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The Environmental, Cultural, Relational and Physiological Aspects of

Postpartum Depression

A Research Paper

Presented to

The Faculty of the Adler Graduate School

In Partial Fulfillment of the Requirements for

The Degree of Master of Arts in

Adlerian Counseling and Psychotherapy

By:

Joanne E. Campbell

May 2010

Acknowledgement

I am grateful for Dr. Marina Bluvshstein's guidance during this episodic assignment. Dr. Bluvshstein has helped me appreciate and honor my own methodical, *Adlerian* style of movement. I also want to thank my family and friends for being patient with the time commitment needed and also helping answer my many 'Word or Mac-related' questions. Also, a special thanks to my husband, Brad, for all his emotional and physical support and to my sister, Eileen, for 'being there' as a sister and a friend.

Attending Adler and accomplishing this writing task has been a spiritual journey that I am truly thankful for having had the opportunity.

Abstract

Postpartum depression is a complex, excessively researched and written-about subject. It affects the environmental, cultural, relational and physiological aspects a new mother faces during postpartum recovery. Ross' Biopsychosocial Model demonstrates potential postpartum risk factors a woman may encounter. A new mother's understanding about postpartum care is crucial for her health and that of her newborn child. This paper explores the impact postpartum depression has on family life, the development of the newborn, the importance of the mother-child attachment relationship and the significance of knowing her family history. Other topics discussed are the effects of multiple births on the mother-child attachment; fathers' postpartum depression, the social re-construct of motherhood, and the need for continuing education about postpartum depression and its risk factors.

MULTIPLE ASPECTS OF POSTPARTUM DEPRESSION 2a

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Narrative – Part I

Prologue

On the hot sticky morning of June 20, 2001, in the Clear Lake area of Houston, TX, a police officer responding to a dispatch call arrived at the middle-class, Spanish style home of Andrea Yates. A heavily breathing woman, who he said seemed disturbed, met the officer at the door. She said to the officer, “I killed my children”. He asked her where they were. The officer was led to the bedroom where there were four bodies...and there was one still in the bathtub (Spencer, 2002, p. 10).

Andrea Pia Yates, a stay-at-home, 36-year-old mother, who also home-schooled her four sons, had drowned her five children, four sons and one daughter, in the family’s bathtub. Her oldest son, Noah, she had to chase because he knew his turn was next. At the time of their deaths, Andrea and Rusty Yates’ children were Noah, age seven, John, five, Paul, three, Luke, two, and, their newborn daughter, Mary, who was only six months old.

Two days earlier, on June 18th, Andrea and Rusty visited Andrea’s psychiatrist, Dr. Mohammad Saeed, who had just taken her off antipsychotic medication that day. Andrea had been on medication since the birth of her youngest son, Luke, two years before because she suffered two bouts of postpartum depression and attempted suicide. Now with the birth of Mary, postpartum depression reared its ugly head again. During that visit, Rusty told Dr. Saeed that he was concerned about Andrea. Dr. Saeed had asked Andrea if she had any thoughts of suicide, not if she was contemplating killing her children. Later, after Dr. Saeed saw the news on television

he called Rusty and asked him if what he saw on TV was really happening. Dr. Saeed told Rusty that he thought her mother was always with her at the house. Rusty's response was that she was not there all day long.

A few minutes before midnight on June 20, 2001, Andrea Yates was charged with capital murder for intentionally and knowingly causing the deaths of Noah Jacob Yates and John Samuel Yates by drowning.

After thirty-eight witnesses and three weeks of deliberation, Andrea Yates' lawyer, George Parnham, closed his argument with the following, "Postpartum depression is the cruelest of mental illnesses. It takes a mother's loving instinct and twists it. Andrea Pia Yates...if this woman *doesn't meet the test of insanity in this state, no one does. Zero*" (Spencer, 2002, pp. 307-308).

After three and a half hours of deliberations, the verdict was in. Andrea Yates was found "... *guilty*, on both counts ...on March 12, 2002..." (Spencer, 2002, p. 308).

Introduction

The preceding excerpt is the devastating reality of living with *Postpartum Depression*. This is the ugly truth. Postpartum depression denotes a serious mental illness describing the period in a new mother's life immediately after labor and delivery upon transitioning into the birth recovery state. A woman's pregnancy presents a multitude of changes: physical, social-situational, hormonal fluctuations, thought processes and daily adjustments. As a woman goes through the transitions of conception, pregnancy and delivery, it is not surprising that she experiences mood changes internally as well as externally. Internally her body is making adjustments to support the fetus and to prepare for the baby's delivery. For the mother, it could be a time of jubilation, fear, confusion, ambivalence, happiness, anguish, pain, exhaustion, unhappiness, heightened awareness, numbness, surprise, disappointment, bliss, intimidation, guilt, shame, anxiety, sadness, and more. Women may have a limitless wave of emotions during and after delivery as well.

Each woman brings with her a complex history of relationships filled with hardships, misunderstandings, mistaken beliefs, and possible unintentional mistakes. Each mother's experience is a novel story of how this child or children were conceived. Was this child conceived in love or in a planned pregnancy? Was this pregnancy the result of a one-night-stand, or worse, the result of rape or incest or extremely expensive in-vitro fertilization procedure? Such complexities may accompany the pregnancy and birth experience. The effects of these circumstances and experiences manifest themselves during the postpartum period and can continue up to two years after.

This paper's focus is to bring the reader's awareness to just how precious and vulnerable the postpartum time is in a woman's life and the life of her new family. Hope of bringing to the

surface women's hidden shame about postnatal depression, granting much needed freedom to women of future and past generations, and a new definition of 'motherhood' are some of the points that will be made about this intense subject matter. This paper is written with the desire that through postpartum education and an altered construct of what it means to be a mother can safeguard mothers, their infants and family from this devastating mental illness.

This paper aims to heal the undeserved shame that mothers have suffered alone in silence, and to debunk the myth that motherhood only means blissfulness. An additional goal is to give awareness to fathers, significant-others and newly adopted mothers because they also have been known to experience postpartum-related depression. Moreover, educating sons and daughters about the complexity a new mother experiences during postpartum, and a new mother's reality of living with intense emotions that may become turbulent and complex at times. With the understanding that her emotions are natural and a normal part of her transition through labor, birth, and parenting a newborn.

History of Postpartum Disorders

For the most part of the twentieth century, psychiatric illness after the birth of a child was a time of inactive research and denial. A new mother never admitted any emotional problems to her doctors or knew for that matter that there was help for her state of mind. Women in therapy, as well, found it difficult to share their stories about their postpartum with their therapists. Even textbooks of psychiatry or obstetrics at that time, would quickly follow up with explanations that postpartum illnesses were similar to other mental illnesses without the physiological connection to pregnancy and/or childbirth (Hamilton, J. A., & Harberger, P. N., 1992, p. xiii).

A curious turn of historical events in the medical community happened during the nineteenth century. The medical community began viewing postpartum psychiatric disorders to

be unique in numerous ways. Notable amounts of scholarly articles were being written offering hope in finding clues in the etiology and treatment of postpartum disorders. The earliest textbook written, in 1838, was *Des maladies mentales* [Esquirol, 1838] (as cited by Hamilton et al., 1992).

Jean Etienne Dominique Esquirol presented a two-volume textbook, which included ninety of his clients' mental illness cases as they related to childbearing or pregnancy. Esquirol saw a high rate of delirium, which he related to what therapists and doctors see today, "...an acute deviation in thinking and behavior characterized by disturbances of perception and consciousness, disorganization, hallucinations, confusion, transitory delusions, and marked changeability" (Hamilton et al., 1992, p. 6). He suggested at the time that there were higher rates of postpartum illness than what the medical community saw because he believed that many women suffered silently at home.

Later, in 1847, a New York physician, James MacDonald reported a study of sixty-eight postpartum cases in *Puerperal insanity* (Hamilton et al., 1992), in which he was able to further the categorization that Esquirol began. He believed that puerperal insanity was a special form of insanity. L. V. Marce', in 1858, was the first to challenge Esquirol's view and saw that puerperal mental disorders did not differ from nonpuerperal women of the same age. "Unfortunately, his contributions were disregarded for fifty years and physicians continued to believe that a specific type of 'puerperal insanity' existed" (p. 17).

Consequently, with all the possible understanding and progress from these earlier writings, "...twentieth-century discoveries relevant to postpartum illness were disregarded. The result of this aberration may have been the needless suffering of tens of thousands of very sick women, the partial disability of millions of others, and the immeasurable disruption of and hardship to their families" (Hamilton et al., 1992, p. 5). This is a hard concept to fathom. It was

not until 1961 that Professor Ralph Paffenbarger of Stanford University and Harvard began putting the puzzle pieces together. During the nineteenth-century, scattered and incomplete reports began to emerge. The unfinished reports were written between 1880 and 1900's and showed new knowledge of the endocrine system. The disregarded work of internist, Ione Railton, surfaced. Her work demonstrated a very effective response when using the drug, prednisolone; that was another loss in the progress to understanding postpartum depression. Prednisolone was shown to decrease severe postpartum symptoms in sixteen test cases in 1961. In addition, David Boyd, Jr.'s damaging statement regarding eighteen papers that had been written accepting the position that postpartum illness was a separate entity. His response was that they were worthless, "*inasmuch as no such nosological entity exists*" (p. 17).

It was not until 1980, that Ian Brockington, then at Manchester, England, called an international conference to discuss postpartum psychiatric disorders. Brockington publicly opened discussion about the forbidden affliction. Out of this conference came the Marce' Society, an international scientific organization with a goal of advancing knowledge of postpartum disorders. The research labs were, once again, open and scientific curiosity was piqued (Hamilton et al., 1992).

With these advancements came support groups, which educated women and families, and guided encouraged new mothers. One group effort led to another and with it a movement was started. The prominent organizations that gave birth were: Depression after Delivery, Postpartum Support International and Antenatal Depression Association (PANDA) in Australia. Survivors of postpartum illnesses initiated some of these support groups, while healthcare professionals or state supported organizations developed others (Hamilton et al., 1992).

Statistics

Postpartum Disorders. In the United States between 2004 and 2005, the Center for Disease Control, CDC, reported that 10-15% of mothers within the first year after giving birth develop Postpartum Depressive Symptoms, PDS (Brett, Barfiels & Williams, 2008). The data was taken from 17 states and was based on self-reporting. These statistics were taken from the Pregnancy Risk Assessment Monitoring System (PRAMS). PRAMS is an ongoing, state-specific surveillance project that assesses the prevalence of PDS among mothers by using selected demographic selections and from their analyzed reports determines the risk factors that are most prevalent in identifying mothers most likely for developing PPD. In the assessment system, new mothers were asked two questions about whether they had felt down, depressed, or hopeless following the birth of their baby and whether they had experienced a loss of interest or pleasure in doing things. Women, who answered either question with "often", or "always", were classified as experiencing self-reported PDS. Statistics range from 11.7% (Maine) to 20.4% (New Mexico). This study reported that younger women with lower educational achievement, and women who received Medicaid benefits for their delivery were more likely to report PDS compared to older women with more educational attainment and women who did not receive Medicaid benefits for their delivery (Brett, Barfiels & Williams, 2008).

On a global outlook, PPD occurs in 10-15% of adult women [Morse et al., 2000] and up to 26% of adolescents [Troutman & Cutrona, 1990]. Epidemiological investigations in developing countries have reported prevalence rates for PPD of 21% or Arab women [Chaaya et al, 2002], 11% in India [Chandran et al., 2002], 11.2% in China [Lee et al., 2001], 22.4% in Chile [Alvarado et al., 1993] and 12% in Brazil [Da Silva et al., 1998] (as cited by Faisal-Cury, 2004).

Another population to consider is childbearing women who suffer with bipolar disorder. Freeman reported that in a study of 50 childbearing women with bipolar disorder, 67% had a depressive episode after the first child and they all experienced a relapse with their next birth (Ryding, 2008).

Between the 2008 CDC report of 17 states and the 2000 Morse report of the world statistics of PPD coincidentally being equal, the figures show that women all across the world are afflicted with this debilitating, multidimensional mental health problem (Brett, Barfiels & Williams, 2008).

Infanticide - Suicide

In 2000, Dobson compared American to British public policy and the law regarding infanticide. Dobson reported that Resnick, who reviewed the world literature from 1752 to 1967, identified 131 cases in which a child between 24 hours and 20 years of age was killed by a parent. He also was the first to separate infanticide into two categories: neonaticide, referring to the death of a newborn within the first 24 hours postnatal and nonneonaticide infanticide or filicide meaning death of a newborn between 24 hours and twelve months postnatal (Dobson, 2000).

In d'Orbán's article, 'Women Who Kill Their Children,' [d'Orbán, 1979], he compared 11 women in London who committed neonaticide from 1790 through 1975 to 78 women who committed filicide during the same period. The women who committed neonaticide were younger with a mean age of 21.1 years compared to the women who committed filicide of 25.1 years. Women from the group were less likely to be married with a difference of 0% of the neonaticide cases to 64% of the filicide cases (as sighted by Dobson, 2000).

Ten percent of members in the neonaticide group in the study had a previous history of

in-patient or outpatient treatment compared to 45% of the filicide cases. Correspondingly, at the time of the crime 88% of women in the filicide group had a psychiatric diagnosis compared to 2% of the neonaticide group, with the neonaticide percent having a personality disorder as their diagnosis. The filicide group's breakdown was 52% having a personality disorder, 28% had reactive depression and 20% had a psychotic diagnosis (Dobson, 2000).

What is interesting about this study is the neonaticides' profile. The women were poor, young and unmarried, and all had hidden or denied their pregnancy. Also, none of the women had a history of mental illness, were described as passive, withdrawn and immature. They also feared rejection by their families. It is not until they actually give birth that they saw killing the infant as a way to continue their pregnancy denial (Dobson, 2000).

Furthermore, researchers from Australia [Wilkey et al, 1982], the United States [Husain & Daniel, 1984] and Canada [Marleau, Roy, Laporte, Webanck, & Poulin, 1995] characterized women who commit filicide with a high prevalence of mental illness before the time they commit the crime. These reports confirm the data by Resnick [1969, 1970] and d'Orbán [1979], that there is a high prevalence of mental illness in filicide women before committing the crime (as sighted by Dobson, 2000).

The neonaticides and non-neonaticides statistics and the reasons that women murder their newborns can be explained by fearing the rejection of their families more than taking the lives of their children. Spreading the infanticide statistics and research out to the public could possibly save many lives.

Baby blues. Baby blues or postpartum blues occur within the first three days postpartum and may last until a few weeks later. Between 60 and 80% of new mothers may experience postpartum blues. Women may experience any of the following:

- Feeling overwhelmed
- Mood swings
- Tearfulness
- Nervousness
- Vulnerability
- Feelings of vulnerability
- Trouble sleeping
- Loss of appetite
- Hyperactivity
- Lack of confidence

(Milgrom, Martin & Negri, 1999).

Brief psychotic disorder. To be classified as a brief psychotic order, the client needs to have one or more of the following symptoms: delusions, hallucinations, disorganized speech or grossly disorganized behavior. Symptoms last at least one day and less than one month. The chances of this diagnosis occurring is 1 in 500 to 1 in 1,000 deliveries and may be more common in precipitous women, first time mothers. Once a woman has had a psychotic episode, her chances rise 30-50% with each subsequent delivery (Milgrom et al., 1999).

Post-partum Brief Psychotic Depression.

The time immediately after childbirth is the period when a woman is at high risk for becoming psychotic. Defining a psychotic state may be difficult because someone suffering from this diagnosis may not share their strange experiences or bizarre thoughts with others for fear of what their reaction might be. Also, women in psychotic states generally shift from having periods of reality to periods of bizarre behavior that someone may not witness before it is too

late. Also, extreme restlessness and agitation after delivery and an inability to sleep are early signs. In addition to feeling restless, women may experience a feeling of ‘strangeness’, disorientation or confusion. In the event a woman begins to act psychotic, they will exhibit a noticeable bizarre behavior. If untreated she may be of harm to herself or her baby (Milgrom et al., 1999).

- Delusions
- Hallucinations
- Disorganized speech
- Grossly disorganized behavior

The presence of one or more of the above symptoms needs to last at least one day and less than one month in length in order to have a diagnosis of Post-partum Brief Psychotic Depression (Milgrom et al., 1999).

Risk Factors

Psycho-Physiological Risk Factors

In an effort to make sense of the cause of postpartum depression an endless amount of research has been tested. The summary of risk factors (see Table 1) marks a span of over forty years, from 1968 through 2009. The test results also reflect postpartum depression as crossing all socioeconomic boundaries and spanning the globe. It is a universal mental health concern.

Innate Immune System

A possible connection to the physiological explanation of the medical condition of PPD was delved into in 1962 by James Hamilton in his article, *Model utility in postpartum psychosis*, and Hatotani, Kitayama, & Inoue, in 1983 in *Neurobiology of periodic psychosis*, with their understanding of the connection of the hypothalamic-pituitary-thyroid axis being lowered for

several months after delivery (Hamilton et al., 1992). This biological factor, they hypothesized, might be responsible for a woman's aggravation, protraction or recurrence of PP psychosis. Also, in 1986, Stein observed cortisol levels were raised in his subjects with maternity blues compared to subjects without maternity blues. In 2006, Corwin and Pajer began researching a similar topic with emphasis on bidirectional innate immune system (hypothalamic-pituitary-adrenal) HPA axis association, which has profound changes within the systems during pregnancy and delivery and associations with depression in other populations (Corwin & Pajer, 2006). The HPA axis is a complex set of connections between the hypothalamus (a part of the brain), the pituitary gland (also part of the brain) and the adrenal or suprarenal glands (at the top of each kidney.) The HPA axis helps control biological functions such as your temperature, digestion, immune system, mood, sexuality and energy usage. It is also a major part of the system that controls your reaction to stress, trauma and injury (Dellwo, 2008).

Overview. Several conditions can stimulate the innate immune response: infection, injury, malignancy, autoimmune disease, and stress. It is quick to respond, in attempts to limit the least amount of damage and spread of infection. It is engineered by the synthesis and release of proinflammatory and anti-inflammatory cytokines. When proinflammatory cytokines are released, they activate a systemic inflammatory response witnessed by fever, increased sleep, reduction in activity, increased fatigue, decreased food intake, decreased exploration, diminished sexual activity and a depressed mood. Because of the balance between proinflammatory and anti-inflammatory cytokines shifts, a person's mental state is affected. Research shows that prolonged or excessive activation of the proinflammatory immune response may be a catalyst for depression (Corwin & Pajer, 2006).

HPA axis, dysfunction and PPD. The HPA axis has a profound effect on immunity,

metabolism, and reproduction. These effects result from a frequent pulsation secretion of cortisol, in addition to large surges of the same hormone when there are threats or changes in the environment. Control of the HPA axis activity is crucial in protecting the organism from the catabolic, lipogenic, antireproductive, and immunosuppressive effects of extended exposure to gluco-corticoids (Corwin & Pajer, 2006).

When a person perceives a situation to be threatening or physically stressful, the HPA axis secretes large quantities of cortisol compared to the frequent pulses that consist of the basal circadian rhythm. As a result, the person is more alert and has more energy and suppression of most of the components of the immune response. The system usually returns to baseline within a few hours after the stressful situation. But, if chronic exposure continues, the system can become dysregulated and result in a hyperactive or hypoactive pattern (Corwin & Pajer, 2006).

Chrousos & Gold [1992] hypothesized that dysregulation of the HPA axis can be pictured as a U-shaped curve. With HPA axis function on either end of the curve a person may experience depression, dysphoria, suicidal ideation, and all the neurovegetative symptoms of depression [Charmandari, Tsigos, & Chrousos, 2005]. Clinically, clients with hyperactivation of the stress response can be associated with melancholic depression, anorexia nervosa, attachment disorder of infancy, and childhood maltreatment. Patients with hypoactivation of the HPA axis are characterized by seasonal and atypical depression, rheumatoid arthritis, fibromyalgia, and chronic fatigue syndrome. Chrousos included *depression* that develops during the *postpartum period* [Chrousos & Gold, 1992]. Two well-documented studies show that there is a bidirectional association of the innate immune response and the HPA axis [Kiecolt-Glaser & Glaser, 2002] [Chrousos & Kino, 2005]. In 1992 and 1995, and twice in 2005, four teams of researchers [Chrousos and Gold, 1992], [Chrousos, 1995], [Charmandari et al., 2005], [Elenkov, Iezzoni,

Daly, Harris, Chrousos, 2005] suggested, revised and then designed the psychoneuroimmunology model. The implication of the model was to show that dysregulation in the immune system or the HPA axis or both *may contribute to the development of PPD* (as sighted by Corwin & Pajer, 2008).

If there is dysfunction in the system alone or in their bidirectional interactions, it will destabilize emotional regulation and contribute to PPD. During labor and delivery, if the HPA axis is not adequately suppressed and/or the inflammatory response is exaggerated then the result is that the person will become fatigued, have poor sleep patterns, a poor appetite and a depressed mood. This response could be due to a prolonged labor, difficult labor, excessive blood loss, perineal damage, clinical or subclinical infection or a negative, emotional delivery. Another study showing women between weeks 4 and 6, post-delivery, measured lower for salivary but not cortisol concentrations. This study suggests hypoactivation rather than hyperactivation of the HPA axis could be the cause of PPD. In this particular study questions were raised about its validity because there was no control for; demographics, breastfeeding status, hormonal contraception, resumption of menses, vaginal versus surgical delivery or season as well as whether the individuals had a past psychiatric history, which all affect the cytokine levels, as well as the HPA axis [Groer & Morgan, 2007] (as cited by Corwin & Pajer, 2008).

After pregnancy and delivery of the infant and placenta, the anti-inflammatory response quickly transfers to the proinflammatory response. This transfer helps to repair the perineal tissues; due to prior deliveries, uterine involution and pain, physical exertion, and emotional stress experienced during labor and delivery of the infant and placenta (Corwin & Pajer, 2008).

Biopsychosocial Model

After twenty years of continuous research on numerous postpartum depression topics,

Ross and her research team (2003) designed an all-inclusive theory, The Biopsychosocial Model that is redesigned as the Biopsychosocial Flow Chart (see Table (2)). This theoretical flow chart is based on published literature and their hypotheses about the relationships between numerous variables likely to cause mood changes during pregnancy and postpartum. Their theory addresses the interrelationships between the two classes of risk factors: psychosocial stress and biological risks, and two classes of symptomatology: depression and anxiety using indicator variables for each construct (Ross, Sellers, Evans & Romach, 2003).

Ross' team postulated that Biological Risks are composed of the new mother's personal history of depression; her family history of depression or anxiety in first degree relatives; her personal history of mood symptoms related to her menstrual cycle, and the concentrations of plasma cortisol and plasma progesterone in her bloodstream during pregnancy and postpartum (Ross et al., 2003).

The Psychosocial stress factor involves demographic variables: relationship status (current stable relationship vs. no current stable relationship), highest level of education attained (a six point scale is used from 'high school incomplete' to 'LLB, MD, PhD or other professional degree completed), household income (a seven point scale is used), and unplanned pregnancy (a yes or no answer). In addition, measures of stressful life events, relationship adjustments and social support are included (Ross, Sellers, Evans & Romach, 2003).

In Table 2, the codes BSI, ANX, OC, and PHOB represent the following: the (BSI), Brief Symptom Inventory consists of (ANX) anxiety subscale, (OC) obsessive-compulsive subscale, and (PHOB) phobic anxiety subscale. In addition, the BSI for Depression is comprised of (DEP) Depression subscale, (ADD) additional items, (EPDS) Edinburgh Postnatal Depression Scale, and (HAMD) Hamilton Rating Scale for Depression (Ross et al., 2003).

Ross and colleagues (2003) found that during pregnancy biological variables might affect the sensitivity to psychosocial stresses. Progesterone concentrations and genetic risks were found to have an indirect effect on perinatal depression. These indirect effects are intervened by psychosocial stressors, and symptoms of anxiety and depression. In addition, these biological variables could alter a new mother's sensitivity to her environmental stressors. For instance, her lack of social support could possibly determine the brink for developing symptoms of perinatal depression or anxiety during pregnancy (Ross et al., 2003).

For at least the last twenty years, the controversy of what is responsible for postpartum depression is getting closer to the cause. In those twenty years, the debate over whether the fluctuation of hormones in the perinatal stage as the origin of postpartum depression is addressed in the following quotation from Ross and her team, "...these findings suggest that the variance in depressive symptoms can be best accounted for by the indirect effects of biological risk factors on psychosocial variables and anxiety" (Ross et al, 2003, p. 464).

In addition, Ross and associates stated that it is conceivable that because there is no direct relationship between biological risk factors and symptoms of depression during pregnancy, this could explain the difficulties others have had in recognizing a linear connection between hormonal variables and depression during the perinatal period. He said it is possible that relationships can only be manifested in the context of psychosocial stressors. Ross and colleagues recommend the need to continue psychosocial assessments of key variables such as social support, life stress and marital satisfaction even when the primary outcome variables are biological. The same advice can be extremely helpful for therapists as well. When counseling women who may be suffering from a form of postpartum-related illness, and have a hormone imbalance, continuing a thorough psychosocial assessment would be advisable. Targeting the

key psychosocial variables as the focus of treatment may become beneficial in reducing the amount of high-risk candidates with postpartum depression (Ross et al., 2003).

Effects on mental health

In Mauthner's article, '*Feeling low and feeling really bad about feeling low*': *Women's experiences of motherhood and postpartum depression* (1999), 40 women shared their experiences of motherhood with respect to postpartum depression. The women involved in this study self-determined their postpartum depression assessment. Mauthner's message is that whether the women were clinically depressed or not, *the women felt low and felt really bad about feeling low*. These less-than desirable feelings affected their mental health.

Mauthner (1999) also raised the point that without re-defining the construction of motherhood to include negative as well as positive emotions a woman is deadlocked by having any negative emotions. In the study, all the mothers experienced some type of conflict between the mother they felt themselves to be and the mother they wanted to be. Faced with this conflict, they found it problematical to accept their feelings and their actual mothering experiences. "They silently struggled to fulfill their ideals while at the same time concealing their needs and feelings from other people" (1999, p. 155). This can create an inconceivable challenge and an undeserved stressor to the mother's mental capacity and her physical demands.

In addition to a mother's struggle created by her reaction to the social construction of motherhood, the stigma of being labeled with postpartum depression has the capacity to create a debilitating dilemma for any new mother. Qualitative studies on the lived experiences of women suffering from postpartum depression revealed stigmatizing themes, label-diagnosis, feelings of being a bad mother, and the fear of disclosure (Edwards & Timmons, 2005). The stigmatization of new mothers is further enabled by social values. These social values are set for mothers by

Western middle-class women and by “mother blaming,” blaming the mother for undesirable outcomes independent of her choices, which is then internalized by the mother and ultimately compromises her maternal behaviors (Koniak-Griffin, Logsdon, Hines-Martin, & Turner, 2006). Furthermore, the mother’s mental health may be compromised by both the stigmatization of being diagnosed or self-diagnosing postpartum depression and ‘mother blaming’ herself by not living up to what it means to be a *good mother*.

Relational Risk Factors

Attachment Theory

Intergenerational relationships. Bowlby's Theory of Attachment offers a human developmental model and maintains that early childhood experiences may predict later periods of depression and parenting difficulties. Lara & Klein's (1999) research established a possible causal factor for mother-child relationship problems. They viewed the maladaptive family relationships in the first generation as the possible cause for the mother's clinically depressed mood in the second generation (Lara and Klein, 1999).

In 1999, Lara and Klein designed the Attachment Interview, which is a videotaped assessment of infant attachment development. The interview uses the Strange Situation procedure. This procedure consists of major classifications of autonomy, dismissal, and preoccupation. Autonomy was evident when the adult seemed to value attachment experiences and had the ability to freely analyze the impact of these experiences on the current relationship. Dismissal was seen when they were actively derogatory or dismissive regarding their attachment experiences or the impact from them. Preoccupation was witnessed when they were lost in thought or lacked the ability to be objective about their earlier attachment experiences. Reasons for their preoccupation were due to abuse, neglect or loss of parents, important friends or

important family members. Indications were observed of mental disorganization or disorientation (Lara and Klein, 1999).

Demographic variables. In the Lara study (1999), women's education played a role in predicting their postpartum depression with more mothers classified as chronically depressed with three to four years of high school being completed. In addition, women with less education, were more likely to have first generation insecure attachment relationships, and more likely to have insecure attachments with their children. A third correlation to postpartum depression in this study was that women of non-English speaking backgrounds (research took place at Macquarie University in Sydney, Australia) showed the postpartum period with signs of depression, an insecure first generational relationship and having a child insecurely attached. The influence of the assessment being conducted through a western lens could influence the results of this study. Also, the non-English speaking population in this study living near the University of Sydney, Australian, meant the women were living away from their original homes. With that fact, they are already under an additional strain, which could be evident in the study's outcome (Lara, 1999).

Research findings. The research findings from this study demonstrates that mothers who had an insecure attachment as an infant were more likely to be diagnosed as depressed in the postpartum period. The study shows a significant avenue to explore in terms of therapy with a postpartum client. Surprisingly, the study also found that despite the mother experiencing chronic and severe depression, it was more likely for her to have a child with a secure attachment. The good news is that a new mother's secure attachment state of mind may actually buffer the effects of her depression between her child and her romantic partner. "Findings extend previous research demonstrating that both adverse early caretaking experiences [Crockenberg &

Leerkes, 2003] and insecure attachment styles [Bifulco et al., 2004] are risk factors for postnatal depression" (as cited by McMahon, 2006, p. 665). When assessing these risk factors, preventative measures can be taken to educate women, families and health-care practitioners of what to watch for and address.

Unique studies from an impoverished, developing country. Tomlinson and teams at the University of Cape Town and Reading in South Africa performed two additional studies on infant-attachment relationships. The first study in 2003 by Tomlinson & Swartz (2003) was unique because over 90% of the world's infants were born in low-income or impoverished countries yet 94% of articles were written from richer countries like Europe and North America. Despite this imbalance, the burden of health and social problems occur in poorer countries. In addition, Tomlinson and his new team's contribution, which proved insecure infant attachments were predictable when maternal remoteness; maternal intrusiveness and early maternal depression were present. Also noted is the instability in attachment status being related to inconsistent childcare, changes in family life and the mother's sensitivity level. But, if the mother's sensitivity toward her child was intact, and her early relationship with her child was important, then maternal depression could not be predicted (Tomlinson, Cooper & Murray 2005).

Attachment risks. In Tomlinson's 2005 research, studies were performed on 147 Black South African women living in extreme poverty. The women were assessed at 2 and 18 months postpartum. At the two month period a number of risk factors played a part in the attachment security: an unplanned pregnancy, an unwanted child and the lack of partner support. In connection to these risk factors for attachment security, they were all related to depression during pregnancy. The risk factors mentioned were in context to the mother's negative frame of mind

and her attitude towards the birth of her child. These factors understandably could deplete her spiritually and emotionally (Tomlinson et al., 2005).

Additional research findings. Contrary to Tomlinson and his team's research expectations, two thirds of the samples were found to be securely attached, which is proportionate to many cross-cultural infant-attachment studies. Surprisingly, the mother's intrusive-coercive and remote disengagement at the two-month mark, and sensitivity at the eighteen-month period predicted infant attachment. The mother's positive interaction patterns, her depression and lack of partner security were no longer important factors. Also, Lewis and Lewis, Feiring, & Rosenthal [1997, 2000] published two studies indicating concurrent experiences and not developmentally antecedent ones made an impact on child psychological and behavioral functioning. They also found that concurrent measures of maternal interactions were better predictors of a child's secure attachment (as sighted by Tomlinson et al., 2005).

Multiple births and their effects on attachment. Mothering multiple infants is challenging for any new mother. For the children it is a challenge as well. In-utero, they are sharing space and nutrients with their siblings. After their birth, they are sharing parental time, care and feeding with their brothers and sisters as well. Mothers giving birth to a singleton have the simplicity of answering the needs and demands, as well as parent-infant synchrony of only one child. This concept of parent-infant synchrony is extremely important to the healthy development of an infant in the cognitive and social-emotional domains. Parent-infant synchrony has been shown to shape an infant's attachment security, [Jaffee et al., 2001] self-regulation capacities, [Feldman & Greenbaum, Yirmiya 1999], symbolic competence [Feldman & Greenbaum, 1997] and cognitive skills [Feldman & Greenbaum, Yirmiya, & Mayes, 1996] in forecasting an infant's cognitive and social-emotional domains (as sighted by Feldman & Eidelman, 2004). In 1999, Holditch-Davis,

Roberts, and Sandelowski [1999],"compared the interactions of seven twin sets and one triplet set to those of singletons and found that multiple-birth neonates spent more time in a drowsy state and their mothers showed less positive vocalizations, which suggests that a multiple birth may interfere with the development of parent-infant synchrony" (Feldman & Eidelman, 2004, p. 1135). The parents' timing sensitivity to infants is extremely important for their later social-emotional development. Specific affective expressions, vocalizations and gaze patterns are unique to each set of mother-child dyads within the mother's multiple infants. The mother's time and energy are compromised because of the care and feeding of not only her infants, but also the needs of her family and possibly, a neglected self. In addition to balancing these needs, add to the situation, the special needs of the premature infants, in stereo. Caring for premature infants requires additional work and energy. A triplet with a birth weight greater than 15% of the others displays the poorest behaviors among their siblings. Also, premature infants are less likely to self-regulate or to engage in coherent communications with their parents. These infants are challenged in two ways when communicating their needs and with the vulnerability that they will be heard and attended to. In addition, a depressed mother who also misses the communication subtleties of her unique infants might additionally compromise the health of her triplets (Feldman & Eidelman, 2004).

Cultural Risk Factors

During the pre-, peri- and post-natal time, a woman, possibly unexpectedly, will be faced with important decisions whether to abide by her family and her community's values, customs and traditions. In the American culture, a woman is expected to continue working until her ninth month of pregnancy. Then, after giving birth, take a leave of absence, and then return to work. Her decision to return to work or stay at home with her infant can become a complicated matter.

There are numerous aspects for her to consider. Some considerations to weigh are the family's financial budget, health care benefits, insurance coverage, and employee benefits. In addition to those concerns, she needs to know if she is capable emotionally to hand over her motherly responsibilities to another caregiver. Apart from those concerns, she has personal expectations for herself and outside influences to deal with. She may be asking herself what it means to be a *good mother*. The medical community advises new mothers, 'to do the best thing for their baby', which is to breastfeed for the first 6 months. Their length of time recommendation fluctuates depending on the latest research deemed beneficial by medical research. Some schools of thought say to refrain from exposing infants to crowds, for fear of coming in contact with an infectious disease. Or another grave decision for a new mother to make is whether to circumcise a newborn male. With a woman's transformation into motherhood come a more complicated lifestyle, additional challenges to be met and multiple responsibilities to accept. With all these weighty decisions, a new mother may find it difficult to listen to her own thoughts about how best to care for her baby. Add guilt to this scenario and it can create tumultuous daily challenges for an already tired mother. Certain customs relating to pregnancy, childbirth, infant care and her own self-care are influenced by socio-demographic characteristics such as age, educational background, age at marriage and place of delivery.

In Turkey, Ayaz and Efe (2008) performed a study to explore how cultural attitudes and beliefs about pregnancy, childbirth and mothering can affect people's lifestyle and health. In the village of Ballikuyumcu, Ankara, Turkey, "fifty-nine percent of the respondents were aware that pregnancy was considered by a number of people as a shameful condition which ought to be concealed and 30% had done so" (Ayaz & Efe, 2008, p. 284). This village's belief that pregnancy was shameful and concealing the pregnancy was important in order to have a healthy

and beautiful baby (Sever, 2000, unpublished). This conflictual custom creates undue stress for the new mother. She is deprived of the psychosocial support shown by her family, friends and community support. This obligatory custom has the potential to cause psychological problems for the mother and her child.

This study also found that older mothers swaddled their babies more often than younger mothers did. Swaddling infants, whereby the arms and legs of the baby are wrapped was practiced to keep the baby warm, to prevent the infant from making dangerous movements, to give the child strength and to help the child develop good posture. It has been found that these are harmful effects because swaddling may cause hip dislocation to infants who have a predisposition to this disorder at birth. (Senses, Yildizoglu, Sekiz & Ildeki, 2002).

In the case of older mothers swaddling their babies, more than younger mothers, the mother's age at marriage and whether the mother lived with her extended family played an important influence in their decision. The elders in this patriarchal society dictated how the child was cared for. The mother had no voice in the matter of childcare and both groups lacked any recent knowledge as to the harmful effects of swaddling an infant (Ayaz & Efe, 2008).

A woman's educational background can give her confidence to make wise decisions. In a study from Turkey (Ayaz & Efe, 2008), they found that educational status was related to customs such as the concealment of pregnancy, bathing the baby in salt water, and not breastfeeding a baby with diarrhea. The village believed bathing a baby in salt water would prevent it from having an odor. In actuality, a baby bathed in salt can cause dehydration to the child. Also, if a baby had diarrhea they were told to stop breastfeeding and feed the baby a mixture of yogurt and coffee to help the feces harden. It is not surprising that the fifth leading cause of infant deaths in Turkey is diarrhea. Each time a child has a bout of diarrhea, for which he has a nutritional loss

that is not compensated for, the result could be growth retardation and possibly death due to liquid-electrolyte imbalance and dehydration. When breastfeeding is discontinued during a period of diarrhea, it can be harmful to the baby's nutritional value and liquid nourishment from breast milk.

The relationship a new mother has to her family culture and community culture, as seen in this Turkey village is a tenuous one. Women need an educational foundation on which to support their personal beliefs. It also gives them needed courage to stand their ground against the pressures imposed on them by their customs and traditions, especially when they know they are unhealthy for their child. Without their constitution, they could be putting themselves and their children in danger for their health and safety. In the American culture, peer pressure places a strong influence on childcare customs. Mothers feel the stress of conforming to verbal and nonverbal childcare mores. An example of a stressful custom is new mothers returning to work after maternity leave and putting their child in daycare. If the mother feels she wants to be the adult caring for her child full-time but cannot honor that core-belief, then she is polarized by what she wants and feels she should be doing. Taking a personal stand, that is not a popular one, requires courage and confidence to achieve one's goals successfully. Each mother has to choose the best personal direction for herself. She either will agree to follow the culture's customs, disagree and disregard the cultural mores or redesign the customs appropriate for her newborn (Ayaz & Efe, 2008).

Social/Environmental

The importance of the mother-daughter relationship is emphasized in the Relationship-Cultural Theory. Jordan and constituents' (Jordan, Kaplan, Miller, Stiver & Surrey, 1991), interpretation of the theory is that the mother-daughter relationship imprints a model for future

relationships, including therapeutic ones they may encounter. What happens when the mother-daughter relationship is bridled with anger, mistrust and lies? This disjointed, modeled relationship may transcend into a new relationship the mother will have with her newborn. Subsequently, unknowingly, this relationship will be modeled for future relationships she may have with others, as well.

Realities of Postpartum Depression

The realities of postpartum depression can come as a shock to the mother and her family. This transition period may be experienced as a mild adjustment, as well as a severely disruptive time that turns the mother's world chaotic. This precious period not only affects the mother, but also her entire family. No one can predict what the affects of the postpartum period will be for a new mother, but, with education, a woman can prepare for this vulnerable time.

Effects on the new mother

In a meta-data-analysis of qualitative studies on postpartum depression conducted between 1999 and 2005, seven European countries, along with Japan, Hong Kong, India, Uganda, and the United States were represented. Also included were a diverse ethnic and socioeconomic status of populations. The authors applied a relational lens to a grounded theory in conducting this comprehensive study. What they found was "...women in all studies reported feeling that they had failed to live up to cultural standards for a 'good mother'" (Knudson-Martin & Silverstein, 2009, p. 145). Along with this experience, these women felt that their negative feelings could not be spoken. The research found that the construct of motherhood and the reaction of others then combined with feelings of incompetence that resulted in isolating from others. Lauer-Williams also found that feelings of anxiety preceded depression. It was their feelings of being disconnected, due to their fears of being misunderstood, that maintained the

depression [Lauer-Williams, 2001] (as cited by Knudson-Martin et al., 2009). This meta-analysis suggests that in order to address PDS effectively several things are in order:

- Redefine PPD as not only a medical condition, but also a relational condition.
- Create interventions that focus on creating relationships that can support emotional unpredictability of childbearing and have the ability to empower rather than silence mothers.
- Create family therapy programs to facilitate relational reconnection to family and friends and develop effective PPD intervention programs.

The research in this analysis suggests that such intervention programs have the potential to significantly make an impact on this disturbing postpartum condition (Knudson-Martin et al, 2009).

The social construction of what it means to be a competent mother transcends all cultures. Women measure their experiences against ideas of *what they should do, what they should feel, and what they should know about* caring for children. Also, they fear being judged by others as being a ‘bad mother.’ Poor, ethnic, minority women also fear that their children might be taken away because they may not be adequately caring for them [Templeton, Velleman, Persaud, & Milner, 2002] (as sighted by Knudson-Martin et al., 2009).

Amankwaa [2003] also reported that for the new mother, not adequately fulfilling her mothering role after the birth of a baby preceded the experience of “losing it.” Also, what Amankwaa discovered was that there is a vast difference of socially constructed ideas of motherhood compared to what a woman’s personal experience of motherhood transcends into (as sighted by Knudson-Martin et al., 2009).

What Lauer-Williams [2001] found is that when mothers compared themselves to their

cultural ideals, they did not measure up and they blamed themselves instead of questioning the cultural ideal. [Lauer-Williams, 2001] (as cited by Knudson-Martin et al., 2009). Questioning the construct of motherhood then allows women to become empowered and offers them flexibility in their all-encompassing mothering role.

Effects on the newborn

Scientists have argued that maternal stress, depression and anxiety during pregnancy have an effect on the programming effects of the infant's HPA axis. The result is the infant becomes more reactive to stress [O'Connor, Heron, Golding, Glover & the ALSPAC Study Team, 2003]. The mother's depression during pregnancy may result in children becoming more aroused under nonthreatening situations, including learning situations. Chronic and frequent HPA axis activation may seriously interfere in the child's development of memory and learning consolidation as well as their executive functioning [Blair, Granger & Peters Razza, 2005]. Also, with frequent HPA activation, the infant may also experience difficulty retrieving previously encoded information, which interferes with his learning processes [Quas, Bauer, & Boyce, 2004] (as cited by Sohr-Preston & Scaramella, 2006).

Along with the compromises expressed, the infant's over reactive HPA axis interferes with their cognitive skills and tasks, sustained attention, and focus. This occurs because they are distracted by their sensitivity to environmental stressors. It also has been noted that infants of depressed mothers exhibit a lower cardiac vagal tone than newborns of comparison mothers. As a result the infant maintains a slower heart rate which in turn causes the infant, by six month-old, to be less facially and vocally expressive [Field, 1995, 2002]. This type of situation may interfere with the mother's ability to interpret and respond to their infant's needs. In addition, the infant's vagal regulation has also been reported to support the infant's information processing and predict

toddler's language scores [Bornstein & Suess, 2000] (as cited by Sohr-Preston & Scaramella, 2006).

In 2003, Hay (Hay, Angold, Pawlby, Harold & Sharp, 2003) and his team found that children born to mothers that were depressed postnatal and once thereafter showed an impact on a child's risk for violent behavior by the age of 11. The impact was greater in males than females and in children of men who had been arrested than in other children. What Hay's research found was that the mother's depressed state interfered with the interaction between her and her child. The result was the infant's inability to learn to regulate attention and emotion.

During the early months, through interactions with caregivers, children learn how to calm themselves and arrange attention effectively [Reddy, Hay, Murray, Trevarthen, 1997]. The regulation of attention and the regulation of emotion are entwined [Bornstein & Suess, 2000]. The life of an infant of a depressed mother lacks this normative developmental stage because the child's needs are not met consistently and when they are met, both mother and child are under duress which may result in ambiguous or incomplete communications [Cohn, Campbell, Matias & Hopkins, 1990; Field et al., 1988; Murray, Kempton, Woolgar & Hooper, 1993] (as cited by Hay et al., 2003).

The newborn's experience of upsetting, noncontingent interaction makes it difficult for them to attain self-regulation [Weinberg & Tronick, 1998], which in turn makes them less able to direct their attention and actions efficiently in order to regulate their responses to frustration. Also, this lack of responsiveness to the infant's needs on the part of the mother, predicts unsettling behavior, in middle childhood [Wakschlag & Hans, 1999] (as cited by Hay et al., 2003).

Recent electroencephalogram (EEG) research has shown that meaningful behavioral and

emotional patterns are linked to electrical frontal brain activity in the right and left hemispheres. Electrical activity in the left frontal lobe is the main area associated with approach and positive emotionality, and the right appears to be related to withdrawal and negative emotionality [Field, Fox, Pickens, & Nawrocki, 1995; Jones, Field, & Davalos, 2000]. Characteristically, infants show greater left than right frontal brain activity [Dawson, Frey Panagiotides, Yamada, Hessl & Osterling, 1999]. Newborns and toddlers have been found to exhibit less frontal electrical brain activity and more right activity than children of nondepressed mothers [Dawson et al., 2003; Dawson, Frey, Pantagiotides, Grofer Kliner, & Hill 1992; Field et al., 1995; Jones, Field, Fox, Lundy, & Davalos, 1997]. In summary, these children may be less likely to learn or enjoy new situations and gain less from early learning opportunities. Also, vicious cycles are created by the taxing cries as the infant intensifies or maintains the already depressed mood of the mother and continue to interfere with parent-child interactions (as cited by Sohr-Preston & Scaramella, 2006).

These numerous, negative functioning characteristics caused by the effects of postpartum depression leave the newborn in a compromised position for navigating throughout life. This may also set up a continuous pattern for the child by not expecting their needs to be met by the significant people in their life.

Effects on family life

Postpartum depression has an impact on everyone in the household. The couple's relationship is affected as well as the relationships and care of the children. Because of the despondency of the mother, childcare becomes compromised, intimacy between partners suffers, communication with other family members breaks down and social life may become isolating.

Contingent on the mother's degree of postpartum depression, the husband or partner may

have to step in and assume the responsibilities of childcare and household maintenance while carrying out their previous commitments. The partner may need to feed, bathe, wash, carpool, shop, and pay household bills as well as other countless chores. Husbands and older children may become angry, tired, resentful, sad or hopeless with this type of family situation.

The woman, her husband knew before giving birth is not the same person she has become as a new mother compromised by PDS. Grieving can be an unexpected emotion the new mother's partner may be surprised to experience. Social stigma is another circumstance the couple may have to address due to a new mother's postpartum-related diagnosis. How the family perceives the mother's disability will indicate how they will respond to her emotional condition. They may be understanding and empathetic or impatient and wonder why she cannot snap out of this depression. A frustrated husband describes his thoughts about his wife's condition, "How could someone I loved and knew intimately for ten years change so drastically, so quickly? At this time Paula had completely deteriorated as a functioning human being. My talks with Paula became senseless. Not only did I want to just 'slap it out of her,' but I felt that she wasn't trying to overcome her own feelings of depression and helplessness. She could not hear me; she became paranoid" (Hamilton, & Harberger, 1992, p. 311).

In a study done by Compas and colleagues (Compas, Langrock, Keller, Merchant, & Copeland, 2002) regarding how children cope with their parent's depression, they found parents to be withdrawn, unavailable, as well as interfering, and short-tempered while interacting with their children. The parents' oscillating behavior undermines the security and closeness the children may feel within their family constellation. This family atmosphere undermines the consistent structure and attention children need to feel safe and significant in the world.

Children living in a household where one or both parents are depressed may become

hyper-vigilant of their parent's subtleties. They may listen or watch for the slightest change in either their parent's audible volume or intonations, steadiness of their gait, the meaning in their eyes, the smell of their breath, or a miniscule change in their demeanor. They may be looking for consistency in a chaotic atmosphere while continuously struggling to get their needs met.

Effects of the culture

Eastern countries seem to preserve their cultural rituals more than it appears in the western hemisphere. On the surface, the East's preservation of its culture appears to be a built-in support mechanism for the new mother. Contrary to this belief is the case of United Arab Emirates, UAE women. The custom of the UAE women is to move into their husband's family home or a house nearby within a walled compound. It is the UAE's culture for the new mother and her newborn to return to her mother's home for the next forty days. In this study, by Green, Broome and Mirabella, they found that half of their sample lived alone and only one-third went back to live with their mother during the postpartum period. When the study began at three months postpartum, all the women were back in their original homes and had returned to their daily schedules. At three and six months postpartum, one third of the group was living with their mother in-laws or near their mother in-laws. What the research discovered was the only relationship showing the higher depression scores correlated with the participant's poor relationship with their mother-in-law (Green, Broome & Mirabella, 2006).

Additionally, the study reported first time mothers having higher accounts of depression which is counter to other studies from other countries showing the more children, the higher the chances of depression are for the mothers. In the UAE community, first time mothers are expected to make numerous adjustments. They are asked to move into their in-law's home and develop new relationships with family members and acclimate to new surroundings. Because

these new mothers knew they would be facing multiple changes in their new lifestyle, this may account for the depression percentages in the UAE community being the inverse to most international postpartum studies (Green et al., 2006).

Another cultural influence in the UAE society is the importance of breastfeeding. In Islam, new mothers are encouraged to breastfeed their babies till the age of two. This cultural custom is compounded with their religious beliefs emphasized in the Koran and Hadith [Schleifer, 1996]. It is not surprising to find that women who did not breastfeed at 3 months postpartum had elevated depression scores. In addition, a UAE requirement is to breastfeed males for 24 months and females 22 months (as sighted by Green, 2006). For new mothers, this becomes another cultural, as well as religious stressor.

Also, evidenced in this study are the surprising emphasis young and possibly older Emirati women put on their physical appearance and weight. From a western-cultured point of view, this is unexpected because most Arab women's bodies are covered and their faces veiled. However, from the transmission of western media into the Arab countries, the young women in these eastern societies have adopted a western woman's prominence on body image and thinness [Khamis & Green, 2002] (as cited by Green et al., 2006).

Many Arabic cultures continue to hold on to their postpartum rituals, even in new and modern cultures, as in the case of immigrants. Pregnancy, and childbirth are celebrated events in UAE, as well as in other Islamic countries. A woman's status is elevated when she gives birth, especially to a male child. In these societies, women are not expected to make the choice *not to have children*. The Arabic culture's lack of freedom to choose to conceive or not, appears like an extra burden for these women to carry. In an alternate view of the UAE women, despite their

government-run educational programs to reduce the birthrate, their *current birthrate per woman is 6.9%* (Al-Rawahi, 2002).

Two startlingly, heart rendering findings in the study were the women's loss of freedom and compromised means of staying connected with family and friends. Ten percent of women in the study had their rights taken away because their husband or father refused for them to partake in the study. In addition to that loss, the interviewers found that Emiratis do not have street addresses and rely mostly on the post office boxes provided by the interviewee's father's or husband's employer. In some cases, the women did not even know the box number; they could only provide a telephone number. In addition to those obstacles, the turnover rate for mobile and home phone numbers is high. As a result, the attrition rate in this study was only 68% of the original sample (Green et al., 2006).

Not only are these new mothers adjusting to their new, demanding lifestyle, they also are lacking the much-needed social connections that have been severed. This is daunting, having your rights taken away and your tenable connections to the outside world so difficult to solidify (Green et al., 2006).

In the Chinese culture, specifically, Hong Kong, their custom is known as “doing the month” (Leung, Arthur, & Martinson, 2004). This custom originates back to the Sung dynasty (960—1279 A.D.) New mothers are restricted within their home for the full month after the birth. They are expected to eat, sleep and get used to their new maternal role.

In a study performed by Leung and associates (2004), mothers commented about feeling insecure about caring for their infant after “doing the month”. They found they barely had time to care, hold or bond with their babies. The conflict surfaced because “to follow the traditional ritual, ...the care provider is responsible for doing many things on behalf of the new mother,

including child care” (p. 219). The new mothers experienced stress on many fronts; the missed opportunity of practicing childcare, multiple caregivers crowded in inadequate spaces, and a lack of privacy. The study showed that “doing the month” was not protective nor supportive of the mothers. They suggested redesigning the ritual to adapt to modern lifestyles. They also emphasized gaining enough support for the new mothers to recover early and learn to adapt successfully to the maternal role (Leung, Arthur, & Martinson, 2004).

Does the culture we are born into play an important role in a mother’s postnatal depression? Abbot and researchers (Abbot, 1982; Stern & Kruchman, 1983; Miller, 1997), argue that PND is a culture-bound phenomenon peculiar to Western societies. They propose this is due to the lack of rituals and supportive cultural practices surrounding childbirth and the care of the newly developed families. Others believe it is due to technological advances in the progression of obstetrics [Arms, 1977; Shaw, 1974; Oakley, 1980]. Counter supporters, such as Affonzo and associates [Affonzo, Horowitz, & Mayberry, 2000], show evidence of higher rates of depressive symptoms from Asian countries and Guyana than from Europe and Australia. The confusion expands when other surveys show low prevalence rates from Japan [Okano, Nomura, Kumar, Kaneko & Tamaki, 1998], Malaysia [Kit & Jegasothy, 1997], Sweden [Wickberg & Hwang, 1996], and the Netherlands [Pop, Komproe & Van Son, 1992] (as cited by Abbott & Williams, 2006).

A more recent PND study from the United Kingdom showed higher rates were found among Asians than Caucasians. After analyzing these outcomes, the authors postulated that women from ethnic minorities may be at a higher risk than the majority ethnic populations [Hearn, Iliff, Jones, Kirby, Ormiston, Parr, Rout, & Wardman, 1998]. Counter to that finding,

comparative findings within multiethnic societies have found minor differences between ethnic groups (as sighted by Abbott & Williams, 2006).

Assessing and comparing PND in ethnic cultured contexts is challenging in two ways; the expression of postnatal depressive symptoms vary from culture to culture, and establishing a means of equivalence when measures are translated from one language into others [Kumar, 1994; Park & Gisela HMD, 1995]. These challenges mean caution is required when comparisons are made between cultures. On the subject of acculturation, it has been noted that migrant and indigenous minorities that retain aspects of their native tongue and also adopt their new culture generally experience a more positive transition than those who hold on to only what they know from their homeland culture [Berry, 1995; LaFromboise, Coleman & Gerton, 1993] (as cited by Abbott et al., 2006).

Risk factors for PND appear to be similar across the cultures [National Health and Medical Research Council, 2000; O'Hara & Swain, 1996; Cooper & Murray, 1998] but the meaning and significance of particular factors may be different. For instance, Stuchbery [Stuchbery, Matthey, & Barnett, 1998] and associates found in Arab, European and Vietnamese families, social support may be implied in all families, but in reality, new mothers do not get the social support they need. In these three different cultural populations, the source and type of support expected varied in marital relationships and in the context of social support (as sighted by Abbott & Murray, 2006).

Yet, despite respective research [Ministry of Pacific Island Affairs and Statistics New Zealand, 2002] showing populations with lower socioeconomic status, poorer health and lower life expectancy, the authors found that the culture in Auckland defied these risk factors. Auckland, a Pacific population in a demographically young and growing section of New

Zealand, represents 6.5% [Statistics New Zealand, 2001] of the total population. Interestingly, the Auckland culture emphasizes traditional family and cultural support, affordable childcare and postnatal education. These cultural priorities insulate and protect these new mothers from suffering with PND. The Auckland study represents an Adlerian principle; “*that anything is possible.*” Despite less than ideal conditions, their strong family ties and traditional family values, affordable childcare and post-childbirth education, gives this resistant community protection from postpartum depression (Abbott and Williams, 2006).

Social Environmental

In a PND study published in 2006, Surkan (Surkan, Peterson, Hughes, & Gottlieb, 2006) and her team reported that both social networks and social support were statistically vital and independently related to depressive symptomatology. In this study, women who had two or more friends or family members available showed a noticeable difference in symptoms they exhibited. Their score was nine points less than women with one or no available friends or family members. This exemplifies the importance that new mothers need the support of other important women in their life as they transition into a more demanding role.

Treatment Plan

Individual treatment plan for the mother

Home-Visiting Interventions were created to provide direct services during the postpartum period to the new mother, her newborn and her family. This type of intervention is viewed as effective because the service is brought directly to the client. This allows the trained professional – counselor, social worker, or nurse, to observe the family’s environment and become more familiar with the family’s needs, strengths and challenges. Afterward the health-care professional will be better able to develop helpful interventions designed for that particular

family. In addition, the mother is able to build a trusting relationship with a caring adult, which in turn bridges the gap to her isolation. After developing a strong relationship with the professional, she is better prepared to establish new relationships or re-establish existing relationships in order to build a support network for herself (Gomby, Curlross, & Behrman, 1999).

The home-visiting intervention has the potential to offer help to countless numbers of new mothers and their families. During their postpartum phase, a mother experiencing any of the effects of postpartum-depression, tends to become tired quickly. Before she can leave her house the new mother will need to perform various tasks; feed herself and her child/children, get everyone dressed, prearrange childcare schedules, drop-off children at childcare sights and/or schools, pack lunches, and numerous additional family chores. In addition to her physical demands, she needs to be emotionally willing to see a professional. She may have several excuses for not doing so; she has nothing to wear, the baby will need to be fed at that time, housework to do, food to prepare, bills to pay, dirty clothes to wash, dry and put away. With emotional and physical wear, the whole thought of leaving the house becomes a monumental task. The thought of a person coming to make a house call could be a welcomed answer to a needed cry. This visitation can offer tremendous hope to an over-extended and over-tired new mother.

Another in-home service for the new mother is the care and support from a postpartum-doula. Doula, a Greek word that translates "...to mean a woman experienced in childbirth who provides continuous physical, emotional, and informational support to the mother before, during and right after childbirth" (Klaus, Kennell & Klaus, 1993, 'appendix'). A doula is a substitute mother, without the emotional entanglement in the mother-daughter dyad. When a doula is hired

to work for a family, her main purpose is to support the mother and meet her needs and the needs of her expanded family. That could imply caring for the infant while the mother naps, taking the older children to school, picking up milk on the way to the client's house, washing a load of laundry, or just being there for the mother's emotional support. A doula may offer her presence as a calming force, a valued adversary, a friend, or as a confidante. Like the home-visiting professional, she can be an anchor to the fragile, new mother navigating through precious, yet turbulent waters.

Doulas of North America, DONA, are an organization where families can find support for new mothers becoming acquainted with their new role. The postpartum doula offers her services in the family's home. On their website, <http://www.dona.org>, DONA devotes space for each doula listed. Each doula gives potential clients a personal composite of their abilities, background and personality. Doulas can be found in the United States, Canada and innumerable countries around the world. There are local chapters nationwide as well. The local chapter for the greater-Minneapolis area is the *Childbirth Collective*, <http://www.childbirthcollective.org>. The Childbirth Collective holds weekly meetings at selected locations across the state of Minnesota.

Building and maintaining connections before, during and after childbirth gives needed support to the new mother. It is quite a challenge to nurture relationships while your life is turned upside down by the sheer workload of caring for an infant, yourself and your family. But in doing so, the mother benefits with the support and care from family and friends. Based on the Relational-Cultural Theory (RCT), designed by Corey, "... relationships and connectedness with others plays a vital role ... in the lives of women, ... a women's sense of identity and self-concept develop in the context of relationship." Corey believed that the mutually empathetic mother-daughter relationship is a vital model for a female's future relationships, including

therapeutic associations (Corey, 2005, p. 348).

Support of fathers, other caregivers and adults

Because every child has a set of parents, a child may have the additional support of a father or additional caring adult in their home. Their presence can lend physical and emotional assistance to the rest of the family while the mother is coping with depression and adjusting to her new lifestyle. Alternate caregivers can protect children against the harmful effects of maternal depression and its effects on the child's cognitive development. Kaplan and associates [Kaplan, Bachorowski, Smoski, & Hudenko, 2002] state that infants of depressed mothers learn from the infant-directed speech from other adults in their lives.

A father's increased involvement in their child's life can also insulate them from childhood behavior problems [Jackson, 1999; Mezulius, Hyde & Clark, 2004]. Responsive day care instructors have been found to benefit infants of depressed mothers. The infants were observed displaying emotions that are more positive and greater activity levels while in the presence of the daycare provider. [Pelaez-Nogueras, Field, Cigales, Gonzalez & Clasky, 1994] (as cited by Sohr-Preston et al., 2006).

In a study performed by Cicchetti and colleagues, based on the attachment theory, the Toddler-Parent Psychotherapy (TPP) was introduced. The TPP is an intervention designed to improve the communication and relationship between the mother and child. The TPP is based on the premise that mothers act out their internal representational style of attachment relationships when they interact with their child. While in therapy, the therapist can hypothetically ascertain the expectations, emotional quality, and degree of responsiveness witnessed by the interactions between mother and child. At this point, the therapist can encourage warm and positive displays of emotion and touch the mother extends to her child.

Improvement of the quality of communication increases and the mother attains a better understanding of and response to her infant's behavior. The trained counseling professional can also address the mother's obstacles that interfere in giving her newborn a safe and loving environment. In addition, the therapist can witness first-hand the difficulties of this newly established relationship. Identifying whether there is comfort or discomfort between mother and child can open up dialogue about the relationship between the new mother and her mother [Cicchetti, Rogosch, & Toth, 2000] (as cited by Sohr-Preston et al., 2006).

Position programs like this one, can offer healing and recovery for the delicate communication between mother and child. With the mother's dedication to the TPP intervention, hope can be gained for this fragile relationship to flourish.

Cultural ways of healing and coping

In the Taiwanese culture, they have a four-stage postpartum process called 'Being reborn' (Chen, Wang, Chung, Tseng & Chou, 2005). The four stages include shattered role identity, feeling trapped and breaking down, struggling to survive, and regaining vitality. The shattered role identifies the mother's exhausted state, the loss of her former identity, problems with her infant and the difficulties in her personal relationships. Feeling trapped and breaking down is a crucial phase that a Taiwanese woman has to come to terms with. Accepting, transforming and adjusting to her new reality are what are expected of her. The women use internal and external sources as coping strategies. Accepting their fate and problem solving are their coping strategies. The research described the postnatal changes as "...so seemingly unbearable that the experience turned into a kind of survival training" (Chen et al., 2005, p. 454).

The description Chen paints is a portrait of what the new mother faces. Chen describes the power of the depression to be so consuming that a person is emotionally, physically,

intellectually and spiritually broken. Final acceptance of her new motherly responsibilities offers her freedom from her despair and then transcends full circle to her rebirth (Chen et al., 2005).

Social environmental Treatment Plan

Screening mothers-to-be during pregnancy offers a preventative measure against PND. Investigation, awareness and treatment of depression can begin in pregnancy. Other safety precautions available are obstetric birthing doulas, postpartum doulas and home-visiting interventions. These professionals and caretakers often partake in inquiring about their client's support system. Also, as consumers, clients have the responsibility and right to ask for assistance with their physical, mental health or educational needs. This can insure mothers-to-be a smoother transition after the birth of their newborns.

Creating a treatment plan at the community level would resemble the Home-Visiting-Intervention design. After the birth of their baby, new mothers would receive an invitation to partake in a home visit. This invitation would be sent to the mother, while they are recovering in the hospital or at home. They will be invited to accept a home visit from a staff member from *Welcome Home Mom*, a society in communion with new mothers adjusting to their new mothering role.

Welcome Home Mom, would be modeled after the research team of Paris & Dubus (2005), with their work with the Home-Visiting Intervention. From the home-visiting intervention model, the main themes to address would be isolation and loneliness. A member of the team; a counselor, therapist, nurse, or a social worker would visit the new mother and assess her postpartum needs. In particular would be an assessment for postpartum depression. The health-care professional would also determine who best on the team could meet the needs of the new mother. In addition to our team's personnel would be experienced mothers from the

community. These would be dedicated, retired mothers wanting to give back to the community. The new mothers would be given companionship, validation and affirmation of their competence as a mom. This service would include consecutive weekly home-visits for 6 to 8 months postpartum.

The visiting mothers will act as anchors for the turbulent and ever-changing transitions new mothers faces as they redefine themselves as mothers. The Home-Visiting Mothers team would bridge the gap from pregnancy to motherhood. These new mothers will be given the encouragement, nurturing relationship and validation needed to pave their new parental path.

Postpartum Depression Seen Through An Adlerian Lens

Adler's view of a new mother is comprised of the maternal modeling a female witnessed as a child. She may have seen her energetic mother happily pick up her wailing sister or brother and nurse them. Another child may have witnessed the difficulty their mother had mustering enough energy to answer the cries of their baby sister crying out to be fed. Adler believed what matters to that impressionable little girl is her interpretation of the situation. Her private logic may be that motherhood is a joyful event and caring for children is important. Or her private logic may be that motherhood means being trapped by the responsibilities of parenthood. In her childhood, she may have witnessed motherhood as hard work with too many demands, being under-appreciated and never getting enough rest. An additional view the child may possibly take is refusing to follow her mother's example and forge through with a newly emerging mothering style.

Teleology is an important Adlerian concept as well. A new mother's teleology regarding motherhood may be that she always wanted to be just like her mother once she becomes a new mother herself. Adler held that by the age of eight we have an idea of who we want to become as

adults. Personally speaking, playing house with my baby doll, which was so *real* to me, was my dream as a child, my teleology about my future. *My end goal came to fruition in becoming the type of mother I dreamed of as a young girl.*

Because community interest plays an important role in Adlerian theory, this becomes a significant part of the treatment plan for a mother recovering from PPD. Counseling recovering PPD mothers to teach young girls and women to ask for help when needed is a form of giving back to the community. In addition, spreading the word of postpartum education, passing on the more complete definition of ‘motherhood,’ reaching out to help others and supporting pregnant women in the community about to give birth are all positive ways of healing ourselves and our community-at-large.

Blending Adlerian concepts with the research found in this paper can offer mothers valuable tools for creating a happy after-birth experience. Tomlinson and collaborators show an example of this blend in a study showing a high rate of secure attachment in an impoverished land (Tomlinson et al., 2005). The study is from Khayelitsha, a peri-urban settlement on the outskirts of Cape Town, South Africa, in a village with conditions of poverty and inequality, high infant mortality rates, stunted growth, a high proportion of from school dropouts, high rates of homelessness and criminality and general low levels of educational achievement.

Furthermore, many children in the study have lost either one or both parents to AIDS.

Despite such a high occurrence of hardships, this community has attained a basic level of security that is needed in order for a community to survive. One possible explanation for the high rate of secure attachments in Khayelitsha is the protective contribution of Xhosa, their social and cultural organization. This is evident in the community spirit and compassion members have for their neighbors as well as infants and young children's wellbeing and safety being the

responsibility of the entire community (2005).

This is Adlerian in action. The people surviving in these onerous conditions experience a sense of belonging which insulates and bonds them together while they cope with the hardships in their daily lives, even in the midst of extreme poverty (Tomlinson et al., 2005).

Narrative – Part II

I remember a friend at work saying that his wife began doing strange things after the birth of their first child. She stopped cleaning the house, taking care of herself and appeared depressed. He said he thought she might be experiencing postpartum depression and he did not understand his wife's personality change. My reaction was, why did he not understand and why did he lack empathy for her plight.

Also, during that time, a teller at my bank was reported on the news stating that her newborn was taken from her home while she was sound asleep on the living room couch. Later, an update found her newborn dead in a garbage can on her property. She was later found guilty of murdering her newborn. Reports were that she suffered from postpartum depression.

The third time I encountered the topic was when I heard news allegations of Andrea Yates' drowning her five children. I could not fathom what could cause a new mother to perform a heinous crime of that nature. Later, in 2005, I followed news coverage of Andrea Yates' appeal. I also watched Larry King's interview Andrea's husband, Rusty Yates and felt compassion as he told his side of the story. After the program, I sent him an e-mail empathizing with his nightmare. Back in 2002, when Suzy Spencer's book, *Breaking Point* was published, I did not have the courage to read the details of the case. Now I did.

The seriousness of postpartum depression and the effects of this mental illness both intrigued and scared me at the same time. While taking an Assessment Course at Adler Graduate

School, one assignment was to design an assessment tool for a specific population. My partner chose childhood depression and I began thinking whether there was a relationship to PDS. While designing the assessment tool, I discovered that childhood depression is a risk factor for depression with the onset of postpartum. During that assignment task, I became inspired to continue researching postpartum depression and turned it into my thesis work.

The purpose in writing this paper was in the hopes of educating women and men as well as girls and boys about this biopsychosocial phenomenon that has been hidden in cultures around the world for ages. PDS is lurking in the shadows by stigma and shame. A key ingredient in presenting the Biopsychosocial Model is to introduce the model as a staged, developmentally appropriate lesson plan for young women and men.

Education is power. Preventive maintenance is the key. Giving young adults — a thorough and honest definition of what it means to be a mother and how to prevent postpartum depression — in any society is freedom.

In describing the postpartum rebirth process, Chen and his colleagues aptly phrased it, *...”an internal process of painful growth represented by motherhood and striving to protect the real self in order to maintain emotional health while negotiating a developmental transition”* (Chen et al., 2006, p. 450).

A mother’s knowledge about postpartum depression may save her own life as well as the lives of her children. If only Andrea Yates had an early understanding of the Biopsychosocial Model, maybe her life would have taken a different course and the lost lives of her innocent children could have been saved.

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Appendix

Table 1. Summary of Bonari and colleagues’ “Table 1, Summary of depression found in pregnancy studies” (Bonari et al., 2004) with extended summary of additional pregnancy and postpartum studies compiled by author.

<i>Global Summary of Risk Factors in Postpartum Studies</i>		
Study	Risk Factors Found	Country Research Was Conducted
Faisal-Cury et al., 2004	Coping skills include: distancing, escape-avoidance, self control, confronting; Demographics include: fewer years of education, 3 or more children, a higher number of children at home, not being primiparous, previous pregnancies, 6 or more years of marriage, unplanned pregnancy.	Sao Paulo, Brazil
Ballard et al., 1994	Multivariate risk analysis: depressive illness, unemployment and low social class.	United Kingdom
Seguin et al., 1999	Risk of PPD increases as length of marriage increases Found low socio-economic level to be a risk.	Quebec, Canada
Nager et al., 2005	Women living in the poorest neighborhoods have a higher rate risk of first time hospital admissions for postpartum psychosis than women living in rich neighborhoods and women not living with the father of the child.	Stockholm, Sweden

Global Summary of Risk Factors in Postpartum Studies (cont'd)

Study	Risk Factors found	Country Research Was Conducted
Kendell et al., 1985	PP Psychosis: single parent, increasing maternal age, previous psychosis, family history of mental illness and obstetric complications.	Edinburgh, U.K.
Green et al., 2006	Mother's negative body image with her weight & body shape. Mothers having a less-than happy relationship with their mother-in-law. Mothers not breastfeeding after 2 months.	Abu Dhabi, United Arab Emirates
Abbott & Williams, 2006	Strongest risk factor in study was dissatisfaction with partner.	Auckland, New Zealand
Beck, 1996	Sleep deprivation, difficult pregnancy or delivery, or other life stresses.	Kingston, RI
Chung et al., 2001	Increased risk of epidural analgesia, operative deliveries, admission to neonatal care unit.	Sha Tin, NT, Hong Kong
Dayan et al., 2002	Women with pre-pregnancy body mass index below 19, anxiety and a history of preterm labor, anxiety and vaginal bleeding.	Caen, France
Grussu & Quatraro, 2009	Feeling anxious during pregnancy is a strong predictor.	Este, Italy
Appleby et al., 1991	Stillbirth was associated with PPD at a rate of 6 times that in all women after childbirth.	London, England

Global Summary of Risk Factors in Postpartum Studies (cont'd)

Study	Risk Factors found	Country Research Was Conducted
Kumar & Robson, 1984 Unterman et al., 1990 McIntosh, 1993	Separation from parents before the age of 11	England
		Brooklyn, NY
		Glasgow, Scotland
Bergant et al., 1999 Collins et al., 1993	Low birth weight babies with low apgar scores	Innsbruck, Austria
		Buffalo, NY
O'Hara, 1986	Mother's difficulties with care of the baby	Iowa City, IO
Surkan et al., 2006	Discrimination, education, income from spouse's job, financial problems, and number of children under the age of 5	Boston, MA
Andersson et al., 2006	Being a single mother and obesity.	Umeå, Sweden
Danaci et al., 2001	Mother's bad relationship with mother-in-law and father-in-law. Women living in a squatter area increase PPD three times more.	Manisa, Turkey

Table 2. The Biopsychosocial Model designed by Ross & colleagues, tests the interrelationships between two classes of risk factors, the Psychosocial Stress and Biological Risks of symptomatology of Anxiety and Depression that uses three to five indicator variables for each construct (Ross, Sellers, Evans & Romach, 2003).

