discussed contributory risk factors in baby blues, perinatal depression and postpartum psychosis. Baby blues risk factors consist of rapid hormonal changes, physical/emotional stress of: "birthing, physical discomforts, anxiety about increased responsibility, fatigue, disappointments about the birth, lack of spouse support, nursing and the baby" (Isaac & Schlife, 2007, p.10). Perinatal depression risk factors consist of recent stressful life events, unmarried, teen pregnancy, unwanted pregnancy, history of domestic violence, history of sexual abuse, history of substance abuse, history of major clinical depression, social isolation/poor support, history of PMS and thyroid dysfunction (Isaac & Schlife, 2007). Postpartum psychosis risk factors consist of personal or family history of psychosis, bipolar disease or schizophrenia, and no family or personal history (Isaac & Schlife, 2007).

Linter and Gray (2006)reported that antepartum depression is the strongest predictor of PPD, however, they also noted other significant predicators, such as: history of depression prior to pregnancy, history of prenatal anxiety, occurrence of postpartum blues, low self-esteem, stressful life with excessive demands, lack of social

support, strained marital relationship, stressful infant temperament, and childcare stress.

Ross and Dennis (2009) reviewed 17 papers regarding the prevalence of PPD among women with substance abuse, abuse history or chronic illness. These researchers found that there are high rates of PPD among substance using women and women with current or past histories of abuse (Ross & Dennis, 2009).

Segre et. al., (2006), examined whether race and/or ethnicity increases the risk of developing depressive mood symptoms during late pregnancy and postpartum. Compared to White women, African American women were significantly more likely to report having depressive mood symptoms in late pregnancy and early postpartum (Segre et. al., 2006).

Benoit et. al., (2007), discussed the results of a mixed-methods longitudinal study. The researchers found that the participants who were at the highest risk for depression were women reporting lower incomes, lower education and those disappointed with their birth outcomes, particularly those who had a cesarean section instead of a vaginal birth (Benoit et. al., 2007).

Hung et. al., (2011) utilized 11 general hospitals and 7 specialty clinics to study 859 postpartum (six weeks or

less) Taiwanese women. The authors used the 62 item Hung Postpartum Stress Scale, the 10 item Social support scale, and the 12 item Chinese Health Questionnaire to evaluate predictors of postpartum stress (Hung et. al., 2011). The results of the study showed that the women had predictably higher levels of postpartum stress when associated with minor psychiatric morbidity, one or two prior children, a junior college educational level in comparison to a bachelors/masters educational level, formula feeding, preference for an infant boy, and low levels of social support (Hung et. al., 2011).

Mao et. al. (2011) recruited 376 new Chinese parents at six to eight weeks postpartum to compare mother and father postnatal depression rates and risk factors. The authors used the EPDS, the Perceived Stress Scale and the Social Support Rating Scale (Mao et. al., 2011). There were no significant differences between mothers and fathers in the prevalence of PPD. Fathers and mothers both experienced similar stress levels. EPDS scores of both mothers and fathers were associated with their perceived stress, social support and their partner's EPDS score.

A Turkish case control study evaluated the biopsychosocial risk factors for preterm birth and

postpartum emotional well-being (Gungor et. al., 2011). The authors recruited 149 preterm women and 150 term women and screened their risk factors for preterm birth using the Multidimensional Scale of Perceived Support, Beck Depression Inventory (BDI) and Spielberger's State-Trait Inventory 24 to 72 hours after birth (Gungor et. al., 2011).

The results showed that preterm women had lower perceived social support and significantly higher anxiety and depressive symptoms (Gungor et. al., 2011). Other significant risk factors identified were partner's low educational level, history of preterm birth, antenatal hospitalization, genitourinary infections and irregular prenatal care (Gungor et. al., 2011).

These studies show that there are many risk factors and stressful events (e.g. pregnancy) associated with the development of perinatal mood and anxiety disorders.

Barriers to Screening and Care in Perinatal Depression

Abrams and Dornig (2007) found the following barriers to mental health service use from a sample of 25 female low income clients. The mothers experienced mental health

providers as uncaring and too medication focused, making them less willing to seek help for PPD. The mothers stated that they faced instrumental structural barriers, such as cost or insurance regulations that prevented them from even considering use of formal services. The mothers indicated concern about stigma and culturally-informed beliefs about motherhood, mental illness, depression, and PPD which they felt were significant obstacles preventing them from seeking treatment from mental health professionals Finally, the mothers also reported that religious beliefs can facilitate help-seeking from clergy, however the researchers found it could also prevent mothers from seeking help from other sources such as mental health providers.

Goldsmith (2007) investigated how nurse practitioners screened for PPD and identified factors that affected screening (2007). Questionnaires regarding PPD screening were completed by 159 nurse practitioners (NP's) in Illinois and Wisconsin (Goldsmith, 2007). The researchers found that 84 % of the NP's treated at least one postpartum woman yearly, however; only 42 % of the NP's screened for PPD regularly. The major causes of the lack of screening were identified as lack of confidence and knowledge of the

PPD screening tools available and how to use them. The investigators concluded that if the number of NP's who screen for PPD could be increased, there would be many more postpartum women and their families identified and treated (Goldsmith, 2007).

Teng et. al., (2007) completed qualitative interviews of healthcare workers who provided postpartum care to immigrant women in Toronto, Canada. The study identified two main categories of barriers to postpartum care for the immigrant women: practical barriers and culturally determined barriers. Practical barriers comprised of lack of access to services and lack of language translation services. The cultural barriers consisted of fear of stigma by friends and family members. The healthcare workers also identified the following challenges in their profession in relation to care for these women: professional limitations and social/cultural barriers. The professional limitations included fear of incompetence, language barriers and insufficient screening tools. The social/cultural barriers identified were an overall lack of cultural competency (Teng et. al., 2007).

Bentley et. al., (2007), identified barriers to perinatal depression from patients by utilizing a

questionnaire at an obstetric clinic of an academic medical center. Barriers identified from patients were: "stigma about mental illness, view depression as a "private" issue, lack of knowledge, preferences of primary care treatment vs. mental health treatment, maternal demands and confidentiality" (Bentley et. al., 2007). Barriers identified from microsystems of care, (which include physicians, midwives, social workers, nurses and medical assistants) were: "staff resistance to screening due to lack of time, fear of opening "Pandora's Box", and knowledge deficits in diagnosis and treatment" (Bentley et. al., 2007, p.197). Barriers identified from organizational systems were: "lack of space, time, physical resources and administrative support, Institutional Review Board (IRB) support, and monitoring and evaluation" (Bentley et. al., 2007, p.197).

Goodman (2009) examined pregnant women's preferences and attitudes toward depression treatment and barriers preventing them from accessing care by sending questionnaires to 509 convenience samples of high-income married women in their last trimester of pregnancy. The researcher found that 92 % of the women stated that they would be willing to participate in individual therapy

however 65% stated that did not have time to go, 43% would not attend due to stigma issues and 33% would not go due to lack of childcare (Goodman, 2009).

Kim et. al., (2010) queried 51 obstetric patients regarding barriers to mental health treatment/services. Four barrier types were identified: patient level, provider level, patient/provider interaction and system level (Kim et. al., 2010). For the patient level: "lack of time, used other support and spontaneous improvement of symptoms" were identified (Kim et. al., 2010, p. 164). For the provider level: "provider unavailability and unresponsive provider" were identified as barriers (Kim et. al., 2010, p. 164). For the patient/provider interaction level: "poor match to need, poor patient/provider fit, and "phone tag"" were identified as barriers (Kim et. al., 2010, p. 164). At the system level: "cost insurance mismatch and geographic mismatch/inconvenient location" were identified as barriers (Kim et. al., 2010, p. 164).

As a result, these studies suggest that addressing barriers in perinatal depression programs are essential in order to identify and serve this population of women.

Alder et. al., (2008), investigated the policy and practice guidelines of PPD assessment and the PPD management effectiveness in the medical practices of Scotland. The sample included 15 National Health Service (NHS) board members and their medical practices. Alder and colleagues found that if the NHS board followed the policy and practice guidelines, the providers in the medical practice were more likely to have effective management of PPD (Alder et. al., 2008).

Barrera et. al., (2007), reviewed studies from the United States and internationally that have attempted to reduce the incidence of PPD through preventative interventions. The results of the studies were mixed, especially in long lasting intervention effects (Barrera et. al., 2007). The authors recommended that PPD prevention interventions become a standard part of mental health services so PPD can be greatly reduced (Barrera et. al., 2007).

Chaudron et. al., (2004) conducted a chart review comparing mandated EPDS screening to optional screening during the first year of well-child visits. Two cohorts of

110 infants' medical records were randomly selected. Cohort 1 mothers received EPDS screening, while Cohort 2 did not (Chaudron et. al., 2004). Comparison of the two cohorts of mothers showed that in Cohort 1 there was a significant increase in depression symptom documentation, PPD identification and referrals to mental health services in comparison to Cohort 2(Chaudron et. al., 2004).

Downie et. al., (2003), looked at evaluated current practice outcomes and the use of the EPDS by child health nurses in Western Australia. According to the study, EPDS is a routine practice for child health nurses in Australia, but there has been no evaluations regarding the effectiveness of the practice (Downie et. al., 2003). As such, the researchers conducted such an evaluation and their findings were mixed. Some mothers with a low EPDS score were referred to mental health services, while 24 % of women with moderate to severe depression (high EPDS scores) were not referred (Downie et. al., 2003). These findings support the importance of appropriate nursing judgment. For example, in the documentation for the women with low EPDS scores who had been referred to mental health, the nurse identified risk factors not disclosed on the screening tool by the patient. For the patients with

high EPDS scores, the nurses documented the patients had refused mental health services (Downie et. al., 2003). The authors recommended further education for the nurses in the use of EPDS to ensure the standards and management of PPD are consistently accomplished (Downie et. al., 2003).

Perinatal Depression Screening

Perinatal Depression Screening Tools

In a prospective descriptive research study, Davis et. al., (2008) used the Postpartum Adjustment Questionnaire (PAQ), to determine if the tool could identify women developing PPD. The study found that the PAQ is a valid diagnostic measure of PPD; but only identified 40 % of women who developed PPD (Davis et. al., 2008).

Gjerdingen et. al., (2009) investigated a two-item screening tool versus the nine-item Patient Health Questionnaire (PHQ-9). The study found that the two-item screening tool and the PHQ-9 questionnaire worked well together to identify women affected by PPD (Gjerdingen et. al., 2009). If the two-question screen was positive, the PHQ-9 was administered. The researchers also found that these screening tools could be easily administered in a primary care clinic (Gjerdingen et. al., 2009).

Hanusa et. al., (2008) compared three PPD screening instruments using a descriptive research design. They compared the EPDS, PHQ-9, and Postpartum Depression Screening Scale (PDSS) (Hanusa et. al., 2008). The results indicated that the EPDS and PDDS were more accurate than the PHQ-9 screening tools in the identification of PPD (Hanusa et. al., 2008).

Ingram and Taylor (2007) used the EPDS during pregnancy, at 30-40 weeks gestation, to detect its usefulness as a predictor for women at risk for PPD. The study found that screening for PPD antenatally seemed to identify more women who will be affected by PPD postnatally (Ingram & Taylor, 2007).

Jolley and Betrus (2007) compared and critiqued the most common instruments used to evaluate for PPD: the BDI, the Center for Epidemiologic Studies Depression Scale (CES-D), the EPDS, and the PDSS. The results indicated that all of the screening tools had good reliability and validity (Jolley & Betrus, 2007). However, the researchers screened 18 women who had already been diagnosed as having PPD (Jolley & Betrus, 2007). The PDSS tool identified 94 % (n=17) of the women with PPD, the EPDS identified 78 %

(n=14) and the BDI identified 56 % (n=10) (Jolley & Betrus, 2007).

Kim et. al.,(2007), used an interactive voice response (IVR) form of the EPDS, in which low income women in an urban clinic (n=54) would self-enter their data into a database using a touch tone telephone. The results of the pilot study indicated that 16 out of 54 women had moderate to severe depression scores. The study concluded that the automated screening for PPD is a sufficient way to screen women for PPD (Kim et. al., 2007).

Reuland et.al. (2009), found the Spanish versions of the EPDS and PDSS screening tools had high validity as the English screening tests for PPD.

Cox et. al., (1987), developed the 10 item EPDS because general practitioners, community midwifes or health visitors failed to identify depression in postpartum mothers. The EPDS had satisfactory validity and reliability (Cox et. al., 1987).

Gaynes et. al., (2005), conducted a literature review to investigate the accuracy of different screening tools to detect prenatal and PPD, as well as interventions that led to improved outcomes. Among the previous studies, the EPDS and PDSS appeared to be the most sensitive screening tools

(Gaynes et. al., 2005). There was not enough evidence found to determine if the screening, followed by an intervention, led to improved outcomes. In addition, the authors also found limited evidence that some forms of psychosocial support decrease PPD symptoms (Gaynes, et. al., 2005).

Perinatal Depression Screening in Global Health

Gausia et. al., (2007) attempted to validate the Bangla version of the EPDS for women in Bangladesh. The researchers were successful in their attempt to translate the EPDS (Gausia et. al., 2007). The Bangla version was found as a valid and reliable screening tool to identify PPD (Gausia et. al., 2007).

Liabsuetrakul et. al., (2007) discussed that anxiety and lack of social support were significant risk factors for PPD in Thai women. The researchers evaluated whether the Postpartum Depression Risk Scale (PDRS) could measure the risk factors for this population (Liabsuetrakul et. al., 2007). The PDRS was found to be clinically applicable especially in identifying anxiety and lack of social support indicators (Liabsuetrakul et. al., 2007). The study also provided construct validity for the PDRS in comparison to the EPDS, and PDSS (Liabsuetrakul et. al., 2007). No

significant differences were found across measures (Liabsuetrakul et. al., 2007).

Mazhari and Nakhaee (2007) translated the EPDS into Persian and evaluated the psychometric properties of the EPDS on a sample of 200 Iranian women. The Persian version of the EPDS was found to be a dependable and valid measure for detecting PPD (Mazhari and Nakhaee, 2007).

Monti et. al., (2008), evaluated 234 Italian women regarding the effectiveness of using the EPDS over a period of 18 months to evaluate depression improvement or aggravation. The researchers' rationale for the length of evaluation is that women recover and relapse at different rates and times. The findings of the study show that there is a need to continue to evaluate women throughout the first year of postpartum to identify women with persistent and/or resistant PPD (Monti et. al., 2008).

Santos et. al., (2007), completed a study to compare the validity of the EPDS and the 20-item Self-Reporting Questionnaire SRQ20) in screening PPD for 378 women from southern Brazil. The researchers' data found that the SRQ20 showed to be as valid as the EPDS as a screening tool for PPD (Santos et. al., 2007).

Overall, utilizing PPD screening tools is an effective way to identify women suffering from this disorder.

Treatments for Perinatal Mood and Anxiety Disorders

O'Mahen and Flynn (2008) collected surveys from 108 black and white pregnant women who scored 10 or higher on the EPDS (i.e. women classified as experiencing moderate to severe PPD). They asked these mothers about any recent and/or informal treatment they received for depression during their prenatal care. The results of the study revealed low rates of accessing formal care for their depression symptoms (O'Mahen and Flynn, 2008). All the women in the study stated that they had the strongest confidence in psychosocial treatments and lowest confidence in antidepressants (O'Mahen & Flynn, 2008).

Highet and Drummond (2004) completed a research study comparing individual therapy versus group therapy for postnatal depression. The results of the study showed that individual treatment was related with more immediate treatment gains versus group treatment (Highet and Drummond, 2004). However, they found that during the following six months after initial treatment, benefits of

group therapy appeared showing that both treatments were equally effective in the long term (Highet and Drummond, 2004).

Honey et. al., (2002) completed a study regarding the effectiveness of a psycho-educational group treatment in comparison to routine primary care for 45 women with PPD. (Honey et. al., 2002). The psycho-educational group treatment consisted of providing education regarding coping strategies, cognitive behavioral techniques and relaxation techniques (Honey et. al., 2002). Compared to routine primary care, participants in the psycho-educational group significantly reduced their level of depressive symptoms measured by the EPDS, Duke-UNC Social Support Questionnaire, Dyadic Marital Adjustment Scale, and Ways of Coping Checklist Revised (Honey et. al., 2002).

A postpartum women sample consisting of 2247 women in Norway was published in 2009 (Glavin et.al.). The study was a quasi-experimental post test design utilizing the EPDS and the Parenting Stress Index tool in community postpartum care programs ran by public health nurses. The study found that group participants had lower EPDS cores after the community intervention (Glavin et. al., 2009).

Sharma, Burt and Ritchie (2009) discussed bipolar II PPD treatments. From their review, they recommended a pharmaceutical combination therapy with Zyprexa (olanzapine) and an antidepressant or mood stabilizer or the use of Seroquel (quetiapine) for treatment (Sharma et. al., 2009). In terms of nonpharmacological management, the authors strongly recommended the need for emotional support, psychoeducation and the involvement of family or support members in the patient's care (Sharma et. al., 2009). The authors also recommended that the family help with the infant's nocturnal care needs until the patient is stabilized (Sharma et. al., 2009). Further, the mother should not focus on parenting skills or maternal-infant bonding until mentally stable (Sharma et. al., 2009).

Logdson et. al., (2009), explored whether maternal role functioning can improve with antidepressant therapy in women with PPD. The study's sample consisted of 27 women enrolled in an 8 week randomized clinical trial investigating if maternal role functioning improved from taking Pamelor (nortriptyline) and Zoloft (sertraline) antidepressants. The study found that the antidepressants improved maternal gratification but did not improve the

mother's self-efficacy and maternal infant interaction (Logdson et. al., 2009).

These studies show that there are many therapeutic treatments for PPD.

Maternal Bonding and Child Interaction with Perinatal Mood and Anxiety Disorders

In the Maternal and Child Health journal, Boyd et. al., (2006) explored whether perinatal mood disorders are related to negative mother-infant interactions. The researchers examined the association among mother-infant interactions, depressive symptoms, life events and breastfeeding of low-income African American and Hispanic women (Boyd et. al., 2006). A group of 77 women were divided into 2 subgroups: depressed or non-depressed and were videotaped with their baby during the third month postpartum (Boyd et. al., 2006). It was found that infant interaction did not differ across groups except that infants of depressed mothers displayed more aversion than infants of non-depressed mothers (Boyd et. al., 2006).

Monk et. al., (2008) stated that mothers' symptoms of psychiatric and/or perinatal mood disorders can affect children even before birth. Fetal and infant

neurobehavioral development can be altered by maternal stress, anxiety and depression during pregnancy (Monk et. al., 2008). The authors concluded that these alterations have potential long term consequences for the child's future health (Monk et. al., 2008).

Bergman et. al., (2007) also explored whether maternal stress can affect cognitive development and fearfulness in infants. The authors found that prenatal stress significantly predicted both mental development and observed fearfulness in infants (Bergman et. al., 2007). It was also found that prenatal partner relationship strain accounted for 73.5 % and 75.0 % of the prenatal stress related variance on infant cognitive and fearfulness scores, respectively (Bergman et. al., 2007).

Field et. al., (2004), collected prenatal mood and biochemistry levels of 70 women with depressed symptoms and 70 women without depressed symptoms during their second trimester of pregnancy; the researchers also collected biochemistry levels of the women's babies once born (Field et. al., 2004). The mothers with depressive symptoms had higher prenatal cortisol levels and lower dopamine and serotonin levels than women without depressed symptoms (Field et. al., 2004). The newborns of mothers with

depressive symptoms also had higher cortisol levels and lower dopamine and serotonin levels than women without depressed symptoms, thus mimicking their mother's prenatal levels (Field et. al., 2004).

Monk et. al., (2000) reviewed maternal stress responses and anxiety during pregnancy. The authors sampled 17 women and separated them into two groups; those who scored positive State Trait Personality Inventory (STPI) for anxiety (ANX) (+) and those who scored negative on the anxiety scale ANX (-). Under stress, women in the ANX (-) group had significantly higher blood pressure responses compared to women in the ANX (+) group; however, the fetuses of ANX (+) women showed significant heart rate increases and the fetuses of ANX (-) women exhibited insignificant decreases. As a result, the authors suggested that women's acute emotional reactivity during pregnancy can influence fetal HR patterns.

In a later study, Monk et. al., (2004) explored if fetal heart rate reactivity differs by women's psychiatric status and if heart rate reactivity can cause developmental risks to the fetus. The authors found that fetuses of depressed women had greater heart rate increases compared to fetuses of women with anxiety disorders (Monk et. al.,

2004). The authors also determined that maternal mood disturbance is connected to alterations in children's physiological reactivity prior to birth (Monk et. al., 2004).

A large AVON Longitudinal Study of Parents and Children, a prospective longitudinal cohort study of mothers and children that measured anxiety and depression in the pregnancy and postpartum period, N= 7,448 collected multiple antenatal and postnatal assessments of maternal anxiety and depression, antenatal and obstetric risks, psychosocial risks and children's behavioral/emotional problems (O'Connor et. al., 2002). The results of the study found that antenatal maternal anxiety predicted behavioral/emotional problems in boys and girls before accounting for covariates. Even after the covariates were taken into account, antenatal and postpartum anxiety continued to predict developmental problems in boys and girls (O'Connor et. al., 2002).

Three years later O'Connor and colleagues (2005) again looked at Avon Longitudinal Study of Parents and Children. This study provides initial evidence that prenatal anxiety might have lasting effects on child development and that prenatal anxiety might constitute a mechanism for an

increased vulnerability to psychopathology in children and adolescents (O'Connor et. al., 2005).

In Werner et. al.'s (2007), research article, "Prenatal Predictors of Infant Temperament," the authors discussed how their data indicates that physiological markers of individual differences in infant temperament are identifiable in the fetal period, and possibly shaped by the prenatal environment, specifically antenatal psychiatric illness 2007).

At 18 months of age, 35 infants with mothers with PPD symptoms were assessed using the Infant Behavior Record of Bayley Scales of Infant Development, the Strange Situation test and an object concept task (Righetti-Veltema et. al., 2003). The infants of the women with PPD symptoms displayed a positive correlation between PPD and infant behavior indentified by less verbal interaction and play interaction and performed lower on object tasks (Righetti-Veltema et. al., 2003).

The Postpartum Bonding questionnaire, a screening instrument used in the diagnosis of bonding disorders, was used in a research project of 862 mothers in Germany (Reck et. al., 2006). Using this instrument, the authors found a

significant positive correlation between infant bonding impairment and PPD (Reck et. al., 2006).

McMahon et. al. (2006) found that infants of chronically depressed mothers were significantly more likely to exhibit insecure or disorganized mother-infant attachment in comparison to infants of non-depressed mothers. In addition, their study showed that these associations between disorganized or insecure mother infant-attachment and maternal depression are more likely to occur in very low socio-economic groups.

In a literature review, Logsdon et. al., (2006) discussed the importance of the maternal role, threats to maternal role functioning, the impact of depression on mothering and nursing practice implications. The authors stated that the maternal role is "vitally important to ensure the infant's safety, survival and well-being" (p. 654). The authors reported that PPD has a moderate to severe effect on maternal-infant communication during the first year postpartum (Logsdon et. al., 2006). Infants of depressed mothers tend to be fussier, vocalize less, and make fewer positive facial expressions than infants of mothers who are not depressed (Logsdon et. al., 2006). The author's recommended the following practices for mental

health providers to prevent such negative effects: perinatal depression screening, medical provider education regarding services available in communities and being proactive in extinguishing the stigma and barriers associated with mental health problems (Logsdon et. al., 2006).

The above research studies identify a positive correlation between PPD and infant behavior.

Significance of a Support Group for Perinatal Depression

Dorothy Scott (2008) wrote a reflective paper regarding her experiences over the years with the development of a therapeutic support group for women with postpartum mental illnesses. She stated that she felt "as if the women had been trapped alone in darkness and one morning, they reached out and touched one another, and the light began to dawn" (p. 198). "Within a half an hour (of the first support group), the women were expressing enormous relief at meeting others who had gone through similar frightening and stigmatizing experiences" (Scott, 2008, p.198).

Heneghan et. al., (2004) conducted seven focus groups to explore maternal beliefs and perceptions about discussing the stress of parenting and depressive symptoms with their child's pediatrician. A total of 44 women were involved in the focus groups with 43 % of the women under the federal poverty level. The mean score for the total sample on the Psychiatric Symptom Index was 26.3 (a score greater than 20 is considered high) (Heneghan et. al., 2004). The authors found five dominant themes from the focus groups. The first theme was related to emotional health, all the women verbalized understanding regarding how their emotional health affected their child (Heneghan et. al., 2004). The second theme related to well-being, mothers expressed the need to be responsible for their child's well-being (Heneghan et. al., 2004). The third theme related to expression, all mothers expressed the need to share parenting experiences such as stressors or depressive symptoms, but preferred speaking with family or friends rather than a pediatrician (Heneghan et. al., 2004). The fourth theme related to pediatrician communication, mothers expressed that in order for them to feel comfortable in sharing how they felt with the pediatrician; the physician would need to listen well and

have good bedside manners (Heneghan et. al., 2004). The final theme was in relation to fear or judgment, all mothers' feared judgment and the potential that child protective services could be called if they expressed their feelings to a pediatrician (Heneghan et. al., 2004).

Heh and Fu (2003) studied the effectiveness of informational support in reducing EPDS scores. Seventy women, at four months postpartum and with EPDS scores 10 or higher (moderate to severe depression) were randomly placed into two groups (Heh & Fu, 2003). The treatment group received informational support about PPD at six weeks postpartum and the other control group received no support (Heh & Fu, 2003). At three months, the EPDS was redistributed to group participants. Analysis of the scores indicated that 60 % of the women in the treatment group reduced their depression levels (EPDS scores were less than a score of 10), while only 31 % of women reduced their depression levels; this mean difference between the two groups was statistically different, indicating that informational support regarding PPD was a beneficial intervention approach (Heh & Fu, 2003).

Letourneau et. al., (2007) conducted a descriptive study collecting qualitative data about support group

preferences from 52 women from Alberta and New Brunswick, Canada. Of the total sample, 21 women preferred to have in home support provided by professionals and 16 preferred to have in home support from a woman who experienced PPD (Letourneau et. al., 2007). Moreover, 27 women expressed preference for telephone follow up and support and 14 women identified that physical support groups are helpful in providing information, and emotional support (Letourneau et. al., 2007).

Zauderer and Galea (2010) discussed how breastfeeding and support can empower the mothers through the difficulty of PPD (2010). The authors cited that mothers with PPD often feel embarrassed or guilty about having depressive feelings. However mothers who are positively reinforced from other mothers and group leaders with similar experiences tend to feel more open to talk about their anxieties and fears (Zauderer & Galea, 2010). The authors also cited that skin to skin contact with their infants can decrease PPD symptoms and encourages attachment which can often be problematic in perinatal mood disorders (Zauderer & Galea, 2010).

Surkan et. al., (2006) explored the connection across social networks, social support and symptoms of depression

in postpartum women. The authors randomly assigned 415 women to receive the CES - Depression scale (scores served as the dependent variable) and the MOS - Social Support Survey (scores served as the independent variable (Surkan et. al., 2006). Mothers who had two or more support persons were associated with a lower CES score versus women who had only one support person (Surkan et. al., 2006). The study also found that both social support and social networks were statistically significant and independently related to depressive symptoms (Surkan et. al., 2006).

Ho et. al. and Xie et. al., (2009) discussed how new mothers benefit greatly from positive reinforcement and approval from other mothers and group leaders in support groups.

Reid et. al., (2003) discussed the findings of a randomized trial of two support interventions, a postnatal support group and a magazine for women suffering from PPD. A total sample of 1004 women was divided into four groups. Group 1 received an invitation to the support group. Group 2 received the "New Lives Magazine." Group 3 received both interventions. Group 4 was the control group and received standard postpartum care (Reid et. al., 2003). Only about one quarter of the women, in group 1 and 3, who were

invited actually attended the group and these women were mostly middle class individual with transportation (Reid et. al., 2003). The women who attended liked the group because they were able to share their birth and baby experiences, meet other mothers, get out of the house, and received education regarding postpartum issues. The women who did not attend reported that the location and/or the timing of the event were inconvenient and they felt shy about coming to the group on their own.

The above research studies confirm that supportive-educative groups are a positive and effective way of supporting women suffering from PPD.

Dorothea Orem's Self-Care Theory

Comley (1994) summarized the key ideas and hypotheses of Dorothea Orem's self-care model published in 1971. The self-care model is divided into four subtheories: (1) self-care deficit; (2) self-care; (3) therapeutic self-care demand; (4) nursing systems.

The self-care deficit subtheory suggests that all people may encounter limitations of self-care regarding their health state in which they may benefit from nursing

care in addition to their own self-care efforts (Comley, 1994).

The self-care subtheory defines self-care and care of dependants as a learned behavior which manages "human structural integrity, functioning and development" (Comly, 1994, p. 757). Self-care subtheory separates into three components: universal self-care requisites, developmental requisites, and health deviation self-care requisites (Comly, 1994). Universal self-care addresses the essential needs of all human beings: physiological needs and functioning, protection, social interactions and a maintainable sense of normality. Developmental requisites promote and support growth and development and prevent situations that prevent or hinder the self-care process (Comly, 1994). Health deviation self-care requisites address the increased self-care demands needed when individuals undergo disease or illness that require treatment (Comly, 1994). Therapeutic self-care demand is defined as the self-care action needed to meet the requisites of self-care. If the therapeutic self-care demand surpasses the self-care capabilities (self-care agency) of the individual, deficits occur and nursing

interventions are needed to assist the individual in compensating the deficits (Comly, 1994).

Orem's fourth self-care subtheory, nursing systems, is defined as the direct or indirect care provided by the nurse to improve the individual's self-care needs (Comly, 1994). The level of care is divided into three nursing systems: wholly compensatory, partially compensatory and supportive-educative. The care provided in each of the systems may include: "acting or doing for another, guiding and directing another, providing physical support, providing psychological support, teaching, or fostering an environment that supports development (Comly, 1994, p. 758).

Conway et. al., (2006) employed focus groups of 40 staff nurses in a cardiac step down unit to evaluate self-care nursing practices. Through the evaluation of the focus group data, a theme developed suggesting that only using a biomedical model compromised their patient's self-care because it focused solely on the busyness of care, not rehabilitation, education or self-care (2006). As a result of this study, the cardiac step-down unit applied Orem's self-care model to address their patients' self-care and educational needs (2006).

In 1997 Carlsson used Orem's self-care model as well to develop a parental education group in Sweden. She specifically used Orem's philosophy about individuals; that they are unique, they can take responsibility for their own lives, and they are capable of coping with life as long as they have adequate support (Carlsson, 1997).

Allison (2007) also created nursing guides for patient's activity and rest balance and maintenance utilizing Orem's self-care theory. Because activity and rest have different meanings for each person, it is essential for nurses to identify each patient's definition in order to recommend appropriate activities and rest. The guide assists nurses to determine basic conditioning factors, adequacies, inadequacies or all three in the client's current activity and rest pattern in order to identify self care deficits and how they affect their client's health status.

Summary

A review of the research literature documents that perinatal depression services are paramount in treating women with perinatal mood disorders.

The literature review also indicates that screening is needed to identify women suffering from perinatal mood disorder. One of these tools, EPDS, appears to present scores that are quite reliable and valid for screening and outcome assessment. However, the literature also documented that while routine depression screening is important, mental health practitioners should also identify risk factors as well.

Monitoring mother and infant bonding is crucial to prevent any behavioral or developmental problems in children. It is evident from the literature that perinatal mood disorder symptoms do affect the infant is some way.

Finally, the research on Orem's self-care model which explores how individuals care for themselves, what hinders or promotes their care and how the nurse can intervene to improve the individual's self-care status, may be a promising model of treatment for suffering from perinatal depression; the following chapter employs such an exploration.

CHAPTER THREE

METHODOLOGY

Introduction

The purpose of this study is to explore whether a support group, utilizing Dorothea Orem's self-care model, for perinatal depression in Riverside County, can improve participants' depressive symptoms, and their maternal/ infant communication and interaction. These methods were designed to determine the effectiveness of the pilot New Mothers' Support Group.

Subjects

A total of 11 mothers participated in this study and thus, the pilot support group. All subjects were suffering from PPD or experiencing some form of depression or anxiety symptoms, and ranged in age from 16 to 35 years and were racially identified as Latina, African American/Black or White. Other sample demographics and characteristics are presented in chapter four.

Procedures

Once approval was granted from the San Bernardino State University Institutional Review Board (#09066), sample recruitment began. Due to the high concentration of women with perinatal depression being impoverished, target sampling began with presenting information on the New Mothers' Support group during WIC education classes. However, the target sample also included new mothers in the Riverside and San Bernardino counties who may not be receiving WIC services. As such, fliers were also created and passed out to all Inland Empire Mental Health Task Force members for disbursement to all of their clientele. The flier included the phone number of the Wylie Center in order for interested participants to call and schedule an interview (see Appendix D). Women who were interested in the New Mothers' Support Group met with the Public Health Nurse (MSN student) and Masters in Social Work (MSW) student at either the Wylie Center or the WIC office.

Consent was acquired from each of the recruited women (see Appendix B). Each woman was interviewed by the Public Health Nurse (MSN student) and MSW student before attending the support group. Each client under the age of 18 years also had their parent or guardian sign a consent form

(provided by the Wylie Center), granting the teen to participate in the support group (see Appendix C).

Once consent was obtained, clients were assessed on a variety of mental health measures and one physical health measure. The MSW student conducted the mental health assessments and the Public Health Nurse (MSN student) conducted the health assessment; both individuals were trained in instrument delivery. Assessments were employed either at the WIC office or during a scheduled home visit.

Once assessments were conducted, clients who had PPD symptoms (i.e. had an EPDS score of 10 or higher, displayed risk factors, or met both criteria), were encouraged to attend a 10-week support group hosted by the MSW student and Public Health Nurse (MSN student). During or after the last weekly meeting, post-assessments were conducted.

Once the participants were interviewed, their clinical information was evaluated. All clients who scored an Edinburgh Postnatal Depression Scale score of 10 or more and/or displayed risk factors were encouraged to come to the support group. All clients interviewed fit the criteria of the support group guidelines.

Quality Control

Quality Control and reliability of all data collection was maintained by the Public Health Nurse (MSN student) and the MSW student synchronously and asynchronously, screening for accuracy and validity of scoring and assessment. Frequent dialogue was established for any questionable discrepancies. Once an assessment was completed, it was examined by the Public Health Nurse (MSN student) and MSW student and then transported to the Wylie Center for filing via a locked briefcase. All of the assessment information was kept confidential throughout the study.

Dorothea Orem's Self-Care Theory

Utilizing Dorothea Orem's Self-Care theory, during the assessment each participant's self-care agency, therapeutic self-care demand and self-care deficits were identified. Once all self-care strengths and deficits were understood, nursing systems were selected for each participant by the nurse and social worker. It was expected that each participant would have self-care deficits due to perinatal depression. It was expected that clients may be referred to partially compensated systems such as individual counseling. All participants would be enrolled in a

supportive-educative system, "The New Mothers' Support Group."

Assessment Tools

Both the Public Health Nurse (MSN student) and MSW student were trained in the use of each assessment tool.

Patient Health Questionnaire

The Patient Health Questionnaire (PHQ) is an assessment tool used for making criteria-based diagnoses of depressive and other mental disorders commonly encountered in primary care (Spitzer et. al., 2000). The diagnostic validity of the PHQ has recently been established in two studies. The first study involved 3,000 patients across eight primary care clinics. The second study consisted of 3,000 patients across seven obstetrics-gynecology clinics (Spitzer et. al., 2000). The results of the two studies showed PHQ to be a useful instrument for the assessment of mental disorders, functional impairment, and recent psychosocial stressors (Spitzer et. al., 2000). The full scale is presented in Appendix E for review.

Edinburgh Postnatal Depression Scale

This depression scale was developed and published in 1987 in the British Journal of Psychiatry to screen postpartum women in outpatient, home visiting settings, or at the 6-8 week postpartum examination. The EPDS consists of 10 questions that comprise an easy way to screen and identify women with perinatal depression (Cox et. al., 1987). As chapter two showed, the EPDS has been utilized among numerous populations throughout the world (Cox et. al., 1987). The EPDS has been created, validated and proven to be an effective screening tool for PPD (Cox et. al., 1987). The full scale is presented in Appendix F for review.

Mental Status Exam

The mental status examination is an essential tool that aids mental health and health care providers alike in making psychiatric diagnoses (Snyderman & Rovner, 2009) The full mental status exam is presented in Appendix G for review. The mental status examination includes a historical report from the patient and observational data gathered by the mental health or health care provider throughout the patient encounter (Snyderman & Rovner, 2009). These kinds of assessments are valid and reliable; however they depend

greatly on the assessment and interpreting skills of the professional interviewer (Rosenzweig et. al., 1961).

Nursing Child Assessment Satellite Training Feeding Scale

The Parent Child Interaction (PCI) Feeding and Teaching Scales from Nursing Child Assessment Satellite Training (NCAST) are the most widely used scales for measuring parent-child interaction today (NCAST, 2010). They are a reliable and valid means of observing and rating caregiver-child interaction for the purpose of assessing a parent/child relationship strengths and areas needing improvement (NCAST, 2010). The scales are widely used in both clinical practice and research with families and young children and also used as pre and post-test measures (NCAST, 2010). The scales contain a well-developed set of observable behaviors that describe the caregiver-child communication and interaction during either a feeding situation, birth to 12 months of life, or a teaching situation, birth to 36 months of age. For the purposes of this study, the Feeding scale is the only subscale used for women with children 1 year or younger (see Appendix H).

Diagnostic and Statistical Manual of Mental Disorders IV Multi-Axial Classification

Diagnostic and Statistical Manual of Mental Disorders IV Multi-Axial Classification (DSM IV) is published by the American Psychiatric Association to assist mental health practitioners in the identification and diagnosis of mental health disorders (APA, 1994).

Axis I describes clinical psychiatric disorders. Axis II describes personality disorders and/or mental retardation. Axis III describes general medical conditions which may be related to Axis I and Axis II conditions. Axis IV describes psychosocial and environmental problems including current or recent stressors. Finally, Axis V describes the global assessment of functioning (GAF) score (APA, 1994). The purpose of GAF scores is to enable clinicians to obtain information about global functioning to help predict the outcome of the mental health treatment (APA, 1994). A rubric for GAF score interpretation is presented in Appendix I for review.

Support Group

The 10 week New Mothers' Support Group was a weekly, hourly session organized to provide an educational session for the first half, and for the second half, structured to allow the participants to talk about how they are feeling and the struggles that they are experiencing. At each support group, childcare was provided by California State University, San Bernardino Bachelor in Science Nursing Students in the clinic conference center. After each support group, the Public Health Nurse (MSN student) and MSW student sent encouragement cards during the week and reminder calls the day prior to the next support group session.

First Meeting

The first support group met on February 22, 2010, with three women in attendance. The Public Health Nurse (MSN student) and MSW student introduced themselves and discussed the proposed format of the support group. Each woman was encouraged to give feedback regarding the format. The Public Health Nurse (MSN student) and MSW student also gave a list of proposed educational topics to the participants and again the women were encouraged to give feedback.

The participants gave the Public Health Nurse (MSN student) and MSW student the topics that they wanted to hear about and agreed with the proposed support group format. A list of topics chosen is referenced in Appendix J.

Support Provided During Support Group

At each support group, the Public Health Nurse (MSN student) and MSW student observed the women for any danger signs in behavior or comments and if evident, provided referrals for community and mental health resources. The Public Health Nurse (MSN student) and MSW student remained after each support group to be available for any participant needing additional support, debriefing, or both. Also, community resources for counseling, mental health services, and healthcare were made available during the support group session.

Last Meeting

At the last support group meeting, the Public Health Nurse (MSN student) dispersed the post-test EPDS and the overall evaluation form (see Appendix K), as well as and scheduled either home or office visits to provide the post-test NCAST Feeding Scale. For the women who were unable to attend the last support group meeting, the Public Health

Nurse (MSN student) scheduled office or home visits to give the post tests.

Statistical Analysis

Since this is a small pilot study, utilizing the Edinburgh Postnatal Depression Scale (EPDS) and NCAST Parent-Child Interaction (PCI) Feeding Scales were administered to monitor progress throughout the 10-week program. Once all of the post-test and evaluation data were collected, the data was analyzed for significance, similarities and differences. The data collection presented both qualitative and quantitative data to analyze. In terms of the quantitative data, due to the small sample size, no inferential statistical tests were done. Frequency, mean and percentage of change value were calculated. The data was organized into common patterns and themes among participants' responses; then the data was categorized into measures of central tendencies to evaluate change through descriptive statistics.

The next chapter will present and discuss the results obtained from the New Mothers' Support Group assessments and pre- and post-tests.

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

This study is investigating the pilot New Mothers' Support Group's effectiveness on decreasing symptoms of PPD as measured by the EPDS and increasing maternal/infant communication and interaction as measured by the NCAST Feeding Scale. This chapter presents the results of this study by the following categories: client characteristics, behavioral and health demographics, mental health symptoms, EPDS pre and post-test scores, NCAST Feeding Scale pre and post-test scores, client statements about stress questions, client statements regarding fears about baby and evaluation statements and scores.

Client Characteristics

The mean age of the women participating in the support group was 24.5 years. Six out of the 11 women were pregnant for the first time or had their first child. The remaining 5 women had two or more children. Nine women were Latina, 1 woman was Black/African American and 1 woman was White. Four women were married, 4 women were single, 2 women live

with their significant other and 1 woman was single and divorced. Ten women were of low-socioeconomic status as defined by their enrollment in WIC. Five women had not completed high school and 6 women had some college education ranging from some college to the masters level. (Table 1 presents further characteristics of the sample).

Table 1. Client Characteristics.

#	Age	# Preg	Race	Marital Status	Relationship w/ S.O. and/or FOB	WIC	Education
#1	24	G: 2 P: 0 S: 1 T: 0	Hisp	Single	Not together	WIC	No diploma working on GED
#2	19	G:2 P:2	Hisp	Single lives w/FOB	He travels a lot, wants him home more, scared to be alone d/t	WIC	12th-working on GED
#3	35	G:3 P:3	Hisp	Single	On/off currently	WIC	Some College
#4	16	G:1 P:0	Blk/ AA	Single	Currently single, friends with FOB thinking about getting back together.	WIC	Completed 11th grade In H.S
#5	20	G:1 P:0	Hisp	Married	Good	WIC	Some College
#6	29	G:1 P:0	Hisp	Married	Married 2 years	WIC	Bach. Degree
#7	19	G:2 P:1	Hisp	Single lives w/FOB	Good, 3 years together	WIC	Completed 11th grade
#8	30	G:1 P:1	White	Married	Very supportive	None	In Graduate School
#9	28	G:3 P:3	Hisp	Divorced	FOB left for Mexico	WIC	Completed 11th grade

#10	17	G:1 P:1	Hisp	Single	Good, 16 years old	WIC	Completed 11th grade in HS
#11	33	G:2 P:2	Hisp	Married	Great, 2nd marriage for both	WIC	Some college/ graduate school

Note: Preg= Pregnancy; P= Para; G=Gestation; S= Spontaneous Abortion; T= Therapeutic Abortion; SO=Significant Other; FOB=Father of Baby; WIC= receiving Women, Infants and Children services; GED = General Education. Hisp=Hispanic; Blk/AA= Black/African American

Behavioral and Health Demographics

Table 2 presents the behavioral and health demographics of the sample. Nine women enrolled in the program had a pregnancy related health complication. Five women were receiving outpatient therapy and treatment. Three women were taking some kind of psychotropic medication. Six women were diagnosed with a mental health disorder.

Table 2. Behavioral and Health Demographics.

	Pregnancy Complications	Outpatient Treatment	Psychotropic Medicine	Axis 1 Diagnosis
#1	Epilepsy, one miscarriage	None	None	Depressive Disorder NOS 311
#2	Anemia. Suicidal ideation with panic attacks. No attempts.	Therapy with Psychologist	Lorazepam and sertraline. Discontinued	296.33- Major Depressive Episode, Recurrent with Postpartum Onset. 300.01 Panic Disorder with agoraphobia
#3	Gestational	Psychologist	Fluoxetine	296.22- Major

	diabetes at 26 wks, bed rest and c-section with third pregnancy	/ Psychiatrist	10mg	Depressive Disorder, single episode with postpartum onset
#4	Pre-eclampsia	None	None	V62.89 Phase of Life Problem
#5	None	None	None	300.00 Anxiety Disorder, NOS
#6	None	None	None	V62.89 Phase of Life problem
#7	Back pain	None	None	V62.89 Phase of Life Problem
#8	Restricted uterine growth oligohydraminos prematurity, induced labor, AFP positive.	Psychologist / Psychiatrist	Duloxetine 90mg Divalproex 750mg Risperidone 2mg	296.55 Bipolar Disorder most recent episode depressed w/postpartum onset
#9	Depression. Cerebral palsy and autism.	Psychologist / Psychiatrist	Venlataxine HCI	296.54 Bipolar 1 Disorder. 300.02 Generalized anxiety disorder.
#10	None	School counseling and anger management	None	311 Depressive Disorder NOS
#11	Hypertension pre-eclampsia prematurity.	None	None	V62.89 Phase of Life problem

Mental Health Symptoms

The most common symptoms identified from the sample were decreased energy (M=2.5), depression (M=2.1), irritability (M=1.1), obsessive thoughts (M=1) and excessive worry (M=1.9). The mean GAF score was 62. Table 3 presents the GAF score and frequency of the most common

symptoms of each participant. Please see Appendix I for a description of the GAF scores.

Table 3. Mental Health Symptoms.

	GAF Score	Decreased Energy	Depressed	Irritability	Obsessive Thoughts	Excessive Worry
		Low-High 1 - 5	Low-High 1 - 5	Low-High 1 - 5	Low-High 1 - 5	Low-High 1 - 5
1	57	3	1	0	1	3
2	50	1	5	3	2	3
3	57	3	5	5	3	4
4	70	0	0	0	0	1
5	70	4	0	0	3	2
6	73	1	0	1	0	0
7	73	0	0	1	0	1
8	51	3	4	1	0	1
9	41	5	5	1	3	3
10	60	3	3	0	0	0
11	80	4	0	0	0	3

Edinburgh Pre- and Post-Test Scores

The mean number of support sessions the women attended was 2.4. The mean EPDS pre-test score was 7 and the mean post-test score was 4. The mean percentage change from pre to post test was 36 %. (See Table 4). Approximately 80 % of the participants had decreased EPDS scores after the

intervention; however it is difficult to determine if the reduction was due to the intervention, antidepressant /antipsychotic use, other outpatient treatment services or a combination of all of these factors.

Table 4. Edinburgh Pre- and Post-Test Scores.

Client	# of sessions attended	Pre-Test	Post-Test	Percent Change	Evaluation Score
#1	0	6	5	0.17%	None
#2	0	11	4	0.64%	None
#3	0	16	0	1.0%	None
#4	3	1	0	1.0%	Agree
#5	5	5	3	0.4%	Strongly Agree
#6	1	3	Unable to find	Unavailable	None
#7	1	4	5	-0.2%	Strongly Agree
#8	3	10	2	0.8%	Strongly Agree
#9	2	17	17	0.0%	Agree
#10	5	4	5	-0.2%	Agree
#11	6	3	2	0.3%	Strongly Agree

Nursing Child Assessment Satellite Training Pre- and Post-Test Scores

There were only 6 women eligible for the NCAST Feeding Scale. The mean number of sessions the 6 women attended was 2.7. The mean NCAST pre-test score was 55.5 and the mean NCAST post-test score was 62.8. The mean percentage change was 11 %. (See Table 5). Of the total 6 participants, 83 % had increased NCAST scores after the intervention; however, similar to the EPDS scores, it is difficult to determine if the increase was due to the intervention, antidepressant /antipsychotic use, outpatient treatment services or all three.

Table 5. Nursing Child Assessment Satellite Training Feeding Scale Pre- and Post-Test Scores.

Participant	# of sessions attended	Pre-Test	Post-Test	Percentage Change	Evaluation Score
#2	0	42	61	0.31	None
#3	0	60	71	0.15	None
#8	3	52	62	0.16	Strongly Agree
#9	2	60	63	0.05	Agree
#10	5	59	58	-0.02	Agree

#11	6	60	62	0.03	Strongly Agree

Stress Questions

Throughout the initial assessments, the MSW student and Public Health Nurse (MSN student) asked participants stress questions in the Mental Health Exam. In Table 6, statements are organized according to client number. Some of the most common stressor themes identified were finances, caring for baby and children, father of baby or husband, unsupportive family and demands of school.

Table 6. Stress Questions.

Client	What is your biggest concern about your baby?	What is the most stressful thing in your life right now?	Tell me about other stressful events that are impacting the way you feel.
#1	"Something will happen and my baby will miscarry due to my epilepsy."	"Worried about losing baby due to epilepsy."	"Has SSI for seizures, relationship with FOB." (Personal Communication, March 2009).
#2	"I want to get better so I can take care of them (my children) better."	"Anxiety Problem."	"3 y/o daughter has a heart murmur, finds stressful." (Personal Communication,

			March 2009).
#3	"Quality of care children and leaving baby with baby w/ babysitter."	Left blank	"Work, school, father back in life, dealing with brothers and mothers' emotions." (Personal Communication, March 2009).
#4	"I don't know, haven't thought about it."	"Nothing."	"School and being pregnant." (Personal Communication, March 2009).
#5	"My baby growing too fast. I am 19 wks pregnant and I have a heart problem." Concerned how she will be able to handle the pregnancy.	Left blank	"Husband unemployed." (Personal Communication, March 2009).
#6	"She (my baby) is healthy."	"My pregnancy."	"Finances and school." (Personal Communication, March 2009).
#7	"A possible genetic problem since my sister has epilepsy."	"Financial problems."	"Economic, getting cash aid, WIC food stamps. FOB searching for job, here illegally. Stressed with sister and her health problems." (Personal Communication, March 2009).
#8	"My baby grows up healthy. Being a healthy mom."	"I'm stressed out about caring for my baby and being able to handle the work of being a stay at home mom."	"None thank goodness." (Personal Communication, March 2009).
#9	"I am worried about SIDS, I check him while he sleeps, and I am always checking him."	"Having no father for the baby."	"Recently kicked out of parents home 1½ weeks ago. Family not supportive, has SSI. Witnessed domestic violence

			and suffered emotional abuse as a child." (Personal Communication, March 2009).
#10	"Father of baby may not be there."	"My boyfriend and how his family acts and mine too."	"Boyfriend and money." (Personal Communication, March 2009).
#11	"My baby wants to be held constantly, she doesn't want others to hold her."	"Baby!"	"Money, husband working full time." (Personal Communication, March 2009).

Anxiety Regarding Infant Care

Throughout the initial assessments, questions were also asked about fears about being a mom, taking care of the baby and how the women felt about their infants. Some of the most common fear themes identified were being a good mom and being financially responsible. Common themes identified in how the women felt about their babies were all positive, such as expressing their love for their babies. (Table 7 presents participants' responses to these items).

Table 7. Anxiety Regarding Infant Care.

Client	Tell me about your fears about your baby and you as a mom.	Tell me about your relationship with your infant.
1	"No fears, I am happy."	"N/A." (Personal Communication, March 2009).
2	"Has anxiety about being a good mom."	"Really good, hold her close." (Personal Communication, March 2009).
3	"Being responsible financially."	"Love her, feel horrible when have to leave her d/t to return to work." (Personal Communication, March 2009).
4	None reported	"N/A." (Personal Communication, March 2009).
5	"Won't be a good mom."	"N/A, baby not born yet." (Personal Communication, March 2009).
6	"Worried about first month taking care of infant."	"N/A." (Personal Communication, March 2009).
7	"No fears."	"N/A, baby not born yet" (Personal Communication, March 2009).
8	"My daughter will be fine. Client has changed how she is taking care of self. Wants to be stronger."	"Love her, she is precious, cute, a lot of fun smiles." (Personal Communication, March 2009).
9	"I want my baby to become someone, want an apt so he can have he own space, enough money, him growing healthy."	"N/A." (Personal Communication, March 2009).
10	None reported.	"Good." (Personal Communication, March 2009).
11	"Baby crawling and getting hurt."	"Fine, great." (Personal Communication, March 2009).

Evaluation

There a variety of common and positive themes identified in the support group evaluation. Four women agreed that the support group had made an important difference in their lives and five women strongly agreed to this statement, "This program has made an important difference in my life." Table 8 presents participants' evaluation responses.

Table 8. Evaluation Questions.

Client	What do you like best about the Support Group?	Since participating in the support group, describe an experience that you have had with your baby that you dealt with differently because of what you learned in the program?	Evaluation Score: This program has made an important difference in my life.
4	"The conversations we get to share with one another."	"I have learned to be very patient when my baby is crying."	"Agree." (Personal Communication, March 2009).
5	"I like that we can express ourselves without being criticized."	"I have been waiting anxiously to have my baby with me and practice everything that I have learned."	"Strongly Agree." (Personal Communication, March 2009).
7	"Everyone gets a chance to talk."	Left Blank.	"Strongly Agree." (Personal Communication, March 2009).

8	"The leaders, their phone calls and notes mailed home."	"I feed my daughter better and talk to her more because of their help."	"Strongly Agree." (Personal Communication, March 2009).
9	"Getting to talk with other women."	Left Blank.	"Agree." (Personal Communication, March 2009).
10	"I like the way when everyone puts their feelings out and how the way people can put you up when you are down."	Left Blank.	"Agree." (Personal Communication, March 2009).
11	"Learn about new things that I could apply in my life. New friends."	"Talk a lot to my baby, if I'm okay my baby would be too."	"Strongly Agree." (Personal Communication, March 2009).

Summary

Overall, the pilot study for the New Mothers' Support Group was found to decrease depressive symptoms as displayed by the EPDS scores and increase parent/infant attachment and bonding as indicated by the NCAST Feeding Scale scores. Due to the fact that this was a small pilot study, inferential statistics were not applied and therefore it is unknown whether these changes are statistical significant. The results will be compared to the other studies to provide support or lack of for these findings. (See Appendix L).

Discussion

The purpose of this study is to provide a support group, utilizing Dorothea Orem's self-care model, for perinatal depression in Riverside County. The following research questions were asked: (1) "can a perinatal depression support group decrease group participants' depression and symptoms as measured by scores on the Edinburgh Postpartum Depression Scale (EPDS) scores?" and (2) "can participation in a perinatal depression support group improve participants' maternal/infant communication and interaction as measured by scores on the Nursing Child Assessment Satellite Training (NCAST) Feeding Scale?"

The women who had the highest percentage of change from the EPDS and NCAST pre- and post-tests were further evaluated for patterns and themes. Five women were receiving outpatient therapy and treatment, three women were taking psychotropic medication and seven women were diagnosed with a mental health disorder. Three of the women, (one had no outpatient therapy or medication, one had outpatient therapy only, and one had both outpatient therapy and medication), did not attend any of the support groups. In this group one of the women had the highest percent change for both tests. Even though she did not

attend the support group, she did receive supportive phone calls and home visits from the Public Health Nurse (MSN student) to encourage her to attend the support group and to complete the pre and post tests. Her assessment information showed that she was single but living with the father of her children of whom she did not receive a lot of support because he traveled often. She was of low socioeconomic status and was working on her GED. These are all risk factors identified in the literature which gives some insight to her development of depression and anxiety.

The literature does show that psychotherapeutic and pharmacological treatments can effectively reduce perinatal depressive symptoms; however, there are risks to consider for pharmacological treatment (Highet & Drummond, 2004, Pearlstein, 2008). These findings could explain why this non-attending, high improving woman did so well to a point, but it does not explain if any of the support she received from support group phone calls or Public Health Nurse (MSN student) home visits contributed to her change of mood or improved attachment with her child. Other studies show that women dealing with perinatal depression symptoms rely more on informal, non-professional sources of support such as talking with partners/husband, talking with mother,

sisters, or female friends; and sharing feelings with healthcare staff (Abrams & Dornig, 2007). This was not the case in this situation, because she talked primarily with her psychologist; however it does show some merit to effectiveness of the social support she received in the form of cards and phone calls from the Public Health Nurse (MSN student) and MSW student.

The two other women who did not attend the support group also had a significant change from pre- to post-test in EPDS and NCAST. One woman received outpatient mental health care and the other did not. Both women were single, and of low socioeconomic status however, one had a stronger support system than the other. Both received supportive cards in the mail and encouraging phone calls from the Public Health Nurse (MSN student) and MSW student during the week.

A review of the literature regarding telephone support does show that this medium may decrease perinatal depression symptomatology. Clearly this does not explain if the phone calls and cards helped decrease the EPDS and NCAST scores, for the three women who did not attend the support group but it does provide some reasoning and warrants further research.

Another woman who had significant percentage change in EPDS and NCAST scores attended the support group and received outpatient therapy and psychotropic medication. She did not have any of the risk factors from the previous women described. She was married, middle class, had a master's level college education. She did have one major stressor, a positive alpha-fetoprotein test and a difficult pregnancy evidenced by restricted uterine growth, infant malnourishment, oligohydraminos, and a preterm delivery.

The results showed that 82 % of the women enrolled in the program had a pregnancy related health complication. It is understood that women's perceptions of poor health or obstetric complications can influence the development of perinatal depression (Linter et. al., 2006). There have been few studies that looked specifically at any correlation between physical health problems in pregnancy and depressive symptoms and/or diagnosis of perinatal depression. Rubertsson et. al., (2008) found that unplanned pregnancy, unemployment; less support from partners, and physical health problems in pregnancy were associated with depressive symptoms. Having depressive symptoms does not necessarily warrant an automatic diagnosis of perinatal depression, but the association is important to note.

Webb et.al., (2008) looked at correlational relationships between postpartum conditions, depressive symptomatology and emotional well-being. The study found that postpartum conditions, especially if they were perceived as being moderately or majorly severe, were consistently associated with emotional well being and depressive symptoms (Webb et.al., 2008). There appears to be a consistent relationship developing between physical problems during pregnancy and the occurrence of perinatal depression.

Due to the small sample size, inferential testing between EPDS scores and diagnosis of a mental health disorder were not performed. For the six women who were diagnosed with mental health disorder, 4 of these women scored 10 or higher on the EDPS. The remaining 2 women scored 6 or lower on the EPDS. According to Cox et. al., (1987) the EPDS validation study showed that mothers who scored above 10 on the scale were likely that 92.3% of women to suffer from a depressive illness of varying severity. The authors also noted that the EPDS score should not override careful clinical assessment and diagnosis (Cox et. al., 1987). Logdson and Myers (2010) found low alpha values when correlating EPDS scores to mental health

disorder diagnosis for adolescents; thus no correlation was found to be significant (Logdson & Myers, 2010). In this same study, the authors found that adolescents scoring 5 or lower on the EPDS may equate to an adult scoring 10 or higher when screening for depression (Logdson & Myers, 2010). As a result, correct mental health disorder diagnosis and perinatal depression screening are essential.

Overall, the findings of this pilot study are supported by a prior study of 23 women in a psycho-educational group (Honey et.al., 2002). In this prior study, researchers found that an 8 week psycho-educational group significantly reduced the level of depressive symptoms for participants at program completion and 6 months following. (Honey et. al., 2002). Other studies have found that both social support and social networks are significantly and independently related to depressive symptoms. (Surkan et. al., 2006). For example, Ho and Xie et. al.'s (2009) studies found that new mothers benefit greatly from positive reinforcement and approval from other mothers and group leaders in support groups.

For the NCAST findings, a similar study about investigating maternal-infant behavior found that infants of depressed mothers displayed more gaze aversion than

infants of non-depressed mothers (Boyd et. al., 2006). Another study found a significant positive correlation between infant bonding impairment and PPD (Reck et. al., 2006). One review was found regarding support groups helping mother-child relations (Wan et. al., 2008). The authors stated that difficulties in the mother-infant dyad are often intensified when the mother is socially isolated or has a lack of support (Wan et. al., 2008). The researchers further explored findings from three group interventions involving depressed mothers, which showed improved maternal infant interaction and maternal mood (Wan et. al., 2008). In these interventions, none of the mothers screened with the NCAST Feeding Scale were below the 10^{th} percentile in the caregiver/infant total showing no bonding impairment pre-test, however there was a mean 30 % improvement between pre- and post-testing on this scale. This clearly shows that there is some kind of positive relationship between support groups and improving maternal-infant interaction.

For the stress questions that were asked during the initial assessment, three major themes were identified: infant care, relationships with significant other, and financial constraints. Because the sample was primarily low

income, it is very understandable for finances to be one of the women's major concerns. It is very interesting to note that each one of the women's concerns is noted as risk factors in the literature for perinatal depression.

With the items related to anxiety regarding infant care, the themes identified were concerns about fulfilling expected maternal duties, financial provisions, being able to take care of the baby or prevention of harm. The dominant theme was fulfilling the maternal role, and expressed by participants, the desire "to be a good mom". Abrams and Dornig (2007) elaborated on this finding: mothers were concerned that the presence of perinatal depression precluded mothers from fulfilling their duties. This underscores the concept of support groups so mothers can ventilate fears and avoid isolation. It provides a venue for discussing maternal fears.

Of the eight women who attended the support group, seven evaluations were collected. Each evaluation supported the findings that the support group was helpful and supportive. The main theme identified from the participants regarding satisfaction of the group was the ability to talk with one another and share their feelings. In regards to how the women cared for their babies differently due to the

support group, not all of the women answered. For those responding, the theme identified was increased maternal communication to their infant in addition to a feeling of increased patience with infant behavior.

Overall, the results of this study showed positive percentage changes in the EPDS and NCAST feeding scale after the 10 week support group.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

This small pilot study involving Riverside County "New Mothers' Support Group" in Riverside County, decreased depressive symptoms and increased infant-mother attachment. In addition, it showed that the nursing care could improve the self-care of depressed mothers which could be extended or generalized to their infants.

This was a pilot study looking at support groups improving perinatal depression symptoms and maternal-infant attachment and bonding. The support group consisted of a social work MSW student and a Public Health Nurse (MSN student) leading 10 week sessions.

The methods of the support group were designed by the Inland Empire Perinatal Mood Disorder Task Force and the Wylie Center consisting of recruiting, interviewing and inviting clients to join the support group. The screening tools used during the interview were: PHQ, New Mothers' Support Group Intake and Mental Status Exam Form, EPDS, and the NCAST Feeding Scale.

Conclusions

Involvement in the supportive-educative program, utilizing the Orem Self-Care Framework demonstrated the following in majority of participants:

1. Decreased depressive symptoms as measured by EPDS;
2. Increased maternal-infant attachment, as measured by the NCAST Feeding Scale;
3. Orem's Self-Care theory can be extended to both maternal and infant care, within a perinatal depression support group;
4. A nursing role can decrease self-care deficits.

Limitations

A limitation of this study is the small sample size. Due to the small sample this researcher could not perform inferential statistical testing on pre/post differences. In addition, other counseling, psychiatric care, and medication treatment possibly confounded the results.

The theme of anxiety was identified throughout the study. No pre and post tests were given to specifically measure anxiety levels.

Implications for Further Research

Because this was a pilot study, future research could increase the sample size of participants. In addition, the study design could be altered to include a control group, one with psychiatric care and one with the support group intervention. A follow up after treatment is also needed to determine any long term effects and to evaluate the participants to assess if further care is needed for study purposes and client well being.

Additional studies are also needed for the following: confirm associations between physical/medical problems during pregnancy, the development of perinatal depression and the impact of supplemental encouragement in the form of phone calls and cards.

Recommendations

From the review of the literature on the barriers of care for low income women suffering from perinatal mood disorders, it seems that these women favor support groups and individual counseling from providers who are open and non-judgmental (Abrams & Dornig, 2007). It is recommended that the Inland Empire Perinatal Mental Health Collaborative, The Wylie Center and Riverside County

continue to provide both education and support in the support group for this population with perinatal depression. The eventual goal for the support group is to offer groups in multiple languages throughout the county to support the diverse population of the Inland Empire.

APPENDIX A

DEFINITION OF TERMS

DEFINITION OF TERMS

Perinatal Depression

Perinatal depression can be defined as, "Symptoms of feelings of anger or irritability, lack of interest in the baby, appetite and sleep disturbance, crying and sadness, feelings of guilt, shame or hopelessness, loss of interest, joy or pleasure in things you used to enjoy and possible thoughts of harming the baby or yourself" (Postpartum Support International, 2010, p.1). These symptoms can start at anytime during pregnancy or up to 18 months postpartum (Meltzer-Brody, 2009).

This is the most common, unrecognized complication occurring 10-15 percent of all pregnancies and up to 30 percent for women with multiple stressors such as poverty and teen pregnancy (Meltzer-Brody, 2009). Perinatal depression occurs more frequently than gestational diabetes which occurs in 2-5 percent of all pregnancies (Meltzer-Brody, 2009).

Perinatal Anxiety

Perinatal Anxiety can be defined as "symptoms of constant worry, feeling that something bad is going to happen, racing thoughts, disturbances of sleep and appetite, inability to sit still and physical symptoms like

dizziness, hot flashes, and nausea" (Postpartum Support International, 2010, p.1). Approximately 6% of pregnant women and 10% of postpartum women develop anxiety in which women may experience anxiety alone, or experience it in addition to depression symptoms (Postpartum Support International, 2010).

Postpartum Obsessive-Compulsive Disorder

Postpartum Obsessive-Compulsive Disorder is the most misunderstood and misdiagnosed of the perinatal disorders. It is estimated that as many as 3-5% of new mothers will experience these symptoms. Postpartum Obsessive-Compulsive Disorder can be defined as:

> "symptoms of obsessions or intrusive thoughts, which are persistent, repetitive thoughts or mental images related to the baby which are very upsetting and not something the woman has ever experienced before, compulsions, where the mom may do certain things over and over again to reduce her fears and obsessions for example: needing to clean constantly, check things many times, count or reorder things, a sense of horror about the obsessions, fear of being left alone with the infant and hypervigilance in protecting the

infant" (Postpartum Support International, 2010, p.1).

Postpartum Post-Traumatic Stress Disorder

Approximately 1-6% of women experience postpartum post-traumatic stress disorder (PTSD) following childbirth which is most often caused by a real or perceived trauma during delivery or postpartum such as: prolapsed cord, unplanned C-section, use of vacuum extractor or forceps during delivery, baby admitted to NICU, or lack of support and reassurance during the delivery. Women who have experienced a prior trauma, like sexual abuse or rape, are at a higher chance to experience postpartum PTSD. Postpartum post-traumatic stress disorder (PTSD) can be described as:

> "symptoms of intrusive re-experiencing of a past traumatic event (which in this case may have been the childbirth itself), flashbacks or nightmares, avoidance of stimuli associated with the event, including thoughts, feelings, people, places and details of the event, persistent increased arousal (irritability, difficulty sleeping, hypervigilance, exaggerated startle response), anxiety and panic

attacks and feeling a sense of unreality and detachment" (Postpartum Support International, 2010, p.1).

Postpartum Psychosis

Postpartum Psychosis can be described as:

"symptoms of delusions or strange beliefs (believing the delusions to be reality) ,hallucinations (seeing or hearing things that aren't there),feeling very irritated, hyperactivity, decreased need for or inability to sleep, paranoia and suspiciousness, rapid mood swings and difficulty communicating at times" (Postpartum Support International, 2010, p.1).

Postpartum psychosis is a rare illness, compared to the rates of postpartum depression or anxiety however; the most significant risk factors for postpartum psychosis are a personal or family history of bipolar disorder, or a previous psychotic episode (Postpartum Support International, 2010). It occurs in approximately 1 to 2 out of every 1,000 deliveries, or approximately .01% of births. There is also a 5% infanticide or suicide rate associated with the illness due to the woman experiencing psychosis or a break from reality (Postpartum Support International, 2010). However, most women who experience postpartum

psychosis do not harm themselves or anyone else nevertheless, there is always the risk of danger because psychosis includes delusional thinking and irrational judgment, which must be treated and carefully monitored by a trained healthcare professional (Postpartum Support International, 2010).

APPENDIX B

INSTITUTIONAL REVIEW BOARD DOCUMENTS

January 29, 2010

CSUSB INSTITUTIONAL REVIEW BOARD
Full Board Review
IRB# 09066
Status
APPROVED

Ms. Amy Larsen and Ms. Ashley Butler
c/o: Prof. Mary Molle
Department of Nursing
California State University
5500 University Parkway
San Bernardino, California 92407

Dear Ms. Larsen and Ms. Butler:

Your application to use human subjects, titled "Pilot New Mother's Support Group" has been reviewed and approved by the Institutional Review Board (IRB). The attached informed consent document has been stamp signed by the IRB chairperson. All subsequent copies used must be this officially approved version. A chan your informed consent (no matter how minor the change) requires resubmission of your protocol as amende application is approved for one year from January 29, 2010 through January 28, 2011. One month pri the approval end date you need to file for a renewal if you have not completed your research. The pro renewal form is on the IRB website. See additional requirements of your approval below.

The CSUSB IRB has not evaluated your proposal for scientific merit, except to weigh the risk to the human participants and the aspects of the proposal related to potential risk and benefit. This approval notice does nc replace any departmental or additional approvals which may be required.

Your responsibilities as the researcher/investigator reporting to the IRB Committee include the following requirements. You are required to notify the IRB of the following: 1) submit a protocol change form if an substantive changes (no matter how minor) are made in your research prospectus/protocol, 2) if any unanticipated/adverse events are experienced by subjects during your research, and 3) when your pro ended by emailing the IRB Coordinator. Please note that the protocol change form and renewal form are l on the IRB website under the forms menu. Failure to notify the IRB of the above may result in disciplinary a You are required to keep copies of the informed consent forms and data for at least three years.

If you have any questions regarding the IRB decision, please contact Michael Gillespie, IRB Compliance Coordinator. Mr. Michael Gillespie can be reached by phone at (909) 537-7588, by fax at (909) 537-7028, o email at mgillesp@csusb.edu. Please include your application identification number (above) in all correspo

Best of luck with your research.

Sincerely, Sharon L Ward, Ph.D.

Sharon Ward, Ph.D., Chair
Institutional Review Board

SW/mg

cc: Prof. Mary Molle, Department of Nursing

CALIFORNIA STATE UNIVERSITY
SAN BERNARDINO

College of Natural Sciences
Department of Nursing
INFORMED CONSENT
New Mothers' Support Group

We are studying the best ways to help new mothers and their babies. We are providing a support group as part of a study.. This study is being conducted by Amy Larsen, RN, BSN, PHN, MSN student and Ashley Butler, B. Psych, MSW student under the supervision of Mary Molle, PhD, Professor of Nursing at California State University San Bernardino and Lisa Dryan, LCSW of the Carolyn E. Wylie Center. This study has been approved by the Institutional Review Board, California State University, San Bernardino.

There are no known risks if you decide to participate in this support group. Participation is free. The Patient Health Questionnaire, NCAST Feeding Scale and Edinburgh Postnatal Depression Scale will be given to you and your infant during the entry and exit interviews of the support group. The information collected may not benefit you directly, but the information learned in the support group should provide benefits regarding mothering a new baby. There are no foreseeable risks to your participation in the research.

The support group will be held at the WIC clinic for eight weeks at the Don Schroeder Family Care Center in Rubidoux, CA. The support group will be conducted once a week. Participation in the support group is voluntary. There is no penalty or loss for refusing to participate or being unable to continue the support group. You may stop attending at any time. By completing the questionnaire and entry/exit interviews, you are voluntarily agreeing to participate and you will receive a list of health and community resources for Riverside County should you have additional needs. You are free to decline to answer any particular question you do not wish to answer for any reason.

This survey is confidential. No one will be able to identify you or your answers, and no one will know whether or not you participated in the study. The research being collected is confidential. All information collected regarding group members is kept in a locked filing cabinet. There will be absolutely no disclosure of any information received from the participant at any time. Individuals from the Institutional Review Board at California State University may inspect these records. Should the information be published, no individual information will be disclosed.

Thank you for participating in the New Mothers' Support Group. Note that should you choose not to continue to participate in this group, you will not be discontinued from the WIC program.

If you have any questions about the support group, please contact Amy Larsen at 951-768-6253 or larsa300@csusb.edu, or Ashley Butler at 760-614-0303 or ambutler08@apu.edu.

If you have any questions about the research study, please contact Amy Larsen at 951-768-6253 or larsa300@csusb.edu, or Dr. Mary Molle at 909- 537-7241 or mmolle@csusb.edu.

California State University San Bernardino Review Board has reviewed my request to conduct this project. If you have any concerns about your rights in this study, please contact Dr. Mary Molle at 909- 537-7241 or mmolle@csusb.edu.

I agree to participate in the above study. I have had my questions answered. I have received the list of additional resources for Riverside County.

Signature of Participant _____ Date _____

CALIFORNIA STATE UNIVERSITY, SAN BERNARDINO
INSTITUTIONAL REVIEW BOARD COMMITTEE
APPROVED 01/29/10 VOID AFTER 01/28/11
IRB# 09066 CHAIR [signature] Ph.D.

909.537.5380 • fax: 909.537.7089 • http://nursing.csusb.edu
5500 UNIVERSITY PARKWAY, SAN BERNARDINO, CA 92407-2393

APPENDIX C

WYLIE CENTER MINOR CONSENT FORM

From: ldryan@wyliecenter.org
To: larsen_amy@hotmail.com
Subject: RE: Permission to put copy of mental health assessment and minor consent in thesis appendix
Date: Thu, 17 Feb 2011 16:02:57 -0800

Dear Amy:

You have the permission of the Wylie Center to put a copy of the Minor Consent to Treatment form as well as the New Mother's Support In-Take form into your thesis.

Sincerely,

Lisa Marie Dryan, LCSW
Director of Mental Health Services
The Wylie Center
4164 Brockton Avenue
Riverside, California 92501
(951)683-5193

From: amy larsen [mailto:larsen_amy@hotmail.com]
Sent: Thursday, February 17, 2011 2:58 PM
To: ldryan@wyliecenter.org
Subject: Permission to put copy of mental health assessment and minor consent in thesis appendix
Importance: High

Hi Lisa,

Hi Lisa,

I will be turning in my thesis tomorrow. I have put a copy of the Mental Health Assessment in my appendix and the minor consent form. I just need an email stating that I have permission from the Wylie Center to do that.

Thank you,

Amy

CONSENT TO TREATMENT – CHILD / YOUTH

I, _____, the parent or legal guardian for _____ (minor's name) consent and agree voluntarily for my child to receive psychological services from The Carolyn E. Wylie Center for Children, Youth & Families. These services include, but are not limited to, diagnostic assessments; crisis intervention; individual, group and/or family therapy; and consultations and referrals to other medical or behavioral health professionals.

I understand that by consenting to treatment, personal health information regarding my minor child may be exchanged in a limited way for treatment, payment, and healthcare operations purposes only.

I understand that my child and I have the right to terminate treatment at any time. I also understand that my child and I have the right to refuse to implement any recommendations, psychological interventions, or any treatment procedure.

I understand that my child is expected to benefit from treatment, but that there is no implied or expressed guarantee that he /she will.

_____ Date: _____

Client's Printed Name

_____ _____

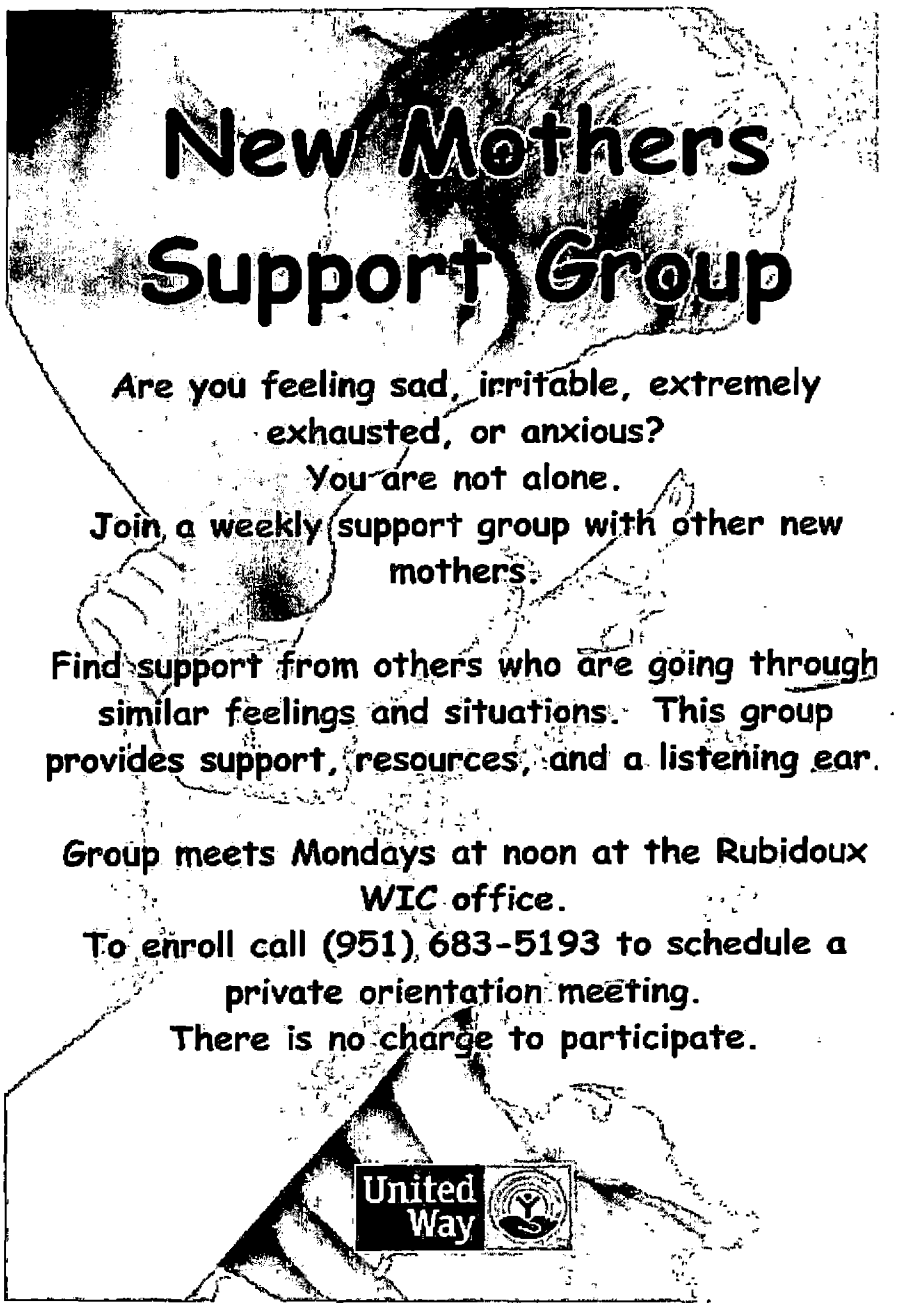
Printed Name of Parent Relationship to the Minor Child

_____ Date: _____

Signature of Parent or Guardian of Client

APPENDIX D

PILOT NEW MOTHERS' SUPPORT GROUP FLYER



(Created by Amy Larsen, Lisa Dryan and Ashley Butler, January 2009). (Picture downloaded from Microsoft Windows XP Professional 2009 Clip Art - moms and babies.)

APPENDIX E

PATIENT HEALTH QUESTIONNAIRE

Patient Health Questionnaire™ (PHQ)

This questionnaire is an important part of providing you with the best health care possible. Your answers will help in understanding problems that you may have. Please answer every question to the best of your ability unless you are requested to skip over a question.

Name_____ **Age**____ **Sex:** ☐ **Female** ☐ **Male** **Today's Date**_____

1. During the last 4 weeks, how much have you been bothered by any of the following problems?	**Not bothered**	**Bothered a little**	**Bothered a lot**
a. Stomach pain	☐	☐	☐
b. Back pain	☐	☐	☐
c. Pain in your arms, legs, or joints (knees, hips, etc)	☐	☐	☐
d. Menstrual cramps or other problems with your periods	☐	☐	☐
e. Pain or problems during sexual intercourse	☐	☐	☐
f. Headaches	☐	☐	☐
g. Chest pain	☐	☐	☐
h. Dizziness	☐	☐	☐
i. Fainting spells	☐	☐	☐
j. Feeling your heart pound or race	☐	☐	☐
k. Shortness of breath	☐	☐	☐
l. Constipation, loose bowels, or diarrhea	☐	☐	☐
m. Nausea, gas, or indigestion	☐	☐	☐

2. Over the last 2 weeks, how often have you been bothered by any of the following problems?	**Not at all**	**Several days**	**More than half the days**	**Nearly every day**
a. Little interest or pleasure in doing things	☐	☐	☐	☐
b. Feeling down, depressed, or hopeless	☐	☐	☐	☐
c. Trouble falling or staying asleep, or sleeping too much	☐	☐	☐	☐
d. Feeling tired or having little energy	☐	☐	☐	☐
e. Poor appetite or overeating	☐	☐	☐	☐
f. Feeling bad about yourself, or that you are a failure, or have let yourself or your family down	☐	☐	☐	☐
g. Trouble concentrating on things, such as reading the newspaper or watching television	☐	☐	☐	☐
h. Moving or speaking so slowly that other people could have noticed? Or the opposite — being so fidgety or restless that you have been moving around a lot more than usual	☐	☐	☐	☐
i. Thoughts that you would be better off dead or of hurting yourself in some way	☐	☐	☐	☐

FOR OFFICE CODING: Som Dis if at least three of #1a-m are "a lot" and lack an adequate bial explanation. Maj Dep Syn if answers to #2a or b and five or more of #2a-i are at least "More than half the days" (count #2i if present at all). Other Dep Syn if #2a or b and two, three, or four of #2a-i are at least "More than half the days" (count #2i if present at all).

3. Questions about anxiety.

		NO	YES
a.	In the last 4 weeks, have you had an anxiety attack—*suddenly feeling fear* or panic?	☐	☐
	If you checked "NO", go to question #5.		
b.	Has this ever happened before?	☐	☐
c.	Do some of these attacks come suddenly out of the blue—that is, in situations where you don't expect to be nervous or uncomfortable?	☐	☐
d.	Do these attacks bother you a lot or are you worried about having another attack?	☐	☐

4. Think about your last bad anxiety attack.		**NO**	**YES**
a.	Were you short of breath?	☐	☐
b.	Did your heart race, pound, or skip?	☐	☐
c.	Did you have chest pain or pressure?	☐	☐
d.	Did you sweat?	☐	☐
e.	Did you feel as if you were choking?	☐	☐
f.	Did you have hot flashes or chills?	☐	☐
g.	Did you have nausea or an upset stomach, or the feeling that you were going to have diarrhea?	☐	☐
h.	Did you feel dizzy, unsteady, or faint?	☐	☐
i.	Did you have tingling or numbness in parts of your body?	☐	☐
j.	Did you tremble or shake?	☐	☐
k.	Were you afraid you were dying?	☐	☐

5. Over the last 4 weeks, how often have you been bothered by any of the following problems?		**Not at all**	**Several days**	**More than half the days**
a.	Feeling nervous, anxious, on edge, or worrying a lot about different things	☐	☐	☐
	If you checked "Not at all", go to question #6.			
b.	Feeling restless so that it is hard to sit still	☐	☐	☐
c.	Getting tired very easily	☐	☐	☐
d.	Muscle tension, aches, or soreness	☐	☐	☐
e.	Trouble falling asleep or staying asleep	☐	☐	☐
f.	Trouble concentrating on things, such as reading a book or watching TV	☐	☐	☐
g.	Becoming easily annoyed or irritable	☐	☐	☐

FOR OFFICE CODING: Pan Syn if all of #3a-d are "YES" and four or more of #4a-k are "YES". Other Anx Syn if #5a and answers to three or more of #5b-g are "More than half the days".

6. Questions about eating.

	NO	YES
a. Do you often feel that you can't control what or how much you eat?	☐	☐
b. Do you often eat, within any 2-hour period, what most people would regard as an unusually large amount of food?	☐	☐

If you checked 'NO' to either #a or #b, go to question #9.

c. Has this been as often, on average, as twice a week for the last 3 months?	☐	☐

7. In the last 3 months have you often done any of the following in order to avoid gaining weight ?

	NO	YES
a. Made yourself vomit?	☐	☐
b. Took more than twice the recommended dose of laxatives?	☐	☐
c. Fasted — not eaten anything at all for at least 24 hours?	☐	☐
c. Exercised for more than an hour specifically to avoid gaining weight after binge eating?	☐	☐

8. If you checked "YES" to any of these ways of avoiding gaining weight, were any as often, on average, as twice a week?	☐	☐

9. Do you ever drink alcohol (including beer or wine)?	☐	☐

If you checked "NO" go to question #11.

10. Have any of the following happened to you more than once in the last 6 months?	NO	YES
a. You drank alcohol even though a doctor suggested that you stop drinking because of a problem with your health	☐	☐
b. You drank alcohol, were high from alcohol, or hung over while you were working, going to school, or taking care of children or other responsibilities	☐	☐
c. You missed or were late for work, school, or other activities because you were drinking or hung over	☐	☐
d. You had a problem getting along with other people while you were drinking	☐	☐
e. You drove a car after having several drinks or after drinking too much	☐	☐

11. If you checked off any problems on this questionnaire, how difficult have these pro for you to do your work, take care of things at home, or get along with other peopl

Not difficult at all	Somewhat difficult	Very difficult	Extremely difficult
☐	☐	☐	☐

FOR OFFICE CODING: Bul Ner if #6a,b, and-c and #8 are all 'YES'; Bin Eat Dis the same but #8 either 'NO' or left blank. Alc Abu if any of #10a-e is 'YES'.

12. In the last 4 weeks, how much have you been bothered by any of the following problems?	**Not bothered**	**Bothered a little**	**Bothered a lot**
a. Worrying about your health	☐	☐	☐
b. Your weight or how you look	☐	☐	☐
c. Little or no sexual desire or pleasure during sex	☐	☐	☐
d. Difficulties with husband/wife, partner/lover or boyfriend/girlfriend	☐	☐	☐
e. The stress of taking care of children, parents, or other family members	☐	☐	☐
f. Stress at work outside of the home or at school	☐	☐	☐
g. Financial problems or worries	☐	☐	☐
h. Having no one to turn to when you have a problem	☐	☐	☐
i. Something bad that happened recently	☐	☐	☐
j. Thinking or dreaming about something terrible that happened to you in the past - like your house being destroyed, a severe accident, being hit or assaulted, or being forced to commit a sexual act	☐	☐	☐

	NO	**YES**
13. In the last year, have you been hit, slapped, kicked or otherwise physically hurt by someone, or has anyone forced you to have an unwanted sexual act?	☐	☐

14. What is the most stressful thing in your life right now? _____

_____

	NO	**YES**
15. Are you taking any medicine for anxiety, depression or stress?	☐	☐

16. FOR WOMEN ONLY: Questions about menstruation, pregnancy and childbirth.

a. Which best describes your menstrual periods?

Periods are unchanged	**No periods because pregnant or recently gave birth**	**Periods have become irregular or changed in frequency, duration or amount**	**No periods for at least a year**	**Having periods because taking hormone replacement (estrogen) therapy or oral contraceptive**
☐	☐	☐	☐	☐

	NO (or does not apply)	**YES**
b. During the week before your period starts, do you have a serious problem with your *mood - like depression, anxiety, irritability, anger or mood swings?*	☐	☐
If YES: Do these problems go away by the end of your period?	☐	☐
Have you given birth within the last 6 months?	☐	☐
Have you had a miscarriage within the last 6 months?	☐	☐
Are you having difficulty getting pregnant?	☐	☐

(Spitzer, R.L.,Williams, J.B.W., Kroenke, K. (1999). Patient Health Questionnaire (PHQ). Retrieved February 1, 2009 from http://www.pdhealth.mil/ guidelines/downloads /appendix2.pdf.)

APPENDIX F

EDINBURGH POSTNATAL DEPRESSION SCALE

Edinburgh Postnatal Depression Scale (EPDS)

June, 1987, Vol. 150 by J.L. Cox, J.M. Holden, R. Sagovsky. Taken from the British Journal of Psychiatry:

"The Edinburgh Postnatal Depression Scale has been developed to assist primary care health professionals to detect mothers suffering from postnatal depression; a distressing disorder more prolonged than the "blues" (which occur in the first week after delivery) but less severe than puerperal psychosis. Previous studies have shown that postnatal depression affects at least 10% of women and that many depressed mothers remain untreated. These mothers may cope with their baby and with household tasks, but their enjoyment of life is seriously affected and it is possible that there are long-term effects on the family."

"The EPDS was developed at health centers in Livingston and Edinburgh. It consists of ten short statements. The mother chooses which of the four possible responses is closest to how she has been feeling during the past week. Most mothers complete the scale without difficulty in less than 5 minutes".

"The validation study showed that mothers who scored above threshold 92.3% were likely to be

suffering from a depressive illness of varying severity. Nevertheless, the EPDS score should not override clinical judgment. A careful clinical assessment should be carried out to confirm the diagnosis. The scale indicates how the mother has felt during the previous week and in doubtful cases, it may be usefully repeated after 2 weeks. The scale will not detect mothers with anxiety neuroses, phobias or personality disorder."

Instructions for users:

1. The mother is asked to choose the response that comes closest to how she has been feeling in the previous 7 days.
2. All ten items must be completed.
3. Care should be taken to avoid the possibility of the mother discussing her answers with others. 4. The mother should complete the scale herself, unless she has limited English or has difficulty with reading.
5. The EPDS may be used at 6-8 weeks to screen postnatal women. The child health clinic, postnatal check-up or a home visit may provide suitable opportunities for its completion.

Guidelines for Evaluation:

1. Response categories are scored 0, 1, 2, and 3 according to increased severity of the symptom.
2. Questions 3, 5, 6, 7, 8, 9, 10 are reverse scored (i.e., 3, 2, 1, 0)
3. Individual items are totaled to give an overall score.
4. A score of 10+ indicates the likelihood of depression, but not its severity. If any number other that "0" is picked for question number 10, further assessment is required right away.
5. The EPDS Score is designed to assist, not replace, clinical judgment. Women should be further assessed before deciding on treatment.

Name: _____

Address: _____

Baby's Age: _____

Because you have recently had a baby, we would like to know how you are feeling.

Please UNDERLINE the answer that comes closest to how you have felt IN THE PAST 7 DAYS, not just how you feel today.

1. I have been able to laugh and see the funny side of things.

   As much as I always could
   Not quite so much now
   Definitely not so much now
   Not at all

2. I have looked forward with enjoyment to things.

   As much as I ever did
   Rather less than I used to
   Definitely less than I used to
   Hardly at all

3. I have blamed myself unnecessarily when things went wrong.

   Yes, most of the time
   Yes, some of the time
   Not very often
   No, never

4. I have been anxious or worried for no good reason.

   No, not at all
   Hardly ever
   Yes, sometimes
   Yes, very often

5. I have felt scared or panicky for no very good reason.

   Yes, quite a lot
   Yes, sometimes
   No, not much
   No, not at all

6. Things have been getting on top of me.

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

7. I have been so unhappy that I have had difficulty sleeping.

   Yes, most of the time
   Yes, sometimes
   Not very often
   No, not at all

8. I have felt sad or miserable.

   Yes, most of the time
   Yes, quite often
   Not very often
   No, not at all

9. I have been so unhappy that I have been crying.

   Yes, most of the time
   Yes, quite often
   Only occasionally
   No, never

10. The thought of harming myself has occurred to me.

    Yes, quite often
    Sometimes
    Hardly ever
    Never

Taken from the British Journal of Psychiatry
June, 1987, Vol. 150 by J.L. Cox, J.M. Holden, R. Sagovsky

1/0

APPENDIX G

MENTAL STATUS EXAM

From: ldryan@wyliecenter.org
To: larsen_amy@hotmail.com
Subject: RE: Permission to put copy of mental health assessment and minor consent in thesis appendix
Date: Thu, 17 Feb 2011 16:02:57 -0800

Dear Amy:

You have the permission of the Wylie Center to put a copy of the Minor Consent to Treatment form as well as the New Mother's Support In-Take form into your thesis.

Sincerely,

Lisa Marie Dryan, LCSW
Director of Mental Health Services
The Wylie Center
4164 Brockton Avenue
Riverside, California 92501
(951)683-5193

From: amy larsen [mailto:larsen_amy@hotmail.com]
Sent: Thursday, February 17, 2011 2:58 PM
To: ldryan@wyliecenter.org
Subject: Permission to put copy of mental health assessment and minor consent in thesis appendix
Importance: High

Hi Lisa,

Hi Lisa,

I will be turning in my thesis tomorrow. I have put a copy of the Mental Health Assessment in my appendix and the minor consent form. I just need an email stating that I have permission from the Wylie Center to do that.

Thank you,

Amy

New Mother's Support Group Intake Form

Today's Date_____

Name:_____ DOB:_____ Age:____

Address:_____

Phone Number:_____ Cell Phone:_____

Name of Employment_____

Address and Phone Number_____

Is it alright for us to call you at?			Leave a message?	
Home:	Yes	No	Yes	No
Work:	Yes	No	Yes	No
Cell:	Yes	No	Yes	No

Marital Status:_____ Ethnicity:_____

Highest Level of Education:___ No Diploma, ____ GED or High School Diploma,
____ Some College, ___ Two Year Degree, ___ BA or BS Degree,
____ Some Graduate School, ___ Masters Degree

Name and Age of Child(ren): _____

_____

_____

_____

Are you currently pregnant?___ Yes ___ No ___Unsure, If yes, how many weeks? ___

Please list what medications (prescription and over the counter) that you are taking, dosage, how often, and who prescribed it for you._____

_____

_____

_____

_____

Are you currently under the care of a doctor for a reason other than pregnancy or recen birth? ___Yes ___ No, If yes, why?_____

_____

What are your reasons for joining this support group?_____

_____

_____

Client N_:_____

New Mother's Support Group Initial Assessment

Therapist Name_____ Date_____

Name:_____ DOB:_____ Age:_____
Address:_____
Phone Number:_____
Relationship Status:_____ Ethnicity:_____ # of Children:_____
Highest Level of Education:___ No Diploma, ____ GED or High School Diploma,
____ Some College, ___ Two Year Degree, ___ BA or BS Degree,
____ Some Graduate School, ___ Masters Degree
Legal Status/History_____
_____
Social Support Network_____
_____
_____
Tell me about your relationship with your significant other?_____
_____
_____
Any problems during this pregnancy?_____
_____
_____
_____
Any problems with a previous pregnancy(s)?_____
_____
_____
_____
Stillborns?_____
Miscarriages?_____
Abortions?_____
Do you...

Smoke?	Yes	No
Drink?	Yes	No
Have Diabetes?	Yes	No
Have an STD?	Yes	No, If yes, what kind?_____
Work?	Yes	No, If yes, circle: P/T, F/T, on leave

Substance Abuse History_____
_____
_____
_____
Family of Origin Psychiatric and Substance Abuse History_____
_____
_____
_____
_____

Client N_____ 2

Any Psychiatric Hospitalizations? (date & location)_____

Any Outpatient Treatment? (date & location)_____

Psychotropic Medications?_____

Symptoms 0-5 (None to Severe)

PHYSICAL SYMPTOM:		MOOD & AFFECT		THOUGHT PROCESSES		BEHAVIOR PROBLEMS	
Agitation		Angér Outbursts		*H/I		Aggressive (hitting, biting, kicking, etc.)	
Appetite Disturbance		Anhedonia		*S/I		Antisocial	
Decreased Energy		Anxiety Symptoms		Bizarre Ideation		Avoidance	
Hypersomnia		Panic		Delusions		Binge eating	
Insomnia		Blunt affect		Hallucinations		Compulsive	
Physical Complaints		Depressed		Impaired Judgment		Feigning of Symptoms	
Repetitive Motor mannerisms or tics		Hopeless		Indecisiveness		Poor impulse Control	
Clumsy / Poor Coord		Helpless		Paranoid Ideation		Hyperactivity	
Sexual Dysfunction		Irritability		Phobia(s)		Repeated lying	
Somatic Complaints		Labile Affect		Poor Concentration		Self mutilation	
Weight Gain		Obsessive Thoughts		Pressured Speech		Self-induced Vomiting	
Weight Loss		Excessive Worry		Speech Difficulties		Social Isolation	
Wetting / Soiling AM		Crying		Poor working memory		Failure to develop appro. Peer relationships	
Wetting / Soiling PM		Separation Problems		Learning disability		Self-Injurious	
Poor Eye Contact		Poor social / emot. reciprocity		Low IQ (per outside report)			
		Restricted interests					

Duration of Primary Symptoms? ___1 Month or Less, ___ 1-6 Months, ___7-12 Months, ___ 1 Year or More

Number of People Living in Household and Number of Bedrooms_____

Tell me about what you do when your baby sleeps?_____

What is your biggest concern about your baby?_____

Client N_____

Tell me about your fears about your baby and you as a mom._____

_____

_____

_____

Tell me more about your relationship with your infant._____

_____

_____

_____

Tell me more about your relationship with your mother._____

_____

_____

_____

Tell me about the other stressful events that are impacting the way you feel?_____

_____

_____

_____

Mental Status Exam

Appearance	❑ Clean	❑ Well-groomed	❑ Disheveled	❑ Bizarre
Orientation	❑ Oriented	❑ Disoriented	❑ Time	❑ Place
	❑ Person	❑ Situation		
Mood	❑ WNL	❑ Anxious	❑ Depressed	❑ Angry
	❑ Sad	❑ Euphoric		
Affect	❑ WNL	❑ Inappropriate	❑ Flat	❑ Labile
	❑ Blunted	❑ Depressed		
Intelligence	❑ Average	❑ Above Average	❑ Below Average	❑ Not enough info
Memory	❑ Intact	❑ Impaired	❑ Short Term	❑ Long Term
Attention	❑ WNL	❑ Short	❑ Impaired	
	❑ Perseverative			
Psychomotor		❑ WNL	❑ Agitated	❑ Lethargic
	❑ Retarded	❑ Catatonic		
Judgement	❑ Good	❑ Fair	❑ Limited	❑ Poor
Insight	❑ Good	❑ Fair	❑ Limited	❑Poor
Speech	❑ WNL	❑ Pressured	❑ Minimal	❑ Ramblin
	❑ Circumstantial			
Thought	❑ WNL	❑ Concrete	❑ Disorganized	❑ Ruminative
	❑ Paranoid	❑Loose	❑Tangential	
Delusions	❑ Somatic	❑ Jealous	❑ Grandiose	❑ Persecutory
	❑ Erotic	❑ None Reported		
Hallucination		❑ Auditory	❑ Visual	❑
Tactile	❑ Olfactory	❑ Command	❑ None Reported	

Additional Comments:_____

_____

_____

_____

DSM IV TR Diagnosis:

Client Name: _____

Axis I: (P)_____ _____
(S)_____ _____
_____ _____
_____ _____
_____ _____
Axis II: _____ _____
Axis III: _____ _____
_____ _____
_____ _____

Axis IV: ___ Primary Support Group, ___ Social Environment, ___ Education, ___Occupational, ___ Housing, ___ Economics, ___ Health Care, ___Legal System, ___Other Psychosocial/Environmental, ___ Other:_____
Axis V: Current GAF:___, Highest GAF in Past Year___, Follow-Up___(Date:)
Recommendations: _____
_____
_____
_____

_____ _____
Therapist's Signature Date

_____ _____
Signature of Licensed Therapist Date

(Dryan, L & Butler, A. (2009). New Mothers' Support Group Initial Assessment. Wylie Center).

APPENDIX H

NURSING CHILD ASSESSMENT SATELLITE

TRAINING FEEDING SCALE

Dear Amy,

Attached is a sample copy of the Feeding Scale you may use in your Thesis appendix. The legal copyright is registered under NCAST-AVENUW, but the name of the program is NCAST Programs (it is no longer spelled out as Nursing Child Assessment Satellite Training); we are just NCAST like IBM is just IBM!

Citations - Scale: Barnard, K. (1994). NCAST Feeding Scale. Seattle: NCAST-AVENUW, University of Washington, School of Nursing.

Manual: Sumner, G. & Spietz, A. (2004) *NCAST-AVENUW Caregiver/Parent-Child Interaction Feeding Manual.* Seattle: NCAST-AVENUW, University of Washington, School of Nursing. (Original work published 1994)

Best of luck in your studies.

Kind regards,

Denise

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NCAST
FEEDING SCALE
Birth to One Year Only

Information applies to parent only
Mother's Ethnic Heritage (See back page)
Marital/Partner Status ☐ Married ☐ Single

Person Observed ____ Age ____ Educ.
☐ Mother ☐ Father
☐ Other ____
Major Caregiver ☐ Yes ☐ No
Type of Feeding ☐ Breast ☐ Bottle ☐ Solid
Usual Feeding Time ☐ Yes ☐ No
Length of Time Feeding (circle minutes)
10 or Less 11-19 20-29 30 or more

Setting
☐ Home
☐ Clinic
☐ Other ____
Were Others Present?
☐ Yes
☐ No
If yes, specify ____

Child's Name ____
Child's Age (*in months*) ____
Child's Sex ____
Child's Birth Order (*circle*)
1 2 3 4 5 or More
Child's State at Beginning of Feeding (*circle*)
Quiet Sleep Active Sleep Drowsy
Quiet Alert Active Alert Crying

I. SENSITIVITY TO CUES	YES	NO
1. Caregiver positions child so that child is safe but can move his/her arms.		
2. Caregiver positions child so that the child's head is higher than hips.		
3. Caregiver positions child so that trunk-to-trunk contact is maintained during more than half of the breast or bottle feeding (50%).		
4. Caregiver positions child so that eye-to-eye contact is possible.		
5. Caregiver's face is at least 7-8 inches or more from the child's face during feeding except when kissing, caressing, hugging, or burping the child.		
6. Caregiver smiles, verbalizes, or makes eye contact with child when child is in open-face-gaze position.		
7. Caregiver comments verbally on child's hunger cues prior to feeding.		
8. Caregiver comments verbally on child's satiation cues before terminating feeding.		
9. Caregiver varies the intensity of verbal stimulation during feeding.		
10. Caregiver varies intensity of rocking or moving the child during the feeding.		
11. Caregiver varies the intensity or form of touch during the feeding.		
12. Caregiver allows pauses in feeding when the child shows potential disengagement cues or is in the pause phase of the suck-pause sequence of sucking.		
13. Caregiver slows the pace of feeding or pauses when child shows subtle disengagement cues.		
14. Caregiver terminates the feeding when the child shows satiation cues or after other methods have proved unsuccessful.		
15. Caregiver allows child to suck and/or chew without interruption.		
16. Caregiver only offers food when the child is attending.		
TOTAL YES ANSWERS		

II. RESPONSE TO CHILD'S DISTRESS ☐ Yes ☐ No (Potent Disengagement Cues Observed)		
17. Caregiver stops or starts feeding.		
18. Caregiver changes the child's position.		
19. Caregiver makes positive or sympathetic verbalization.		
20. Caregiver changes voice volume to softer or higher pitch.		
21. Caregiver makes soothing non-verbal efforts.		
22. Caregiver diverts child's attention by playing games, introducing toy, or making faces.		
23. Caregiver avoids making negative verbal responses.		
24. Caregiver avoids making negative comments to home visitor about child.		
25. Caregiver avoids yelling at child.		
26. Caregiver avoids using abrupt movements or rough handling.		
27. Caregiver avoids slapping, hitting, or spanking the child.		
TOTAL YES ANSWERS		

III. SOCIAL-EMOTIONAL GROWTH FOSTERING	YES	NO
28. Caregiver pays more attention to child during feeding than to other people or things in the environment.		
29. Caregiver is in "en face" position for more than half of the feeding.		
30. Caregiver succeeds in making eye contact with child once during feeding.		
31. Caregiver's facial expression changes at least twice during feeding.		
32. Caregiver engages in social forms of interaction (plays games with child) at least once during the feeding.		
33. Caregiver uses positive statements in talking to child during the feeding.		
34. Caregiver praises child or some quality of the child's behavior during the feeding.		
35. Caregiver coos, croons, sings or changes the pitch of his/her voice during the feeding.		
36. Caregiver laughs or smiles during the feeding.		
37. Caregiver uses gentle forms of touching during the feeding.		
38. Caregiver vocalizes or touches child within five seconds of child vocalizing or vocalizing at caregiver.		
39. Caregiver avoids compressing lips, grimacing, or frowning when making eye contact with child.		
40. Caregiver avoids slapping, hitting, shaking, or grabbing the child or child's extremities during the feeding.		
41. Caregiver avoids making negative comments or uncomplimentary remarks to the child or home visitor about the child or child's behavior.		
TOTAL YES ANSWERS		

IV. COGNITIVE GROWTH FOSTERING		
42. Caregiver provides child with objects, finger foods, toys, and/or utensils.		
43. Caregiver encourages and/or allows the child to explore the breast, bottle, food, cup, bowl, utensils, or the caregiver during feeding.		
44. Caregiver talks to the child using two words at least three times during the feeding.		
45. Caregiver verbally describes food or feeding situation to child during feeding.		
46. Caregiver talks to child about things other than food, eating, or things related to feeding.		
47. Caregiver uses statements that describe, ask questions or explains consequences of behavior, more than commands, in talking to child.		
48. Caregiver verbally responds to child's sound within five seconds after child has vocalized.		
49. Caregiver verbally responds to child's movement within five seconds of child's movement of arms, legs, hands, head, trunk.		
50. Caregiver avoids using baby talk.		
TOTAL YES ANSWERS		

V. CLARITY OF CUES	YES	NO
51. Child's signals readiness to eat.		
52. Child displays a build-up of tension at the beginning of feeding.		
53. Child demonstrates a decrease in tension within a few minutes after feeding has begun.		
54. Child has periods of alertness during the feeding.		
55. Child displays at least two different emotions during the feeding.		
56. Child has periods of activity and inactivity during the feeding.		
57. Child's movements are smooth and coordinated during the feeding.		
58. Child's arm and leg movements are generally directed toward caregiver during feeding (not diffuse).		
59. Child initiates contact with caregiver's face or eyes at least once during feeding.		
60. Child vocalizes during feeding.		
61. Child smiles or laughs during feeding.		
62. Child averts gaze, looks down or turns away during feeding.		
63. Child actively resists food offered.		
64. Child demonstrates satiation at end of feeding.		
65. Child has less than three rapid state changes during feeding.		
TOTAL YES ANSWERS		
VI. RESPONSIVENESS TO CAREGIVER		
66. Child responds to feeding attempts by caregiver most of the time.		
67. Child responds to games, social play or social cues of caregiver during feeding.		
68. Child looks in the direction of the caregiver's face after caregiver has attempted to alert the child verbally or non-verbally during feeding.		
69. Child vocalizes to caregiver during feeding.		
70. Child vocalizes or smiles within five seconds of caregiver's vocalizations.		
71. Child smiles at caregiver during feeding.		
72. Child explores caregiver or reaches out to touch caregiver during feeding.		
73. Child shows a change in level of motor activity within five seconds of being handled or repositioned by caregiver.		
74. Child shows potent disengagement cues during last half of feeding.		
75. Child shows potent disengagement cues within five seconds after caregiver moves closer than 7 to 8 inches from child's face.		
76. Child avoids turning away from caregiver, or averting gaze during first half of feeding.		
TOTAL YES ANSWERS		

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Enter the total yes answers from each subscale and compare it with the possible score:

	SUBSCALE Items Possible	SUBSCALE Items Actual	CONTINGENCY Items Possible	CONTINGENCY Items Actual
SENSITIVITY TO CUES	16		6	
RESPONSE TO DISTRESS	11		6	
SOCIAL-EMOTIONAL GROWTH FOSTERING	14		1	
COGNITIVE GROWTH FOSTERING	9		2	
CAREGIVER TOTAL	50		15	
CLARITY OF CUES	15		0	
RESPONSIVENESS TO CAREGIVER	11		3	
INFANT TOTAL	26		3	
CAREGIVER/INFANT TOTAL	76		18	

Check the Potent Disengagement Cues (PDC's) observed during the feeding interaction (excluding PDC's that terminate the feeding or occur after the caregiver has terminated the feeding.).

- ___ Back arching
- ___ Choking
- ___ Coughing
- ___ Crawling away
- ___ Cry face
- ___ Crying
- ___ Gagging
- ___ Hair hand
- ___ Lateral head shake
- ___ Marked lateral gaze aversion
- ___ Overtired cueing movements
- ___ Pale/red skin
- ___ Pulling away
- ___ Pushing away
- ___ Saying "no"
- ___ Spitting
- ___ Spitting up
- ___ Tray pound
- ___ Vomiting
- ___ Walking Away
- ___ Whining
- ___ Withdraw from alert to sleep state

Ethnic Heritage. Place a checkmark next to the mother's ethnic heritage and write in her specific group identity.

- ___ African-American
- ___ Asian Indian or A.I.-American
- ___ Chinese or Chinese-American
- ___ Filipino or Filipino-American
- ___ Japanese or Japanese-American
- ___ Korean or Korean-American
- ___ Pacific Islander or P.I.-American
- ___ Vietnamese or Vietnamese-American
- ___ Other Asian
- ___ Cuban or Cuban-American
- ___ Mexican, Chicano, or Mex. American
- ___ Puerto Rican
- ___ Other Hispanic/Latin
- ___ Native American or Alaskan Native
- ___ White/Caucasian (non-Hispanic)
- ___ Other

Specific group identity: _____

Clinical Notes:

Date of Observation _____

Recorder's Signature _____

(Barnard, K. (1994). NCAST Feeding Scale. Seattle: NCAST-AVENUW, University of Washington, School of Nursing.)

APPENDIX I

GLOBAL ASSESSMENT OF FUNCTIONING SCALE

Global Assessment of Functioning Scale

91-100	Superior functioning in a wide range of activities, life's problems never seem to get out of hand, is sought out by others because of his or her many positive qualities. No symptoms
81-90	Absent or minimal symptoms (e.g., mild anxiety before an exam), good functioning in all areas, interested and involved in a wide range of activities, socially effective, generally satisfied with life, no more than everyday problems or concerns (e.g.,an occasional argument with family members)
71-80	If symptoms are present, they are transient and expectable reactions to psychosocial. stressors (e.g., difficulty concentrating after family argument); no more than slight impairment in social occupational, or school functioning (e.g., temporarily falling behind in schoolwork).
61-70	Some mild symptoms (e.g., depressed mood and mild insomnia) OR some difficulty in social occupational, or school functioning (e.g., occasional truancy or theft within the household), but generally functioning pretty well, has some meaningful interpersonal relationships.
51-60	Moderate symptoms (e.g., flat affect and circumstantial speech, occasional panic attacks) OR moderate difficulty in social, occupational, or school functioning (e.g., few friends, conflicts with peers or co-workers).
41-50	Severe symptoms (e.g., suicidal ideation, severe obsessional rituals, frequent shoplifting) OR any serious impairment in social, occupational or school functioning (e.g., no friends, unable to keep a job).
31-40	Some impairment in reality testing or communication (e.g., speech is at times illogical, obscure, or irrelevant) OR major impairment in several areas, such as work or school, family relations, judgment, thinking, or mood (e.g., depressed man avoids friends, neglects family, and is unable to work; child frequently beats up younger children, is defiant at home, and is failing at school).
21-30	Behavior is considerably influenced by delusions or hallucinations OR serious impairment in communication or judgment (e.g., sometimes incoherent, acts grossly inappropriately, suicidal preoccupation) OR inability to function in almost all areas (e.g., stays in bed all day, no job, home, or friends).
11-20	Some danger of hurting self or others (e .g., suicidal attempts without clear expectation of death; frequently violent; manic excitement) OR occasionally fails to maintain minimal personal hygiene (e.g., smears feces) OR gross impairment in communication (e.g., largely incoherent or mute).
1-10	Persistent danger of severely hurting self or others (e.g., recurrent violence) OR persistent inability to maintain minimal personal hygiene OR serious suicidal act with clear expectation of death.0 Inadequate information. (APA, 2010)

(American Psychiatric Association (APA). Diagnostic and statistical manual for mental disorders. 4th ed. Retrieved on January 30, 2010: http://www.psychweb.com /dsm iv/ jsp/dsm_ iv.jsp.)

APPENDIX J

EDUCATION TOPICS FOR SUPPORT GROUP

Support Group Meeting	Topic	Homework Assignment
#1 2/22/10	Introductions Determine education topics. Discuss Relaxation Techniques	
#2 3/1/10	Continuing Relaxation Techniques and Natural Depression Treatments	Write down what relaxation methods you use and what works best.
#3 3/8/10	Emotional Refueling	Implement a new relaxation technique or natural self-care method
#4 3/15/10	Personal Stress Survey	Keep a journal of how relaxation techniques or natural self-methods work for you.
#5 3/22/10	Natural Depression reducing foods, diet and exercise	Try a new natural depression reducing food and share with the group next week.
#6 3/29/10	Healthy Communication I statements & stop, think and go.	Try new communication techniques at home: I statements and stop, think and go.
#7 4/5/10	Healthy Communication: Listening to Understand	Cont to practice new communication and listening techniques at home
#8 4/12/10	Postpartum Depression vs. Baby Blues	Do something meaningful that you did before the baby came.
#9 4/19/10	Affirmations - Healthy Thinking	Tell yourself at least one affirmation every day. Write an affirmation on your mirror.
#10 4/26/10	What affirmations worked for you? Introduction of Rachel McGee, Student MFT from the Wylie Center to replace Ashley Butler, MSW student.	Continue to tell yourself at least one affirmation every day. Write an affirmation on your mirror.

(Created by Amy Larsen, Lisa Dryan and Ashley Butler, February 2009).

APPENDIX K

NEW MOTHERS' SUPPORT GROUP EVALUATION

New Mothers' Support Group Evaluation Form

1. Which face best captures how you feel about this program overall?
(please mark an 'x' over your choice)

What do you like best?

_____

_____

What do you like least?

_____

_____

2. For each of the following statement please circle the response that best reflects your feeling about that statement.

This program has made an important difference in my life

Strongly Agree Agree Disagree Strongly Disagree

I feel welcome when I attend support group meetings

Strongly Agree Agree Disagree Strongly Disagree

I have learned skills in this program that I use each day

Strongly Agree Agree Disagree Strongly Disagree

I am a better parent as a result of this program

Strongly Agree Agree Disagree Strongly Disagree

I felt safe when raising my point of view in meetings

Strongly Agree Agree Disagree Strongly Disagree

I am more aware of community service that can help me as a result of participating in this program

Strongly Agree Agree Disagree Strongly Disagree

3. How relevant was the program to your experience with having a baby?
(place an 'x' on the line below)

No at all Somewhat Very

Comments:

4. How would you rate the way the way program staff (or volunteers) interacted with participants?
(place an 'x' on the line below)

Very Poorly Somewhat Very well

Comments:

5. Since participating in the program, describe an experience that you have had with your baby that you dealt with differently because of what you learned through this program?

6. How do you think we could we improve the program?

Thanks for helping us to assess and improve the program!!

(Created by Amy Larsen, March 2009).

APPENDIX L

SUMMARY OF CLIENTS

Summary of Clients

Client 1

Client 1, 24 year old single Hispanic female diagnosed with Depressive Disorder. She was not receiving any counseling or taking any antidepressants. She has epilepsy and it was not determined if she had a developmental delay. She was very concerned about losing the baby due to her illness. She was considered a high risk pregnancy due to epilepsy and had history of one miscarriage. She did not come to any of the support groups. She lives with her sister, who acts as her caregiver.

Her EPDS score decreased by 16 %. It was assumed that the only explanation for the possible improvement in her score and decrease in depressive symptoms was she continued to receive support from her sister and at the time of the post testing, her pregnancy was continuing to go well.

Client 2

Client 2, 19 year old, single, Hispanic female living with her boyfriend (father of her children). She has two children, one is 3 years old and the other is 4 ½ months. During her last pregnancy she started having anxiety, panic attacks and suicidal ideations. She had no major pregnancy complications, except anemia which is a

common problem in pregnancy (LeBlanc & Rioux, 2007). Client 2 was diagnosed with Major Depressive Episode, Recurrent with Postpartum Onset and Panic Disorder with agoraphobia. She was prescribed Zoloft and Ativan but stopped taking the medication due to side-effects. The client stated that she had been depressed all of her life and had history of drug use.

Client 2's EPDS score decreased by 64 % and her NCAST feeding scale score increased by 31 %. Client 2 did not attend any of the support groups even though she would have been an excellent candidate for the intervention. It is thought that she already had good relationship with her counselor and did not feel comfortable with the group setting. For this client, it was assumed that the counseling improved the EPDS and NCAST scores and depressive/anxiety symptoms.

Client 3

Client 3, 35 year old, single, Hispanic female diagnosed with Major Depressive Disorder, single episode w/postpartum onset. She has three children who are 11 years old, 3 years old and 3 months old. During her last pregnancy, she developed gestational diabetes and had a cesarean section. She also developed depressive symptoms

and was diagnosed with Major Depressive Disorder, single episode w/postpartum onset. She was prescribed Prozac and currently receives outpatient counseling at Kaiser.

Client 3's EPDS score decreased by 100 % and her NCAST feeding scale score increased by 15 %. Client 3 did not attend any support groups due to restarting school and it is also thought that she had a good relationship with her outpatient counselor at Kaiser. For this client it was assumed that the antidepressant and outpatient therapy she received at Kaiser improved her Edinburgh and NCAST scores and depressive symptoms.

Client 4

Client 4, 16 year old, pregnant teen, diagnosed with Phase of Life Problem. Even though this is not a diagnosis for a mental illness, according to the DSM IV, this category can be used to focus clinical attention on a problem associated with a particular developmental phase or some other life circumstance that is not due to a mental disorder, in this case teen pregnancy (2004). She was not taking any antidepressants or receiving any outpatient therapy. During her pregnancy, she developed pre-eclampsia which was treated by induction of labor.

Client 4 attended three out of ten support group

sessions. Her Edinburgh score decreased by 50 %. It is seems that the intervention improved her EPDS score and depressive symptoms.

Client 5

Client 5, 20 year old, married, Hispanic female. She was pregnant for the first time and had a heart problem in which she was concerned that her infant would also have it. She was diagnosed with Anxiety Disorder. She was not taking any antidepressants or receiving any outpatient therapy.

She attended five of the ten support group sessions. Her EPDS score decreased by 40 %. It seems that intervention improved her EPDS score and depressive symptoms.

Client 6

Client 6, 29 year old, married, Hispanic female. She was pregnant for the first time and had no complications with her pregnancy. She was diagnosed with Phase of Life problem due to her first pregnancy. She was not taking any antidepressants or receiving any outpatient therapy.

She was able to only attend one out of ten support groups due to a hectic work schedule. Her EPDS scores were unable to be evaluated since she was unable to be located to complete the post test. Due to this, it was unable to

evaluate whether intervention helped her depressive symptoms.

Client 7

Client 7, 19 year old, single, teen, Hispanic woman who lives with her boyfriend (Father of her children). She has an 18 month child and is pregnant for the second time. Her pregnancy was going well. She was diagnosed with Phase of Life problem due to her second pregnancy and economic difficulties. She was not taking any antidepressants or receives any outpatient therapy.

She was able to only attend one out of ten support groups due to lack of transportation. Her EPDS scores increased by 20 percent. It is speculated that her scores increased due to lack of support from the support group.

Client 8

Client 8, 30 year old, married, white, female. She has one seven month old. She had a positive AFP and a difficult pregnancy due to restricted uterine growth causing fetal malnourishment and oligohydraminos. Her infant was small for gestational age and born three weeks early. She was diagnosed with Bipolar Disorder with her most recent episode depressed with postpartum onset. She was currently

taking Cymbalta, Risperdal and Depakote. She was currently receiving outpatient therapy from Loma Linda.

She attended three out of ten support group sessions. Her EPDS scores decreased by 80 % and her NCAST feeding scale scores increased by 16 %. It appears that the intervention improved her scores.

Client 9

Client 9, 28 year old, Hispanic, divorced, female. She has three children, two were not in her custody and a 3 month old. She had no medical complications with her most recent pregnancy; however, she experienced depression due to not taking anti-depressants for her bipolar disorder. Her previous pregnancies had complications resulting in cerebral palsy and autism. She is currently taking Effexor XR and receiving outpatient therapy. She has a history of drug use, abuse and a deficient support system.

She attended two out of the ten support group sessions. Her EPDS scores remained the same and her NCAST feeding scale scores increased by five percent. It appears that the intervention improved her NCAST scores.

Client 10

Client 10, 17 year old, single, teen mother. She has a one month old infant. She had no complications with her

pregnancy. She was not taking any antidepressants but she was receiving therapy at her high school for anger management. She was diagnosed with depressive disorder.

She attended five out of ten support group sessions. Her EPDS scores increased by 16 % and her NCAST scores decreased by 2 %. It is difficult to explain the cause of the negative change in her scores since she attended the support group intervention. It is assumed that Client 9 was continuing to have depressive symptoms and if she had attended the group continuously, she could have improved her scores.

Client 11

Client 11, 33 year old, married, Hispanic, female. She has two children who are seven years and ten months old. She had pre-eclampsia during both pregnancies. She was not taking any antidepressants or receiving any outpatient therapy. She was diagnosed with Phase of Life problem due to her second pregnancy and financial problems.

She attended six out of ten support group sessions. Her EPDS scores decreased by 33 % and her NCAST feeding scale scores increased by 9 %. It appears that the intervention improved her scores.

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