Prenatal Depression: A Correlate of Postpartum Depression

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To the faculty of Washington State University:

The members of the committee appointed to examine the project of Gary Leno find it satisfactory and recommend it to be accepted.

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Approximately 20% of women will suffer from a depressive episode at least once during their lifetime (Yonkers, 2001). Postpartum depression (PPD) has been labeled a silent disease, a thief that steals dreams from women who have anticipated spending precious time with their newborn infants (Beck, 2001). It is estimated that 13% of women will suffer the crippling effects of PPD within the first year after giving birth (O’Hara & Swain, 1996). Incidence estimates range from 12% for major and 19% for minor postpartum depression (Beck & Gable, 2001). It is also estimated that 12%-14% of pregnant women will experience depression during pregnancy, further increasing their risk for PPD (Evans, Heron, Francomb, Oke & Golding, 2001). One study reports the rate of depression in pregnant women to be as high as 16.7% (Areias, Kumar, Barros & Figueiredo, 1996). Researchers report that over 50% of postpartum mental illness cases will not come to the attention of a medical professional (Lane, Keville, Morris, Kinsella, Turner & Barry, 1997).

A previous episode of a mood disorder predisposes mothers to developing PPD. The most common risk factor associated with the development of PPD is a past history of depression (Areias, Kumar, Barros & Figueiredo, 1996). The negative impact of postnatal depression (PND) to families, mothers and children can be devastating. These consequences include (but are not limited to) family breakdowns, neglect of children,
maternal self harm as well as suicide and the devastation of their personal relationships (Evans, et al., 2001). The detrimental effects of PPD extend beyond the mothers who suffer from PPD and have been implicated in the compromise of their children’s emotional, physical and intellectual development (Nonacs & Cohen, 1998). The importance of understanding PPD is invaluable. The ability to recognize PPD and, more importantly, to identify who is most susceptible for developing PPD, may enable clinicians to preemptively treat and/or prevent PPD; thereby reducing the emotional and physical costs of this treatable illness.

It is clear that depression, in any form, is a significant public health issue. The increased awareness of depression in our society has shed a new light on the importance of early detection, treatment, and prevention. The importance of addressing this illness in order to prevent it, and/or treat it, cannot be understated. With the advent of new and safer medications, better depression detection/assessment tools, and the increasing awareness and education regarding depression; effectively addressing the issue is becoming more feasible for the health care provider. Nurses may be the needed link that is necessary in the prevention, early detection and treatment of this potentially devastating disorder.
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Prenatal Depression: A Correlate of Postpartum Depression

Introduction

Depression is a debilitating disorder that disrupts daily lives and relationships. According to the National Institute of Health (NIH), nearly 10% of America’s population, or 19 million people, suffer from this devastating illness (Yonkers, 2001). In addition, that figure only reflects those cases that have been diagnosed; and of these diagnosed cases - only 10% are receiving treatment (Yonkers, 2001). According to the National Institute of Health (NIH) women generally suffer from depression at twice the rate of men (Yonkers, 2001). Sub-clinical depression is also very prevalent in the general population and significantly affects psychosocial functioning (Weinberg, Tronick, Beeghly, Olson, Dernan, Riley, 2001). According to several studies, prevalence rates of sub-clinical depression range from 11.8% - 23.4% (Broadhead et al., 1990; Johnson et al., 1992; Judd, Rapaport, Paulus, & Brown, 1994). Some researchers argue that this is just as much a public health issue as clinical depression because of the significant negative impact on psychosocial functioning (Weinberg, et al., 2001).

Postpartum depression (PPD), another form on a continuum of depression, affects 10-15% of all postnatal women (Blumenthal, 1996). There are three forms of PPD: 1. postpartum blues (“baby blues”), 2. non-psychotic postpartum depression (PPD), and 3. puerperal psychosis (PPD with psychosis). If the symptoms described above last longer than two weeks, (the common duration associated with the “baby blues”), then PPD may be present and a clinical evaluation from a mental health professional is recommended (Guida, 2000).

PPD’s implications can be just as serious as that of a major depression. PPD can devastate personal relationships. The negative impacts of PPD can affect the lives of mothers, fathers and children. The stressful effects of childbirth impact the mother’s ability to care for her
newborn child as well as her ability to cope with the lifestyle changes that accompany childbirth. The most common problems associated with children of depressed mothers are behavioral and emotional difficulties as well as cognitive impediments (Sinclair, Murray, 1998) (Murray, Sinclair, Cooper, Ducournau, Turner, 1999).

A previous episode of depression prior to giving birth to a child has been linked to "compromises in maternal postpartum psychosocial functioning" (Weinberg, et al., p. 88); as well as significantly increase her susceptibility to developing PPD (Weinberg, et al., 2001). Because women generally seek health services during the perinatal period more than at any other time, the identification of depression or the potential for developing postpartum depression is a timely task (Lane, et al., 1997). An increased understanding of risk factors for PPD and better assessment/detection skills may help to improve the quality of life for millions of women and their children. "It has been suggested that early identification of postnatal mood disturbance will reduce long-term personal and health costs, and that certain psychosocial interventions may prevent the later onset of postnatal depression" (Lane, et al., p. 554). If health care professionals can identify those women who are at increased risk for the development of PPD and implement effective preventative measures, the child’s physical, intellectual and emotional development will be improved, and maternal suicide or exacerbation of existing symptomology that is commonly associated with PPD may be prevented. Nurses are optimally aligned to help combat this potentially devastating disorder. As our health care dollars shrink and the incidence rates of PPD and other psychiatric illnesses rise, it is logical, as nurses, to help prevent, detect and treat this illness.

The purpose of this paper, therefore, is to discuss previous depressive episodes and explore their relationship to the development of PPD.
Incidence and Prevalence

Giving birth to a child is one of life’s most joyous occasions. But after the birthing process many women (70-80%) begin to experience feelings of anger, fear, sadness, anxiety and exhaustion (Postpartum Depression, 1996). They also begin to question themselves as to what they have to be sad or depressed about. These incongruent feelings often cause postnatal women to view themselves as terrible mothers secondary to their feelings (Postpartum Depression, 1996). Women who suffer from PPD describe their symptoms as follows: crying spells with no apparent reasons; difficulties sleeping, eating and concentrating; doubts regarding their abilities to care for their child (Postpartum Depression, 1996). According to an article by Bhatia & Bhatia, 1999), a loss of interest or pleasure in life, loss of energy and motivation, feelings of worthlessness, hopelessness and helplessness, suicidal ideations, increased irritability and anxiousness are also common complaints of those who suffer from PPD (Bhatia & Bhatia, 1999).

According to NAMI, 10%-15% of postnatal women suffer from postnatal (PND) or postpartum depression (PPD) within three months of giving birth (Blumenthal, 1996). The risk of suffering from PPD is increased three-fold if a woman has had a previous episode of any mood disorder (Corolla, 2001). In fact, “it appears that at greatest risk are those women with histories of mood disorder and those who experience depression during pregnancy” (Nonacs & Cohen, p. 34). Also, if a woman has had a previous episode of PPD her chance of a recurrence is 70% (Blumenthal, 1996). Approximately 70%-80% of postnatal women develop the “baby blues” - which is a more benign form of PPD (Postpartum Depression, 1996). During this period a woman may experience anxiety, low moods, anger, over all feelings of being “depressed” or “upset”, and strong feelings of sadness or despair (Postpartum Depression, 1996). If PPD is
present, one to three women out of 1000 will develop a more severe type of PPD that includes psychosis (Postpartum Depression, 1996). Secondary to PPD, especially if psychosis is present, 200 infants are killed and even more maternal suicides are completed in America annually (Corolla, 2001). Given this prevalence, “…it is most striking that the diagnosis of postpartum affective illness is so commonly missed. The postpartum period, although typically depicted as a time of unqualified happiness and excitement, is more realistically experienced as a time of significant stress. Perhaps because of this divergence between expectation and reality, the emergence of affective illness during the puerperium is often overlooked or ignored by both patients and caregivers” (Nonacs & Cohen, p. 35)

Etiology

There are many differing biologic, genetic, and psychosocial theories on the etiology of PPD. Hormonal changes have frequently been noted as predisposing women to PPD. Genetic and constitutional factors have received some support, since a personal or family history of psychiatric illness has been observed in a large proportion of puerperally ill women. Indeed the strongest predictor of psychiatric morbidity in childbearing women is a history of psychiatric illness, especially affective disorder” (Coble, et al. p. 205). Science is attempting to determine if PPD and depression are two illnesses, distinct from each other, or simply a progression of severity on a continuum; the latter seems to be the general belief amongst researchers at this time. This research will provide long term information, but is inconsequential to the crucial need of addressing PPD and its current affects on families and childhood development. No single theory has been “proven” as of yet, but it is this author’s belief that a combination of theories may provide the most promising explanation for PPD’s etiology.
**Biologic**

According to Stephen Stahl, author of *Essential Psychopharmacology*, there are several theories regarding biological causes of depression and/or PPD. One of the leading theories is an imbalance of serotonin, another is the imbalance of norepinephrine or dopamine (Stahl, 2000). Both serotonin and norepinephrine are responsible for our moods or how we feel. Stressful life events and/or hormonal events can disrupt the delicate balance of brain biochemistry resulting in postpartum depression (Beck, 2001). No single biologic theory has been isolated, but what is known is the antidepressant’s mechanism of action and how they are helpful in treating depression. Essentially, “...immediate pharmacological actions of all antidepressants eventually have the effect of boosting the levels of monoamine neurotransmitters” (*i.e.* serotonin, norepinephrine, dopamine (Stahl, p. 200). “An overall simplistic view of the neurotransmitter receptor hypothesis of depression is that the normal state becomes one of depression as a neurotransmitter is depleted...” (Stahl, p. 201) All antidepressants have an effect on monoamine neurotransmitters; they boost monoamine neurotransmission, which changes gene expression in neurons that are targeted by the monoamines (Stahl, 2000).

According to Stahl, “...there is growing appreciation for the diversity of effects that estrogen can have on the brain...”(Stahl, p. 551). The presence of estradiol in women has an impact on serotonin and norepinephrine and their ability to function adequately within the brain (Stahl, 2000). There is also substantial evidence that endocrine mechanisms may play a role in PPD’s development. According to Stahl, “there are potential links between these shifts in estrogen levels across the female life cycle and the observation that depression is much more common in women than in men during certain stages of the life cycle” (Stahl, p. 557). This theoretically sets up the imbalance of one or more of the neurotransmitters which may cause a depression.
Women’s incidence rates of depression mirror the estrogen changes across a woman’s life span. “As estrogen levels rise during puberty, the incidence of depression skyrockets, falling again after menopause. Thus women have the same frequency of depression as men before puberty and after menopause. However, during their childbearing years when estrogen is high and cycling, the incidence of depression in women is two to three times as high as in men” (Stahl, p. 558). Early in puberty, when estrogen is on the rise, an initial episode of depression may begin (Stahl, 2000). This may or may not be recognized, diagnosed or treated.

Women may be at increased risk for depression simply due to their ability to procreate (Coble, Reynolds, Kupfer, Houck, Day, Giles, 1994). During the reproductive years women are more at risk for developing depression. Stahl reports that premenstrually, women often suffer from behavior or mood swings, undoubtedly caused by shifting levels of hormones (Stahl, 2000). Many believe that PPD may be related to the severe drop in hormone levels shortly after giving birth; within 48 hours after delivery, 90-95% of estrogen and progesterone levels fall causing severe emotional and mood swings (Guida, 2000). There are two periods in a women’s lifespan that predispose her to the development of a more serious depression. Postpartum periods, after estrogen levels plummet and the perimenopausal period that is also characterized by chaotic hormonal levels (Stahl, 2000). After any shift in estrogen levels, women are at increased risk of developing depression, especially if there have been previous episodes (Stahl, 2000). Experts have labeled this phenomenon “kindling”. Women are at increased risk, several-fold, for developing PPD if previous depressive episodes have taken place after a previous pregnancy (Stahl, 2000). “Whatever the cause of the high recurrence rate of depression in women across their life cycles and the associations with shifts in estrogen status, the importance of recognition and treatment of current episodes of depression in women, as well as use of medications to
Estrogen impacts the functions of several neurotransmitters including serotonin, which, in theory, may affect the risk for depression (Blumenthal, 1996). Also, women’s thyroid functions differ from that of men, which may also contribute to higher incidence rates of depression in women (Blumenthal, 1996). Hormonal imbalances are likely a contributing factor in the development of PPD, but as of now, have not been proven to be causal (Coble, et al., 1994). Estrogen has been implicated in the regulation of mood, memory and cognition (Stahl, 2000). Theories on the affects of estrogen on brain function have been studied and documented, but no direct link between estrogen and PPD has been found (Guida, 2000). Other hormones such as prolactin and cortisol have been implicated but not proven in the development of PPD (Guida, 2000). Research in endocrine factors playing a role in the development of PPD is increasing and the results may provide new insights into the etiology.

Genetic / Environmental

According to NAMI, depression can run in families: “there is a 25% rate of depression in the first degree relatives (mother, father, siblings) of people with depression and greater prevalence of the illness in first-degree and second-degree female relatives” (Blumenthal, 1996). Mothers’ chances of developing PPD are greater if her mother has had previous episodes of PPD or depression (Johnstone, Boyce, Hickey, Morris-Yates & Harris, 2000). A personal or familial history of a psychiatric disorder “…has been observed in a large proportion of puerperally ill women. Indeed the strongest predictor of psychiatric morbidity in childbearing women has been a history of psychiatric illness, especially affective disorder” (Coble, et al., p. 205).
Psychosocial

NAMI reports that psychosocial factors influencing vulnerability to PPD are as follows: multiple family and or work responsibilities, sexual abuse, physical and emotional abuse, sexual discrimination, lack of social support, negative and traumatic life events, and poverty (Blumenthal, 1996). NAMI also suggests that the greater the social equality (between women and men) the lower the incidence of depression in women (Blumenthal, 1996). Women with low self worth or high stress levels and negative outlooks on life appear to be more vulnerable to developing depression (Blumenthal, 1996). Sexual abuse has been found to be a high risk factor for depression in both men and women. In one study, 3 out of 5 women who were clinically depressed had suffered from sexual abuse as a child while another study found that 100% of women who suffered from sexual abuse went on to develop a depressive illness later on in life (Blumenthal, 1996).

Literature Review

Risk Factors

The majority of information found in current literature regarding PPD relates to its risk factors, prevalence rates, identification of PPD and occasionally it’s treatment. Of the 14 studies reviewed, all have identified a previous episode or episodes of depression or affective disorders as a risk factor in the development of PPD. What differs in each study is the strength of the relationship between a prior episode of depression and the development of PPD. Some studies appear to show that a prior episode of depression is a significant risk factor while others state it is not a stronger risk factor than other stressful life events such as abuse, lack of social support, and low economic status (O’Hara & Swain, 1996). Several of the studies showed that all of these risk factors are in fact interrelated in some fashion (Righetti-Veltma et al, 1998). Due to the
existence of multiple risk factors and variables it is difficult to identify the overall impact of one risk factor, such as prior history of depression. Does this history have a direct casual relationship in the development of PPD? Or is it more indirect due to the influence of other risk factors?

Few studies have been done in this area. “Accurate estimates of rates of and risk factors for postpartum depression are important for the scientific and clinical understanding of psychiatric disturbance during the puerperium as well as for planning mental health services for childbearing women and their families” (O’Hara & Swain, pg. 37, 1996).

One of the most common risk factors noted for PPD is a previous history of a psychiatric illness, primarily depression and/or high levels of anxiety (which is common symptomology found in those who suffer from depression) (Coble, et al., 1994). Of the 10%-15% of women who develop PPD, it is estimated that 25% are still depressed and not receiving treatment up to one year after giving birth (Guida, 2000). According to the NIH, up to 70% of those who suffer from PPD and receive treatment respond to that treatment and experience a partial or complete remission (Yonkers, 2001). In fact, “a significant factor in the duration of postpartum depression is the length of delay to adequate treatment” (Beck, p. 276). Many studies have been performed to determine the correlates of PPD. Most of the studies differ on the comparative importance of risk factors that have been identified (Bernazzani, et al., 1997). One of the only clear facts known throughout these studies is the existing prevalence rates of PPD and its negative implications on those who suffer from it.

A combination of social, personal and biological factors likely leads to a multifactorial etiology of PPD (Righetti-Veltema, Conne-Perreard, Bousquet & Manzano, 1998). According to the review of current literature done for this paper, the most common risk factors for developing PPD are as follows: previous episode(s) of PPD (Johnstone, et al., 2000), depressive symptoms

**Strengths and Limitations**

Methodologies used in studies reviewed include, meta-analysis of previous studies, retrospective studies, prospective studies, clinical interviews, and the use of multiple questionnaires that employ various depression assessment tools. Some of the studies had relatively small sample sizes. Other limitations were the presence of multiple variables increasing the difficulty of assessing a singular risk factor. Retrospective data collected could have validity problems with inaccurate or biased data being gathered. Other potential limitations in all of the studies were the presence of undiagnosed and and/or sub-clinical depression as well as treated and/or untreated depressive episodes. One study, a meta-analysis of 59 different studies that included a total of 12,810 women, indicated that the type of depression assessment
tool used in the study had an impact on the outcome of PPD prevalence rates with a history of depression (O’Hara & Swain, 1996).

Having numerous potentially significant variables is difficult, at best, to monitor. This can also be viewed as a limitation to the overall findings of a study. In addition, none of these studies take into account the presence of an addiction to a substance or the abuse of a substance. It is well known that substance abuse does impact the rates of depression in the general population. This is an obvious limitation. Several of the studies used small sample sizes consisting of mainly Caucasians thus limiting their generalizability (Weinberg et al., 2001; Coble et al., 1994). One study only collected data from an Irish population decreasing its generalizability (Lane, 1997). This did not take into account cultural biases. In fact, cultural biases were not considered in any of the studies reviewed.

Some of the studies used self-report methods of obtaining data (Johnstone et al., 2001), (Lane et al., 1997). This often indicates some inherent biases. Other studies had high drop out rates decreasing the overall sample size and decreasing the ability to generalize the findings (Lane, et al., 1997; Areias, et al., 1996). One study used a different interviewer when conducting two separate depression assessments. The historical psychiatric data and psychosocial variables were collected before delivery and by a different researcher than the one who carried out the postpartum psychosomatic evaluations. This is considered a strength because it minimized contamination of results and measurements due to researcher bias stemming from historical knowledge of the subjects (Marks, Wieck, Checkley & Kumar, 1992).

A significant limitation in accurately assessing prevalence rates is the use of varying depression scales between studies to assess for the presence of depression. Psychometric scales have different thresholds for diagnosing depression and could easily affect the overall prevalence
rates by under or over estimating them. One study used two different measures to assess depressive symptoms during pregnancy and the postpartum period, which posed a notable limitation (Bernazzani, et al., 1997). Depression assessment instruments all have differential sensitivities. They may be measuring the same construct (ie: depression or PPD) but concentrating on different aspects of the disorder, thus creating the possibility of a missed diagnoses or wrong diagnoses. Strengthening predictive power was found in a study as successive variables (ie: personality, psychiatric history, life events) were added to a regression model containing only sociodemographic variables, which did not contain significant predictive power standing alone (Johnstone, et al., 2000).

The studies reviewed site a history of psychiatric illness and/or depression as a risk factor impacting potential for and presence of depression/PPD. Most of them do not, however, indicate a time-frame for the reported illness, its onset, duration, treatment or resolution. One study claimed the strength of a well-designed control group studying women who had a positive history of affective disorder, but who were currently asymptomatic and had been asymptomatic for at least one year. This provided a more highly controlled study of the development of psychiatric symptoms and/or disorders related to childbearing (Coble, et al., 1994) According to O'Hara & Swain (1996), a meta-analysis of 59 studies (n=12,810), the wider time frames for assessing for PPD reveal higher PPD prevalence rates; while the narrower assessment time frames reveal lower prevalence rates.

Limitations noted in the study performed by Bozoky, et al., (2002), include a small and homogenous sample of white, mostly married, self-selected volunteer female subjects with no prenatal measures of fatigue; and the need for a longer time interval for follow-up evaluations.

Finally, the method of obtaining information from study subjects can either present as a
strength or a weaknesses. The checklist method is commonly used and is characterized by two important limitations. Most importantly, it presents the respondent with a limited choice of stressors to choose from when reporting relevant life events. This method requires individuals to choose from a constricted range of events, thus disallowing their individual and personal life events to be reported that may highly impact their risk for affective disorders. In addition, the checklist method cannot identify reported events in the context in which they occurred; such as significant life events occurring during a planned vs. an unplanned pregnancy, or during a pregnancy with social support vs. no social support (Swendsen & Mazure, 2000). Two other methodological issues of concern in the studies are the stress level of the mother when she is interviewed, and how this affects her responses; and the interviewer’s willingness and ability to probe for and elicit details necessary for determining the magnitude of reported life events (Swendsen & Mazure, 2000).

Diagnostics and Assessment Tools

Currently there is no single screening or assessment tool that includes all the components previously mentioned. In order to assess these important risk factors it is necessary to employ more than one measurement tool per individual. There are multiple personality tests, demographic questionnaires and depression rating scales such as: Beck Depression Inventory (BDI), Hamilton Depression Scale (HDS), Edinburgh Postnatal Depression Scale (EPDS), Center for Epidemiological Studies Depression Scale (CES-D), Postpartum Depression Predictors Inventory (PDPI and the PDPI-Revised), Postpartum Depression Screening Scale (PDSS), Postpartum Depression Checklist (PDC), and the Zung Self-rating Depression Scale (SDS). These depression assessment tools have all been well documented in their ease of use, sensitivity, validity, and specificity. All come in English and Spanish versions and take
approximately 5-15 minutes to complete. The literature reviewed for this discussion employed many of these measurement tools.

The use of demographic questionnaires provides useful information such as age, ethnicity, multiparity, past history of either personal or familial depression and or PPD, presence of social support systems, marital status, level of education and socioeconomic status. These and other demographics help to identify the presence of risk factors that may lead to the vulnerability in developing PPD. These questionnaires can easily be filled out prior to any appointment with a health care professional without a large expenditure of time and effort. Personality tests also provide valuable information relating to mood disorders and help to identify personality styles and character styles. These take considerable time to complete compared to the other questionnaires and psychometric scales discussed previously.

When a woman seeks health care, an opportunity exists to perform a screening either by asking direct questions or by administering one of the previously discussed assessment tools. Many of the depression measurement tools are easy to use and most take no more than 15 minutes to administer. These tools could be administered each trimester throughout the pregnancy as well strategic time frames during the first 12 months postpartum. Some studies have indicated that PPD can present up to 12 months of the postpartum period (O’Hara & Swain, 1996). Early detection and treatment of PPD usually indicates positive outcomes for the client and their families. Identification of those most at risk offers the opportunity to prevent the illness before it becomes a disabling disorder.
Treatment

There are several treatment modalities available for those who suffer from PPD. The most common are psychotherapy and medications. Within the modalities of psychotherapy and medications there are several more options. All of the modalities are similarly efficacious. Response rates to both modalities have been estimated at 60%-70% (Stahl, 2000). It is well documented that natural remedies such as exercise, a healthy diet, and obtaining quality sleep are effective in combating depression as well (Stahl, 2000). While not all people respond to initial treatment methods, it is clear that enough of the population will experience a reduction in symptomology from the first line treatments of medications or psychotherapy. With these encouraging response rates it seems logical to begin treatment as soon as possible to decrease the potential negative impacts that accompany PPD.

Psychotherapy

Cognitive/behavioral therapy and interpersonal therapy have been shown to be as effective as antidepressant medications in certain patients (Stahl, 2000). According to NAMI, cognitive/behavioral and interpersonal therapies are effective in treatment of mild and moderate depression (Blumenthal, 1996). More evidence of the efficacy of psychotherapy is beginning to unfold (Stahl, 2000). These types of talk therapy may be very useful for women who suffer from PPD or depression perinatally. Pregnancy and childbirth are often challenging physically and emotionally. Psychotherapy can provide a therapeutic outlet for some of these challenges. In some cases, utilizing psychotherapy to avoid medications may be the best treatment option, especially during the first trimester of pregnancy when the infant’s development is most crucial. Although no studies have implicated the new anti-depressants to be teratogenic, avoiding any potential complications may be wise for fetal development as well as for the mother’s emotional
well being (due to her potential worries over a medication harming her developing child). The use of psychotherapy may be limited in its effectiveness due to the severity of symptoms. Weighing the risks and benefits of using medication interventions should be considered if PPD symptomology is severe in its presentation or if psychosis is present. As managed care coverage for psychotherapy dissipates, many clinicians are inclined to consider psychopharmacological approaches (Stahl, 2000).

Medications

The 1990's is commonly labeled the “decade of the brain”. This label came about largely due to research and discoveries surrounding brain chemistry and the advent of new anti-depressants that worked to alter brain chemistry. New discoveries of neurotransmitters and their functions led to the development and testing of medications that proved to be very effective in combating depression, PPD, and premenstrual disorders (PMD) (Stahl, 2000). From the success of these new anti-depressants came new psychobiological theories discussing the etiology of depression. A risk/benefit discussion with the patient regarding the use of antidepressants during pregnancy should be done. Since the most risky time frame for fetal damage is the first trimester, when brain and organ tissues are being formed, it is logical to refrain from using these agents during that period. However, the third trimester appears to be a prudent time to begin antidepressant administration to offset the potential development of PPD. “…it is clear that the risks to the mother with a prior postpartum depression who neglects to take antidepressants after a subsequent pregnancy is a 67% risk if she does not take antidepressants and only one-tenth of that risk of recurrence if she does take antidepressants postpartum” (Stahl, p. 565). With such a high risk of a depressive reoccurrence, a maintenance treatment of antidepressants may be clinically appropriate.
Using estrogen for the treatment of depression and PPD is gaining momentum. Since estrogen can help with low moods during perimenopause it may be a useful adjunct to antidepressant therapy. SSRI’s are still the first-line treatment for PPD. But when a woman’s depression is resistant to SSRI’s alone, the use of estrogen in combination with antidepressants is an option being studied (Stahl, 2000). Currently there are no clinical guidelines for this type of treatment approach but the use of antidepressants and the boosting of estrogen levels have shown promise (Stahl, 2000). This success is “...as a result of the beneficial effects that estrogen may have on critical monoaminergic systems involved in mood, such as norepinephrine and serotonin” (Stahl, pg. 565). “Restoring estrogen to monoaminergic neurons allows their estrogen receptors to “reawaken” estrogen response elements in these neurons and may either extinguish problems with mood or allow the patients to become responsive to antidepressants” (Stahl, pg. 565).

There are several types of antidepressant medications available to use when treating depression. These types of medications include selective serotonin reuptake inhibitors (SSRI’s), Tricyclic antidepressants (TCA’s), and monoamine oxidase inhibitors (MAOI’s). These are a few of the many different classes of medications that are available for PPD treatment. The SSRI class of drugs tends to be the first choice of most clinicians based on their safety and efficacy in treating PPD. Some drugs seem to work better for certain symptoms while others tend to be effective on still other symptoms. The choice of drug within the SSRI class can be based on the symptomology displayed by the client and the comfort level of the clinician.

Education

The role of educating clients and health care professionals should not be minimized. It is within the ranks of education that prevention becomes more realistic. The early identification,
diagnosis and timely treatment (a preemptive strike) of PPD can alleviate much suffering on the part of the mother, children and families of those that suffer from PPD. The understanding of PPD, what it looks like, feels like and acts like can alert anyone to its presence. Understanding its risk factors and clinical presentation allows health care professionals, clients, and families to identify those most at risk thereby increasing the opportunities for prevention.

Patient Education

Often the woman who has given birth will not realize or understand the presence of PPD symptomology; therefore medical professionals must recognize and address PPD signs and symptoms early. They must also educate family members on the clinical signs and symptoms of PPD and provide them with information and tools on addressing the issue, if and when it arises. “...the socio-cultural connotations which are normally associated with maternity render the symptoms of depression hardly recognizable for the new mother. She tends to minimize them and to interpret her psychological state in moral terms. She is therefore less likely to seek psychiatric help and consequently does not receive appropriate treatment” (Righetti-Veltema, et al., pg. 168). “Despite the prevalence of postpartum mood disorders, depressive symptoms that emerge during the puerperium are often overlooked”...”therefore, the prompt recognition and efficacious treatment of puerperal mood disorders are essential in order to avoid adverse outcomes for both mother and infant” (Nonacs & Cohen, p. 34). Since women generally seek health care perinatally more than at any other time, this provides clinical professionals a unique opportunity to educate the client and their families to the symptoms and negative implications of PPD (Lane, et al., 1997).
Clinician Education

Health care professionals should always begin with gathering a careful, comprehensive and holistic history from each client. Within this history are clues that may indicate those most at risk for PPD. The education of health care professionals should incorporate the latest information on PPD, including risk assessment, early recognition of signs and symptoms, and the potential impact on mothers, their children and families, and society. Educating these professionals should also include the use of the many assessment and screening tools that are readily available. The clinical picture of PPD, its impact on mothers, the development of children, families and society should be emphasized throughout training. As was mentioned earlier, women do tend to seek health care services more during their perinatal period than at any other time frame. It is the obligation of health care professionals to identify those women who may be at increased risk for PPD in order to prevent it, identify it and treat it. Many times clinicians tend to “treat what they know”, meaning that once they finish their formal training, continuing education may be an after thought to their practice. More clinicians should continue to educate themselves after they have completed their formal training. Seminars and symposiums are a prime way to disseminate PPD’s prevalence rates, risk factors, the clinical presentation as well as the most advanced treatment options to health care professionals. Nurses need to lead the way in implementing these types of education forums and symposiums to increase the knowledge and understanding of the clinical presentation and personal implications of PPD.

Conclusion

Nurses, doctors, social workers and other health care professionals are often unaware of the physical and emotional problems women can experience during the perinatal
period. It is for this reason that they should be trained to recognize maternal difficulties and to assess for those most vulnerable to PPD. Mental health care should be integrated into maternal health care in an effort to recognize those who may be predisposed to developing PPD. The cost of not recognizing PPD is high. The morbidity, mortality, emotional and monetary costs of missing this diagnosis should increase the awareness of every health care professional. Failing to identify and treat PPD causes the client to suffer needlessly and could increase medical care costs by as much as 175% (McCahill, 2002). The United States Preventative Services Task Force recommends that a depressive screening take place whenever possible (Evans, 2002). Continued research in understanding the risk factors for PPD and assessing for its presence is paramount. It is also important to instigate the appropriate treatments when PPD is first diagnosed because the duration of PPD is directly linked to delays in adequate treatment (Beck, 2002). Persistent education of the public in general, prenatal women, and health care providers is needed. Medical professionals in virtually any clinical setting may encounter those who are most vulnerable to PPD. From the OB/GYN’s office to labor and delivery, from the Primary Care Physicians office to a local Emergency Room, from the women’s health clinic to a counselor’s office, those most at risk for PPD can be identified. The Psychiatric Mental Health Nurse Practitioners can be utilized in any setting to assist with primary assessment, consultation, clinician and patient education. Now is the time to increase our understanding and diagnostic abilities to prevent, detect and treat this devastating illness.
References


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