

# Understanding Social Support and the Couple's Relationship Among Women with Depressive Symptoms in Pregnancy

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**This qualitative study explored the experiences of seven couples where the female partner experienced depressive symptoms during pregnancy. Female and male partners were interviewed together and data was collected and analyzed according to Colaizzi's (1978) phenomenological research design. The interviews yielded the following themes: (a) Challenges and stressors associated with depressive symptoms during pregnancy, (b) Pregnancy's effect on mood states, (c) Relationship dynamics that influence moods, (d) Pregnancy and the influence of mood on relationship dynamics, and (e) Reliance on external sources of support. The findings extend current research and provide insight into possibilities of how to enhance assessment and intervention for women who are depressed during pregnancy by including a relational component. Findings, clinical implications, and future research are discussed.**

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Pregnancy was once thought to be the happiest time of a woman's life, yet recent researchers have disproved the commonly held belief that pregnancy protects against depression (Gaynes et al., 2005). In fact, depression is commonly regarded as the most common complication of pregnancy, even more common than diabetes or hypertension (Cunningham et al., 1997). Current prevalence rates of depression during pregnancy in the United States are estimated to be around 7–13% (Bennet, Einarson, Taddio, Koren, & Einarson, 2004).

The effects of depression during pregnancy can be devastating for the woman, baby, and the entire family. The effects include greater behavioral risks, such as drug abuse during pregnancy (Hutchins, 1997) and adverse birth outcomes, such

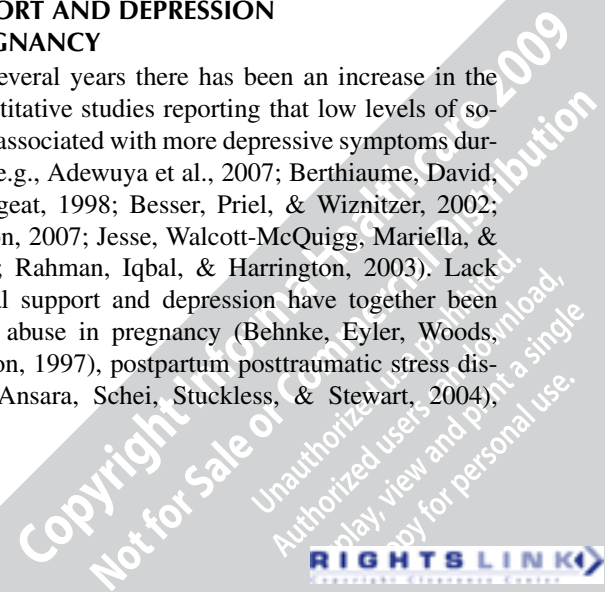
as preterm labor (Mackey, Williams, Tiller, & Mackey, 2000) and preterm delivery (Orr et al., 1996). Maternal depression is linked to the occurrence of psychopathology and behavioral problems in children (Beck, 1999), disrupted infant attachment to both parents, and spouse/partner conflict (Gordon, Cardone, Kim, Gordon, & Silver, 2006). Depression during pregnancy is a strong predictor of the development of postpartum depression (Beck, 1999), which can be a predictor of child abuse, suicide, and in rare cases infanticide (National Mental Health Association, 2008). This phenomenon also places a great burden on society at large. The US spends tens of billions of dollars each year on maternal depression and its systemic effects (Gaynes et al., 2005; Kermode, Fisher, & Jolley, 2000; Wang, Simon, & Kessler, 2003). Clearly, the impact of depression does not remain isolated but has a biological, psychological, and social impact on a woman's entire relational system.

## SOCIAL SUPPORT AND DEPRESSION DURING PREGNANCY

In the past several years there has been an increase in the number of quantitative studies reporting that low levels of social support are associated with more depressive symptoms during pregnancy (e.g., Adewuya et al., 2007; Berthiaume, David, Saucier, & Borgeat, 1998; Besser, Priel, & Wiznitzer, 2002; Jesse & Swanson, 2007; Jesse, Walcott-McQuigg, Mariella, & Swanson, 2005; Rahman, Iqbal, & Harrington, 2003). Lack of or low social support and depression have together been related to drug abuse in pregnancy (Behnke, Eyler, Woods, Wobie, & Conlon, 1997), postpartum posttraumatic stress disorder (Cohen, Ansara, Schei, Stuckless, & Stewart, 2004),

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poor attitudes about pregnancy-associated weight gain (DiPietro, Millet, Costigan, Gurewitsch, & Caulfield, 2003), increased risk of HIV clinical disease progression (Antelman et al., 2007), preterm birth (Dole, Savitz, Siega-Riz, Hertz-Picciotto, McMahon, & Buekens, 2004), preterm labor (Mackey et al., 2000), ADHD diagnosed in first-time expectant mothers (Ninowski, Mash, & Benzies, 2007), and miscarriage (Swanson, 2000).

## COUPLES AND DEPRESSION DURING PREGNANCY

One area of the social support construct that has been given focused attention is that of the couple. Research on couples usually focuses on marital conflict and dyadic adjustment: the process of supporting each other, actually providing support, distinguishing one another's needs, and listening (Gupta, Coyne, & Beach, 2003). In fact, the couple, usually defined as married or cohabiting long-term partners in an intimate relationship, has become a key aspect of understanding depression (Whisman, 2001). Whisman and Bruce (1999) reported that people who experienced discord in their marriage had a 2.7 greater chance of experiencing a major depressive episode in the next year than those that did not. Likewise, they found 30% diagnosed with major depression reported marital discord.

Among couples who faced marital discord and depressive symptoms, couples therapy was better at reducing depressive symptoms than antidepressants (Leff et al., 2000). Recently, emotion focused therapy (EFT; Johnson, 2004) has emerged as an evidenced-based treatment for depression. EFT is an approach that was designed for use with couples and allows them to explore their internal experience and link it systematically to their interaction with their partner (Dessaulles, Johnson, & Denton, 2003). EFT has been shown to be equally effective as antidepressants in improving depression (Dessaulles et al.).

Less is known about the process of support and relational dynamics of couples in which a partner faces depression or the best depression treatment for the pregnant population. Oftentimes, with studies of pregnancy, the couple relationship is studied as part of the larger social support construct rather than on its own. As similar to the general population, there is a trend that the better the quality of couple relationships the lower the pregnant female's depression score (c.f., Glazier, Elgar, Goel, & Holzappel, 2004; Pajulo, Savonlahti, Sourander, Piha, & Helenius, 2001). For example, Pajulo et al. found that difficulties with interpersonal style, emotional tendencies, and impulses between partners during pregnancy were associated with higher prenatal depression. Furthermore, they found in their examination of the larger picture of general support that while difficulties with anyone in the women's support network was associated with higher prenatal depression it was the relationship with the pregnant woman's own mother and partner that had the most significant impact on prenatal depression.

Similarly Zelkowitz et al. (2008) conducted a study to determine factors associated with depression during pregnancy. As part of the analysis, the researchers explored depression, social support, partner relationship, and stress. The researchers found the partner relationship was the most significant aspect of social support. Jesse and Swanson (2007) found that low social support in pregnancy increased the risk for antepartum depression for Caucasian women but not for African-American and Hispanic women, however, they combined support from partners and others. These studies suggest that the couple's relationship is a powerful component of the larger social support construct and may be a contributing or protective factor for depression during pregnancy. However, less is known about the process of support and, thus, how to include partners in interventions that address depression during pregnancy.

There are only three known clinical trials that have included social support in an intervention to address depression during pregnancy (Hayes, Muller, & Bradley, 2001; Spinelli & Endicott, 2003; Zlotnick, Miller Pearlstein, Howard, & Sweeney, 2006) none of which have focused on the couple relationship in a formalized way. It seems that when developing interventions partners should be included and the couple relationship is an important focus of care. More research is needed to inform such a design.

To date, there is no available literature that provides "a complex, holistic picture" (Creswell, 1998, p. 15) of a couple's experience with depression during pregnancy. Until now, researchers have only examined antepartum depression and depressive symptoms, and couple relationships quantitatively (e.g., Berthiaume et al., 1998; Besser et al., 2002; Zelkowitz et al., 2008). Prior researchers used self-report assessment measures for support or dyadic adjustment and related the scores to the presence of depressive symptoms. With growing recognition of the prevalence and effects of depression during pregnancy, as well as the need for understanding the couple's experience and developing a couple's approach to the treatment of depression, this study marks a timely contribution.

## PURPOSE OF STUDY

This study is the first to qualitatively explore, appreciate, and describe the couple's experience of depressive symptoms during pregnancy. Its purpose was to capture the phenomenological essence of the experience of depressive symptoms during pregnancy from the couple's perspective. This study was approved by the university's institutional review board (IRB). The information gathered extends current research and provides insight into how to enhance assessment and intervention for women who are depressed during pregnancy by including a relational component, thus promoting a nonpharmacological, family-oriented, and biopsychosocial approach.

## Theoretical Framework

This study utilized a biopsychosocial-spiritual approach to understanding the complexity of the experience and builds upon

TABLE 1  
Interview Guide

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Grand Tour Questions

“What has this pregnancy been like? “  
Have you felt supported throughout this experience? If so, how?”

Biopsychosocial-Spiritual Probing Questions

*Note:* Use of the words, “this” and “it,” were replaced with whatever experience(s) the participants described from the grand tour questions.

Biological	How does “this” influence your physical health? How does “it” feel in your body?
Psychological	Tell me about the role of depression. How do you feel about “it?” How does “it” influence your mood? How does “it” influence your behavior?
Social	How does “it” influence your relationships with other people (friends or family)? How does “it” influence your work or leisure?
Spiritual	What meaning do you give to “this”? Why is “it” present in your life/lives? And how does “it” influence what you believe?

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Jesse’s biopsychosocial-spiritual framework (Jesse & Alligood, 2002; Jesse & Swanson, 2007). Engel (1977, 1980) has been credited with expanding the lens of medicine from focusing on symptoms and their biological cause and effect to a systemic experience with a framework of social, psychological, and behavioral dimensions of illness. Engel (1980) stated that, “nothing exists in isolation ... every system is influenced by the configuration of the systems of which each is a part of” (p. 537). Wright, Watson, and Bell (1996), Jesse & Alligood (2002), and Jesse, Schoneboom, & Blanchard (2007) proposed the addition of the spiritual dimension to this approach. According to Wright et al. (1996), one’s beliefs are determined by one’s biopsychosocial make-up and these beliefs distinguish people and their response to illness. They explained that when illness surfaces there is no greater time to look to one’s spirituality. Many providers have begun to expand the patient’s narrative by collecting information about their whole experience. A biopsychosocial-spiritual theoretical framework to understand risk for depression in pregnancy was supported by Jesse and Swanson’s (2007) study findings. Hence, the biopsychosocial-spiritual approach was chosen to serve as a logical theoretical anchor for this study. Research questions were developed with this framework in mind and findings were considered and discussed accordingly.

## METHOD

This study used a qualitative phenomenological inquiry method. The interview protocol followed a semi-structured open-ended interview approach. This approach allows for investigators to ask open-ended questions, which are broad and somewhat ambiguous, followed by probing questions that allow for more specific detailed explanations about the topic under study (Patton, 2002). Participants were asked the following grand tour questions, “What has this pregnancy been like?” and “Have you felt supported throughout this experience? If so, how?” followed by semi-structured opened ended questions specific to

the participants’ biopsychosocial-spiritual experience of social support, pregnancy, and depressive symptoms (see Table 1).

To understand the complexity of the illness experience, the biopsychosocial-spiritual (BPSS) approach has emerged as a pioneering technique assisting researchers in the collection of comprehensive data. This approach incorporates the biopsychosocial ideas of Engel (1977, 1980) combined with attentiveness to spirituality (Wright, Watson, & Bell, 1996) to form a rationale and basis for the data collected in this study. The BPSS approach encourages researchers to ask questions regarding the patient’s physical experience (biomedical), thoughts, feelings, and state of mental health (psychological), sources of support and relationship to/with others (social), and the patient’s system of beliefs (spiritual), all in relation to the health event under investigation. Participants are presented with the opportunity to comment on each dimension during the interview process. Recent researchers studying depression (Brown, 2002), multiple sclerosis (Kerns, Kassirer, & Otis, 2002), and Parkinson’s Disease (Harkness-Hodgson, Garcia, & Tyndall, 2004) have illustrated the value of this qualitative inquiry method in health care research. Accordingly, the interview guide that was used in this study included biopsychosocial-spiritual probing questions to attempt to elicit the most in-depth, complex, holistic description of the experience of depression during pregnancy from the participants. The intent was that this would aid the investigator in uncovering and describing the meaning behind the shared experience and in developing a complex, holistic picture of the phenomenon.

## Participants and Setting

Seven pregnant women with depressive symptoms and their partners were recruited from Concord Hospital’s Family Health Center (CHFHC). The CHFHC is a family practice residency clinic that offers primary care, counseling, and dental care to individuals, couples, and families in the local community. The first

eligible and willing participants who responded to the call were enrolled. Prenatal participants were included if they scored ten or above on the Edinburgh Postnatal Depression Scale (EPDS; Cox, Holden, & Sagovsky, 1987). The EPDS is a ten-item self-report screening tool used widely in clinical and research work to measure depressive symptoms during pregnancy and postpartum. Each item is rated on a four-point scale (0–3); responses are summed to obtain a score and the minimum and maximum scores are 0 and 30, respectively. A score of ten or above has been noted to indicate possible depression. In addition, to be included in the study, participants had to report themselves as partnered (married, cohabiting, or long-term partners in an intimate relationship), age 18 and older, and they had to agree to an audio-taped interview. Participants were excluded if they were under age 18, cognitively impaired or incarcerated, did not meet the cut off score of ten or above on the EPDS (Cox et al., 1987), did not have a partner, and/or were identified to have domestic violence issues.

Recruitment of participants relied heavily on CHFHC staff. The principal investigator (PI) announced the study to health center staff at their regularly scheduled weekly meeting. Attendees, including physicians, nurses, and medical assistants, were given instructions about how to contact the PI if they knew of a potential participant. Within two weeks, ten participants were referred to this study. Nine referrals came from the prenatal intake nurse. This nurse gathers in-depth psychosocial information and often gets to know the women's context early in her pregnancy before the providers. Although she does not conduct a formal depressive screening her comprehensive interview method helps her to establish an idea of who may be experiencing such symptoms at the point of intake. The other referral came from a physician who met with the woman later in her care. At her next prenatal appointment, the provider asked the pregnant woman if she was willing to talk to the PI about a research opportunity. The PI then met the prospective participant and introduced the study to her. She obtained her informed consent and screened her for depressive symptoms using the EPDS (Cox et al., 1987). Ten participants were referred to the study and all scored greater than or equal to ten (the cutoff score for inclusion). The EPDS has a question that asks about suicidal ideation and intention. While a plan was in place if someone

answered yes to that question, none did. All participants were explained the results of their screening and were offered referrals for counseling services if desired.

Upon determining the pregnant woman's eligibility, the PI then asked her to invite her partner to participate. The PI obtained the women's phone numbers and called within 24 hours to schedule an interview. Of the ten referred, seven had partners willing to consent to the study. Partners that were enrolled were administered informed consent prior to the start of the interview. Fortunately, enrollment beyond seven participants was not needed as the first seven interviews were rich and descriptive, resulting in thematic saturation. This means that after the seventh interview was analyzed, no new themes emerged, marking the end of the recruitment phase.

### Data Collection

The first phase of data collection began upon receipt of each participant's informed consent. A demographic questionnaire was administered to each participant individually. The data were summarized and are described in Table 2. Couples were interviewed using the semi structured open-ended interview approach as outlined in Table 1. All but one couple chose to be interviewed in a private room at the CHFHC. The other chose to interview via phone. All interviews, regardless of setting, were audio-taped and later transcribed into a typed document.

### Data Analysis

Data were analyzed according to Colaizzi's (1978) phenomenological data analysis method. Colaizzi's method was chosen because it allows phenomenological investigators to distill vast amounts of narrative data into smaller more manageable units. Procedural steps were as follows: (a) All of the transcripts were read in one sitting by the first author and the triangulated investigator to acquire an overall feeling and understanding of each participant's experience; (b) significant statements, key words, or phrases that pertained to each participant's experience of depression during pregnancy were extracted (by highlighting); (c) meaning statements were formulated for each significant statement (written in the margin and then rewritten on a clean piece of paper); (d) the formulated meanings

TABLE 2  
Demographics

Participant	Patient Age	Partner Status	Pregnancies (Gravida)	Children (Para)	Race	EPDS Score	Trimester
1	27	Cohabiting	1	0	Caucasian	10	1
2	18	Cohabiting	1	0	Caucasian	15	3
3	29	Married	3	1	Caucasian	20	2
4	27	Married	1	0	Caucasian	10	2
5	26	Cohabiting	1	0	Caucasian	12	2
6	24	Cohabiting	1	0	Caucasian	11	1
7	20	Cohabiting	2	0	Caucasian	19	2



were organized into thematic clusters to reflect a series of common meaning statements; and (e) an exhaustive description was prepared incorporating data from all of the above steps. The exhaustive description reflected the fundamental structure of the participants' experiences.

### Verification Strategies

Verification strategies were fulfilled throughout all steps of the data analysis to preserve the integrity of the data and maintain the rigor of the study (Lincoln & Guba, 1985). Since investigators in this type of research serve as the primary data collection instruments (Boss, Dahl, & Kaplan, 1996; Creswell, 1998), all members of the research team constructed a bias statement subsequent to IRB approval and prior to commencement of data collection. This helped the two investigators (PI, triangulated investigator) and the peer debriefer to explore and reveal themselves in ways that other types of research do not allow. The bias statement of the PI included reflections on her prior research and clinical experience with the same population. She had anticipated finding a strong connection between depression and the couple relationship and needed to monitor that bias so it did not occlude other possible explanations or themes. Bias statements of the triangulated investigator and peer debriefer included thoughts about family members and personal pregnancy experiences where depression had a possible impact on relationship quality. The process of reviewing bias statements involved each member of the research team explaining their experiences, past and present, before beginning the analysis process. Opportunities to reintroduce a discussion about biases remained open. Biases were even found to change throughout the analysis process. For example, one team member became pregnant during the study and this impacted her sensitivity to somatic symptoms and mood states.

To address transferability (the ability for another researcher to transfer the study to another population in a different context) the PI and triangulated investigator routinely wrote in a reflexive journal (Lincoln & Guba, 1985) about their roles as investigators, methods for participant recruitment, data collection, and personal reflections. To assert dependability and confirmability (reliability and objectiveness of method used specific to this study), an audit trail was used to record process notes on the method employed. An audit trail provides a deeper understanding of the methods employed and should allow an outsider to replicate the process of the study (Lincoln & Guba). Our record included descriptions of daily activities, time spent, decision making procedures, and documented peer debriefing sessions and triangulated investigator interactions. These documents are available upon request.

To increase the study's credibility (accuracy of participation description, internal reliability), the investigators followed triangulated investigator, peer debriefing, and member checking protocols. The triangulated investigator participated throughout the entire data analysis process. The final results reflect complete

agreement of both investigators. A peer debriefer helped the investigators to explore their biases, clarify their interpretations, and scrutinize their hypotheses (Lincoln & Guba, 1985). The peer debriefer helped the investigators explain and defend results obtained, requiring them to reconsider any resulting themes that could not be clearly connected back to the raw data. The peer debriefing sessions helped clear the investigators' minds of emotions and feelings that could have potentially muddled clear thinking. This is an essential piece of Colaizzi's (1978) phenomenological data analysis method. Lastly, member checking (Lincoln & Guba) ensured that our interpretations held true to the participants' intentions. Participants reviewed all meaning statements that were attributed to their extracted significant statements. Each individual was asked to review the meaning statements independent of his or her partner in the event that the couple dynamic prevented complete authenticity. Participants could change or add to the data at this time, but none did. This was done via phone or in person at their next prenatal visit.

### FINDINGS

In accordance with Colaizzi's (1978) methodological design, participants' stories have been collapsed into 162 meaning statements, 5 thematic clusters, and 1 exhaustive description. The five thematic clusters are described below in detail. Quotes are used to illustrate the richness and depth of the experience (see Table 3). The exhaustive description is presented subsequent to the discussion of the final thematic cluster.

#### Thematic Cluster #1: Challenges and Stressors Associated with Depressive Symptoms During Pregnancy

All participants described their pregnancy as stressful. Most shared that they experienced specific biopsychosocial challenges in their pregnancy; none specifically noted spiritual challenges or stressors. This first thematic cluster captures the participants' descriptions of the stressors they face and challenges that they reported experiencing including physical changes, lifestyle challenges, and financial pressures.

Several female partners (FPs) shared physical complaints such as gaining weight, morning sickness, backaches, fatigue, and specific issues such as kidney problems and high blood pressure. For example, one FP stated, "Well, he always tells me I don't look fat . . . I just didn't know I would get sore . . . I've had kidney stones and an infection. It's just like a lot. It's kinda rough. Now I can't wait for it to be over . . . I want my body back." The participants also overwhelmingly talked about missing sleep and being more stressed because they were tired. One male partner (MP) stated, "I don't really get stressed out. The only thing [I] might be lacking is sleep once in a while. I'm up with her" to which the FP replied, "Yeah, I can sleep for like a couple of hours at a time and then I will wake up in the middle of the night and I will just be awake and there is nothing I can do about it." Likewise, another MP explained, "The only down side is that when she wakes up and can't sleep she wakes me

TABLE 3  
Main Findings

Thematic Clusters	Sample Quotes
Challenges and stressors associated with depressive symptoms during pregnancy	<p>"It's been challenging. I've had to give up a lot of the things I do, like the habits . . . it's really hard."</p> <p>"A huge stress for me is knowing that if we don't make enough money we are up the creek."</p>
Pregnancy's effect on mood states	<p>"All my emotions are like you've turned up the volume button on the telephone."</p> <p>"She was always an emotional person but now she cries at the drop of a hat."</p>
Relationship dynamics that influence moods	<p>"If my feet hurt, he rubs my feet. If I am hungry, he makes me something to eat. He is just really there for me. When I am having a bad day, he is just there. That helps a lot."</p>
Pregnancy and the influence of depressive symptoms on relationship dynamics	<p>"We were actually starting to grow apart and now for the sake of a greater purpose we are able to pull ourselves back together."</p> <p>"I show excitement. He doesn't show excitement . . . I get scared that he is going to flake out . . . he doesn't want to be there . . . it doesn't give me any stability or grounds to think that this is concrete"</p>
Reliance on external sources of support	<p>"I feel more vibrant and more excited about it because everyone else is excited. It makes a lot of difference to have good support"</p> <p>"[His parents] help out a lot. With everything. Money, the truck I drove here in, they buy us groceries . . . baby clothes . . . It's great"</p>

up. So, I am kinda like a zombie looking at the clock thinking I gotta get up in 3 hours." The FP added, "When I don't sleep it makes my days really long, it makes my stress level go way up."

Some participants talked about the lifestyle changes and the challenges these have presented. They talked about quitting smoking, cutting back on caffeine and alcohol, no longer going to bars, or staying up late. One FP stated,

It has been challenging. I've had to give up some of the things I do, like the habits. Like I used to smoke and I stopped. That's good. It's really hard when you go from a person that used to smoke a lot down to nothing in less than six weeks. That was a big jump . . . And, I used to drink a pot of coffee a day. I needed caffeine; but can't even drink that. You give up your two favorite things. That's really hard.

Interestingly, only FPs reported these lifestyle changes. While MPs supported the changes they did not disclose facing the same challenges.

Financial pressures emerged as a significant stressor for all participants. Couples discussed how financial pressures increased by adding a new baby to their lives. One MP revealed that

A huge stress for me is knowing that if we don't make enough money we are up the creek . . . the fact that the cost of raising a family, living on your own these days its way over [what we can afford], it's crazy, we can barely make it with two people.

Several couples talked about stressful sacrifices they have made to make ends meet such as taking jobs they normally would not take just for the money or making sacrifices with their living situations. They described the pressure they feel

financially at this time. For example, one FP stated, "It's [the pregnancy's] stressful, we are both young . . . he's a full time student and works part-time. I can't find a job and this [points to her belly] is not helping." Her partner further explained, "We want to move . . . but there is not much in—our price range shown in so we are living in a decent place but with a bad roommate." Another couple explained they are living with her parents to save money and, while helpful, it is stressful because it is not where they want to be. One MP chose to work out of state during the last trimester of his FP's pregnancy (138 days). He stated, "So, I won't be around much for the duration of the rest of the pregnancy, that is a problem but at the same time it handles a lot of our other problems—money." The FP expressed stress related to this situation. She said, "It stressed me out. I was crying over and above the usual. Then, I calmed down and thought this would probably be better for us. But, I've never been pregnant before. I wouldn't have any real support."

### Thematic Cluster #2: Pregnancy's Effect on Mood States

This cluster is used to describe participants' accounts of their own, as well as, their partners' mood states. All FPs in this study scored positive for depressive symptoms on the EPDS (Cox et al., 1987). The recommended cut off score for risk of depression is ten. Two FPs scored a 10, one scored an 11, one a 12, one a 15, one a 19, and one a 20. While severity varied, all couples spoke about the FP's mood as a significant aspect to their pregnancy experience.

The women explained that since being pregnant their moods have amplified. They described depressive symptoms such as crying, feeling irritable or aggravated, hostile and edgy, hopeless

and scared. As one FP stated, “All my emotions are like you’ve turned up the volume button on the telephone.” Her partner added, “She’s always been an emotional person but now she cries at the drop of a hat pretty much. At the drop of a hat she can get frustrated.” Another FP shared how her moods appeared to come from nowhere and robbed her of the joy during her pregnancy. She shared,

It feels like you have no control over your emotions anymore. I would never just sit there and cry for no reason or flip out for no reason at all. It usually takes a lot to get me upset. I am usually very calm. But then again I used to smoke it off . . . my whole coping system is shot . . . when I get sad and stuff it takes the joy of us being pregnant right out.

Meanwhile, the MPs expressed being confused by the FPs’ moods. Some expressed feeling frustrated because they cannot predict the onset, understand, or fix the mood change. One expressed a sense of hopelessness. Another described it in the following way,

There’s good days and bad days. There are some days when she is fine and there are other days that she just flies off the handle and it’s like, “What is wrong with you?” Her dad said that is one aspect of pregnancy you will never understand . . . So, for me, it’s frustrating . . . because she will be flipping out and there is nothing I can do because it has nothing to do with me. And, for a guy, especially a guy with my personality, that’s hard for me because I am Mr. Fix It . . . It’s confusing.

### Thematic Cluster #3: Relationship Dynamics that Influence Mood

Many participants spoke of issues and aspects of their relationship that seemed to influence depressive symptoms, that is, helped alleviate symptoms or make things worse. For example, MPs explained how in effort to alleviate symptoms, they would wake up at night with their FP, go out and get their FP food, and help with things their FP could not do anymore because of physical limitations, such as move furniture or change cat litter. It was also noted that it helped when MPs were perceptive of the FPs’ needs and did things like remain calm in the face of stress, offer encouraging words, and respect the FP’s boundaries. For example, one couple described the MP’s attempts to pamper the FP and how that seemed to really help alleviate her depressive symptoms. She stated,

He’s just really good to me, like if my feet hurt he rubs my feet. I’m hungry, he makes me something to eat. He’s just really there for me. When I am having a bad day, he is just there. That helps a lot.

The MP replied, “That is my hope . . . I figure the better I can be toward her . . . the more pleasurable it’s going to be for her.”

On the other hand, FPs reported things their partners did that made their mood worse, such as appearing to instigate conflicts, invading their personal space, and engaging in arguing behaviors with them. One couple explained what their interactional cycle looks like when engaging in conflict.

Last night I [MP] made things worse because she was mad about something and so instead of being like, “Sorry,” I just argued with her and so I said things that were stupid. She got mad and went for a walk outside. So, I went outside and she was by the street and . . . talked to her and just talking I learned that I was making things worse instead of better, not diffusing the situation but making it worse.

His FP responded with, “He is an instigator. He instigates. He doesn’t try to resolve them, just instigates . . . I swear nobody can push each other’s buttons like we can. I’ve [FP] never had such a problem.” Another couple described similar situations in which the partner tried to soothe the FP when she needed space and that made her feel annoyed and worse than she felt initially.

### Thematic Cluster #4: Pregnancy and the Influence of Mood on Relationship Dynamics

The majority of data gathered from participants fell under this thematic cluster. Couples spent a lot of time discussing ways that pregnancy and depressive symptoms have influenced their emotional intimacy, communication patterns, time spent together, paternal involvement, and commitment. Many couples stated that pregnancy brought them closer together. One couple explained that the shared connection of a baby brought their relationship to a whole new positive level. They explained that since she has started “showing” the couple has connected in a new way by both attaching to the baby. The partner stated,

We’ve been close for years now. We can only get so much closer. It’s an addition. It’s a new level for us, our next step. I think the physical aspect is stronger than communication. Like if the baby is moving and I am feeling the baby move . . . I don’t know, the physical aspect is more engaging . . . it just gets deeper.

Other couples found that this new shared purpose that united them also encouraged them to communicate better, working together toward their goals. For example, one MP stated,

It has brought us closer together in our relationship because before this happened we were actually starting to grow apart and now for the sake of a greater purpose we are able to pull ourselves back together and now our perception of what we want from life is a lot different . . . I was happy we were having a baby and I knew at the same time this was going to have to be a crash course to figure out what’s going on with us.

This couple described being able to successfully negotiate and communicate around areas of improvement in their relationship and felt stronger as a unit because of it; ultimately enjoying each other more now than they did before the FP was pregnant. Those couples that had a strong foundation prior to the pregnancy seemed to express a more pleasurable experience even with new stressors, challenges, and mood changes. They described already having a foundation of honesty, good communication, and problem solving skills. One couple explained, “I think we’ve avoided most of the problems a normal couple goes through . . . because of our solid foundation of honesty and communication . . . we don’t bottle things up . . . we identify a problem . . . don’t place blame . . . we say what can we do and fix it.”

However, some couples did not find this transition as easy. Many spoke of new relational issues that have arisen since becoming pregnant such as changes in time spent together, involvement, and level of commitment. A few FPs described feeling discouraged by their partners' lack of excitement. One FP stated, "I was so excited, I couldn't think of anything else . . . and he was like 'hold on.'" Another FP stated she felt alone at first. She stated, "When I found out I was pregnant . . . I would get depressed . . . then I would get excited . . . I would tell all my friends and everything, and he was just like, 'Yeah, I am having a kid.' He doesn't show his excitement." Her partner confirmed this by reporting, "I wasn't there. I don't show my excitement."

Similarly, many couples expressed discrepancies about time spent together since becoming pregnant. Many FPs expressed wanting more time with their partners. One couple stated they both used to enjoy having friends over as much as possible; now, the FP gets mad and wants to spend time with just him. She stated, "I want to spend time with just him now because I know when the baby comes its going to be more about the baby than me and it won't be just us anymore." Two other couples described feeling like they do not have the time to dedicate to strengthening their relationship in the ways that they would like because they have demanding work schedules. One FP reflected upon her need for more time together and connected it with wanting to feel that their relationship was a priority. She stated, "Sometimes I feel like I come after his friends and I would like to feel like I always come first." This discrepancy over excitement and priorities seems like it may be related to another topic of concern, involvement and commitment. One FP articulated it as,

I get scared that he is going to flake out and be like, okay sorry, peace. He doesn't want to be there . . . he doesn't want to be involved in the naming process . . . the baby book or put stuff up . . . it doesn't give me any stability or grounds to think that this is concrete, that this is going to stick. He is going to be okay with it and want to be a father.

Another FP similarly described fears that her partner would leave. They had recently moved to the northern region and were not used to the snow. She feared that when he makes broad statements about the weather he is really saying he does not want a baby. In contrast, other women expressed feeling reassured when their partner is physically present. They made statements like, "He is there and that helps," or "It helps to know I am not alone."

### **Thematic Cluster #5: Reliance on External Sources of Support**

This general theme includes non-partner sources of support that couples described accessing throughout their pregnancy experience. All of the couples in this study reported having good social support networks. Many stated that they relied on family, friends, and co-workers for emotional, material, practical, and spiritual support thus far. Most relied heavily on parents.

Parents offered wisdom due to having had their own children, and providing an ear to listen to the couples, and a shoulder to cry on. They also offered rides, baby "stuff," money and, in one case, housing. Some parents accompanied the FP to prenatal visits when her partner could not be there. One MP stated, "She hangs out with my parents a lot." His FP explained, "They help out a lot. With everything. Money, the truck I drove here in, they buy us groceries . . . she has bought me baby clothes. If I don't feel like cooking she is like, 'Come over for dinner.' It's great."

Another stated that the support she receives brings her mood from a 4 to an 8 on a scale of 0–10 (with 10 being most positive). She said, "There are still sources of stress but the support helps."

Friends and co-workers seemed to support the couple more materially than other forms of support. Some participants reported that since being pregnant they do not spend as much time with their friends. They explained this may be because many of their friends are not having children yet and cannot relate to the pregnancy experience. Although their friends offered support by doing things such as buying gifts, and although they reported this helps, participants stated that when people showed excitement it made them excited, too. One FP stated, "I feel more vibrant and more excited about it because everyone else is excited. It makes a lot of difference to have support." Another MP said, "everyone has been so positive about the situation, so it hasn't been too hard."

### **Exhaustive Description**

The couples interviewed in this study shared rich and descriptive accounts of what it is like to face depressive symptoms while pregnant. They all described biological, psychological, and social challenges. Simply put, all the participants labeled their experience as biopsychosocially stressful although without using this terminology. The FPs' bodies ached. The couples were tired. Their lifestyles changed quickly and sometimes dramatically, and the pregnancy brought added financial pressures. In addition, pregnancy had amplified the FPs' moods. Even those that would not have previously characterized themselves as emotionally labile were reporting crying spells, irritability, aggravation, sadness, and anger. Those that were already emotional people expressed feeling like they were even more so and feeling as though they could not control it. Partners expressed confusion over the moods. They described not understanding it and therefore not knowing how to help or fix it. This was discouraging to the male partners, as they could not relate to their female partner. Sometimes the MPs' efforts to help did improve the female participants' mood such as when MPs woke up at night with their FP when she could not sleep, when MPs got food that their FP requested, rubbed her feet when they were sore, or helped with tasks that she could not do. Yet, sometimes partners had the ability to push the FPs' buttons and make their moods worse. Each partner described a process of learning to be perceptive in their responses, such as leaving her alone or cuddling with her when needed. To get it wrong not only influenced her mood, but his as well. Most of the couples reported that the



pregnancy helped their relationship to improve. For some who already felt they had a strong foundation and healthy relationship, the physical aspect of pregnancy connected them in a way that they had not been able to express previously. For others it has been an impetus to change things in the relationship such as time spent together and shared involvement in each other's lives. The FPs all shared the sentiment of not wanting to be alone. Those that felt secure in their relationship asserted that the bond with their partner was what helped them through the experience of depressive symptoms while those that expressed fear that their partner could leave and longed for a greater commitment were left feeling more vulnerable. All of the participants expressed a gratitude for the emotional and instrumental support of friends, family, and co-workers. Reportedly, it made a huge difference in their ability to manage the stressors. They felt more vibrant and excited about the pregnancy knowing that others were excited with them.

## DISCUSSION

The present study gives us a phenomenological glimpse into seven couples' relationships and their experience of depressive symptoms during pregnancy. While the findings are not generalizable to all couples, the data are consistent with and offer a unique and more complete appreciation of the biopsychosocial and spiritual aspects of the experience to the relevant literature. Each thematic cluster will be discussed below and its content compared to the available literature.

### Thematic Cluster #1: Challenges and Stressors Associated with Depressive Symptoms during Pregnancy

Participant accounts add to a growing case for a triadic relationship between stress, depression, and increased physical complaints during pregnancy. Depression during pregnancy has previously been linked to higher levels of stress (Jesse, Walcott-McQuigg, Mariella, & Swanson, 2005; Jesse & Swanson, 2007) and lower income levels (Jesse et al., 2005; Jesse & Swanson, 2007). The couples in this study described a multitude of stresses and challenges related to being pregnant. They discussed stresses related to physical complaints, lifestyle changes, and tremendous financial pressures including work stress, transportation, and housing issues. Stress has been previously linked to lack of health insurance, transportation, and child care (Norman, Moore, Williams, & Nelson, 1998) which are all issues this study's participants described as challenging.

Researchers have shown that stress can exacerbate common pregnancy symptoms such as low energy, weight changes and challenges, backache, and abdominal bloating (Rodríguez, Bohlin, & Lindmark, 2001). Stress can have a greater impact on somatic complaints than medical risks, smoking, or weight gain and can even predict somatic complaints up to 16 weeks later. Similarly, participants in the present study disclosed a myriad of physical complaints that challenged them. The chief complaint resoundingly was fatigue. Fatigue, like appetite and

weight change, is an often-cited example of a somatic complaint of pregnancy that is difficult to differentiate from a symptom of depression (Manber, Blasey, & Allen, 2008). Thus, increased stress or somatic complaints may indicate depressive symptoms in pregnancy. If a pregnant woman presents for care with such complaints, a provider might want to collect more information, assess for, and rule out depression.

### Thematic Cluster #2: Pregnancy's Effect on Mood States

As expected, women who screened positive for depressive symptoms described symptoms that are associated with depression, such as crying more, feeling more emotional, getting mad easier, and being more irritable. Some FPs stated it was uncharacteristic for them and others stated their moods had been amplified since becoming pregnant. The MP expressed confusion by the FP's mood, which sometimes left the MP feeling frustrated. These findings were supported by other researchers who identified the same reaction from partners of depressed non-pregnant participants (e.g., Harris, Pistrang, & Barker, 2006; Sandberg, Miller & Harper, 2002). The MPs in this study explained that they tried to bottle up feelings of confusion and frustration so as not to further upset their FP. This illustrates Coyne, Ellard, and Smith's (1990) theory of the dilemma of helping in which efforts are made to extend help at the expense of personal satisfaction. This bottling up of frustration compounded by a lack of understanding for the FP's mood makes empathy, a key relationship component (e.g., Mitchell et al., 2008), quite difficult.

### Thematic Cluster #3: Relationship Dynamics that Influence Moods

Unique to this study are insights into exactly how the couple relationship can impact FPs' symptoms of depression. Current literature informs us that relational difficulties can leave people vulnerable to, and be a predictor of, future depressive episodes (e.g., Beach, Fincham, & Katz, 1998; Byrne, Carr, & Clark, 2004). Conversely, healthy couple relationships can protect against depression (e.g., Gove, Hughes, & Style, 1983). While quantitative screening instruments can be used to identify a pregnant woman with depressive symptoms, providers may know little about who in their social network is contributing in positive or harmful ways. This study provides us with some of that information and in rich detail. For example, most FPs explained that when their partner is perceptive of their needs they feel better. They described that listening, offering encouraging words, respecting barriers, and just being there helped them. Whereas, instigating arguments through trigger words, seemingly harmless name-calling, approaching the FP when she wanted to be alone and vice versa were not helpful.

### Thematic cluster #4: Pregnancy and the Influence of Mood on Relationship Dynamics

As couples prepare to become parents, their relationship dynamics may prominently influence their experience (Kluwer &

Johnson, 2007). The transition to parenthood has been noted as one of the most challenging relationship stages (Kluwer & Johnson). More than 20 studies have concluded that marital satisfaction often declines following the birth of a child (see review by Cowan & Cowan, 1995). Having a child has been found to reduce leisure time, change intimacy, and reduce sexual quality (Huston & Vangelisti, 1995). These concerns were found among the couples that participated in this study.

Despite the volume of studies building the connection between marital satisfaction and parenthood, few researchers have tracked marital quality during pregnancy (Cowan & Cowan, 1995). While the current study did not set out to discover this kind of information, challenges to a couple's relationship dynamic surfaced as being impacted by the presence of depression during pregnancy. Couples in this study were concerned about their level of honesty, communication, and commitment. As cohabitation has become more common for individuals across all adult life stages (Casper & Bianchi, 2002), only two of the couples were married. Cohabitation is an increasingly common context for parenting especially among the socioeconomically disadvantaged (Bumpass & Lu, 2000). This study added insight into couples' experiences with uncertain commitment during pregnancy. These cohabitating couples seemed to be expressing a paradoxical view of commitment. They wanted to know their partner will always be there to help raise the child but not necessarily as a marital partner.

It has previously been reported that some couples do not see having children as a reason to marry (Gibson-Davis, Edin, & McLanahan, 2005), and they may choose to live together to try out their compatibility (Kluwer & Johnson, 2007). Participants in this study seemed to share this sentiment. While couples in this study were not quick to jump into a marriage, the FPs did express fears and concerns about being a single parent. They wondered if their current relationship was strong enough to survive the transition to parenthood. This study revealed an uncomfortable level of insecurity and internal conflict, particularly for the FPs. They seemed unsure about whether to keep a certain emotional distance so as not to rely on someone that might not be there in the future. They wanted more signs of reassurance that their partner would be a part of their lives but also cognitively believed that it was best for them to not move to commitment hastily.

### **Thematic Cluster #5: Reliance on External Sources of Support**

Finally, the most unexpected finding in this study was that all participants reported having good support systems and being provided with emotional and instrumental/material support from those around them and for which they expressed deep gratitude. This finding is in conflict with previous studies indicating pregnant women with depressive symptoms will likely lack adequate social support (e.g., Adewuya et al., 2007; Jesse & Swanson, 2007; Rahman et al., 2003). However, unlike Jesse

and Swanson's study, only partnered women were invited to enroll in this study. One explanation for this dissimilar finding could be that in this study it was not the other support persons that made the greatest impact on depressive symptoms but that of the partner. It may be that the couple relationship is more powerful than other significant relationships. For example, Pajulo et al. (2001) found that while difficulties in one's larger social support network was associated with higher prenatal depression, it was the relationship with the pregnant woman's own mother and partner that had the most significant impact. Thus, as Hupcey theorized in 1998, it may be that difficulties in the couple relationship make a difference on depressive symptoms, regardless of support persons or that support from partner was the actual influence lacking when women with depressive symptoms reported low social support.

### **Limitations**

One limitation of this study is that the participants were all volunteers. Couples who show willingness to participate in a research study may differ from those that dismiss the opportunity. For example, some women were screened and scored positively for depressive symptoms and declined to talk about it, while some scored positively and wanted to talk about it but their partners declined. Couples who volunteer may qualitatively differ from those who decline.

Another limitation is demography. All of the participants were low income, Caucasian couples who received prenatal care at the same family health clinic. This was a first pregnancy experience for all the couples, although two individuals, one FP and one MP, had children with other partners. These findings offer insight, not generalizability, into what couples like them might be experiencing and expressing. These women are part of a larger group of women (11–50%) who suffer from depressive symptoms during pregnancy (Jesse & Swanson, 2007). None of these participants were in treatment for depression at the time of the interview. None had even been formally screened previously for depression where they received their prenatal care. According to Bennett et al. (2004), these women are not unique. They found that 67% of women with major depression in pregnancy were not receiving treatment and 80% of those at risk for depression in pregnancy did not receive care. Further research is needed to study the voices of couples from a variety of cultural and contextual differences who face depression during pregnancy.

### **Future Directions**

Prenatal care settings may be the first point of entry into a health care setting for a woman battling depression (Jesse, Morrow, Herring, Dennis, & Laster, 2009; Seguin, Potvin, St. Denis, & Loiselle, 1995). Thus, it is an ideal time to conduct a universal screening. This could be done using a self-report questionnaire administered by a medical assistant, nurse, physician, midwife, or other health care provider. A model for this

approach is described by Jesse et al. (2009). The five themes that emerged in this study illuminate the biopsychosocial spiritual dimensions of the experience of depressive symptoms during pregnancy. That is, the women and their partners included in this study described the experience of depressive symptoms as woven into all aspects of their pregnancy and life, not limited to pure biology. Given the participants' accounts it seems valuable to include the partner in the screening and assessment of depression using a biopsychosocial spiritual interview approach (Hodgson, Lamson, & Reese, 2007). Once depressive symptoms, or even a risk for depressive symptoms, have been identified, a member of the health care team could educate the patient and her family about what depression is and the associated risks, such as drug abuse during pregnancy (Hutchins, 1997), preterm labor (Mackey et al., 2000), preterm delivery (Orr et al., 1996), and the development of postpartum depression (Beck, 1999). This would help the families make an informed decision about treatment (i.e., individual, couple, family, or group therapy). Few prenatal clinics offer these treatments on-site but it may be of value to build these collaborative teams and make them as accessible as possible. One idea would be to have a behavioral health professional as part of the staff. That would open doors for communication and provide easy access for the patient and her family. Research could be included on this process as a way of discovering the most efficacious model for this population.

Despite growing attention to perinatal depression, the experiences of couples who face depression during pregnancy has been understudied. This study provides additional data on the experience of couples who face depression during pregnancy. It has significance to the mental health field, including family therapy, psychology, social work, and nursing because the insight gained from the findings may guide these professionals in their assessment and treatment of depressive symptoms during pregnancy. These findings add to a larger body of literature that could have the potential to systemically ripple out and change the lives of women, their partners, their unborn babies, families, communities and larger society.

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## REFERENCES

- Adewuya, A. O., Ola, B. A., Aloba, O. O., Dada, A. O., & Fasoto, O. O. (2007). Prevalence and correlates of depression in late pregnancy among Nigerian women. *Depression & Anxiety, 24*, 15–21.
- Antelman, G., Kaaya, S., Ruilan W., Mbwambo, J., Msamanga, G. I., Fawzi, W. W., et al. (2007). Depressive symptoms increase risk of HIV disease progression and mortality among women in Tanzania. *JAIDS: Journal of Acquired Immune Deficiency Syndromes, 44*, 470–477.
- Beach, S. R. H., Fincham, F. D., & Katz, J. (1998). Marital therapy in the treatment of depression: Toward a third generation of therapy and research. *Clinical Psychology Review, 18*, 635–661.
- Beck, C. T. (1999). Postpartum depression. Stopping the thief that steals motherhood. *AWHONN Lifelines / Association of Women's Health, Obstetric and Neonatal Nurses, 3*, 41–44.
- Behnke, M., Eyler, F. D., Woods, N. S., Wobie, K., & Conlon, M. (1997). Rural pregnant cocaine users: An in-depth sociodemographic comparison. *Journal of Drug Issues, 27*, 501–524.
- Bennett, H. A., Einarson, A., Taddio, A., Koren, G., Einarson, T. R. (2004). Prevalence of depression during pregnancy: A systematic review. *Obstetrics & Gynecology, 103*, 698–704.
- Berthiaume, M., David, H., Saucier, J., & Borgeat, F. (1998). Correlates of pre-partum depressive symptomatology: A multivariate analysis. *Journal of Reproductive & Infant Psychology, 16*, 45–56.
- Besser, A., Priel, B., & Wiznitzer, A. (2002). Childbearing depressive symptomatology in high-risk pregnancies: The roles of working models and social support. *Personal Relationships, 9*, 395–413.
- Boss, P., Dahl, C., & Kaplan, L. (1996). The use of phenomenology for family therapy research: The search for meaning. In D. H. Sprenkle & S. M. Moon (Eds.), *Research methods in family therapy* (pp. 83–106). New York: Guilford.
- Brown, G. (2002). Social roles, context, and evolution in the origins of depression. *Journal of Health and Social Behavior, 43*, 255–277.
- Bumpass, L. L., & Lu, H. (2000). Trends in cohabitation and implications for children's family contexts in the United States. *Population Studies, 54*, 29–41.
- Byrne, M., Carr, A., & Clark, M. (2004). Power in relationships of women with depression. *Journal of Family Therapy, 26*, 407–429.
- Casper, L. M., & Bianchi, S. M. (2002). *Continuity and change in the American family*. Thousand Oaks, CA: Sage.
- Cohen, M. M., Ansara, D., Schei, B., Stuckless, N., & Stewart, D. E. (2004). Posttraumatic stress disorder after pregnancy, labor, and delivery. *Journal of Women's Health, 13*, 315–324.
- Colaizzi, P. F. (1978). Psychological research as the phenomenologist views it. In R. Vaile & M. King (Eds.), *Existential phenomenological alternatives for psychology* (pp. 48–71). New York: Oxford University Press.
- Cowan, C. P., & Cowan, P. A. (1995). Interventions to ease the transition to parenthood: Why they are needed and what they can do. *Family Relations, 44*, 412–423.
- Cox, J. L., Holden, J. M., & Sagovsky, R. (1987). Detection of postnatal depression: Development of the 10-item Edinburgh Postnatal Depression Scale. *British Journal of Psychiatry, 150*, 782–786.
- Coyne, J. C., Ellard, J. H., & Smith, D. A. F. (1990). Social support, interdependence, and the dilemmas of helping. In B. R. Sarason, I. G. Sarason, & G. R. Pierce (Eds.), *Social support: An interactional view* (pp. 129–140). New York: Wiley.
- Creswell, J. (1998). *Qualitative inquiry and research design choosing among five traditions*. London: Sage.
- Cunningham, F. G., Gant, N. F., Leveno, K. J., Leveno, L. C., Hauth, J. C., & Wenstrom, K. D. (1997). *Williams obstetrics* (21<sup>st</sup> ed.). New York: McGraw Hill.
- Dessaules, A., Johnson, S. M., & Denton, W. H. (2003). Emotion-focused therapy for couples in the treatment of depression: A pilot study. *American Journal of Family Therapy, 31*, 345–353.
- DiPietro, J., Millet, S., Costigan, K., Gurewitsch, E., & Caulfield, L. (2003). Psychosocial influences on weight gain attitudes and behaviors during pregnancy. *Journal of the American Dietetic Association, 103*, 1314–1319.
- Dole, N., Savitz, D. A., Siega-Riz, A. M., Hertz-Picciotto, I., McMahon, M. J., & Buekens, P. (2004). Psychosocial factors and preterm birth among African American and white women in central North Carolina. *American Journal of Public Health, 94*, 1358–1365.
- Engel, G. L. (1977). The need for a new medical model: A challenge for biomedicine. *Science, 196*, 129–136.
- Engel, G. L. (1980). The clinical application of the biopsychosocial model. *The American Journal of Psychiatry, 137*, 535–544.
- Gaynes, B. N., Gavin, N., Meltzer-Brody, S., Lohr, K. N., Swinson, T., Gartlehner, G., et al. (2005). *Perinatal depression: Prevalence, screening*



- accuracy, and screening outcomes. *Evidence Report/Technology Assessment No. 119*. (Prepared by the RTI-University of North Carolina Evidence-Based Practice Center, under Contract No. 290-02-0016). AHRQ Publication No. 05-E006-2. Rockville, MD: Agency for Healthcare Research and Quality.
- Gibson-Davis, C. M., Edin, K., & McLanahan, S. (2005). High hopes but even higher expectations: The retreat from marriage among low income couples. *Journal of Marriage and Family, 67*, 1301–1312.
- Glazier, R. H., Elgar, F. J., Goel, V., & Holzappel, S. (2004). Stress, social support, and emotional distress in a community sample of pregnant women. *Journal of Psychosomatic Obstetrics & Gynecology, 25*, 247–255.
- Gordon, T. E., Cardone, I. A., Kim, J. J., Gordon, S. M., & Silver, R. K. (2006). Universal perinatal depression screening in an academic medical center. *Obstetrics and Gynecology, 107*, 342–347.
- Gove, W. R., Hughes, M., & Style, C. B. (1983). Does marriage have positive effects on the psychological well being of the individual? *Journal of Health & Social Behavior, 24*, 122–131.
- Gupta, M., Coyne, J. C., & Beach, S. R. H. (2003). Couples treatment for major depression: Critique of the literature and suggestions for some different directions. *Journal of Family Therapy, 25*, 317–346.
- Harkness-Hodgson, J. H., Garcia, R., & Tyndall, L. (2004). Parkinson's disease and the couple relationship: A qualitative analysis. *Families, Systems, & Health, 22*, 101–118.
- Harris, T. J. R., Pistrang, N., & Barker, C. (2006). Couples' experiences of the support process in depression: A phenomenological analysis. *Psychology & Psychotherapy: Theory, Research & Practice, 79*, 1–21.
- Hayes, B. A., Muller, R., & Bradley, B. S. (2001). Perinatal depression: A randomized controlled trial of antenatal education intervention for primiparas. *Birth: Issues in Perinatal Care, 28*, 28–35.
- Hodgson, J., Lamson, A., & Reese, L. (2007). The biopsychosocial-spiritual interview method. In Linville & Hertlein (Eds.), *The therapist's notebook for family healthcare: Homework, handouts, and activities for individuals, couples, and families, coping with illness, loss and disability* (pp. 3–13). Binghamton, NY: Hawthorne.
- Hupecy, J. E. (1998). Clarifying the social support theory-research linkage. *Journal of Advanced Nursing, 27*, 1231–1241.
- Huston, T. L., & Vangelisti, A. L. (1995). How parenthood affects marriage. In M. A. Fitzpatrick & A. L. Vangelisti (Eds.), *Explaining family interactions* (pp. 147–176). Thousand Oaks, CA: Sage.
- Hutchins, E. (1997). Drug use during pregnancy. *Journal of Drug Issues, 27*(3), 463–485.
- Jesse, D. E., & Allgood, M. R. (2002). Holistic Obstetrical Problem Evaluation (HOPE): Testing a theory to predict birth outcomes in a group of women from Appalachia. *Health Care for Women International, 23*, 587–599.
- Jesse, D. E., Morrow, J., Herring, D., Dennis, T., & Laster, B. M. (2009). Translating research to prevent antenatal depression in a public health prenatal clinic: A model approach. *Journal of Public Health Management & Practice, 15*(2), 160–166.
- Jesse, D. E., Schoneboom, C., & Blanchard, A. (2007). The effect of faith or spirituality in pregnancy: A content analysis. *Journal of Holistic Nursing, 25*, 151–158.
- Jesse, D. E., & Swanson, M. (2007). Risks and resources associated with antepartum risk for depression among rural southern women. *Nursing Research, 56*, 378–386.
- Jesse, D. E., Walcott-McQuigg, J., Mariella, A., & Swanson, M. S. (2005). Risks and protective factors associated with symptoms of depression in low-income African American and Caucasian women during pregnancy. *Journal of Midwifery & Women's Health, 50*, 405–410.
- Johnson, S. (2004). *The practice of emotionally focused couple therapy* (2nd ed.). New York: Bruner.
- Kermode, M., Fisher, J., & Jolley, D. (2000). Health insurance status and mood during pregnancy and following birth: A longitudinal study of multiparous women. *The Australian and New Zealand Journal of Psychiatry, 34*, 664–670.
- Kerns, R., Kassirer, M., & Otis, J. (2002). Pain in multiple sclerosis: A biopsychosocial perspective. *Journal of Rehabilitation and Development, 39*, 225–233.
- Kluwer, E. S., & Johnson, M. D. (2007). Conflict frequency and relationship quality across the transition to parenthood. *Journal of Marriage and Family, 69*, 1089–1106.
- Leff, J., Vearnals, S., Brewin, C. R., Wolff, G., Alexander, B., Asen, E., et al. (2000). The London Depression Intervention Trial. Randomised controlled trial of antidepressants v. couple therapy in the treatment and maintenance of people with depression living with a partner: Clinical outcome and costs. *British Journal of Psychiatry, 177*, 95–100.
- Lincoln, Y., & Guba, E. (1985). *Naturalistic inquiry*. Newbury Park, CA: Sage.
- Mackey, M. C., Williams, C. A., Tiller, C. M., & Mackey, M. C. (2000). Stress, pre-term labour and birth outcomes. *Journal of Advanced Nursing, 32*, 666–674.
- Manber, R., Blasey, C., & Allen, J. J. B. (2008). Depression symptoms during pregnancy. *Archives of Women's Mental Health, 11*, 43–48.
- Mitchell, A. E., Castellani, A. M., Herrington, R. L., Joseph, J. I., Doss, B. D., & Snyder, D. K. (2008). Predictors of intimacy in couples' discussions of relationship injuries: An observational study. *Journal of Family Psychology, 22*, 21–29.
- National Mental Health Association. (2008). Strengthening families fact sheet: Recognizing postpartum depression. Retrieved July 6, 2008, from [www.1.nmha.org/children/ppd.pdf](http://www.1.nmha.org/children/ppd.pdf)
- Ninowski, J. E., Mash, E. J., & Benzie, K. M. (2007). Symptoms of attention-deficit/hyperactivity disorder in first-time expectant women: Relations with parenting cognitions and behaviors. *Infant Mental Health Journal, 28*, 54–75.
- Norman, C., Moore, M. D., William, H., & Nelson, M. D. (1998). Papers on rural psychiatry—five papers on psychiatry in rural areas: An introduction. Retrieved June 19, 2008, from <http://ps.psychiatryonline.org/cgi/content/full/49/7/957>
- Orr, S. T., James, S. A., Miller, C. A., Barakat, B., Daikoku, N., Pupkin, M., et al. (1996). Psychosocial stressors and low birthweight in an urban population. *American Journal of Preventive Medicine, 12*, 459–466.
- Pajulo, M., Savonlahti, E., Sourander, A., Piha, J., & Helenius, H. (2001). Prenatal maternal representations: Mothers at psychosocial risk. *Infant Mental Health Journal, 22*, 529–544.
- Patton, M. (2002). *Qualitative research and evaluation methods*. Thousand Oaks, CA: Sage.
- Rahman, A., Iqbal, Z., & Harrington, R. (2003). Life events, social support and depression in childbirth: Perspectives from a rural community in the developing world. *Psychological Medicine, 33*, 1161–1167.
- Rodriguez, A., Bohlin, G., & Lindmark, G. (2001). Symptoms across pregnancy in relation to psychosocial and biomedical factors. *Acta Obstetrica Gynecologica Scandinavica, 80*, 213–233.
- Sandberg, J. G., Miller, R. B., & Harper, J. M. (2002). A qualitative study of marital process and depression in older couples. *Family Relations, 51*, 256–264.
- Sequin, H., Potvin, L., St. Denis, M., & Loiselle, J. (1995). Chronic stressors, social support, and depression during pregnancy. *Obstetrics and Gynecology, 85*, 583–589.
- Spinelli, M. G., & Endicott, J. (2003). Controlled clinical trial of interpersonal psychotherapy versus parenting education program for depressed pregnant women. *The American Journal of Psychiatry, 160*, 555–562.
- Swanson, K. M. (2000). Predicting depressive symptoms after miscarriage: A path analysis based on the Lazarus paradigm. *Journal of Women's Health & Gender-Based Medicine, 9*, 191–206.
- Wang, P. S., Simon, G., & Kessler, R. C. (2003). The economic burden of depression and the cost-effectiveness of treatment. *International Journal of Methods in Psychiatric Research, 12*, 22–33.
- Whisman, M. A. (2001). The association between depression and marital dissatisfaction. In S. R. H. Beach (Ed.), *Marital and family processes in depression: A scientific foundation for clinical practice* (pp. 3–24). Washington, DC: American Psychological Association.



- Whisman, M. A., & Bruce, M. L. (1999). Marital dissatisfaction and incidence of major depressive episode in a community sample. *Journal of Abnormal Psychology, 108*, 674–678.
- Wright, L. M., Watson, W. L., & Bell, J. M. (1996). *Beliefs: The heart of healing in families and illness*. New York: Basic.
- Zelkowitz, P., Saucier, J., Wang, T., Katofsky, L., Valenzuela, M., & Westreich, R. (2008). Stability and change in depressive symptoms from pregnancy to two months postpartum in childbearing immigrant women. *Archives of Women's Mental Health, 11*, 1–11.
- Zlotnick, C., Miller, I. W., Pearlstein, T., Howard, M., & Sweeney, P. (2006). A preventive intervention for pregnant women on public assistance at risk for postpartum depression. *The American Journal of Psychiatry, 163*, 1443–1445.