

# **Maternal Depression a Review of Current Literature**

*This review is intended as a practical resource containing  
current information on maternal depression for parents and practitioners.*

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# **Maternal Depression a Review of Current Literature**

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## **Summary of Current Literature October 2000**

For practitioners, educators, policy makers, researchers, men, women, and children alike, maternal depression is an important social and health issue. Maternal depression is a complex and multifaceted illness that affects a woman's well-being, her overall functioning, her ability to work, and her relationships, including those with her spouse, partner, children, co-workers, and friends.

### **An Introduction to Depression**

It is not unusual for life to be full of emotional highs and lows. However, when the low periods are long lasting or impair one's ability to function, that individual may be suffering from a serious common illness called depression. Major depression affects roughly 10 to 25 percent of adults in the U.S. each year. Depression is one of the most common and disabling psychiatric disorders, affecting individuals from all walks of life regardless of education, economic status, or ethnicity (Williams & Stasser, 1999).

However, prevalence varies among different groups of people. For example, depression occurs more frequently in females, young adults, and individuals with less than a college education (Blazer, Kessler, McGonagle, & Swartz, 1994). Women experience depression at 1.5 to 3 times the rate of men (Kessler, 2000; Kessler, McGonagle, Zhao, et al., 1994). The peak age of occurrence is 18 to 29 years, with high rate of prevalence continuing through 44 years (Epperson, 1999; Wittchen, Knauper, & Kessler, 1994). This age of occurrence overlaps with the prime childbearing years.

### **Manifestations of Maternal Depression: Focus on Prenatal and Postpartum Depression**

Pregnancy and new motherhood may be times of increased risk for depression, due to hormonal and biological changes, as well as to the stress and demands pregnancy and new motherhood inflict. In addition to the common physical and mental manifestations of depression, women depressed during pregnancy show different brain activity patterns along with high levels of stress hormones (Lundy et al., 1999). Postpartum depression is a clinical term used to indicate a depressive episode experienced by a mother that is linked with childbirth. It can range in intensity and degree from mild and transient "baby blues" following childbirth, to severe, incapacitating psychotic depression. Fearful thoughts of harm coming to the baby and guilty feelings about being a bad mother are common in postpartum depression.

Twenty-six to 85% of women experience the "baby blues." This wide range in prevalence estimates is due to the fact that cases of baby blues often go undocumented. The blues are characterized by relatively mild and transient depressive symptoms such as prolonged and unexplainable tearfulness, poor sleep, as well as a sense of vulnerability, anxiety, and mood instability. These symptoms typically crest four to five days after childbirth and disappear a few days later (Epperson, 1999).

Postpartum major depression occurs in approximately 10% of childbearing women and often goes largely unrecognized, and thus untreated (Epperson, 1999; Stuart, 2000a; Williams & Stasser, 1999). Left untreated, it may persist for several months or even into the second year postpartum, with the possibility of relapse. The symptoms of postpartum major depression, including despondency, tearfulness, feelings of inadequacy, guilt, excessive anxiety, irritability, and fatigue (Epperson, 1999) extend beyond the normal duration of "baby blues" and are more debilitating. On the severe end of the continuum, about 1 to 2 in 2,000 women have postpartum mood episodes with psychotic features

including hallucinations or delusions (American Psychiatric Association, 1994).

### **"Tell-tale" Signs and Assessment of Postpartum Depression**

The detection of postpartum depression can be difficult because similarities exist between the normal course of childbirth and symptoms of depression. For example, weight and energy loss, diminished concentration, and sleep disturbance are all typically related to childbirth. Although seemingly "normal," these symptoms may indicate major depression. Following delivery some women have difficulty bonding or are disinterested in their babies, and feel guilty about their depressed feelings during a period they believe should be happy. While some women may not recognize these feelings as unusual, others are afraid to admit these feelings out of shame and/or guilt (Epperson, 1999).

There are some common "tell-tale" signs of depression (Kruckman & Smith, 1998; Stuart, 2000a):

- Depressed, sad or "empty" mood;
- Lack of interest in activities;
- Lack of appetite or pleasure in eating;
- Sleep disruptions;
- Excessive tiredness/decreased energy;
- Lack of motivation;
- Feelings of guilt;
- Feeling of worthlessness;
- Excessive irritability;
- Inability to cope;
- Poor concentration;
- Persistent anxiety;
- Thoughts or attempts of suicide; and
- Pre-occupation with death.

Certain traits and experiences put a mother at greater risk for depression including experiencing a significant negative life event, suffering "baby blues" which seem to persist longer than usual, or having a history of depression or other serious mental illness (O'Hara XXXX mple questions can help one decide whether a referral for an assessment is appropriate. One can begin to explore whether or not things are okay: "How are things going for you?" "How are you feeling?" "Looks like things have been tough lately." Resources should be identified in the area to direct individuals for referral, assessment, and possible treatment. Severely depressed women, especially those experiencing thoughts of suicide or infanticide, should be referred for an emergency psychiatric evaluation (Epperson, 1999). It is important for mothers to regain their ability to function. Using a variety of assessment instruments and asking questions about various factors such as financial and health status, as well as general well-being (Heneghan, Silver, Bauman, Westbrook, & Stein, 1998), health care providers can screen individuals for postpartum depression and provide appropriate treatment.

### **Co-morbidity, Associations, and Correlations with Maternal Depression**

Like other forms of depression, maternal depression does not occur in isolation, but rather in conjunction with a complex interplay of co-occurring illnesses and experiences such as:

- High anxiety (APA, 1994; DaCosta, Larouche, Drista, & Brender, 2000; Heneghan et al., 1998; Kruckman & Smith, 1998);
- Obsessive-compulsive disorders (Kruckman & Smith, 1998);
- Post-traumatic stress, sometimes due to a traumatic birthing experience (Kruckman & Smith, 1998);

- Abuse, either living in a home where child abuse is occurring or having experienced physical or sexual abuse firsthand (Buist, 1998; Kinard, 1996);
- Chronic medical illnesses, especially those that impede mothers' activities (Heneghan et al., 1998; Lanzi, Pascoe, Keltner, & Ramey, 1999); and
- Low self-esteem (Beck, 1999; Kruckman & Smith, 1998).
- Alcoholism often co-occurs with both depression and anxiety. Depressed and anxious individuals often "self-medicate" with alcohol (Merikangas, Risch, & Weissman, 1994).

Certain demographic factors that may lead to chronic stress such as living in poverty or receiving public assistance, having less than a high school education, being unemployed and/or homeless, and having increased numbers of children or adults in a household, are also associated with maternal depression (Heneghan et al., 1998; Kinard, 1996; Kruckman & Smith, 1998; Lane et al., 1997; Lanzi et al., 1999; Windle & Dumenci, 1998):

Several aspects of the quality of a woman's family environment are associated with higher levels of maternal depression including:

- Perceived lack of support or parent assistance (Lanzi et al., 1999; Soliday, McCluskey-Fawcett, & O'Brien, 1999; Windle & Dumenci, 1998);
- Decreased marital satisfaction/feelings of emotional attachment toward a spouse (Bromberger, Wisner, & Hanusa, 1994);
- Elevated levels of parenting stress (Soliday et al., 1999; Windle & Dumenci, 1998);
- Role conflict or role changes (Kruckman & Smith, 1998);
- Decreased family cohesion (Windle & Dumenci, 1998); and
- The Impact of Maternal Depression on Parenting Behaviors

Depression appears to influence parenting behaviors and attitudes. A depressed mood affects mothers' perceptions and attributions of children's difficult behaviors (Boyle & Andrew, 1997; Briggs-Gowan, Carter, & Schwab-Stone, 1996; Fergusson, Lynskey, & Horwood, 1993; White & Barrowclough, 1998). These perceptions and attributions may influence parenting behaviors and intensify behavior problems in children.

Mothers who are depressed interact in different ways. Withdrawn or disengaged mothers generally provide inadequate stimulation for their newborns and infants, while intrusive mothers generally over-stimulate their children (Field, 1998; Hart, Jones, Field, & Lundy, 1999; Jones et al., 1997).

### **Duration and Timing of Maternal Depression: Developmental Consequences**

Maternal depression is usually transient with no adverse consequences. Given the diversity in outcomes, postpartum depression is not inevitably a risk factor for problems in mother-child interactions or for child development. Some women feel better within a few weeks, while others feel depressed for many months or more. Some women get depressed during pregnancy or immediately following childbirth, while the onset of depression may take several weeks or more for others. In general, postpartum depression appears to persist over the course of several months. Effects of maternal depression vary by severity, chronicity (Frankel & Harmon, 1996), and timing of depression.

The more continuous, prolonged, and severe the mothers' depression, the greater the potential negative impact on the child. The duration and timing of maternal depression have an impact on children's social, emotional, cognitive, and behavioral development, as well as on maternal-child interactions and attachment, especially when the depressive episodes occur during infancy. Effects of the quality of mother-child interactions may be fewer if the mother is experiencing less severe and less chronic depression (Campbell &

Cohn, 1997).

In general, infants of depressed mothers may be more irritable, less active, less responsive, and physically less developed than infants of non-depressed mothers (Field, 1997). Young children exposed to maternal depression in infancy are at higher risk for:

- Exhibiting behavior problems, such as hyperactivity, conduct disorders, and aggression (Beck, 1999; Boyle & Andrew, 1997; Fergusson et al., 1993; Murray, Sinclair, Cooper, Ducournau, & Turner; National Institute of Health [NIH], 1999);
- Having difficulties adjusting socially (Murray et al., 1999; Sinclair & Murray, 1998);
- Performing more poorly on measures of school readiness, expressive language and verbal comprehension (NIH, 1999);
- Developing symptoms that imitate the mother's depressed behavior (Stuart, 2000a), or developing episodes of depression (Merikangas, Weissman, Prusoff, & John, 1988), especially in cases of lower family functioning or in families exposed to multiple risk factors (Beardslee, Keller, Lavori, Staley, & Sacks, 1993; Ferro, Verdelli, Pierre, & Weissman, 2000; Shiner & Marmorstein, 1998; Windle & Durmenci, 1998); and
- Poorer cognitive development (although findings are contradictory) (Murray, Fiori-Cowley, Hooper, & Cooper, 1996; Murray, Hipwell, Hooper, Stein, & Cooper, 1996).

Recent data suggests that negative effects of postpartum depression on children may stem from maternal depressive symptoms during pregnancy. Studies of prenatal effects of maternal depression have found that newborns of mothers with depressive symptoms show disturbances in their behavior, physiology, and biochemistry, which are likely due to prenatal exposure to biochemical imbalances in their mothers (Field, 1998; Jones et al., 1998; Lundy et al., 1999).

### **Prevention**

Taking preventative measures by attending to psychosocial risk factors is one way to lessen the likelihood that depression will develop (DaCosta et al., 2000). Simple interventions including mobilizing support systems, rearranging priorities, and planning ahead, could contribute to reduced emotional upset and reduce the risk for postpartum depression (Kruckman & Smith, 1998). It is imperative for people working with pregnant women, to watch for signs and symptoms of depression.

### **Treatment Implications**

Depression is a very treatable illness. Even women with severe depression respond positively to treatment and less severe depression may go away without treatment. The earlier treatment begins, the more effective it is. Although treatment will not eliminate everyday stresses, it can boost a woman's ability to function and enjoy life.

Antidepressant medication and psychotherapy, used alone or in combination, are two treatments that can significantly lower the rate and severity of postpartum depression. If antidepressant medication is administered to mothers who are breastfeeding, the risks posed to the child need to be weighed against the risk of untreated depression (Stuart, 2000b). Many women are wary of taking medications, especially while breastfeeding and may refuse this form of treatment (APA, 1994). An alternative and effective treatment for mild to moderate depression is psychotherapy, which facilitates learning more effective ways of handling problems.

Other cost-effective and proven interventions include infant massage therapy, designed to positively modify the infant's mood; mother massage therapy or music therapy, intended to alter the depressed mother's mood; and interaction coaching, which teaches a mother

to become more sensitive and aware of her infant's needs (Field, 1997, 1998).

### **Summary**

Maternal depression manifests itself in many different ways. The consequences to both the mother and the child vary significantly depending on the severity, duration, and timing of the episode, and co-occurring illnesses or life experiences. If maternal depression is suspected, it is important to recognize the common signs of depression and to make a referral for an assessment and treatment, if necessary. Maternal depression is treatable.

**\*\*NOTE:** The broad term "maternal depression" is used throughout this paper to encompass all manifestations of pre- and postpartum depression.

## **Review of Current Literature October 2000**

For practitioners, educators, policy makers, researchers, men, women, and children alike, maternal depression is an important social and health issue. Maternal depression is a complex and multifaceted illness that affects a woman's well-being, her overall functioning, her ability to work, and her relationships, including those with her spouse, partner, children, co-workers, and friends. The exact cause of maternal depression remains unclear. To understand maternal depression and how depression manifests itself in mothers, it is important to view depression as an impairing illness.

### **AN INTRODUCTION TO DEPRESSION**

It is not unusual for life to be full of emotional highs and lows. However, when the low periods are long lasting or impair one's ability to function, that individual may be suffering from a serious common illness called depression.

Major depression affects roughly 10 to 25 percent of adults in the U.S. each year. In one extensive nationwide survey, 17% of people had a history of major depression, and greater than 10% had an episode of depression within the past 12 months (Kessler, McGonagle, Zhao, et al., 1994). Depression is one of the most common and disabling psychiatric disorders, affecting individuals from all walks of life regardless of education, economic status, or ethnicity (Williams & Stasser, 1999).

However, prevalence varies among different groups of people. For example, depression occurs more frequently in females, young adults, and individuals with less than a college education (Blazer, Kessler, McGonagle, & Swartz, 1994). Women experience depression at 1.5 to 3 times the rate of men (Kessler, 2000; Kessler, McGonagle, Zhao, et al., 1994). Depression seems to be happening younger. The peak age of occurrence is 18 to 29 years, with high rate of prevalence continuing through 44 years (Epperson, 1999; Wittichen, Knauper, & Kessler, 1994). This age of occurrence overlaps with the prime childbearing years. Beyond 44 years of age, women are much more likely than men to have recurrent episodes of depression (Kessler, McGonagle, Nelson, et al., 1994).

### **MANIFESTATIONS OF DEPRESSION**

The Diagnostic and Statistical Manual of Mental Disorders (DSM IV) (American Psychiatric Association [APA], 1994), categorizes depressive mood disorders into four main types: Major Depressive Disorder, Dysthymic Disorder, Depressive Disorder Not Otherwise Specified (NOS), and Bipolar Disorder.

#### **Major Depressive Disorder**

Major Depressive Disorder (MDD), also known as unipolar or clinical depression, is characterized by one or more episodes of major depression, each lasting at least two weeks. In addition to an extended period of depressed mood or loss of interest, individuals with MDD exhibit at least four of the following symptoms: marked weight loss or gain, insomnia or hypersomnia, psychomotor agitation or retardation, fatigue, feelings of worthlessness or excessive guilt, concentration difficulties, and suicidal ideations.

#### **Dysthymic Disorder**

Dysthymia is a milder, more chronic type of depression. Individuals with Dysthymic Disorder consistently exhibit milder forms of the same symptoms involved in MDD over a period of at least two years, and do not meet the full diagnostic criteria for MDD. They

experience fewer involuntary bodily symptoms such as disturbances or alterations in sleep, appetite, weight, or psychomotor factors than individuals with MDD.

### **Depressive Disorder NOS**

Individuals are diagnosed with Depressive Disorder NOS when depressive symptoms do not meet the criteria for MDD, Dysthymia, or varied forms of adjustment disorder, or when the information about their depressive features is inadequate or contradictory.

### **Bipolar Disorder**

Bipolar Disorder, also known as manic depression, manifests itself in different ways. It is not as common as the other forms of depressive illness. Bipolar disorder involves cycles of manic episodes characterized by periods of euphoria and irritable elation that usually alternate with major depressive episodes.

### **MANIFESTATIONS OF MATERNAL DEPRESSION: FOCUS ON PRENATAL AND POSTPARTUM DEPRESSION**

Pregnancy and new motherhood may be times of increased risk for depression, due to hormonal and biological changes, as well as to the stress and demands pregnancy and new motherhood inflict. Postpartum depression is a clinical term used to indicate a depressive episode experienced by a mother that is linked with childbirth. The same criteria used to diagnose depression in the general population are applicable to the diagnosis of postpartum depression, although mood swings may be more frequent and symptoms more unpredictable in postpartum episodes.

Postpartum depression varies greatly in intensity and degree. It can range from mild and transient "baby blues" following childbirth, to severe, incapacitating psychotic depression. Fearful thoughts of harm coming to the baby and guilty feelings about being a bad mother are common in postpartum depression.

### **Baby Blues**

Twenty-six to 85% of women experience the "baby blues." This wide range in prevalence estimates is due to the fact that cases of baby blues often go undocumented. The blues are characterized by relatively mild and transient depressive symptoms such as prolonged and unexplainable tearfulness, poor sleep, as well as a sense of vulnerability, anxiety, and mood instability. These symptoms typically crest four to five days after childbirth and disappear a few days later (Epperson, 1999).

### **Postpartum Major Depression**

Postpartum major depression occurs in approximately 10% of childbearing women and often goes largely unrecognized, and thus untreated (Epperson, 1999; Stuart, 2000a; Williams & Stasser, 1999). Left untreated, it may persist for several months or even into the second year postpartum, with the possibility of relapse. The symptoms of postpartum major depression, including despondency, tearfulness, feelings of inadequacy, guilt, excessive anxiety, irritability, and fatigue extend beyond the normal duration of "baby blues" and are more debilitating.

### **Postpartum Mood With Psychotic Features**

On the severe end of the continuum, about 1 to 2 in 2,000 women have postpartum mood episodes with psychotic features, which may occur more frequently in women having their first child.<sup>1</sup> The psychosis experienced is generally manic in nature and is characterized by gross impairment in functioning, elevated agitation, irritability, inability to sleep, and

avoidance of the infant. It can be accompanied by hallucinations or delusions often involving thoughts of harm to the infant (Epperson, 1999; O'Hara, 1997).

### **Prenatal Depression**

Depression can sometimes occur during pregnancy. In addition to the common physical, emotional and mental manifestations of depression, women with prenatal depression display different brain activity patterns and show elevated levels of stress hormones, including cortisol and norepinephrine, and a decrease in dopamine (Lundy et al., 1999).

## **"TELL-TALE" SIGNS AND ASSESSMENT OF POSTPARTUM DEPRESSION**

### **The Complexities of Assessment**

Several factors complicate the detection of postpartum depression. Similarities exist between the normal course of childbirth and symptoms of depression. For example, weight and energy loss, diminished concentration, and sleep disturbance are all typically related to childbirth. Although seemingly "normal," these symptoms may indicate major depression.

Most women expect an adjustment period after childbirth. However, following delivery some women have difficulty bonding or are disinterested in their babies, and feel guilty about their depressed feelings during a period they believe should be happy. While some women may not recognize these feelings as unusual, others are afraid to admit these feelings out of shame and/or guilt (Epperson, 1999).

Often the struggle a new mother goes through is largely unrecognized by those closest to her, such as spouses, other family members, or their physician (Stuart, 2000a). Physicians do not specifically screen for depression related to childbirth or for other mental illnesses on a routine basis. Although a woman's health may have been closely monitored through her pregnancy, women may often feel alone after they have given birth.

### **Signs and Symptoms of Depression**

Although an official assessment of depression needs to be done by a qualified professional, such as a physician, psychologist, psychiatrist or other mental health professional, individuals who are concerned that a new mother is depressed can take certain actions. First, there are some common "tell-tale" signs of depression to look for (Kruckman & Smith, 1998):

- Depressed, sad or "empty" mood;
- Lack of interest or pleasure in activities;
- Lack of appetite or pleasure in eating;
- Sleep disruptions;
- Excessive tiredness;
- Decreased energy;
- Lack of motivation;
- Feelings of guilt;
- Feeling of worthlessness;
- Excessive irritability;
- Inability to cope;
- Poor concentration;
- Persistent anxiety;
- Thoughts or attempts of suicide; and
- Pre-occupation with death.

Symptoms and their severity differ among women with postpartum depression. "Sad," "overwhelmed," "going crazy," "losing it," "worried," "I can't stand this any more," or "I will never feel better," are all words and phrases women may use or think about in an attempt to express their feelings after childbirth. Talk of suicide should never be ignored.

### **Risk Factors**

Second, one can watch for certain risk factors. Experiencing a significant negative life event, such as loss of a home or employment, being depressed during pregnancy or shortly after delivery, going through "baby blues" which seem to persist longer than usual, or having a past history of depression or other serious mental illness, are all examples that put a mother at greater risk for postpartum depression (DaCosta, Larouche, Drista, & Brender, 2000; Lane et al., 1997; O'Hara, 1997; Stuart, 2000a).

### **Questions to Consider**

Third, asking a few simple questions can help one decide whether a referral for an assessment or to other community resources is appropriate. One can begin to explore whether or not things are okay with open-ended and informative questions or statements such as:

- "How are things going for you?"
- "How are you feeling?"
- "Looks like things have been tough lately."

These types of unobtrusive questions express your concern and may also help build rapport.

### **The Need for Referral and Assessment**

Fourth, resources should be identified in the area to direct individuals for referral, assessment, and possible treatment. Severely depressed women, especially those experiencing thoughts of suicide or infanticide, should be referred for an emergency psychiatric evaluation (Epperson, 1999). It is important for mothers to regain their ability to function. Using a variety of assessment instruments and asking questions about various factors such as financial and health status, as well as general well-being (Heneghan, Silver, Bauman, Westbrook, & Stein, 1998), health care providers can screen individuals for postpartum depression and provide appropriate treatment.

Early identification of postpartum depression and the continued development of effective strategies to care for mothers who are depressed are important both for the well-being of mothers and for overall public health implications (Lanzi, Pascoe, Keltner, & Ramey, 1999). Postpartum depression places a woman at an increased risk for future depression compared to women who have not experienced any signs or symptoms.<sup>45</sup> In a recent longitudinal study on postpartum depression (Najman, Anderson, Bor, O'Callaghan, & Williams, 2000), the majority of study participants experienced relatively short periods of mildly depressed mood shortly after giving birth. However, during a five-year follow-up, many of these mothers experienced increasing levels of depressive symptoms as their child grew up, possibly representing a recurrence of previous depression. These findings emphasize the need for early identification, assessments, and intervention beginning in pregnancy.

### **CO-MORBIDITY, ASSOCIATIONS, AND CORRELATIONS WITH MATERNAL DEPRESSION**

It is important to recognize that maternal depression does not occur in isolation. Rather, a complex interplay of co-occurring mental illnesses, life experiences, demographic factors, and familial environment exists that impacts the course and severity of maternal

depression. Maternal depression shares many features and characteristics with depressions that occur at other times, including similar co-occurring illnesses and life events.

### **Co-occurring Illnesses and Behaviors in Major Depressive Disorder and Maternal Depression**

Many mental disorders frequently co-occur with Major Depressive Disorder, including substance related disorders such as alcohol dependence, anxiety disorders, obsessive-compulsive disorders, phobias, eating disorders, and borderline personality disorder (APA, 1994; Kessler, McGonagle, Zhao, et al., 1994; Merikangas, Risch, & Weissman, 1994; Merikangas, Weissman, Prusoff, & John, 1988). MDD may simultaneously occur with one or several of these disorders. For example, depression often co-occurs with both anxiety and alcohol dependence. This relationship may be accounted for in part due to the fact that depressed or anxious individuals often self-medicate with alcohol (Merikangas et al., 1994).

The presence of a chronic illness is also highly associated with MDD, as is abuse. In a study looking at physical and sexual abuse during childhood (Wexler, Lyons, Lyons, & Mazure, 1997), results suggested an association to the subsequent development of MDD during adulthood. Dysthymia often occurs with chronic psychosocial stressors or with an array of personality disorders.

Maternal depression, like other forms of depression, may also co-occur with certain illnesses and health-related behaviors. These include:

- High anxiety (APA, 1994; DaCosta et al., 2000; Heneghan et al., 1998; Kruckman & Smith, 1998);
- Obsessive-compulsive disorders (Kruckman & Smith, 1998);
- Post-traumatic stress, sometimes due to a traumatic birthing experience (Kruckman & Smith, 1998);
- Abuse, either living in a home where child abuse is occurring or having experienced physical or sexual abuse firsthand (Buist, 1998; Kinard, 1996);
- Chronic medical illnesses, especially those that impede mothers' activity or interfere with their parenting duties (Heneghan et al., 1998; Lanzi et al. 1999); and
- Low self-esteem (Beck, 1999; Kruckman & Smith, 1998).

### **The Role of Demographic Factors**

Certain demographic factors that may lead to chronic stress are associated with maternal depression. Examples include the following (Heneghan et al., 1998; Kinard, 1996; Kruckman & Smith, 1998; Lane et al., 1997; Lanzi et al. 1999; Windle & Dumenci, 1998):

- Living in poverty or having little access to financial resources;
- Receiving public assistance such as SSI;
- Having less than a high school education;
- Having increased numbers of children or adults in a household;
- Being unemployed; and
- Being homeless.

### **The Role of Family Environment**

Several aspects of the quality of a woman's family environment are associated with higher levels of maternal depressive symptoms from the postpartum period to several years

beyond. Examples include the following:

- Lower levels of marital satisfaction or diminished feelings of emotional attachment toward a spouse (Bromberger, Wisner, & Hanusa, 1994);
- Perceived lack of support or parent assistance (Lanzi et al., 1999; Soliday, McClusjey-Fawcett, & O'Brien, 1999; Windle & Dumenci, 1998);
- Elevated levels of parenting stress (Soliday et al., 1999; Windle & Dumenci, 1998);
- Role conflict or role changes (Kruckman & Smith, 1998); and
- Decreased family cohesion (Windle & Dumenci, 1998).

### **The Cultural Context of Family Environment**

Maternal depression may also be related to cultural or racial context and immigrant status of a family. A significant association between depressive symptoms of immigrant Mexican women residing in the U.S. and the number of years in the U.S. has been found (Vega, Kolody, Valle, & Hough, 1986). Women with five or fewer years in the country exhibit higher levels of depressive symptoms, which may represent the psychological distress associated with the immigrant experience.

Another study (Chalkley, Leik, Duane, & Keiser, 1997), looking at depressive symptoms in mothers within Head Start, conducted separate analyses of maternal depression and different racial and cultural groups. Results revealed that although factors such as mother's satisfaction with their child's level of independence, family pride, family accord, and mother's adherence to traditional values were the same for Caucasian, African American and American Indian families, the emphasis of maternal depression varied within families. For example, maternal depression was associated with low levels of family pride and family accord in Caucasian mothers. Family discord and a loss of focus on traditional values correlated most closely with depression in African American mothers. Low levels of family pride and lack of satisfaction with child independence were the factors most characteristic of depressed American Indian mothers.

A review of cultural research on maternal depression found that mothers in many rural, non-western cultures with large supportive kin groups did not experience the symptoms characterizing postpartum depression in western cultures (Kruckman & Smith, 1998).

### **DURATION AND TIMING OF MATERNAL DEPRESSION: DEVELOPMENTAL CONSEQUENCES**

#### **Differences in Duration and Timing**

For the vast majority of women, maternal depression is transient with no adverse consequences. Some women feel better within a few weeks, while others feel depressed for many months or more. Women who have more severe symptoms of depression, or who have had past episodes of depression, may take longer to get well. Some women become depressed during pregnancy or immediately following childbirth, while the onset of depression may take several weeks or more for others. In general, postpartum depression appears to persist over several months. Effects of maternal depression vary by severity, chronicity (Frankel & Harmon, 1996), and timing of depression.

The duration and timing of maternal depression have an impact on children's social, emotional, cognitive, and behavioral development, as well as on maternal-child interactions and attachment, especially when the depressive episodes occur during the neonatal and infancy periods. The more continuous, prolonged, and severe the mothers' depression, the greater the potential negative impact on the child. However, outcomes vary greatly.

## **Consequences for Infants: Development, Attachment, and Interactions**

Given the diversity in outcomes, postpartum depression is not inevitably a risk factor for problems in development, attachment, or in mother-child interactions. The research on infant and child outcomes is somewhat unclear. While some children seem to experience difficulties resulting from their mothers being depressed, others do not. It is not totally understood what the protective factors are.

In general, infants of depressed mothers may be more irritable, less active, less responsive, and less physically developed than infants of non-depressed mothers (Field, 1998). Young children exposed to maternal depression in infancy are at higher risk for:

- Exhibiting behavior problems, such as hyperactivity, conduct disorders, and aggression (Beck, 1999; Boyle & Andrew, 1997; Fergusson, Lynskey, Horwood, 1993; Murray, Sinclair, Cooper, Ducournau, & Turner, 1999; National Institute of Health [NIH], 1999);
- Having difficulties adjusting socially (Murray et al., 1999; Sinclair & Murray, 1998);
- Performing more poorly on measures of school readiness, expressive language and verbal comprehension (NIH, 1999);
- Developing symptoms that imitate the mother's depressed behavior (Stuart, 2000a), or developing episodes of depression, especially in cases of lower family functioning or in families exposed to multiple risk factors. Children who experience a depressive episode often do so very near to their mothers' depression (Beardslee, Keller, Lavori, Staley, & Sacks, 1993; Ferro, Verdelli, Pierre, & Weissman, 2000; Shiner & Marmorstein, 1998; Windle & Dumenci, 1998). A family history of depression increases risk for depression in children (Merikangas et al., 1988).
- Poorer cognitive development (although findings are contradictory) (Murray, Fiori-Cowley, Hooper, & Cooper, 1996; Murray, Hipwell, Hooper, Stein, & Cooper, 1996).

Infants are especially dependent on their mothers' social and emotional responsiveness for bonding and healthy interactions. Anything that interferes with the critical process of bonding will have a detrimental effect on infants. Young infants exposed to maternal depression may experience issues related to quality of attachment and psychosocial adjustment (Murray et al., 1999). For example, mothers may be less attuned to their infants, provide less affirmation and may also exhibit insecure attachments (Campbell, Cohn, & Meyers, 1995; Murray, Fiori-Cowley, et al., 1996; Murray et al., 1999). Other research found no evidence of these impairments in attachment relationships (Campbell & Cohn, 1997; Krankel & Harmon, 1996).

Effects of the quality of mother-child interactions may be fewer if the mother is experiencing less severe and less chronic depression (Campbell et al. 1995). Less positive mother-infant interactions may exist only when clinical depression lasts beyond six months postpartum.

### **Neonatal Consequences**

Recent data suggests that negative effects of postpartum depression on children may stem from maternal depressive symptoms during pregnancy rather than merely from postpartum depression. Studies of prenatal effects of maternal depression have found that newborns of mothers with depressive symptoms show disturbances in their behavior, physiology, and biochemistry, which are likely due to prenatal exposure to biochemical imbalances in their mothers (Field, 1998; Jones et al., 1998; Lundy et al., 1999).

## **THE IMPACT OF MATERNAL DEPRESSION ON PARENTING BEHAVIORS**

Depression appears to influence parenting behaviors and attitudes. Determining the impact of maternal depression on parenting behaviors is not easy. In each individual case, the experience of depression varies greatly. A depressed mood affects mothers' perceptions and attributions of children's difficult behaviors (Boyle & Andrew, 1997; Briggs-Gowan, Carter, & Schwab-Stone, 1996; Fergusson et al., 1993; White & Barrowclough, 1998). These perceptions and attributions are thought to be used as a coping mechanism, which may influence parenting behaviors and intensify behavior problems in children.

Three areas of parenting behavior have been assessed in literature, including negative or coercive behaviors, positive behaviors, and disengagement. Some mothers have negative parenting behaviors such as irritability and hostility toward the child and some are disengaged from the child. Few depressed mothers exhibit positive play or other pleasant social interactions.<sup>36</sup> In one particular study, depressed African American mothers and caregivers living in violent neighborhoods demonstrated more verbal hostility, corporal punishment, punitiveness, and directiveness than non-depressed mothers and caregivers (Koblinsky, Randolph, Roberts, Boyer, & Godsey, 2000).

Mothers who are depressed interact in different ways. Withdrawn or disengaged mothers generally provide inadequate stimulation for their newborns and infants, while intrusive mothers generally over-stimulate (Field, 1998; Hart, Jones, Field, & Lundy, 1999; Jones et al., 1997). These interaction styles have different effects on children. Other research looking at parenting styles did not find depressed mothers to be either markedly intrusive or withdrawn (Murray, Fiori-Cowley, et al., 1996).

## **PREVENTION**

It is imperative for people working with pregnant women, to watch for signs and symptoms of depression. Taking preventative measures by attending to psychosocial risk factors, such as high anxiety, poor social support, daily stressors, and previous episodes of depression is one way to lessen the likelihood that depression will develop (DaCosta et al., 2000). Simple prenatal psychosocial interventions including mobilizing support systems, rearranging priorities, and planning ahead, could contribute to reduced emotional upset and reduce the risk for postpartum depression (Kruckman & Smith, 1998). In one study (Gelfand, Teti, Seiner, & Jameson, 1996), it was demonstrated that a home-visit program intervention can be an effective social support to improve mother and child functioning while decreasing the magnitude of the mother's depression.

## **TREATMENT**

Depression is a very treatable illness. Even women with severe depression respond positively to treatment and less severe depression may go away without treatment. The earlier treatment begins, the more effective and the greater the likelihood of preventing serious recurrences. Although treatment will not eliminate everyday stresses and ups and downs, it can boost a woman's ability to function and enjoy life.

The course of treatment for maternal depression is similar to that of other forms of depression (Epperson, 1999). Antidepressant medication and psychotherapy, used alone or in combination, are two common treatments that have been shown to significantly lower the rate and severity of postpartum depression. The best treatment for an individual depends on the nature and severity of the depression and on individual preference to some degree. If antidepressant medication is administered to mothers who are breastfeeding, the risks posed to the child need to be weighed against the risk of untreated depression. The clinical consensus is that nursing mothers experiencing moderate to severe forms of depression should be treated with medications such as tricyclic antidepressants, the serotonin re-uptake inhibitors, or other new generation antidepressants that are deemed relatively safe for breastfeeding infants (Stuart, 2000b).

## **Antidepressant Medication and Psychotherapy**

Many women are wary of taking medications, especially while breastfeeding and are likely to refuse this form of treatment (Cooper & Murray, 1997). An alternative and effective treatment for mild to moderate depression is psychotherapy, which facilitates learning more effective ways of handling problems. A limited amount of therapy can be used as a preventive measure for women at high risk for depression or as an intervention during the postpartum period. Brief forms of joint mother-infant psychotherapy may be helpful in dealing with issues related to child care support and the difficulties of transition to parenthood (Cramer, 1997).

Cognitive therapy, which is designed to help change negative styles of thinking, has also been explored as a possible treatment for maternal depression, although many aspects of this approach still need to be validated. A basic principle of cognitive therapy is that the way in which individuals view their experiences is central to influencing affect and behavior (Olioff, 1991). Some cognitive factors, such as self-appraisals of parenting competence illustrate the possible presence of cognitive vulnerability in prepartum or postpartum depression.

One study compared women who experienced postpartum depression and participated in non-directive counseling, cognitive-behavioral therapy, and dynamic psychotherapy. Each treatment was shown to be equally effective in increasing the rate of remission from depression, with little evidence of relapse (Cooper & Murray, 1997). Although none of these treatments had significant direct effects on infants' developmental progress, the mothers' rate of remission could accelerate improvement in children's progress.

## **Massage Therapy and Coaching**

Other cost-effective and proven interventions include infant massage therapy, designed to positively modify the infant's mood; mother massage therapy or music therapy, intended to alter the depressed mother's mood; and interaction coaching, which teaches a mother to become more sensitive and aware of her infant's needs (Field, 1997, 1998).

## **Electroconvulsive Therapy**

Electroconvulsive therapy (ECT) can be used for mothers experiencing psychotic episodes of depression, or for those not responding to other forms of treatment (Stuart, 2000b).

## **SUMMARY**

Maternal depression manifests itself in many different ways. The consequences to both the mother and the child vary significantly depending on the severity, duration, and timing of the episode, and co-occurring illnesses or life experiences. If maternal depression is suspected, it is important to recognize the common signs of depression and to make a referral for an assessment and treatment, if necessary. Maternal depression is treatable.

- NOTE: The broad term "maternal depression" is used throughout this paper to encompass all manifestations of pre- and postpartum depression.
- The DSM IV does not have a separate diagnostic category for postpartum depression, however it does permit the addition of a "Postpartum Onset Specifier" for individuals with a depressive onset within four weeks following the delivery of a child.

## **DISCLAIMER:**

This document is a summary of prior research and resource literature on maternal

depression, and the intended use is for informational purposes only.

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Williams, R.A., & Stasser, P. (1999, November). Depression in the workplace. *American Association of Occupational Health Nurses Journal, Online Continuing Education Modules*. Retrieved July 21, 2000 from the World Wide Web:  
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## Annotated Bibliography October 2000

The purpose of this section is to provide users access to selected online materials and to provide a way to find research studies and meta-analyses on specific topics pertaining to maternal depression.

MATERNAL DEPRESSION RESOURCES FOR PRACTITIONERS AND PARENTS		
RESOURCE TYPE	RESOURCE	DESCRIPTION
Online Organization	Postpartum Support International (PSI) 927 N. Kellogg, Santa Barbara, CA 93111 Phone: 805.967.7636 <a href="http://www.chss.iup.edu/postpartum/">http://www.chss.iup.edu/postpartum/</a> - OR - <a href="http://www.postpartum.net/">http://www.postpartum.net/</a>	This organization provides a social support network, information center, research guide, and an extensive bibliography concerning postpartum mood disorders and depression. The organization's purpose is to increase awareness about the emotional changes women often experience during pregnancy and after the birth of a baby. Coming soon, a PSI information brochure entitled, "Following Birth: Postpartum Mood Disorders" will be available on the web-site in multiple languages.
Online Organization	Postpartum Education for Parents (PEP) P.O. Box 6154 Santa Barbara, CA 93160 <a href="http://www.sbpep.org/">http://www.sbpep.org/</a>	This organization, staffed by trained parent volunteers, was originally founded by a group of mothers to provide each other support following the births of their children. It offers postpartum distress information and support as well as suggested reading.
Online Newsletter	Stuart, S. (2000, Spring). <i>EPSDT Care for Kids Newsletter</i> , 7 (1). <a href="http://www.medicine.uiowa.edu/uhs/EPSDT/spr00/index.cfm">http://www.medicine.uiowa.edu/uhs/EPSDT/spr00/index.cfm</a>	This issue provides an overview of maternal depression from identification to treatment, including the

		<p>following:</p> <ol style="list-style-type: none"> <li>1) "The Identification of Postpartum Depression" by Scott Stuart, MD</li> <li>2) "Treating Postpartum Depression" by Scott Stuart, MD</li> <li>3) A fact sheet on maternal depression</li> <li>4) A maternal mental health survey</li> </ol>
Online Article/Literature Review	<p>Epperson, C. N. (1999, April 15). Postpartum major depression: Detection and treatment. <i>American Family Physician</i>  <a href="http://www.aafp.org/afp/990415ap/2247.html">http://www.aafp.org/afp/990415ap/2247.html</a></p>	<p>This article discusses how to detect and assess postpartum major depression and reviews various treatments, including antidepressant medication and psychotherapy. Contains a link to an informational brochure on maternal depression for parents-to-be.</p>
Online Article/Literature Review	<p>Kruckman, L. &amp; Smith, S. (1998). An introduction to postpartum illness. <i>Postpartum Support International</i>  <a href="http://www.chss.iup.edu/postpartum">http://www.chss.iup.edu/postpartum</a></p>	<p>This comprehensive literature overview covers historical perspectives, definitions, symptoms, theoretical causes, treatment and prevention.</p>
Online Article	<p>Field, T. (1998). Maternal depression could last a lifetime. <i>Self-Help &amp; Psychology Magazine</i>. Article available online at:  <a href="http://www.shpm.com/articles/parenting/matdep.html">http://www.shpm.com/articles/parenting/matdep.html</a></p>	<p>This brief article discusses tell-tale signs of maternal depression, the impact resulted.</p>
Article	<p>Field, T. (1998). Maternal depression effects on infants and early interventions. <i>Preventive Medicine</i>, 2, 200-203.</p>	<p>This article reviews recent research on the effects of maternal depression on neonates, newborns, early interactions and interaction styles, and discusses alternative interventions, such as massage therapy and coaching.</p>
Book	<p>Murray, L. &amp; Cooper, P.J., Eds. (1997). <i>Postpartum depression and child development</i>. NY: Guilford.</p>	<p>This book includes an introduction to postpartum depressive disorders, and sections on mother-child</p>

		interaction, child impact, chronicity and timing, treatment, and a review of postpartum psychosis.
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**SELECTED RESEARCH STUDIES AND META-ANALYSES ON MATERNAL DEPRESSION**

<b>FOCUS</b>	<b>RESEARCH STUDY</b>
Impact on child	Beardslee, W.R., Keller, M.B., Lavori, P.W., Staley, J., & Sacks, N. (1993, July). The impact of parental affective disorder on depression in offspring: A longitudinal follow-up in a nonreferred sample. <i>Journal of the American Academy of Child and Adolescent Psychiatry</i> , 32 (4), 723-728.
Impact on child behavior rating	Boyle, M., & Andrew, R. (1997, October). Influence of maternal depressive symptoms on ratings of childhood behavior. <i>Journal of Abnormal Child Psychology</i> , 25 (5), 399-414.
Impact on child behavior rating	Briggs-Gowan, M.J, Carter, A.S., & Schwab-Stone, M. (1996, December). Discrepancies among mother, child, and teacher reports: Examining the contributions of maternal depression and anxiety. <i>Journal of Abnormal Child Psychology</i> , 24 (6), 749-766.
Relation to marital affection	Bromberger, J.T., Wisner, K.L., & Hanusa, B.H. (1994, January). Marital support and remission of treated depression: A prospective pilot study of mothers of infants and toddlers. <i>Journal of Nervous and Mental Disease</i> , 182 (1), 40-44.
Relation to childhood abuse and parenting	Buist, A. (1998, June). Childhood abuse, postpartum depression and parenting difficulties: a literature review of associations. <i>Australian and New Zealand Journal of Psychiatry</i> , 32 (3), 370-378.
Impact of chronicity	Campbell, S.B., Cohn, J.F., & Meyers, T. (1995). Depression in first-time mothers: Mother-infant interaction and depression chronicity. <i>Developmental Psychology</i> , 115 (31), 349-357.
Intervention (Head Start Experience)	Chalkley, M.A., Leik, R.K., Duane, G., & Keiser, K. (1997, Spring). Enhancing resilience: The role of Head Start and cultural context in mitigating the long term impact of maternal depression on children. <i>National Head Start Association Research Quarterly</i> , 1 (2), 5-27.
Relation to psychosocial factors	DaCosta, D., Larouche, J., Drista, M., & Brender, W. (2000). Psychosocial correlates of prepartum and postpartum depressed mood. <i>Journal of Affective Disorders</i> , 59 (1), 31-40.
Impact on child behavior rating	Fergusson, D.M., Lynskey, M.T., & Horwood, L.J. (1993, June). The effect of maternal depression on maternal ratings of child behavior. <i>Journal of Abnormal Child Psychology</i> , 21 (3), 245.
Relation to depression in	Ferro, T., Verdelli, H., Pierre, F., & Weissman, M.M. (2000, March). Screening for depression in mothers bringing their offspring for evaluation

offspring	or treatment of depression. <i>American Journal of Psychiatry</i> , 157 (3), 375-379.
Impact of chronicity and severity	Frankel, K.K., & Harmon, R.J. (1996, March). Depressed mothers: They don't always look as bad as they feel. <i>Journal of the American Academy of Child &amp; Adolescent Psychiatry</i> , 35 (3), 289-298.
Treatment implications	Gelfand, D.M., Teti, D.M., Seiner, S.A., Jameson, P.B. (1996, December). Helping mothers fight depression: Evaluation of a home-based intervention program for depressed mothers and their infants. <i>Journal of Clinical Child Psychology</i> , 25 (4), 406-422.
Impact on child and parenting style	Hart, S., Jones, N.A., Field, T., & Lundy, B. (1999, Winter). One-year-old infants of intrusive and withdrawn depressed mothers. <i>Child Psychiatry and Human Development</i> , 30 (2), 111-120.
Relation to poor health and low-income	Heneghan, A.M., Silver, E.J., Bauman, L.J., Westbrook, L.E., & Stein, R.E.K. (1998). Depressive symptoms in inner-city mothers of young children: Who is at risk? <i>Pediatrics</i> , 102 (6), 1394-1400.
Impact on child (newborns)	Jones, N.A., Field, T., Fox, N.A., Davalos, M., Lundy, B., & Hart, S. (1998). Newborns of mothers with depressive symptoms are physiologically less developed. <i>Infant Behavior and Development</i> , 21, 537-541.
Impact on child (infants)	Jones, N.A., Field, T., Fox, N.A., Davalos, M., Malphurs, J., Carraway, K., Schanberg, S., & Kuhn, C. (1997). Infants of intrusive and withdrawn mothers. <i>Infant Behavior and Development</i> , 20, 177-189.
Prevalence/ incidence of depression and other psychiatric disorders	Kessler, R.C., McGonagle, K.A., Zhao, S., Nelson, C.B., Hughes, M., Eshleman, S., Wittchen, H.U., & Kendler, K.S. (1994, January). Lifetime and 12-month prevalence of DSM-III-R psychiatric disorders in the United States: Results from the National Comorbidity Study. <i>Archives of General Psychiatry</i> , 51, 8-19.
Relation to abuse and social support	Kinard, E.M. (1996, July). Social support, competence, and depression in mothers of abused-children. <i>American Journal of Orthopsychiatry</i> , 66 (3), 449-462.
Predictors	Lane, A., Keville, R., Morris, M., Kinsella, A., Turner, M., & Barry, S. (1997). Postnatal depression and elation among mothers and their partners: Prevalence and predictors. <i>British Journal of Psychiatry</i> , 171, 550-555.
Relation to socioeconomic factors	Lanzi, R.G., Pascoe, J.M., Keltner, B., & Ramey, S.L. (1999, August). Correlates of maternal depressive symptoms in a national Head Start sample. <i>Archives of Pediatrics and Adolescent Medicine</i> , 153 (8), 801-807.
Relation to self-esteem, social support (specifically mothers of preterm infants)	Logsdon, M.C., Davis, D.W., Birkimer, J.C., & Wilkerson, S.A. (1997, March). Predictors of depression in mothers of preterm infants. <i>Journal of Social Behavior and Personality</i> , 12 (1), 73-88.
Impact on child	Lundy, B., Jones, N.A., Field, T., Nearing, G., Davalos, M., Pietro, P., Schanberg, S., & Kuhn, C. (1999). Prenatal depression effects on neonates.

(neonates)	<i>Infant Behavior and Development</i> , 22, 121-137.
Comorbidity and passing on of alcoholism, anxiety, and depression to offspring	Merikangas, K.R., Risch, N.J., & Weissman, M.M. (1994). Comorbidity and co-transmission of alcoholism, anxiety and depression. <i>Psychological Medicine</i> , 24, 69-80.
Familial nature of alcoholism, anxiety, and depression (and risks for offspring)	Merikangas, K.R., Weissman, M.M., Prusoff, B.A., & John, K. (1988, February). Assortative mating and affective disorders: Psychopathology in offspring. <i>Psychiatry</i> , 51, 48-57.
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