Chapter 2

Postpartum Mood Disorder Theories

Introduction

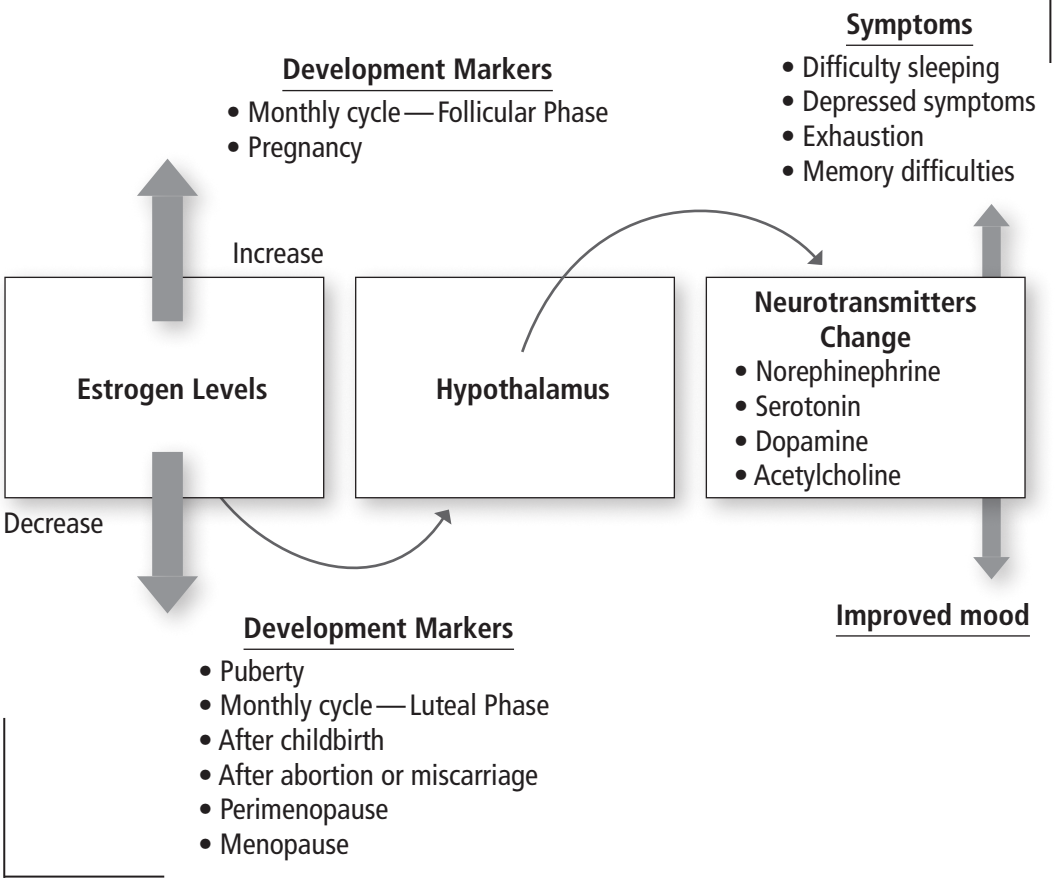
In the 6th century BCE, women's mental health symptoms were termed "hysteria," a derivative of a word meaning womb, and what is sometimes referred to today as anxiety, nervousness, or being out of control of one's emotions. Centuries later, people believed the womb actually moved throughout the female body. When this movement was at its peak, the "wandering womb" was thought to be the source of health and mental health problems (Klein, 2009). In the 1800s, women who expressed symptoms of postpartum psychological change were said to have diseased reproductive organs and, sometimes, identified as rebelling against motherhood (Taylor, 1995). As a result, many women did not discuss mood or thought changes after delivery.

By the 1900s, psychiatric thought excluded the idea of diseased reproductive organs, yet other medical specialties continued to understand female mental health conditions based on earlier Hippocratic traditions that viewed reproductive syndromes and raging hormones as the cause of women's depression, anxiety, sexual performance, and suicide (Dalton, 1964; Ussher, 1992). It was not until the 1970s that the postpartum support group movement materialized from the larger women's health movement. This movement challenged the medically defined concepts of motherhood in society (Taylor, 1995). This chapter discusses the most current biological, psychological, sociological, and environmental theories that propose reasons why women experience postpartum mood disorders (PMDs).

Biologically Based Theories

Between the onset of puberty and menopause, women are two times more likely to experience major depression than are men, even when racial and socioeconomic factors are controlled (Kessler, McGonagle, Swartz, Blazer, & Nelson, 1993; Nolen-Hoeksema, 1990; Weissman & Klerman, 1997). Given this trend, the primary way medical professionals understand PMDs is a reaction to hormones, particularly the role of estrogen, during reproductive changes throughout the lifecycle. Specifically, as estrogen levels decrease, depression symptoms appear to increase (refer to Figure 1) (Ahokas, Aito, & Rimon, 2000; Pearlstein, 1995).

Figure 2-1 Estrogen levels' effects on neurotransmitters and mood (modified from Douma et al., 2005)

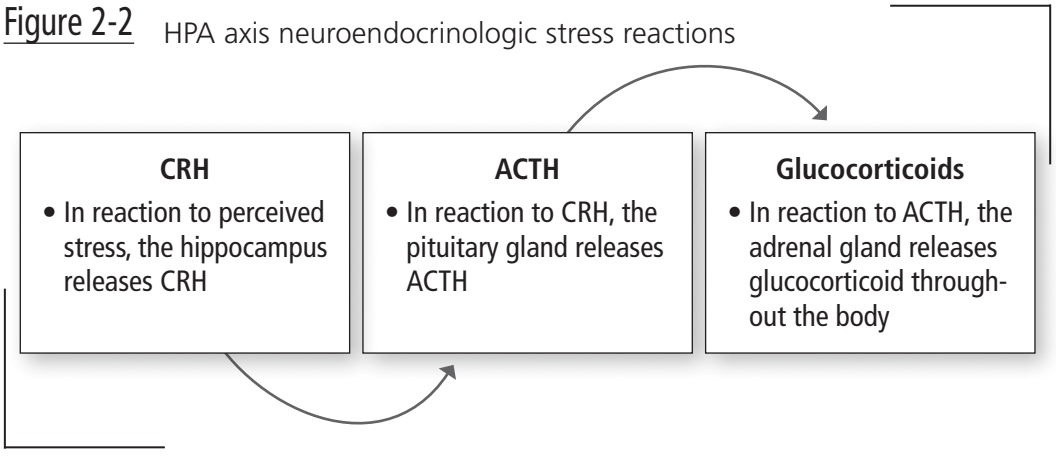


Hypothalamic–Pituitary–Adrenal (HPA) Axis

One physiological model used to understand PMDs is imbalance in the HPA axis. The hypothalamus is a part of the brain that produces and releases neurohormones. Neurohormones communicate with the pituitary gland, telling the pituitary to allow or not allow the release of pituitary hormones. Pituitary hormones travel as messengers to the adrenal glands, which are located above the kidneys. The adrenal glands create corticosteroids and catecholamines—the most common are cortisol and adrenaline—to regulate the body's reaction to stress. The detection of stress triggers the hippocampal release of corticotropin hormone. In response, the pituitary gland discharges adrenocorticotropic hormone (ACTH). ACTH signals the adrenal cortex to discharge glucocorticoids, which triggers stress responses throughout the body. Any increase or decrease in HPA axis functioning results in mental health or physical problems such as hyperarousal, changes in thought processes, sleep disturbances, immune system functioning, inflammatory conditions, increased body fat, and hypertension (refer to Figure 2) (Haefner et al., 2008; McEwen, 2008; Shalev et al., 2009).

Genetic links (such as the glucocorticoid receptor gene, GABRA6 gene, and mu-opioid receptor gene) and gender differences have been identified in HPA axis reactions to stress (Chong et al., 2006; Shalev et al., 2009; Uhart, McCaul, Oswald, Choi, & Wand, 2004; Wust et al., 2004). This genetic link may increase the understanding between increased risks for developing postpartum mood conditions and having a relative who has also experienced postpartum mood disturbances.

Figure 2-2 HPA axis neuroendocrinologic stress reactions



Hypothalamic–Pituitary–Gonadal (HPG) Axis

The HPG axis functions to regulate the reproductive and immune systems in the body. In this axis, the hypothalamus discharges luteinizing hormone releasing hormone (LHRH). The pituitary gland receives the LHRH and responds by releasing follicle-stimulating hormone (FSH) and luteinizing hormone (LH). FSH is responsible for the development of ovarian follicles in preparation for ovulation and LH activates ovulation and the release of estrogen.

The HPA axis has a relationship with the HPG axis where information passes back and forth between the two axes. Dysfunctions in the communication between the HPA axis and the HPG axis can influence the development of mental health and physical conditions. The recent work of Luecken, Kraft, and Hagan (2009) found difficult and abusive childhood family environments and abuse experiences linked to health and mental health difficulties throughout the life cycle. The low-level detection of cortisol, a major hormone associated with the HPA axis, was found in women who grew up in these difficult family situations. This suggests a developmental influence on healthy HPA-axis reactions to stressors (Gunnar & Quevedo, 2007). Given this, it is not surprising that risk factors for the development of PMDs include relationship difficulties, poor familial support, the experience of negative events, family-of-origin mental health history, and exposure to abuse. In addition, adults who grew up in dysfunctional family environments often experience other HPA-axis dysfunction-related symptoms that are also risk factors for PMDs such as difficulty sleeping, somatic symptoms, and autoimmune disorders (Luecken et al., 2009).

Hormonal Fluctuation

Statistically, women are more susceptible to depression once menstruation starts and on through menopause, referred to as reproductive mental health. Prior to menstruation and after menopause, some suggest that girls and women are less likely than boys and men to have a depression diagnosis (Rosenbaum & Covino, 2006). A key denominator across this timeline is hormone and sex-steroid fluctuations. Sex-steroids are reproduction-related hormones in the female body that fluctuate monthly and include estrogens, progesterone, and androgens. These hormones are able to manipulate neurotransmitter levels in the brain commonly associated with mental health symptoms: dopamine, norepinephrine, and serotonin (Joffe & Cohen, 1998). Estrogen, in particular, is a mood booster and is able to influence serotonergic and opioid neurons, thereby increasing serotonin concentrations (Carretti et al., 2005; Joffe & Cohen, 1998; McEwen & Alves, 1999; Serrano & Warnock,

2007). When estrogen levels are elevated, serotonin, norepinephrine, opiates, and dopamine are able to travel more easily, thereby improving mood. However, if estrogen levels are low, the result can be depression symptoms exhibited during the postpartum period as well as during premenstruation and perimenopause (Douma, Husband, O'Donnell, Barwin, & Woodend, 2005). At times, the influence of estrogen on neurotransmitter regulation can result in schizophrenic symptoms, body temperature changes, and alterations in memory (particularly verbal memory), concentration, and sleeping patterns (Carretti et al., 2005; Douma et al., 2005). Women who experience PMDs report some, if not all, of these symptoms as well.

According to the hormone-based model, *postpartum blues* is the experience of mild depression symptoms that last no more than two weeks and results from the sudden, extreme hormonal changes that occur after the baby is born. Levels of estradiol, an estrogen-based hormone, can increase up to 50 times their normal levels during pregnancy and then drop to regular menstruation cycle levels by the third day after delivery (Rosenbaum & Covino, 2006). It is suggested that the sudden decrease in postpartum estrogen levels creates a reaction to dopamine receptors (Wieck et al., 1991). When these dramatic hormonal changes occur in conjunction with other biopsychosocial risk factors, the woman is susceptible to developing PMDs.

Hormonal changes also serve positive purposes. Oxytocin levels dramatically change after delivery and appear to be linked to the development of strong mother–baby attachment postpartum (L. Miller, 1996). Therefore, the body is naturally changing—assimilating—to no longer *carrying* a baby but toward *caring* for a baby. When compromised, this naturally occurring homeostasis may result in mental health symptoms.

Psychosocially Based Theories

Bonding Theory

One of the common results of PMDs is difficulty bonding with the baby, which usually starts to develop shortly after delivery and continues to evolve over the first postpartum year. Typical bonding behaviors between mother and baby include cooing, facial recognition, response to facial cues, holding and cuddling, nurturing touch, and sometimes breastfeeding. When a strong bond fails to grow, the mother will start to focus more on herself rather than her baby. Statistically, women with this kind of inward focus report experiencing more pain, discomfort, anxiety, and depression six weeks after delivery (Besser, Vliegen, Luyten, & Blatt, 2008; Ferber & Feldman, 2005).

Difficulty bonding can result in long-term attachment disorders (Crouch & Manderson, 1996). Attachment, different from bonding, is emotional connectedness that develops and matures over time (Karl, Beal, O'Hara, & Rissmiller, 2006; Zauderer, 2008). Attachment difficulties can compromise the baby's growth and development, resulting in emotional and cognitive difficulties (Armstrong, Fraser, Dadds, & Morris, 2000; Essex, Klein, Miech, & Smider, 2001; Zauderer, 2008).

Historically, the medical profession conceptualizes maternal–infant bonding as a natural, biologically based process. One assumption in the medical model of bonding is that the desire for emotional attachment to the baby has biological underpinnings. According to this model, mothers who are unable to naturally bond with the child are labeled pathological (Crouch & Manderson, 1996; Margison, 1982). It is assumed that the mother's thought process must be altered if healthy bonding to her child is unsuccessful, resulting in faulty beliefs. The mother then starts to say things herself such as, "I have failed," "there is no hope for this relationship," "I am a bad mother," "I can't do this right," or "I am a failure." Reminiscent thoughts of childhood can also emerge like, "I am just as bad as my mother was," or "I will never be a good mother like my mother was." These thoughts become self-reinforcing and the mother stops trying to bond, causing the feelings of guilt, shame, depression, or anxiety to become stronger. In addition, popular books have buttressed the presumption that bonding is a natural and healthy process for new mothers. Although the intention of these books is to instruct and prepare mothers and to optimize the mother–baby relationship, for a mother who has difficulty bonding with her child, these books can further highlight her feelings of inadequacy as a mother.

As many mothers need to return to work shortly after delivery, bonding difficulties due to reliance on others (such as day care) can further add to the feelings of guilt. This economic, cognitive, and physiological desire (or lack thereof) to bond and be a "good mom" can be *ego dystonic* (a source of internal turmoil and conflict) for the mother and ultimately expressed through depression or anxiety symptoms. For example, societal and economic pressures might make it necessary for a woman to put her child in day care, despite the fact that, internally, she feels and thinks that she "should" be with her baby. This creates an internal conflict without an adequate outcome for either option (do not return to work and take care of the baby, resulting in financial disparity or return to work, do not take care of the baby full-time, and feel like the baby's needs have been neglected). Another conflict can arise when the mother enjoys working, finds herself depressed by staying at home, but feels guilt for returning to work, thereby perceiving that she has put her needs over her child's bonding needs. Again, these conflicts can create inner turmoil, resulting in depression or anxiety.

Psychoanalytic Theory of Personality Development

A hierarchical development of the self examines the interactions between the evolving understanding of self and the evolving aptitude to relate with others (Besser, Priel, Flett, & Wiznizer, 2007; Blatt, 2006, 2008; Blatt & Blass, 1990, 1996). Healthy self-understanding occurs when a person is able to realistically, and positively, accept their unique characteristics and roles. An ability to create interpersonal relationships that increases in maturity and that are mutually satisfying undergirds a healthy aptitude to relate with others. When the two dynamics of self-understanding and interpersonal aptitude are balanced, the person is able to develop self-sufficiency. When one of these two dynamics is not balanced, the person develops symptoms of depression (refer to Figure 2-3 on page 14).

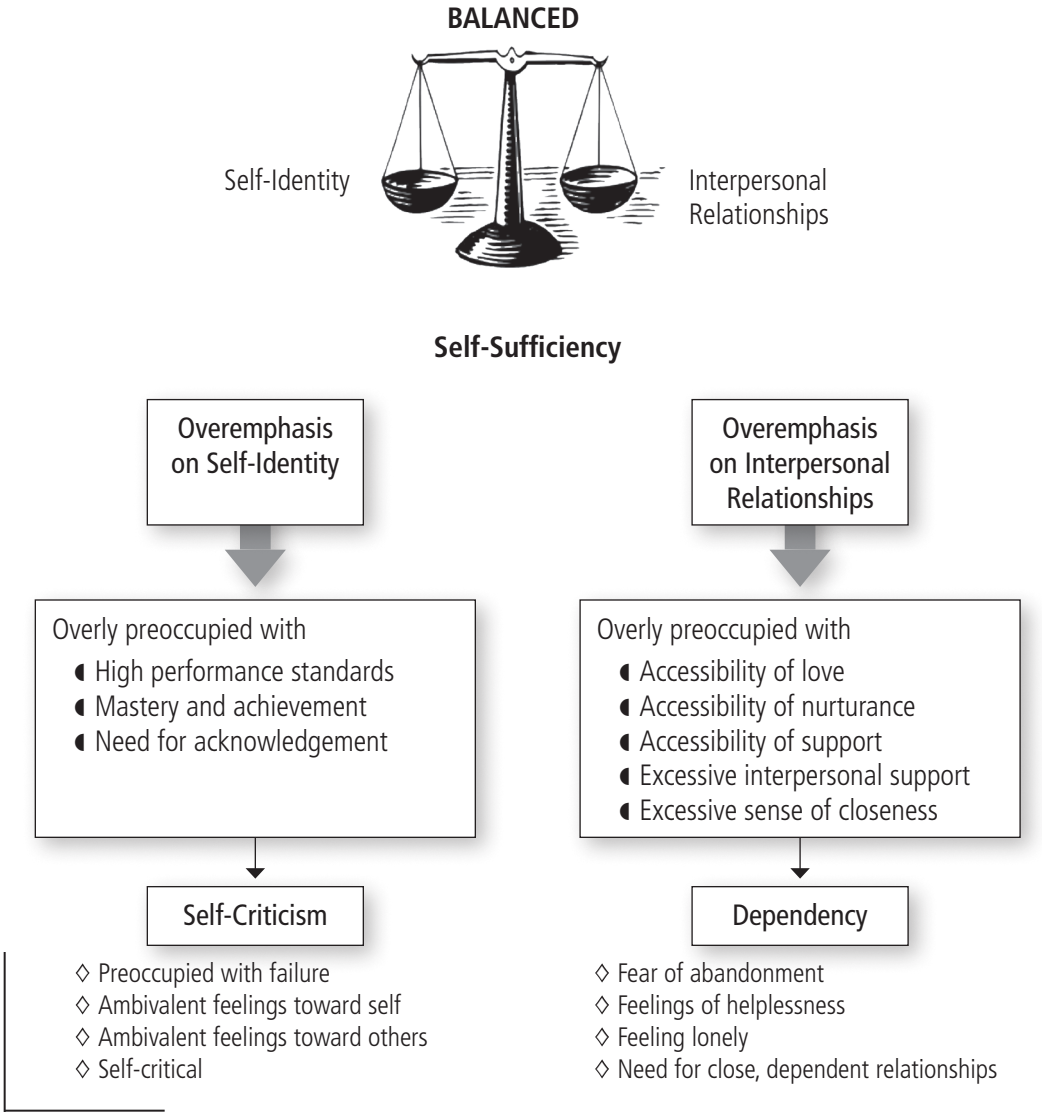
It is interesting that women who lean more toward self-criticism based on her understanding of self are more predisposed to postpartum depression (Priel & Besser, 2000). These women are more apt to try to meet an idealized definition of motherhood. When the idealized expectation remains unachieved, these women become overly critical of themselves in the mother role and undermine their concept of self. In addition, a self-critical woman can interpret support from others as revealing her failure in the role of mother and as a restriction on her autonomy (Besser et al., 2008). Women who lean more toward dependency are less likely to experience postpartum depression as the need for social support and excessive closeness may act as a buffer (Priel & Besser, 2000).

Psychodynamic and Developmental Theories

A key lifetime developmental phase for many women is the transition to motherhood. Pregnancy and the transition to motherhood is one of the most powerful and life-changing experiences for women (Besser et al., 2008; Cohen & Slade, 2000). One aspect of this developmental phase is the process of redefining self and other (Besser et al., 2008), as women need to reconceptualize their relationships to spouses or partners, friends, family members, and themselves. Furthermore, women must deal with physical changes, employment opportunities, and child care options. Some women in this phase identify themselves as the "vessel that brought parents grandchildren." Such a statement clearly indicates a perceived role change in the family.

As discussed by Besser et al. (2008), the transition to motherhood contains four themes: life-growth, primary relatedness, supporting matrix, and identity reorganization (Stern, 1995) (refer to Chart 2-1). Another way to conceptualize these themes is the mother's self-efficacy in these four areas;

Figure 2-3 Interactions between Self-Identity and Interpersonal Relationships (based on Besser et al., 2008)



the greater the mother's self-efficacy, or belief that she is able to successfully achieve the thematic goal, the more likely it is that she will have an easier transition into motherhood; the less self-efficacy the mother has, the more likely it is that she will have a difficult transition into motherhood. The latter can result in symptoms of depression or anxiety.

Chart 2-1 Transition to Motherhood Themes in Relation to the Development of Postpartum Mood Disorder Symptoms (based on the themes presented by Stern, 1995).

Transition to Motherhood Themes	Theme Characteristics	Successful Theme Integration	Unsuccessful Theme Integration
Life-Growth	The belief that the mother is able to sustain life and physical growth of the baby	• Baby's primary basic physiological needs are met • Mother cognitively identifies as successfully fulfilling her mother role	• Withdraw or overly protective of the baby • Mother cognitively identifies as a "bad mother" and incapable of taking care of her child
Primary Relatedness	The belief that the mother is able to emotionally interact with the baby naturally and support the baby's psychologically based development (such as attachment, emotional well-being, environmental reactions)	• Baby's bonding and attachment needs are met • Mother cognitively identifies as successfully fulfilling her mother role	• Mother-baby bonding and attachment becomes compromised • Reinforces the mother's perception of herself as a "bad mother"
Suppporting Matrix	The mother's belief that her support network will enable her to support her baby's physical and psychological development	• The mother is replenished physically and psychologically to contine providing for the baby • Externally reinforces her role as mother • Reinforces her ability to continue providing for the baby's basic physiological and emotional needs	• The mother feels overwhelmed by and unable to meet the baby's needs • She may feel guilt and shame about this and not seek out assistance • Reinforces her perception of herself as a bad mother compromising the mother-baby relationship, the baby's needs being met, and the mother's mental health
Identity Reorganization	The mother's belief that she can retain her sense of self (internally & externally) while attending to the baby's physical and psychological development and while she is depending on her support networks to enable her	• The transition into motherhood is eased by retaining core concepts of self in relation to others, her baby, and her own needs • Reinforces attachment, bonding, and provision of other care needs for the baby	• The transition into motherhood is difficult • Anxiety, depression, and role confusion increase • Social supports and interpersonal relationships are strained or nonexistent • The baby's needs are not met

Schemas

Do you recall the phrase, "seeing the world through rose colored glasses"? This is an analogy for schemas: how individuals interpret situations and experiences. For example, whereas one person may interpret the question, "How is your baby doing?" as a general question, another person may interpret the same question as, "they know that I am a bad mother and are checking up on me." The development of schemas often starts in childhood. Negative schemas, seeing the world through "depressed," "anxious," or "the world is unpredictable" glasses, can drastically influence a woman's transition into motherhood (Besser et al., 2008). Past negative childhood events, dysfunctional family relationships, and preexisting mental health conditions can flood a woman's thoughts and interfere with her interpretations of her newborn's cry, her perception of herself as being able to take care of the baby's needs, her interactions with support networks, and the incorporation of her new role as mother with previous, pre-pregnancy roles. So, rather than interpreting a baby's cry as a communication tool, a woman with negative schemas may interpret the cry as an indication of her failure as a mother or getting in the way of her ability to perform previous roles. Rather than finding support and encouragement when offered help, a woman with negative schemas may believe that her friends and family know that she really is a "bad" mom and therefore want to "save" her baby from her inability to care for it. Therefore, rather than face this, she might alienate herself from those most important in her and her baby's lives. In another scenario, the mother may simply give the baby to others to be cared for and thereby alienate herself from the baby and significant others out of shame.

Grief and Loss

Although for many, motherhood is a blissful, exhilarating experience, it also represents a huge change in roles. While pregnant women may turn to a book, friend, or elder to consult on how best to prepare for these role changes, often times, it is impossible to foresee and accommodate fully. This concept is similar to a person who is experiencing the death of a loved one, let us say a spouse, from cancer. The person is aware and well informed of the diagnosis, has discussed the diagnosis with the spouse, has attended support groups, and consulted with others in a similar situation and with those who have recently lost a loved one to cancer. The person believes that they understand what will happen and are expecting it to happen. Yet, despite all of that knowledge, when it does finally happen, the person is overwhelmed with grief and loss all the same; even though, intellectually the person may also feel a sense of relief for the spouse and for himself or herself. In that same vein, a woman

may have gone through all the intellectual steps of preparing for pregnancy and birth; yet when it happens, she may experience a whole range of emotions for which she was not prepared. In their discussions with postpartum, depressed, Swedish women, Edhborg, Friberg, Lundh, and Widstrom (2005) revealed that several women reported a sense of loss, unmet expectations for herself, identity confusion, and loss of personal space.

My discussions with other women reveal that other factors can cause feelings of loss as well, including time spent away from the child because of work obligations or an overall feeling of loss regarding the ability to pursue personal or professional goals. Some women may have obtained high educational degrees and make more money than their partners but may still feel that it is their responsibility to stay at home with the child. Although these women may enjoy staying at home with their child, they may also mourn the loss of past roles in the workplace and in the family as a financial provider. They may experience grief over the perceived loss of educational and professional achievements. Therefore, these role transitions can be bittersweet for some.

Beyond

~ Brangwynne Purcell

Did the quiet age of poverty strike you
force you upward
make you weep
or was it your own tenacity?
None of my own has crept back into me yet
I am still a bit of nowhere
and coupled with impossibility and
a man who spells his love out with
his fingers on my palm.

I am glad for weeping and arms of a man
and eyes that are salty.
I have more to say in weeping
than I have already said

I am down
not upward
not here
I am gone
I am finding gladness never in cracks
or holes or secret places
only in the arms

I am selfish and a bit gloomy
with suicide and iniquity
unable to worship the ground
or take myself beyond homelessness

Socioculturally Based Theories

The Myth of Motherhood Model

According to the social causation model, PMDs result from an idealized perception of motherhood, termed the "myth of motherhood" (Weaver & Ussher, 1997). The myth of motherhood portrays the ideal mother figure as being ever-caring, loving, patient, and self-sacrificing (Johnstone & Swanson, 2003). Passed down from generation to generation, these myths are supported through the media and are nearly constant in every culture (Knudson-Martin & Silverstein, 2009). Women cannot possibly live up to these ideals and in turn report feeling overwhelmed, devalued by society, and plagued by a sense of loss and limited freedom. When women are unable to meet the expectation of being a "superwoman," they express feelings of inadequacy, self-blame, and isolation and begin to use repression to cope with life stressors (Ussher, 2002, 2003).

Another facet of the "myth of motherhood" is the belief that all children are capable of being improved upon and that it is the mother's responsibility to "sculpt" the perfect being (Swigart, 1991). Women who believe that they are incompetent or unable to meet culturally supported expectations of motherhood feel judged by others as a "bad" mother because of the behavior, successes, and failures of their children (Knudson-Martin & Silverstein, 2009).

African American women express another take on the "myth of motherhood." African American women report the need to be "a strong black woman" with an ability to take care of children, home, employment, extended family, spouses, and themselves without complaint of pain or discomfort after delivery, making reference to those who have delivered a baby and remained working "in the field" (Amankwaa, 2003). Although similar to the general myth of motherhood, African American women face a double bind. They face this developmental transition while simultaneously struggling against racism and discrimination. African American women have resiliently fought against racism and discrimination by taking on the role of "strong black woman." Although tremendously successful, this strategy may make it even more difficult for an African American woman to reach out for assistance if she is struggling.

Relational–Cultural Theory

The relational-cultural theory (RCT) takes the stance that social status and social structures benefit dominant groups in society. Dominant-group members of a society define nondominant-group members of that society as "lacking something," resulting in marginalization and treatment as a "second class citizen" (Jordan, Walker, & Hartling, 2004). These social inequities contribute to feelings of disconnection from others and an increase of personal and group suffering. All of which further alienates members of the nondominant group, and reaffirms the dominant groups' definition of the nondominant group as "lacking" (Stiver, Rosen, Surrey, & Miller, 2008). Some examples of dominant group standards in society are behavioral expectations and fashion and beauty ideals that can only be met by a privileged few. Typically, white, male, heterosexual values and principles lay the foundation for standards, which are hierarchical in nature with clearly defined dominant and subordinate roles (Jordan, Walker, & Hartling, 2004). RCT presumes that nondominant-group responses to these unachievable standards results in shame, and in feeling and being treated as unworthy, humiliated, and vulnerable (Hoffnung, 2005). Conversely, the ability for nondominant-group individuals to create new connections with others can result in changed self-perception within the larger societal construct (Stiver et al., 2008). This change in perception of self, then, changes feelings of "being stuck" and converts this to vitality. In other words, women can find their inner voice. By thinking about who she is and who she would like to become, a woman can create ways to fulfill these hopes, thereby becoming "unstuck."

The interpersonal framework of equality and mutuality are essential to understanding women's mental health and for the treatment of these conditions according to RCT. Established developmental theories describe transitions from dependence on others into independence. RCT does not view psychological development in a hierarchical sense, but as the ability to be interdependent on self and others throughout every stage in the life cycle (Comstock, 2005; Comstock et al., 2008; Jordan, 2000; Penzerro, 2006). According to RCT, the self develops through relationship differentiation. This dynamic process continually evolves and matures. Simultaneously, one maintains emotional connectedness and closeness to others (Freedberg, 2007).

Self-identity begins with the mother–baby empathetic relationship—or the bonding and attachment period. The self-identity then grows and matures by adapting and redefining relationships throughout a lifetime, with attention to environmental constraints (Kaplan, Klein, & Gleason, 1991). How important in this model, then, is the bonding and attachment that a woman can provide to her baby?

For growth and maturity to occur, mutual empowerment and mutual empathy—or allowing the self to relate to another person by focusing on the other person, attempting to understand the other person's perspective, recognizing emotional availability, and responding to the other person in suit—are imperative (Freedberg, 2007; Jordan, 1986, 2008). If, however, a person experiences themselves as nondominant in the relationship (feeling invalidated, humiliated, or the subject of violence); they will resort to self-protection and disconnection (Jordan, 2008). This state of disconnection is expressed through six symptoms: decreased energy, clarity, and productivity; lack of self worth, decreased interaction in all relationships, and an increase in confusion—all symptoms of depression.

Women with PMDs may experience a double bind according to RCT. First, these women may have developed their self-identity without the influence of healthy mutual empathy. We see this through such PMD risk factors as traumatic childhood experiences, minimal social support, and minimal spousal or partner support, a family history of mental health conditions, alcohol or substance abuse, and other cognitive factors. Second, once a baby is born, these women face the task of initiating a healthy, mutually empathetic relationship with the baby. Without these kinds of healthy relationships in a mother's life, it is nearly impossible to create one with a newborn that demands the mutually empathetic interaction that the mother herself needs, for her own sense of identity and self-esteem.

Societal Perspective

During the human rights movement of the 1970s, women publically vocalized their discontent about female roles within the family and in the realms of politics and business. The mental health care system was criticized regarding the hierarchical counselor and client model that encouraged women to remain in their "place" in society (West, 2005; Zerbe Enns, 1993). A lasting remnant from this criticism sprung into the mental health literature through Jean Baker Miller's 1976 book, *Toward a New Psychology of Women,* resulting in the RCT (Jordan, 2008).

It was also during this time that women's social experiences and expressions of mental health symptoms were labeled as illnesses and, in 1968, the term "postnatal depression" was coined (Lee, 2006). Maternal anxiety and mood imbalance, experienced by approximately 65 percent of women, fall somewhere between the postpartum blues and postpartum depression and are present where anxiety levels are high in the mother (Lee, 2006). In this light, some medical and mental health professionals view pregnancy and the prospect of becoming a parent as a risk factor for a mental health diagnosis.

Meanwhile, society maintains a generally unsupportive and judgmental stance toward these mental health conditions (Lee, 2006). Mental health problems remain stigmatized and are perceived to be something the person can control or prevent (Pinto-Foltz & Logsdon, 2008)—even though 20 percent of all Americans experience mental health conditions (Satcher, n.d.). Furthermore, these mental health symptoms may lead to passivity, or the perception that one will "always" have these symptoms because she or he is "ill" and become preoccupied by postpartum mood symptoms (Lee, 2006).

In her discourses on premenstrual symptoms, Jane Ussher (2003, 2004) described the female monthly experience as not simply a biological reaction within the woman, but the interaction among hormones, stress, cultural definitions of feminine and reproduction, self-expectations, the ability to reflect and accommodate to change, and defense mechanisms. In other words, an internal discussion with the external, and vice versa. Ussher (2004) referred to the resulting expressions of anger and depression during the premenstrual period as self-policing strategies within the context of a patriarchal society. Therefore, women will internalize societal expectations of "idealized femininity" and will impose these expectations on themselves rather than externalize pressures in the form of social or authoritative control. Examples of idealized femininity include providing nurturance to children and men; being dependable, capable of handling stressful situations, and able to control emotions; and physically embodying feminine beauty (Ussher, 2004). The result of idealized femininity and self-policing is becoming judgmental. Women wind up judging themselves as "good" or "bad," mentally healthy or not. Therefore, a woman whose experience contradicts the notion of idealized femininity will often withdraw from others and think of herself as a "bad mom."

Knudson-Martin and Silverstein's (2009) meta-analysis of qualitative postpartum depression research findings revealed a relational environment where snowballing negative feelings are unexpressed within the context of the social definitions of motherhood. They labeled this the "silencing process." Women who experience the silencing process feel inept to perform the expected motherhood roles while simultaneously finding it difficult to maintain connection and interaction with others. This results in isolation that fuels the cycle of depression symptoms. As women experience isolation, resulting from the belief that negative feelings about being a mother are unspeakable, they start to physically separate from the baby, friends, family, and significant others. This separation reinforces feeling of alienation and disconnection to others who misunderstand them. Knudson-Martin and Silverstein (2009) provided examples of women who "describe a progression from fatigue and difficulties in soothing and caring for the baby to a debilitating sense of

incompetence that results in deep despair and detachment from others." (p. 150). Women caught in a downward spiral of despair begin to experience thoughts of harming themselves or their baby, viewing suicide or infanticide as the only way out (Knudson-Martin & Silverstein, 2009).

In summary, there are several theoretical ways to understand PMDs. It is probable that these theoretical underpinnings interact and overlap. Therefore, the interplay between biopsychosocial and cultural influences provides the best understanding of PMDs.

References

Ahokas, A., Aito, M., & Rimon, R. (2000). Positive treatment effect of estradiol in postpartum psychosis: A pilot study. *Journal of Clinical Psychiatry, 61,* 166–169.

Amankwaa, L. C. (2003). Postpartum depression among African-American women. *Issues in Mental Health Nursing, 24,* 297–316.

Armstrong, K. L., Fraser, J. A., Dadds, M. R., & Morris, J. (2000). Promoting secure attachment, maternal mood and child health in a vulnerable population: A randomized controlled trial. *Journal of Pediatric and Child Health, 36,* 555–562.

Besser, A., Priel, B., Flett, G. L., & Wiznizer, A. (2007). Linear and nonlinear models of vulnerability to depression: Personality and postpartum depression in a high risk population. *Individual Differences Research, 5,* 1–29.

Besser, A., Vliegen, N., Luyten, P., & Blatt, S. J. (2008). Systematic empirical investigation of vulnerability to postpartum depression from a psychodynamic perspective: Commentary on issues raised by Blum (2007). *Psychoanalytic Psychology, 25,* 392–410.

Blatt, S. J. (2006). A fundamental polarity in psychoanalysis: Implications for personality development, psychopathology, and the therapeutic process. *Psychoanalytic Inquiry, 26,* 492–518.

Blatt, S. J. (2008). *Polarity of experience: Relatedness and self-definition in personality development, psychopathology and the therapeutic process.* Washington, DC: American Psychological Association.

Blatt, S. J., & Blass, R. (1990). Attachment and separateness: A dialectic model of the products and processes of psychological development. *Psychoanalytic Study of the Child, 45,* 107–127.

Blatt, S. J., & Blass, R. (1996). Relatedness and self definition: A dialectic model of personality development. In G. G. Noam & K. W. Fischer

(Eds.), *Development and vulnerabilities in close relationships* (pp. 309–338). Hillsdale, NJ: Lawrence Erlbaum.
Carretti, N., Florio, P., Bertonlin, A., Costa, C.V.L., Allegri, G., & Zilli, G. (2005). Serum fluctuations of total and free tryptophan levels during the menstrual cycle are related to gonadotrophins and reflect brain serotonin utilization. *Human Reproduction,* 20, 1548–1553.
Chong, R.Y., Oswald, L., Yang, X., Uhart, M., Lin, P. I., & Wand, G. S. (2006). The micro-opioid receptor polymorphism A118G predicts cortisol responses to naloxone and stress. *Neuropsychopharmacology, 31*(1), 204–211.
Cohen, L. J., & Slade, A. (2000). The psychology and the psychopathology of pregnancy: Reorganization and transformation. In C. H. Zeanah (Ed.), *Handbook of infant mental health* (2nd ed., pp. 20–36). New York: Guilford Press.
Comstock, D. (Ed). (2005). *Diversity and development: Critical contexts that shape our lives and relationships.* Belmont, CA: Thompson Brooks/Cole.
Comstock, D. L., Hammer, T. R., Strentzsch, J., Cannon, K., Parsons, J., & Salazar II, G. (2008). Relational-cultural theory: A framework for bridging relational, multicultural, and social justice competencies. *Journal of Counseling & Development, 86*, 279–287.
Crouch, M., & Manderson, L. (1995). The social life of bonding theory. *Social Science & Medicine, 41,* 837–844.
Dalton, K. (1964). *The premenstrual syndrome.* Springfield, IL: Charles C. Thomas.
Douma, S. L., Husband, C., O'Connell, M. E., Barwin, B. N., & Woodend, A. K. (2005). Estrogen-related mood disorders: Reproductive life cycle factors. *Advances in Nursing Science, 28,* 364–375.
Edhborg, M., Friberg, M., Lundh, W., & Widstrom, A. M. (2005). "Struggling with life": Narratives from women with signs of postpartum depression. *Scandinavian Journal of Public Health, 33,* 261–267.
Essex, M. J., Klein, M. H., Miech, R., & Smider, N. A. (2001). Timing of initial exposure to maternal major depression and children's mental health symptoms in kindergarten. *British Journal of Psychiatry, 179,* 151–156.
Ferber, S., & Feldman, R. (2005). Delivery pain and the development of mother–infant interaction. *Infancy, 8,* 43–62.
Freedberg, S. (2007). Re-examining empathy: A relational–feminist point of view. *Social Work, 52,* 251–259.
Gunnar, M. R., & Quevedo, K. (2007). The neurobiology of stress and development. *Annual Review of Psychology, 58,* 145–173.
Haefner, S., Baghai, T. C., Schule, C., Eser, D., Spraul, M., Zill, P., et al. (2008). Impact of gene–gender effects of adrenergic polymorphisms on hypothalamic-pituitary–adrenal axis activity in depressed patients. *Neuropsychobiology, 58,* 154–162.

Hoffnung, M. (2005). No more blaming the victim: Therapy in the interest of social justice. *Psychology of Women Quarterly, 29,* 454–455.
Joffe, H., & Cohen, L. S. (1998). Estrogen, serotonin, and mood disturbance: Where is the therapeutic bridge? *Biological Psychiatry, 44,* 798–811.
Johnstone, D. D., & Swanson, D. H. (2003). Invisible mothers: A content analysis of motherhood ideologies and myths in magazines. *Sex Roles, 49*(1–2), 21–33.
Jordan, J.V. (1986). *The meaning of mutuality.* (Working Paper Series, Work in progress, No. 23). Wellesley, MA: Stone Center.
Jordan, J. V. (2000). A relational–cultural model: Healing through mutual empathy. *Bulletin of the Menninger Clinic, 65*(1), 92–103.
Jordan, J. V. (2008). Recent developments in relational–cultural theory. *Women & Therapy, 31*(2–4), 1–4.
Jordan, J.V., Walker, M., & Hartling, L. M. (2004). *The complexity of connection: Writings from the Stone Center's Jean Baker Miller Training Institute.* New York: Guilford Press.
Kaplan, A., Klein, R., & Gleason, N. (1991). Women's self-development in late adolescence. In J.V. Jordan, A. G. Kaplan, J. B. Miller, I. P. Stiver, & J. L. Surrey (Eds.), *Women's growth in connection: Writings from the Stone Center* (pp. 122–143). New York: Guilford Press.
Karl, D. J., Beal, J. A., O'Hara, C. M., & Rissmiller, P. N. (2006). Reconceptualizing the nurse's role in the newborn period as an "attacher." *American Journal of Maternal/Child Nursing, 31,* 257–262.
Kessler, R.C., McGonagle, K. A., Swartz, M., Blazer, D. G., & Nelson, C. B. (1993). Sex and depression in the National Comorbidity Survey. I: Lifetime prevalence, chronicity and recurrence. *Journal of Affective Disorders, 29,* 85–96.
Klein, J. E. (2009). *Ancient gynecology.* Retrieved from http://www.hsl.virginia.edu/historical/artifacts/antiqua/gynecology.cfm
Knudson-Martin, C., & Silverstein, R. (2009). Suffering in silence: A qualitative meta-data-analysis of postpartum depression. *Journal of Marital and Family Therapy, 35,* 145–158.
Lee, E. (2006). Medicalizing motherhood. *Society, 43*(6), 47–50.
Luecken, L. J., Kraft, A., & Hagan, M. J. (2009). Negative relationships in the family-of-origin predict attenuated cortisol in emerging adults. *Hormones and Behavior, 55,* 412–417.
Margison, F. (1982). The pathology of the mother–child relationship. In I. F. Brockington & R. Kumar (Eds.), *Motherhood and mental illness* (pp. 191–219). Academic Press: London.
McEwen, B. S. (2008). Central effects of stress hormones in health and disease: Understanding the protective and damaging effects of stress and stress mediators. *European Journal of Pharmacology, 583,* 174–185.

McEwen, B. S., & Alves, S. E. (1999). Estrogen actions in the central nervous system. *Endocrine Reviews, 20,* 279–307.
Miller, J. B. (1976). *Toward a new psychology of women.* Boston: Beacon Press.
Miller, L. (1996). Beyond "the blues": Postpartum reactivity and the biology of attachment. *Primary Psychiatry, 3,* 35–39.
Nolen-Hoeksema, S. (1990). *Sex differences in depression.* Stanford, CA: Stanford University Press.
Pearlstein, T. B. (1995). Hormones and depression: What are the facts about premenstrual syndrome, menopause, and hormone replacement therapy? *American Journal of Obstetrics & Gynecology, 173,* 646–653.
Penzerro, R. M. (2006). Diversity and development: Critical contexts that shape our lives and relationships [Book review]. *Journal of Ethnic & Cultural Diversity in Social Work, 15*(3/4), 173–175.
Pinto-Folz, M. D., & Logsdon, M. C. (2008). Stigma towards mental illness: A concept analysis using postpartum depression as an exemplar. *Issues in Mental Health Nursing, 29,* 21–36.
Priel, B., & Besser, A. (2000). Dependency and self-criticism among first-time mothers: The roles of global and specific support. *Journal of Social and Clinical Psychology, 19,* 437–450.
Rosenbaum, J. F., & Covino, J. (2006). *Depression and women's health.* Paper presented at Medscape Perspectives on the American Psychiatric Association 2006 Annual Meeting, May 20–25, 2006, Toronto, Ontario.
Satcher, D. (n.d.). *Mental health: A report of the surgeon general.* Retrieved from http://www.surgeongeneral.gov/library/mentalhealth/home.html
Serrano, E., & Warnock, J. K. (2007). Depressive disorders related to female reproductive transitions. *Journal of Pharmacy Practice, 20,* 385–391.
Shalev, I., Lerer, E., Israel, S., Uzefovsky, F., Gritsenko, I., Mankuta, D., Ebstein, R. P., & Kaitz, M. (2009). BDNF Val66Met polymorphism is associated with HPA axis reactivity to psychological stress characterized by genotype and gender interactions. *Psychoneuroendocrinology, 34,* 382–388.
Stern, D. (1995). *The motherhood constellation: A unified view of parent–infant psychotherapy.* New York: Basic Books.
Stiver, I. P., Rosen, W., Surrey, J., & Miller, J. M. (2008). Creative moments in relational–cultural therapy. *Women & Therapy, 31*(2–4), 7–29.
Swigart, J. (1991). *The myth of the bad mother.* New York: Random House, Knopf Doubleday Publishing Group.
Taylor, V. (1995). Self-labeling and women's mental health: Postpartum illness and the reconstruction of motherhood. *Sociological Focus, 28*(1), 23–47.
Uhart, M., McCaul, M. E., Oswald, L. M., Choi, L., & Wand, G. S. (2004). GABRA6 gene polymorphism and an attenuated stress response. *Molecular Psychiatry, 9,* 998–1006.

Ussher, J. M. (1992). Research and theory related to female reproduction: Implications for clinical psychology. *British Journal of Clinical Psychology, 31,* 129–151.

Ussher, J. M. (2002). Processes of appraisal and coping in the development and maintenance of premenstrual dysphoric disorder. *Journal of Community and Applied Social Psychology, 12,* 1–14.

Ussher, J. M. (2003). The ongoing silencing of women in families: An analysis and rethinking of premenstrual syndrome and therapy. *Journal of Family Therapy, 25,* 388–406.

Ussher, J. M. (2004). Premenstrual syndrome and self-policing: Ruptures in self-silencing leading to increased self-surveillance and blaming of the body. *Social Theory & Health*, *2,* 254–272.

Weaver, J. J., & Ussher, J. M. (1997). How motherhood changes life: A discourse analytic study with mothers of young children. *Journal of Reproduction and Infant Psychology, 15*(1), 51–68.

Weissman, M. M., & Klerman, G. L. (1997). Sex differences and the epidemiology of depression. *Archives of General Psychiatry, 34,* 98–111.

West, C. K. (2005). The map of relational–cultural theory. *Women & Therapy, 28*(4), 93–110.

Wieck, A., Kumar, R., Hirst, A. D., Marks, M. N., Campbell, I. C., & Checkley, S. A. (1991). Increased sensitivity of dopamine receptors and recurrence of affective psychosis after childbirth. *British Medical Journal, 303,* 613–616.

Wust, S., Van Rossum, E. F., Federenko, I. S., Koper, J. W., Kumsta, R., & Hellhammer, D. H. (2004). Common polymorphisms in the glucocorticoid receptor gene are associated with adrenocortical responses to psychosocial stress. *Journal of Clinical Endocrinology, 89,* 565–573.

Zauderer, C. R. (2008). A case study of postpartum depression and altered maternal–newborn attachment. *American Journal of Maternal/Child Nursing, 33,* 173–178.

Zerbe Enns, C. (1993). Twenty years of feminist counseling and therapy: From naming biases to implementing multifaceted practice. *Counseling Psychologist, 21*(1), 3–87.