THE DEVELOPMENT OF A SCREENING PROTOCOL TO DETECT POSTPARTUM DEPRESSION IN THE PRIMARY CARE POPULATION

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JUDITH P. BRADY

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By

Judith P. Brady

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ABSTRACT

THE DEVELOPMENT OF A TELEPHONE SCREENING PROTOCOL TO DETECT DEPRESSION IN THE PRIMARY CARE POPULATION

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Postpartum depression adversely affects approximately fifteen percent of women who have given birth in the past year. Screening tools to detect depressive symptomatology in the primary care environment are available, however these instruments are underutilized. The implementation of a telephone screening protocol for use during the first ten days of the postpartum period, enhances the ability of the primary care provider to detect depression within a given patient population. Appropriate intervention to ensure the continued functional ability of the mother, optimal growth and development of the infant and maintenance of family function can then be implemented. Using Dorthea Orem's Self-Care Deficit Theory of Nursing as a framework, this project outlines the development of a telephone screening protocol to detect depressive symptomatology in postpartum women in the primary care environment. Implications for practice, education and research are presented.

DEDICATION

I would like to dedicate this scholarly project to my husband, Bob, for words cannot express the love and unwavering support he has shown me throughout the last three years. Also to our three daughters Megan, Lauren and Allison for being my ever present cheering section and for helping me to truly understand the joy it is to be a mother and what precious gifts from God babies truly are.

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Introduction

The birth of a baby and the year that follows is a joyous occasion for many women and their families, however, for the approximately nine to sixteen percent of women that suffer from postpartum depression (PPD), the period following this joyous event can become a nightmare filled with anxious thought and overwhelming fear (Beck, 1995). Postpartum depression negatively impacts the well-being of the mother, the ability of the mother to care for her child, the emotional and cognitive development of the infant and places stress on the broader relationships within the family structure. Due to the far reaching effects of PPD, universal screening for the detection of women at risk for the development of PPD is imperative (O'Hara, 1995).

Change in the health care delivery system is one factor fueling the need to screen women for the development of PPD. Fragmentation of prenatal, antepartum, postpartum and well-child care are common. Women receive prenatal care in one setting, deliver their baby in another setting and are usually discharged from the hospital in twenty-four hours. These factors increase the likelihood that the earliest signs of PPD will remain unnoticed (Beck, 1992). The first six weeks of the postpartum period is focused on the health of the infant and commence with the infant's two week well-child check up. Little emphasis is placed on the well-being of the mother at this time, even though the mother is experiencing many physiologic changes and adjusting to meet the demands of a major change in roles as well. By the time the mother returns to her obstetric care provider for her postpartum check-up, it is possible that a depressive disorder may be inhibiting her ability to care for herself and her infant (Stowe & Nemeroff, 1995).

Changes in insurance coverage have also made it difficult for clients to receive mental health services in a timely manner. This fact also points to the need of effective screening methods in the primary care setting (O'Hara, 1995). Frequently it is the primary care provider who is responsible for detecting changes in health status. Therefore, the primary care provider must be educated regarding the etiology and onset of PPD, be equipped to make the initial diagnosis, begin treatment when necessary and make a referral to a mental health specialist if needed (Mulrow, et al., 1995).

Since health care providers cannot accurately predict who will develop PPD, primary care providers must facilitate the screening of all prenatal clients for detection and diagnosis of PPD (Beck, 1992). Various screening tools have been developed to accurately detect depressive symptomatology in the primary care population. Studies have also indicated that a variety of screening methods may be employed (AHCPR, 1993). Once collected, the screening information can be validated with physical exam findings and a structured interview conducted to ensure an accurate diagnosis. Early detection and treatment leads to more rapid elimination of symptoms therefore enhancing the return of function to the mother.

As a product of the screening process, the primary care provider has the opportunity to educate childbearing women and their families regarding the normal physiologic adjustment inherent in the postpartum period, as well as the warning signs which may point to the risk of later development of depression (Knops, 1993). The education process enables the primary care provider along with the woman and her family to quickly and accurately identify those women who are suffering from depression and also to deal effectively with normal postpartum adjustment issues. Studies have shown

that the simple act of providing information and reassurance, may be enough to help the new mother form appropriate expectations of herself and her family during this time of transition without falling into depression (Gruen, 1990). The implementation of a screening protocol to detect depressive symptomatology in postpartum women, as well as the provision of an intervention when appropriate, is a practical and holistic model for primary health care.

Problem Statement

The number of women suffering from postpartum depression (PPD) varies from nine to sixteen percent (Beck, 1996). Although the majority of these women obtain obstetric and postnatal care in the primary care environment, little is done in the way of screening to detect the onset of PPD (O'Hara, 1995). PPD inhibits the functional ability of the mother, and decreases the ability of the mother to perform self-care actions in the care of herself and the dependent care of her infant. This lack of functional ability impacts not only on the well-being of the mother, but impacts the psychological, emotional and cognitive development of the infant (O'Hara, 1995). According to Beck it is critical for nurses to intervene as early as possible to prevent long-term effects on children of mothers who suffer severe depression.

Project Goal

The goal of this project was to provide, through the process of a telephone screening protocol, the identification of clients exhibiting warning signs for the development of postpartum depression. Once identified, appropriate intervention may be instituted prior to the development of functional limitations associated with PPD. If depressive symptomatology does develop, the disease may be quickly and accurately

diagnosed, thus ensuring the continued functional integrity of the mother. The screening process also facilitates the education of postpartum women regarding the normal and expected changes of the postpartum period. This enables the women to better cope with self-care demands. The screening process also promotes the well-being of the mother, by providing support and information and fostering a relationship with the primary care provider. This process enhances the mother's ability to perform self-care activities needed to maintain her own health, the health of the infant and ultimately the health of her family unit.

Conceptual Definitions

For the purposes of this project the following definitions were utilized to clarify the principal concepts. The key concepts are postpartum depression, protocol, health screening, primary care, and primary care providers.

Postpartum depression (PPD): Depressive symptomatology as outlined in the Diagnostic and Statistical Manual of Mental Disorders (1994), presenting anytime within the postpartum period, to one year post delivery defines PPD.

Protocol: The use of an organized, systematic, research based, line of questioning to assess the severity of a problem and help the provider and the client make informed health care decisions (Briggs, 1997). The protocol is designed to provide consistency, while minimizing subjectivity and to gather needed information related to the problem at hand. A protocol is not designed to diagnose, but to detect changes in health status that may require additional follow-up or referral.

Health screening: Last (1980), describes health screening as the examination by a single test or procedure of a well population for the purpose of detecting those who may have

unrecognized disease. The Clinician's Handbook of Preventive Services (USPSTF) (1996), outlines conditions which must exist for screening tests to be useful. The conditions include: 1) the condition must have significant effect on quality of life, and 2) the availability of acceptable treatment and the incidence of the condition must be sufficient to justify the cost. Although USPSTF does not endorse routine screening of all individuals in primary care for depression, the universal screening of postpartum women for depression is heartily endorsed in the literature (O'Hara, 1995; Beck, 1992; Affonso et al., 1990).

Primary care: According to Starfield (1992), primary care is difficult to define and one must look at its characteristics to understand its function. Orem (1995) describes primary care services as geographically and financially available, providing periodic examinations to detect change in the health status of an individual or family. Primary care also involves the participation of individuals in their own care and developing individual programs of care. The purpose of primary care services as the individual or families first contact with the health care system (Starfield, 1995). Services provided in primary care settings include health maintenance, health promotion, as well as primary, secondary and tertiary prevention (Orem,1995).

Primary Care Providers (PCP): Primary care services may be provided by a number of individuals, singly or in teams to provide health services in a supportive, caring manner. It is the responsibility of the primary care provided (PCP) to be accountable for the coordination, integration and management of the client's total health care and services (Starfield, 1992). PCPs include medical and osteopathic physicians in the areas of

pediatrics, internal medicine and obstetrics and gynecology, as well as advance practice nurses (APN), who function in these clinical settings.

Conceptual Framework

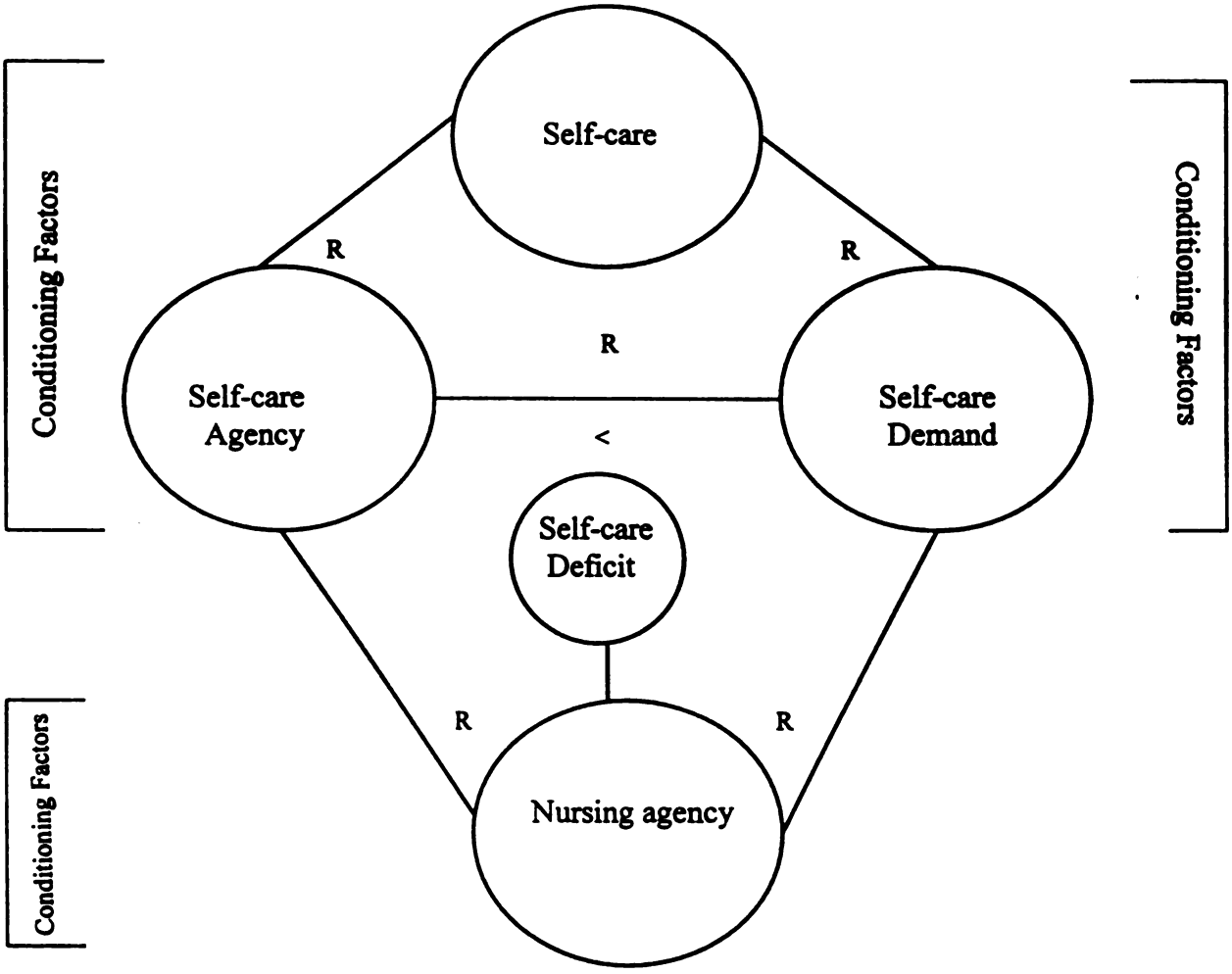
A screening protocol developed to detect warning signs associated with the onset of PPD may be viewed as a tool to prevent illness and promote the health and well-being of the new mother, her infant, and the family unit. Dorthea Orem's Self-Care Deficit Theory of Nursing has been selected as the framework to facilitate the process.

Dorthea Orem's Self-Care Deficit Theory of Nursing is composed of three interrelated theories: the theory of self-care, self-care deficit theory and the theory of nursing systems. The system of theories defines self-care and its properties, delineates when nursing is needed and discusses how nursing care is delivered. The application of Orem's theory to the health screening process helps to explain how nursing can impact the ability of the new mother in order to provide continuous therapeutic self-care to meet her own needs as well as the needs of her infant. Figure 1 and Figure 2 help to conceptualize this relationship.

Self-care Theory

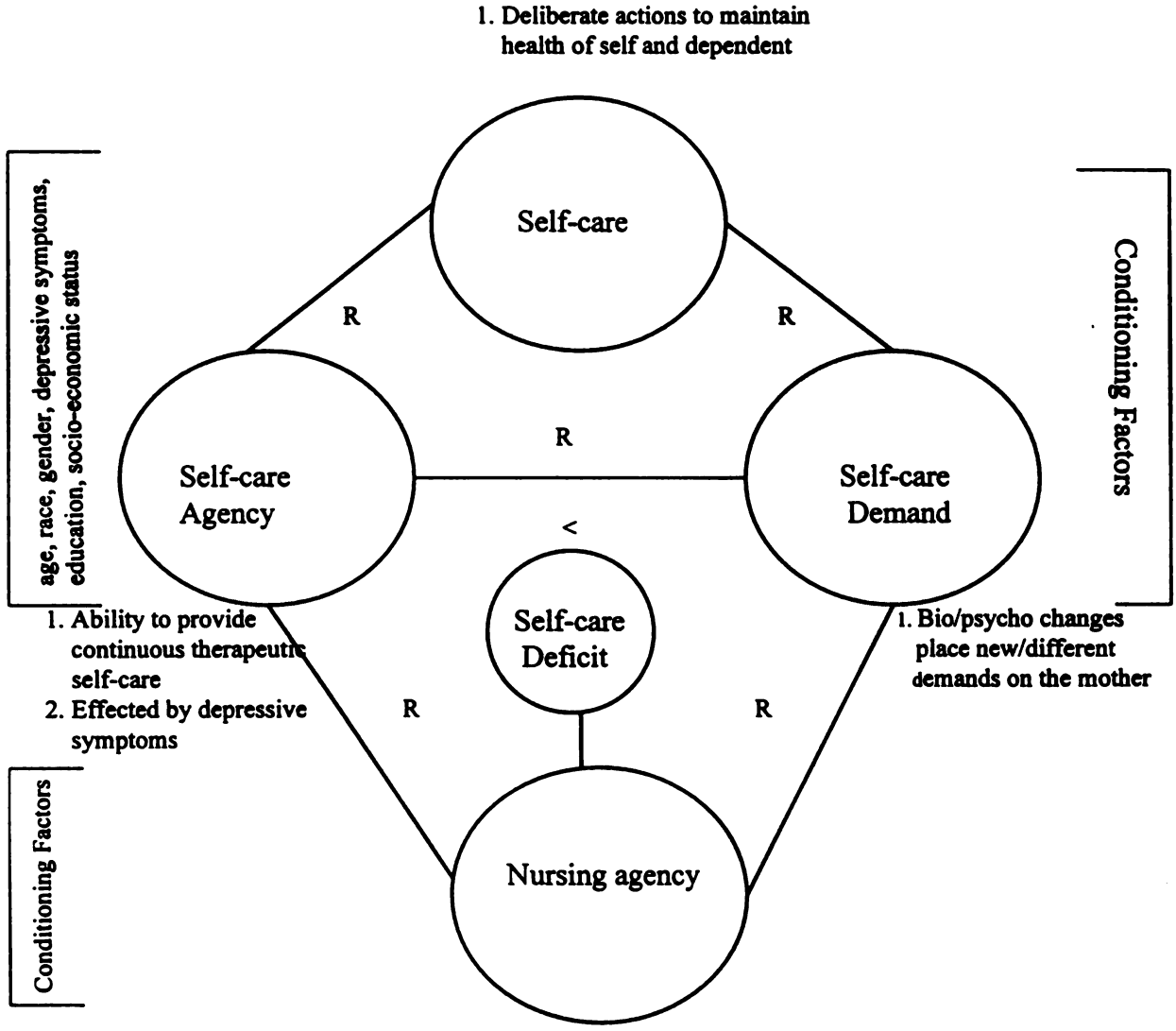
Self-Care Theory relates what elements are inherent in the performance of self-care activities. Orem (1995), defines self-care as " a human regulatory function that individuals must with deliberation, perform for themselves...to supply and maintain a supply of materials and conditions to maintain life; keep physical and psychic functioning and development within norms compatible with conditions essential for life..." (p. 172).

Figure 1: A conceptual model for nursing.



From Dorthea Orem (1995), Nursing concepts of practice, p. 435

Figure 2: The application of Orem's conceptual model for nursing to the Development of a Screening Protocol to Detect Postpartum Depression in the Primary Care Population



Adapted from Dorthea Orem (1995), Nursing concepts of practice, p. 435.

Orem (1995), further describes self-care as a learned activity, a right as well as a responsibility in which adults engage. Self-care also involves the giving or supervising of the self-care of another, as a component of infant and adolescent care, in the maintenance of health and life function.

The concept of health is viewed from a global perspective. Health is defined as the state of physical, mental and social well-being, not merely the absence of disease (Foster & Bennett, 1995). Orem (1995), further states that the above components are inseparable in the individual. In order to maintain health, health care must include the promotion of physical, emotional and spiritual components, not just the treatment of disease or injury.

Self-care Agency

The ability of an individual to perform self-care is known as an individual's self-care agency. Orem (1995), defines self-care agency as the intrinsic motivation through which self-care is accomplished. It is the complex acquired ability to know and meet continuing requirements for deliberate, purposive action to regulate their own functioning and development (Orem, 1995). The individual's ability to engage in self-care is affected by basic conditioning factors including: age, gender, developmental state, family system characteristics, socioeconomic factors and interaction with the health care system. An individual's self-care agency is influenced by the therapeutic self-care demand or the "totality of self-care actions to be performed for some duration to meet known self-care requisites" (Orem, 1995, p. 82).

Self-care Deficit

When an individual's therapeutic self-care demand is greater than their ability to perform self-care, a self-care deficit exists. Self-care deficit theory defines when nursing is needed. Orem (1995), states that nursing is required when an adult, or child under the care of the adult, is limited or incapable of continuous, effective self-care.

Theory of Nursing Systems

Orem's theory of nursing systems discusses how nursing care will be delivered. If an individual is unable to meet self-care demands, a nursing system is designed by the professional nurse which aides the ability of the client to perform effective self-care. The APN in the primary care setting will employ the "supportive-educative" system to help clients and their families meet self-care demands. Orem (1995), states that under this system the client is able to perform and should learn to perform required measures of externally or internally oriented therapeutic self-care, but cannot do so without assistance. Orem states the ability to help others meet their therapeutic self-care demand is termed nursing agency (Foster & Bennett, 1996).

Nursing Agency

Nursing agency can be broken down into three components: 1) the ability to help the client meet their own and dependent others needs, 2) assistance for the client, and 3) assistance for members of the client's family which fosters competence in care (Fawcett, 1995). The APN uses the body of knowledge gained through training and practice as a professional nurse to recognize potential self-care deficits. The ability to design nursing strategies to help clients perform self-care actions helps the client to maintain health, but also enables a higher level of well-being to be obtained.

A screening protocol to detect PPD in the primary care population is an act of nursing agency when clients at risk for the development of illness and a potential self-care deficit are identified. Through the assessment of basic conditioning factors, such as a previous history of depression, the lack of social support and previous life events, the professional nurse may identify factors which may predispose a woman to the development of PPD. As a women moves from the pregnant state to the postpartum period, the nurse will assess changes in the woman's therapeutic self-care demand. Symptoms such as anxiety, fatigue and child-care stress, may make it difficult for a woman to provide herself and her infant continuous, effective self-care. The screening process provides a tool for the professional nurse to utilize when assessing these changes and providing support, education and intervention as appropriate. Through the process of screening for warning signs predictive of PPD, the nurse can assist the client in regaining her ability to meet her therapeutic self-care demand, enhance self-care agency, which enables the client to perform continuous, effective self-care, for herself, as well as, her infant. This process ultimately enhances the health of the client and her family system as a whole.

Review of the Literature

The review of the literature defines the problem of postpartum depression (PPD), addresses the impact of this disorder on the mother, the infant and the family structure, and supports the need to screen women in the primary care setting for symptoms of depression. The review also explores the screening tools available to the primary care clinician to detect depressive symptomatology and the methods employed to implement these tools in the primary care population.

Postpartum Affective Disorders

There are three affective disorders which may present during the postpartum period. In order of severity they are: maternity blues, postpartum depression and postpartum psychosis. It has been proposed that postpartum mood disorders range along a continuum of severity from little to no disturbance to severe disturbance in functioning (O'Hara, 1995). There are no natural dividing points to separate these disorders and women at the boundaries will be similar to each other (O'Hara, 1995).

The maternity blues commonly referred to as the blues is the most common and least debilitating of the postpartum affective disorders. This disorder has shown a consistent, positive correlation with the later development of postpartum depression. Approximately fifty to eighty percent of postpartum women develop symptoms associated with the blues (O'Hara, 1995). It is generally a self-limiting condition of the early postpartum period, with symptoms consisting of labile mood, tearfulness and irritability (Millis & Kornblith, 1992). The onset of the blues usually begins on the third or fourth day and peaks on the fifth through the tenth day of the postpartum period. The blues rarely cause disability and are best treated with support and reassurance (Millis & Kornblith, 1992). Women who develop severe cases of the blues should be closely monitored for the later development of depressive symptomatology (Beck, 1992).

At the opposite end of the spectrum of postpartum affective disorders lies postpartum psychosis. This is a rare disease entity with rapid onset, presenting with significant reality impairment, rendering the woman unable to care for herself or her infant (Beck, 1993). These women may experience suicidal and/or homicidal ideation, impaired reality testing and the physical symptoms of inability to eat or sleep. The onset

of any of these symptoms requires immediate intervention. Postpartum psychosis is considered a medical emergency and hospitalization with medication and intensive therapy are generally required (Stowe & Nemeroff, 1995). Women who experience one episode of postpartum psychosis have a four-fold chance of a repeat episode. Therefore, assessment for history of psychiatric episodes is essential during the prenatal history and assessment visits (O'Hara, 1995).

A postpartum depression episode may encompass features found in both the blues and postpartum psychosis and present with varying levels of impairment of maternal function. The disorder may strike women regardless of age, race or socioeconomic status, anytime within the first postpartum year (O'Hara, 1995). Left untreated, PPD has the potential to become a chronic, disabling entity, impacting the function of not only the woman herself, but her family as well (Beck, 1995).

Pitt (1968), first described depression after childbirth as "atypical" or different than the normally held construct of depression. Pitt's (1968) definition included emphasis on anxiety, not generally found in diagnostic criteria for a major depressive episode. The DSM-IV (1994), the standard by which psychological disease is measured, defines the symptoms of a major depressive episode as:

"changes in appetite or weight, sleep or psychomotor activity, decrease in energy, feelings of worthlessness or guilt; difficulty thinking, concentrating, or making decisions; recurrent thoughts of death, suicidal ideation, plans or attempts" (p. 320).

Beck's (1992) phenomenological study describes the experiences of women suffering from PPD. It addresses the components included in this definition, and provides further insight into the disorder from the mother's perspective. According to Beck (1992), the experience of PPD can be described as revolving around eleven specific

themes. The themes include: unbearable loneliness, contemplation of death, fear of harming their infants and obsession with being a bad mother. These mothers described periods of "being in a fog", being unable to think, concentrate, feel emotion or enjoy previous interests (Beck, 1992). Panic attacks and lack of control over what is occurring in their lives completes the list. Although components of the DSM-IV definition are apparent, anxiety is the prevailing symptom, concurring with earlier findings that PPD is a distinct affective disorder.

While recognition of postpartum depressive symptoms is significant, not all authors agree that PPD is a distinct depressive entity. Gotlib and Whiffen (1991), found very few differences in depressive symptomatology between samples of depressed childbearing women and matched controls of non-childbearing women. O'Hara et al., (1991), also found little difference between samples of depressed women, with different childbearing status. However, there have been too few controlled studies to be confident that PPD does not present in a distinct fashion (O'Hara, 1995). These findings have lead the DSM-IV to label depression in the postpartum period, "Postpartum onset major depression" (1994). The acknowledgment of the presentation of a distinct depressive disorder supports the need to develop methods of detecting PPD.

Symptoms of PPD

The literature explores warning signs and symptoms which may herald the onset of a depressive episode in the postpartum period. According to Beck (1992), PPD may present with symptoms which include: low mood, crying, increased level of fatigue, lack of sleep, increased level of anxiety, the inability to enjoy previous activities and obsessive

thoughts. Other signs such as over concern for the baby's welfare, anger and irritability and excessive anger may be present (Affonso et al., 1990; Knops, 1993).

It is also important to note that although women may display the signs and symptoms of PPD, it may be impossible to predict which women will actually go on to develop the disorder. Normal postpartum physiologic symptoms may camouflage the depression (Whiffen, 1988). Primary care providers need to be aware of the symptoms of PPD when interacting with a new mother. PPD has been described as "mercurial", as the symptoms wax and wane over time and may be different on a daily basis. It is for this reason mothers and their families may not recognize the problem.

The onset of PPD may be gradual, therefore evaluation for the disorder should continue if the client presents for multiple somatic complaints during the first postpartum year (Stowe & Nemroff, 1995). O'Hara (1995), states although it is common for PPD to be detected in the first six weeks to six months following delivery, the disorder may strike anytime within the first year.

Causes of Postpartum Depression

Research has also focused on uncovering the factors which may predispose a woman to the development of PPD. Studies have explored the physical, emotional and cultural factors which may contribute to the development of PPD.

Some authors contend that PPD is a "hormonally mediated" depression. Although neuroendocrine changes which take place during the postpartum period are likely markers in the development of mood disorders, research in this area has been unable to make a direct link between a specific hormone or change in hormonal level and the onset of PPD (O'Hara, Schlechte, Lewis & Varner, 1991).

The etiology of PPD appears to stem from not only physiological factors, but also is combined with psychological and cultural factors as well. For many women the birth of a child signifies a developmental milestone. According to Gruen (1990), the birth of a child can be viewed through the framework of loss. The new mother's coping skills are no longer sufficient to meet the demands of her multiple roles of wife and mother, while still attempting to continue to provide for own needs. A loss of the established couple relationship is realized, as well as loss of personal freedom. These factors coupled with the inability of the mother to express negative emotions surrounding the birth of typically a healthy infant may cause women to experience shame and fear when negative emotions are experienced (Gruen, 1990). Popular media portrays a smiling new mother, playing with her cuddly newborn infant, while juggling the demands of a spouse, job and a family. For many women this scenario is a myth, quickly turning the bliss of coming home with a new baby to feelings of overwhelming concern (Unterman, Posner & Williams, 1990). According to Affonso (1990), the role of mother is not innate, but acquired over time. Health care providers should work to support mothers in this process of role attainment, while providing a supportive environment to express their concerns.

Relationships within the family structure are important factors which impact the development of PPD. Studies have consistently linked women's dissatisfaction with the primary intimate relationship with the development of PPD (O'Hara, 1995; Whiffen, 1988; Beck, 1996).

Other studies have explored the relationship of the woman with her own parents as an indicator of the development of PPD (Knop, 1993). A distant relationship with ones' own mother, the perception that the mother did not enjoy the mothering role and

lack of involvement of the father all correlate with the predisposition to the development of PPD (Holden, 1991). Genetic factors may also help explain an increase in PPD in women who have a first degree relative with a history of depression (O'Hara, 1995).

Predictor Variables of the Development of PPD

Through the analysis of the causative factors associated with PPD, a set of risk factors which may predict the development of PPD has been validated by Beck (1996) through meta-analysis. Eight categories of predictor variables were identified as being positively correlated to the development of depressive symptoms postpartum. The cited variables include: prenatal depression, child care stress, life stress, lack of social support, prenatal anxiety, maternity blues, lack of marital satisfaction and history of previous depression. The above variables can be utilized as an initial screen to "flag" those women who may be at risk of development of PPD in the primary care setting.

Consequences of PPD

The development of PPD has negative consequences for the woman, her children and the family unit as a whole. The literature points to an increased incidence of repeated depressive episodes in women who suffer from PPD. A woman who suffers from a depressive episode postpartum is 30% more likely to suffer from subsequent depressive episodes than a non-depressed woman postpartum (O'Hara, 1995). Research has indicated that depressed women have a difficult time relating to their babies and may develop negative attitudes toward their children (Susman, 1996). Beck (1995), describes the feelings of loss experienced by women who are recovering from PPD. Mothers are left feeling angry, as though their child's infancy was wasted, as they were unable to enjoy so many of the changes that take place during the baby's first year of life.

Due to the finding that PPD can result in significant impairment of the function of the mother to care for her child, studies have investigated the effect of PPD on the cognitive and emotional development of the child. PPD adversely impacts maternal/infant bonding which fosters cognitive and behavioral deficits in the infant (Affonso et al., 1990). Unterman, Posner and Williams (1990) describe the withdrawal, irritability and fatigue of the depressed mother, as limiting and distorting healthy interaction with the infant; this causes emotional deprivation in the child. This factor encourages the child to fall into the depressed mood of the mother, thus responding to the affective climate in the home.

Even as the mother recovers from a depressive episode, the impact of the depression persists as the child becomes older. Children of depressed mothers have been found to be more temperamental, have more negative impressions of their mothers and possess more cognitive and behavioral deficits when compared to children of non-depressed mothers
(Susman, 1996).

Although little research has been done on the impact of PPD on the family as a unit, there is evidence that the stability of the couple's relationship is affected by maternal depression. Depressive symptomatology in the mother may leave her significant other feeling distraught and confused (Gruen, 1990). The partner feels powerless to control the situation. This feeling of powerlessness may lead to overt or covert anger expressed toward the mother or the child for disrupting the couple's life (Gruen, 1990). Anger may also be expressed at health care providers for failure to inform the father regarding the potential for the development of PPD or for not curing the illness (Gruen, 1990).

Current Screening Recommendations

Current screening recommendations include, detecting risk factors through a prenatal history assessment, as well as screening for depressive symptomatology during the postpartum period. O'Hara (1995), states that risk factors associated with the development of PPD can be detected early in pregnancy. Thus, prenatal history questions should include information regarding risk factors such as treatment for a current depressive episode, prenatal anxiety, history of depressive episode, lack of social support or financial resources. These risk factors may help the clinician identify women at risk to develop depression in the postpartum period.

Some authors have devised prenatal screening tools to detect risk factors associated with the development of PPD during the prenatal period. Posner, Unterman, Williams and Williams (1997), constructed the Antepartum Questionnaire. This tool was developed in the interest of identifying those women at risk for PPD in the prenatal period in order to prevent PPD or at least institute early treatment of the disorder. Likewise, Stamp, Williams and Crowther (1996), present an antenatal screening tool to predict the likelihood of the development of PPD. As these tools are newly developed, no controlled studies have been done to date to test their validity and reliability of such screening tools. Further study is needed to determine if these screening measures improve the rate of detection of PPD, therefore improving the outcome of treatment for the disorder.

The detection of depressive symptomatology during the postpartum period is perhaps the most prevalent method to screen for the disorder. The literature documents numerous screening tools to detect depression during the postpartum period.

Unfortunately, no systematic guidelines for the assessment of depression in postpartum women have been evaluated to standardize the screening process.

Tools to Screen Depression in Primary Care

Various screening tools are available to primary care clinicians to detect depressive symptomatology in postpartum women. Brief paper and pencil questionnaires have been specifically constructed to assess stressors that may indicate risk factors for adverse mental health outcomes (Hall, et al., 1996). According to AHCPR (1993) guidelines, patient self-report tools are a low cost, valuable method of depression case-finding in the primary care setting. Although these tools are sensitive, an accurate diagnosis cannot be made on the basis of patient self-report alone. Results of screening tools must be verified through physical exam findings to rule out physical disease, as well as psychological assessment based on DSMIV criteria to accurately diagnose depression and comparison to DSM-IV criteria (Stowe & Nemeroff, 1995).

The most frequently mentioned self-report tools noted in the literature include, the Beck Depression Inventory (BDI) (Beck et al., 1960) and the Edinburgh Postnatal Depression Screen (EPDS) (Cox et al., 1987). The BDI is an accurate, reliable and valid self-report tool that has been reported as effective in the primary care setting (Mulrow et al., 1995). The BDI is a depression specific tool consisting of twenty-one items, with easy readability and an administration time of two to five minutes. Many early studies exploring PPD used the BDI to assess depressive symptoms (O'Hara, Neunaber & Zekoski, 1984; O'Hara et al., 1991). As research progressed, it was found that the instrument did not necessarily predict the onset of PPD (O'Hara, 1988; Gotlib et al., 1991). It was hypothesized that the somatic nature of the depressive symptoms assessed

by the BDI were overlapping normal physiologic changes associated with the postpartum period. Fatigue, difficulty sleeping and change in appetite are all normal physiologic complaints of postpartum mothers which are also predictors of depression as assessed by screening tools (Affonso et al., 1990). This overlap in physical symptoms led researchers to develop a tool which would control for normal physiologic changes, while still assessing for the emotional components of depression.

The development of the EPDS, was an attempt to construct a screening tool that could detect the emotional changes inherent in PPD. The tool was developed with the goal of being acceptable to both the provider and the woman, and easily incorporated into the primary care setting (Holden, 1991). Several studies have shown the EPDS to be a valid and reliable screen in detection of PPD in the primary care population (Holden, 1991; Cox, 1996).

The tool is a ten item questionnaire which takes a few minutes to complete and focuses on the psychological, emotional and physical manifestations inherent in PPD. Items include the assessment of the ability to laugh, the ability to enjoy activities, feeling panicky or scared, the ability to sleep, feelings of sadness, and the inability to accomplish tasks. The mother must indicate if she has encountered the concern listed and then quantify the response. The tool has been recently validated for use in pregnant woman, and in women with older children (Cox et al., 1996). The criticism of the EPDS, as well as other self-report tools, is the fact that the tool does not give the woman the opportunity to fully describe their depressive symptoms (Beck, 1996).

Semi-structured questionnaires are another method of detecting depressive symptomatology in the primary care environment. An example of a semi-structured

questionnaire used to detect PPD is known as Schedule of Affective Disorders and Schizophrenia (SADS)(Affonso et al., 1990). The SADS questionnaire has been most frequently used to validate symptoms found on self-report measures. Semi-structured questionnaires give the provider more information regarding the history and course of symptoms by allowing the patient to fully explain symptoms. However, these tools are costly to administer and may be difficult to integrate into a busy office practice (Affonso et al., 1990; AHCPR, 1993).

Newer studies are focusing on the variety of case-finding instruments available to detect depression in the primary care setting. Recently developed tools are shorter, focusing primarily on the psychogenic properties noted in depression: low mood and anhedonia, or the loss of pleasure in usual activities. Whooley, Avins and Browner (1997) evaluated a tool limited to two questions: "Are you bothered by feeling down, depressed or hopeless?" and "Have you been bothered by little interest or pleasure in doing things?" The performance of these two questions in detecting depression in the outpatient setting was similar to valid, reliable measures in this particular study.

Implementation of Screening Tools

Although research studies have focused on screening tools to detect PPD, little work has been done to explore the efficacy of the variety of methods available to administer these tools (Mulrow et al., 1995). Available literature discusses the application of screening tools in a variety of environments. Screening tools can be completed in the primary care provider's waiting room, during an examination, over the telephone, or in the client's home (AHCPR, 1993). The population being screened and

resources available within the health care system appear to dictate the method of administration of these tools.

Changes in the health care arena have impacted the way the medical community, particularly in primary care, provides, manages and evaluates its service (Starfield, 1992). Primary care providers are responsible for detecting and managing changes in the client's health status (Stowe & Nemeroff, 1995). In order to detect and monitor these changes, alternate methods of assessment have been developed. The use of the telephone to manage clients has become an important aspect in the provision of primary care services (Studdiford et al., 1996).

The Use of the Telephone in Primary Care

The use of the telephone to keep in contact with clients during vulnerable times, is a valuable, cost-effective assessment tool. The telephone has been used to monitor the elderly, the chronically ill, and the maternal-child population (Studdiford et al., 1996; Stover & Marnejon, 1995). The result has been increased support for clients, providing "extension of the stethoscope" in making decisions to clinically manage clients, and saving time and health care dollars by assessing and managing the client outside the hospital or clinic setting when possible (Studdiford et al., 1996).

Early hospital discharge for maternal-child clients has shifted the responsibility back to the primary care provider for the of care for the early postpartum periods for both the mother and the baby (Stover & Marnejon, 1995). It is now more important for primary care providers to stay in close contact with new mothers during this time of transition.

According to Stover and Marnejon (1995), a follow-up phone call within the first week of the postpartum period is an opportunity to exchange valuable information regarding the progress of the mother and the new infant. The use of the telephone, employing supportive listening, helps to allay concerns, provides anticipatory guidance, and helps the new mother to develop realistic expectations of herself and the infant in the early postpartum period. Questions such as, "How is it going at home?", can give the new mother an opportunity to discuss her experience and give the nurse an opportunity to pick up on cues that concerns are present and need to be addressed. Perhaps a follow-up appointment to evaluate concerns or a phone call to provide anticipatory guidance is appropriate.

The support provided by a postpartum phone call also gives new mothers the invitation to call the primary care provider back if unexpected concerns arise. The support provided is important when dealing with a mother who may be depressed. Often times women do not feel that others can associate with their experience nor do they feel they can share their negative feelings (Beck, 1995). A provider/client relationship built on trust will facilitate positive health outcomes for the mother and her infant.

Other questions to accurately assess the adjustment of the mother and her infant in the early postpartum period may include: "Do you have any concerns regarding your own health?" and "What are you doing to meet those needs?" A question phrased as, "Do you have any concerns about how your baby is doing?", may open the door to discuss with the new mother concerns related to the health of the infant as well as assess the mother's knowledge of newborn care (Stover & Marnejon, 1995, p. 1467).

The Use of Telephone Protocols in Primary Care

Telephone protocols are one way to gain and document information to aid in clinical decision making in the primary care setting (Studdiford et al., 1995). In order to accurately obtain information regarding the adjustment of the postpartum women, the primary care provider must delegate telephone duties to a professional prepared in art of telephone assessment, who possesses good interpersonal skills and has the ability to detect affective nuances which indicate a possible adjustment problem. Telephone protocols enable the caller to obtain the desired information in an organized, consistent fashion, and enables health care providers and consumers to make decisions related to the severity of a medical disorder (Briggs, 1997).

According to Briggs (1997), telephone protocols help to guide a line of questioning to aid in health care decision making, but do not make a medical diagnosis. Telephone protocols help the health care professional to respond to a call with confidence and consistency, while minimizing subjectivity (Briggs, 1997). Although protocols aid in decision making, they do not take the place of sound clinical knowledge and experience, therefore, RNs must gather information and refer to primary care providers when indicated. Studdiford (1995), states that only personnel trained specifically in the use of the telephone, who have excellent assessment skills and clinical knowledge base should be responsible for answering and documenting medically related telephone calls (Studdiford et al., 1995).

The review of the literature summarizes the symptoms associated with PPD, the causes of PPD as well as the effects of PPD on the mother, the child and the family. The impact of this disorder points to the need to increase the use of screening measures to

detect PPD in the primary care setting. The literature also reviews a variety of tools to and methodology to implement the screening process, not only to detect depressive symptomatology, but to provide education regarding the normal and expected changes encountered in the postpartum period as well.

Project Plan

Target Population

A screening protocol to detect the warning signs associated with the onset of postpartum depression will be developed for use within a primary care clinic which provides obstetrics and gynecology services. The office practice serves, Midwestern, white, women, aged eighteen through forty five, with on average an eighth grade education or above. The practice supports between fifteen and twenty deliveries a month. Various health insurance plans are represented in this population: Medicaid, private health maintenance organizations, commercial insurers and private payers.

Development of the Protocol

The protocol will be framed as a postpartum follow-up phone call, consisting of a semi-structured questionnaire based on the work of Stover and Marenjon (1995), Cox et al. (1987), and Whooley et al. (1997). The use of a semi-structured questionnaire, although time consuming, has the advantage of allowing the mother to describe her postpartum experience and ask questions when indicated (Beck,1995). The interview format allows the RN opportunity gather needed information from the client, provide valuable education to the new mother, and provide a supportive environment to facilitate the building of a trusting relationship with the client.

In order to make the protocol easy to understand and administer, the project will consists of two separate instruments. The first instrument, the telephone screening protocol, will discuss the information needed to be collected to complete the screen, will provide the rationale for the inclusion of each question in the protocol and discuss the appropriate follow-up action based on the client's response to the protocol. This document can be used as a reference guide should questions arise during the administration the protocol and can also be used to educate the staff regarding the implementation of the protocol. Appendix A outlines the telephone screening protocol.

In order to provide a format that is quick and easy for the clinician to administer and provide a mechanism to document the client encounter, a second format was developed. The tool is comprised of the list of questions needed to administer the protocol, with diagnostic criteria to aid in formulating an individual plan of care for each new mother. Appendix B outlines the tool labeled, Initial Postpartum Contact.

The RN is chosen to administer the screening protocol as the literature discusses the need to delegate telephone management of patients by protocol only to those personnel with clinical knowledge and effective communication skills (Studdiford et al., 1996). The RN will administer the screening protocol to all women who deliver infants while under care of the clinic's primary care providers (PCPs), within ten days of the infant's birth. This time-frame is chosen as up to 80% of women suffer some symptoms of the maternity blues during this period of time (O'Hara, 1995). Women who experience a severe case of maternity blues are at increased risk for the later development of PPD (Beck, 1992). Postpartum psychosis, a rare and severe condition may also present during

this time-frame. Therefore, assessment of maternal adjustment at this time interval may be helpful in detecting a range of postpartum affective disorders.

Subjective data

The telephone screening protocol will open with the RN introducing herself, stating the purpose of the call will state that she is phoning from the primary care clinic to see how the mother is doing since she has been home from the hospital with her new baby (Stover & Marnejon, 1995). The mother will be informed the length of the call will be approximately ten minutes. If the mother consents to the call, the protocol will be opened with the questions regarding the mother's physical condition since hospital discharge. Concerns related to the care of the episiotomy, the breasts, the ability to maintain adequate rest, nutrition and fluid status will be assessed by the nurse. The nurse will inquire as to whether the mother has specific concerns related to physical changes. A mother who has multiple physical concerns, is unable to obtain adequate nutrition due to decreased appetite or is fatigued due to the inability to obtain adequate rest due to anxiety or demands of child-care is at greater risk for the development of PPD (Beck, 1996).

Questions regarding physical concerns are placed first in the protocol as many new mothers have questions related to the physical changes associated with the postpartum period. Most mothers are comfortable discussing these concerns with the nurse, this comfort level helps to foster a trusting relationship between the nurse and the client. This trust facilitates later discussion regarding emotional concerns common to the postpartum period, as the literature shows many postpartum women have difficulty discussing negative emotional concerns related to the birth of a healthy baby (Beck, 1992).

The nurse will then inquire regarding the physical status of the infant. Does the mother have any concerns regarding the infant's feeding, elimination, sleep pattern or temperament? Many new mothers have questions regarding the routine infant care. The RN will have the opportunity to assess the mother's level of knowledge in this area and provide education as appropriate. The mother will also be asked if she feels she is able to meet the needs of her infant. A mother who verbalizes difficulty meeting baby's needs, shows over-concern for the health of her infant, as well as an infant who is overly fussy or fails to thrive may indicate depression in the mother (Knops, 1993).

Social support is the second topic addressed by the protocol. "How is your family adjusting to life with baby?", may open the discussion of spousal support as well as support of extended family and friends. Is the spouse willing and able to take part in child care activities? Is the couple able to integrate the baby into the established family structure? Women with an unstable primary relationship or lack social support are at risk for the development of PPD (Whiffen, 1988). This may also be a good time to provide the new mother education regarding the normal and expected transition of the roles for both spouses during the postpartum period. This information may help both spouses form realistic expectations of both mother and infant during the postpartum period (Gruen, 1990). The RN may also be able to help the mother tap into available community resources for use during this time of transition if indicated.

Once physical and support issues are explored, the nurse may then proceed to assess the emotional issues which may be apparent during the early postpartum period. The mother will be asked to answer "yes" or "no" to the following questions. Is the mother suffering from mood swings, crying spells or increased anxiety level which interferes

with her normal activities? Does the mother feel she is unable to think clearly and has the inability to think clearly impaired the mother's ability to make decisions? Is the mother experiencing feelings of increased anxiety or guilt? Is the mother suffering from low mood or the inability to experience pleasure in the activities she once enjoyed? If the mother answers any of the above questions in the affirmative, then the perceived level of distress must be quantified. The mother will then be asked how may days in the last week the symptoms have been present. The response options will include 1-2 days, 3-4 days or 5-7 days. Grading the endorsement of a symptom in this manner allows the RN to quantify the level of distress in the new mother and assess these feelings may impact the level of the mother's functioning. By quantifying the response the RN is able to provide nursing interventions based on the client perceived level of distress (Cox et al., 1987).

If the mother responds positively to only mood swings and irritability, lasting for only several days, the RN may suspect that the mother is suffering from maternity blues. As the blues are transient in nature, the RN may simply provide a listening ear and offer the new mother community support systems to help her better cope with the situation (Millis & Kornblith, 1992). As the onset of maternity blues is a risk factor for the later development of PPD, the RN should plan a follow-up phone call within the next week or so to assess the mother's level of function (Beck, 1992).

If the mother gives an affirmative response to the questions relating to low mood and lack of ability to experience pleasure, quantifying the emotion as most days of the week, the nurse may suspect the client is depressed (Whooley et al., 1997). These two factors were found to be reliable indicators of depression in the primary care population. Other indicators of depression as outlined in the DSM-IV (1994) include: anxiety, guilt,

hopelessness, as well as low or sad mood and inability to experience pleasure and recurrent thoughts of death. The greater the number of symptoms endorsed by the client, the greater the chance a diagnosis of depression will be made (AHCPR, 1993).

The endorsement of symptoms associated with depression indicates the nurse must address the concept of suicidality with the mother. Again, the mother will be asked to answer "yes" or "no" to the following questions. Has the mother considered the act of harming herself or her infant? If she has considered this thought, has the mother formulated a plan to carry out this consideration? The ability of the mother to formulate a plan to harm herself or her baby is a medical emergency, indicating immediate intervention by the client's PCP or the referral to a mental health specialist when indicated.

During this line of questioning the nurse may pick up on cues that the mother has impaired reality testing. Irrational behavior, with impaired cognition resulting an inability to eat, sleep or care for herself or her child should lead the nurse to consider the onset of postpartum psychosis (Stowe & Nemeroff, 1995). Postpartum psychosis presents in a sudden fashion, generally within the first two postpartum weeks. Should the RN suspect any the symptoms consistent with the development of postpartum psychosis, immediate intervention by the PCP is indicated.

Objective data

Prior to the completion of the screening protocol, the RN must review the clients prenatal and hospital record for pertinent history information, which will aid in planning of needed follow-up care (O'Hara, 1995). Risk factors such as treatment for current depressive episode, past history of psychiatric disorder, the lack of support systems and

the occurrence of stressful life events are all predictor variables which may increase the risk of the development of PPD (Gotlib et al., 1991). It is also important for the nurse to note a less than optimal birth outcome. Women who have given birth to a stillborn infant, an infant with a birth defect or had a traumatic birth experience may also be at risk for the development of PPD (Beck, 1995).

If the client has pertinent risk factors, these must be taken into consideration along with subjective findings when planning appropriate follow-up care. In some instances, providing reassurance by means of a phone call to the new mother will be adequate (Gruen, 1990). For women with extensive risk factors, such as treatment of current depressive disorder or who experience the delivery of an infant with a birth defect, an early follow-up appointment may be indicated with the client's PCP (O'Hara, 1995).

Clinical decision making

The analysis of the gathered subjective and objective data will guide the RN in the clinical decision making process. Women who exhibit the warning signs of PPD, as assessed by the tool, will need appropriate follow-up. Appropriate follow-up care is determined by the number of risk factors present for the development of PPD and the level of distress displayed by the mother during the interview process.

Women who present with moderate to severe levels of low mood, lack of interest in usual activities, or exhibit greater than three emotional or multiple somatic complaints will require early office follow-up. The time-frame of the follow-up will be determined upon consultation with the client's PCP, as follow-up must be tailored to the client's symptoms. According to DSM-IV (1994) criteria, depressive symptomatology must be present for at least two weeks to diagnose a depressive disorder. For women with more

mild symptoms, or for those women with multiple risk factors, but no perception of distress during the interview, a follow-up phone call in one to two weeks by the clinic RN to assess continued maternal adjustment is indicated. Should changes in maternal health status occur, the RN will discuss the change with the client's PCP and a further plan of care will be formulated.

Plan of care

After the questionnaire is completed, the RN will ask if the mother has any further questions and inquire regarding the scheduled date of the infant's well-child check and the mother's six week postpartum check. The RN will develop an initial plan of care based on the outcome of the assessment interview and any present risk factors. If scheduled appointment dates are deemed inappropriate after the interview, the RN will make adjustment in the appointments based on the guidelines stated in the protocol. The RN will complete the documentation of the encounter tool labeled, Initial Postpartum Contact and add the document to the client's record for review of the primary care provider prior to the mother's six week postpartum check.

Implementation of the Protocol

Before the protocol can be effectively implemented, all clinic staff must be adequately trained regarding the purpose of the protocol, have sufficient knowledge to administer the protocol and understand the collaborative nature of the protocol. The APN would be responsible for the training of the clerical, RN and provider staff, ensuring a smooth implementation of the screening protocol.

In order to competently perform the screening protocol, the RN should be properly educated in the normal postpartum changes experienced by women and their families.

The RN should be able to supply practical advice regarding infant care concerns, the normal and expected course of postpartum symptoms such as fatigue, care of the perineum or cesarean section incision, appropriate nutrition, as well as, guidelines for activity and adequate rest. The RN should also have adequate knowledge of normal newborn feeding, sleeping and elimination patterns, as well, as normal infant behavior to answer questions the mother may have.

The APN will facilitate the assessment of the RN's knowledge base through a pre-test prior to the implementation of the protocol. The APN would then provide education to the RN staff based on the areas of demonstrated weakness. A post-test would then be provided to ensure adequate learning has occurred to facilitate successful completion the protocol.

In order to implement the telephone screening protocol, the RN must also have the ability to pick up verbal cues which may give valuable information regarding the mother's adjustment during the postpartum period. The RN needs to note the mothers affect. Does she sound anxious and overwhelmed or content and in control? Is she comfortable with answering the questions or does she seem preoccupied? These are the affective nuances that the RN must be in tune with when questioning the mother regarding her postpartum experience.

To ensure the RN staff is able to detect affective nuances and is able to provide a line of questioning to obtain needed information from the client, the APN will institute a role-playing exercise. The RN staff will take turns playing the role of the client and the interviewer in a variety of hypothetical situations. This exercise would sharpen the RN's interviewing skills and provide a forum for discussion of how to best handle various

client interactions. Education on this topic is mandatory as the literature shows that many women have difficulty verbalizing their concerns and do not feel they can express negative emotion associated with their childbirth experience. Therefore, it is important for the RN to pick up on cues which may signal a concern on the part of the mother (Beck, 1995; Gruen, 1990).

The PCPs working within the clinic must also be trained as to the intent of the protocol, their role in the care of patient based on the findings of the protocol and the process by which the protocol will be implemented. The literature discusses the reality that not all PCPs are aware of the problem of PPD or how to diagnose and manage the disorder (Knops, 1993). PCPs should be familiar with the risk factors which may predispose a client to the development of PPD, the presenting signs which may herald the onset of the disorder as well as diagnosis and treatment strategies (O'Hara, 1995). The APN may play a role in educating the clinic PCPs regarding the topic of PPD and act in the role of consultant when needed.

The clerical staff must also be trained regarding the proper implementation of the protocol from a process standpoint. The clerical staff will prompt the RN to complete the follow-up call when the mother phones the clinic to schedule follow-up appointments for her six-week postpartum check-up and the baby's newborn check. The mothers are informed at discharge from the hospital to contact their primary care provider within 24-48 hours of arriving home (Stover and Marnejon, 1995). The clinic receptionist scheduling the appointment will alert the RN of the mother's contact. The receptionist will complete the demographic data on the Initial Postpartum Contact tool and forward it to the RN to implement the screening protocol.

The clerical staff will also monitor the number of clients who receive the telephone screening protocol. At the end of each month the clerical staff will check the list of clients who have delivered and do a chart audit to ensure that all eligible clients have received the screen. This method of case management may also be used as a quality assurance tool, to assess whether the system in place to notify the RN of the need to implement the screen is reaching all eligible clients.

Evaluation of the Protocol

To evaluate the effectiveness of this screening protocol, a pilot study of the protocol will be undertaken. According to Polit & Hungler (1995), it is important to test the validity of the screening tool, ensuring the ability of the tool to measure what it is designed to measure. As the use of screening tools in the primary care setting may help to detect disease and provide early intervention, the efficacy of the screening tool must first be tested in order to ensure the ability of the protocol to screen for a given disorder. If screening tools are not valid, frequent false-positive responses will result in expensive clinical work-up, wasting health care dollars (USPSTF, 1996).

A pilot study of ten client encounters will be analyzed. The responses provided to various questions of the screening protocol and the plans of care derived from the encounter, based on the criteria set forth in the protocol would be monitored. Polit and Hungler (1995), state that a pilot study will help assess the feasibility of a protocol and determine if the questions are able to obtain needed information as written. Adjustments to the protocol would be made on the basis of the information collected during the pilot study.

The second aspect of the pilot study would be to gather information from the individuals implementing the protocol, which may help to improve one or more aspects of the project (Polit & Hungler, 1995). The RN administering the tool would be surveyed to inquire about the ease of administration of the tool. Inquiry would be made as to whether the questions were grouped in logical order and if the protocol flowed easily from one topic to the next. The RN would also be questioned regarding the receptivity of the mother to phone call. From the RN's perspective, was the mother receptive to the phone call or did she find the call intrusive?

Input should be received from the primary care providers to assess if the tool is able to detect those women with depressive symptomatology. This feedback would provide information regarding the reliability of the protocol, or the ability of the tool to detect the physical and emotional components inherent in the development of PPD. Feedback would also be elicited as to the quality of the information obtained as a result of the screening questions asked of the client. Overall, information would be obtained from the PCP's perspective, to identify whether or not the tool was useful in making a diagnosis of depression.

Finally, a patient satisfaction survey would be generated to assess the client's reaction to the phone call. Information would be elicited regarding the ability of the client to understand the questions which were asked and feedback regarding the quality of the information received would be obtained. Other survey questions would inquire regarding the ability of the nurse to provide the new mother adequate education and support related to adjustment issues of the early postpartum period.

Implications for the Advanced Practice Nurse

Implications for Practice

The development of a screening protocol to detect PPD in the primary care population has important clinical implications for the practice of APN in the primary care environment. The APN as a clinician in the primary care setting, must assess changes in the status of his/her clients. As PPD has been described "mercurial", making it difficult for the mother to relay her symptoms, the protocol will allow the APN a basis of comparison for future interactions with the client by providing a quantitative assessment of the mother's emotional concerns. The protocol will also assist the APN in formulating an individualized plan of care according to the information obtained during the screen. The implementation of the screening protocol will enhance the ability of the APN to detect and diagnose PPD, ensuring early treatment for the client. Early treatment of depressive symptomatology may help to decrease the functional limitations of the mother associated with PPD and lessen the impact of the mother's depression on the child.

The APN will also function in the role of consultant during the process of implementation of the protocol. The literature shows that not all PCPs in the primary care environment are aware of the incidence PPD or of the methods available to effectively screen for the disorder (O'Hara, 1995). By acting as a consultant to other PCPs, both within their own environment, as well as in other practice settings, an increase in the incidence of screening for PPD may take place.

Implications for Education

The protocol can be also utilized as a tool to educate primary care staff regarding the incidence, detection and treatment of postpartum affective disorders. The APN can

functions as a resource clinician for both primary care providers and ancillary clinic staff in this endeavor. As overall rates of detection of PPD in the primary care setting are low, the introduction of this screening protocol will help to heighten awareness of the problem among a multi-specialty primary care staff.

Within the pediatric environment, the APN could educate staff regarding detection of PPD in that setting. The pediatric PCP has the opportunity to periodically evaluate the adjustment of the mother and family at designated well child check-ups. The pediatrician may detect changes in the mother ability to perform care for herself or the ability of the mother to care for her infant. Mothers may be noted as tearful, anxious or may be sensitive to comments made by the provider that is perceived as "critical" of their mothering skills. If these symptoms are present and PPD is suspected, the pediatric department must have information regarding appropriate community resources to help the mother cope and referral information to mental health specialists available within the community.

Members of the internal medicine practice must be made aware of the incidence and presenting factors associated with PPD. As the symptoms associated with PPD can manifest anytime in the first postpartum year, affected women may present to internal medicine practitioners with vague physical symptoms which may be difficult to substantiate clinically. Common physical complaints of mothers who are suffering from PPD include: headaches, gastrointestinal symptoms, as well as fatigue (Stowe & Nemeroff, 1995).

As the incidence of screening for PPD needs improvement in the primary care environment, the protocol could be used as a tool to educate both nursing and medical

students to increase their awareness of the problem of PPD. Future primary care clinicians must understand the risk factors associated with the development of PPD. Students must also have knowledge of the symptoms which herald the onset of the disorder and the impact of the disorder on both the mother and child. Integration of the information found in this protocol into the student's coursework, would help to ensure a solid knowledge base for the next generation of PCPs when screening women for PPD in the primary care setting.

Finally, the information contained in the screening protocol could be a starting point for the development of a prenatal classes to educate expectant parents regarding adjustment issues during the postpartum period and the signs and symptoms associated with the development of PPD. Expectant parents would be made aware of community services available to help meet adjustment needs and become familiar with mental services for reference if later issues develop. The prenatal classes would also serve as a support group for new mothers in the community during the postpartum period.

Implications for Research

The development and implementation of a telephone screening protocol to detect PPD in the primary care environment provides an opportunity for continued research on the topic of the screening of postpartum women for depression. The APN would have the opportunity to participate in the collecting of data to analyze research questions generated by this protocol.

Once the validity and reliability of the protocol were established, the next step to further test the protocol would be to pilot the tool in an alternate practice setting. Validation of the protocol would take place in an urban and/or rural setting serving an

alternate population. Data collected would be analyzed to determine if the information gathered by the protocol was able to detect depressive symptomatology in alternate settings. The testing of the protocol with different client populations would increase the ability to generalize the use of the tool to other practice environments, with varied populations (Polit & Hungler, 1995). The ability to generalize the use of the tool to alternate populations would enhance the utility of the tool for APNs who primary care practice includes different client populations.

The second topic of investigation would focus on the rate of screening for PPD in the primary care environment. Through the implementation of the protocol, the APN has taken the opportunity to educate the clinic staff regarding PPD. A research study could be undertaken to determine if the education provided to the staff PCPs regarding the incidence, risk factors and the impact of disorder on the mother and the child, would lead to an increase in the screening rate of postpartum women for depression in that particular primary care environment. Detection rates of PPD by using this protocol could then be tracked and compared to rates noted in the current literature. This study would help to determine if the use of the protocol impacts the rate of depression detected in the primary care setting.

Finally, the APN could participate in studies to assess the client outcomes associated with the early telephone screening and detection of PPD in the primary care environment. Longitudinal studies would be undertaken to investigate the course of those women who receive screening and are ultimately diagnosed with PPD. Information would be gathered to analyze the relationship between screening and early detection of depression and the impact of depressive symptomatology on the mother and her family. Did the incidence of

early screening for PPD lead to the early treatment of depression in the mother? Did the early treatment of PPD lead to an increase in the functional ability of the mother, increasing the ability of the mother to perform continued self-care actions to meet her own needs and dependent-care functions to meet the needs of her infant? Studies could then be implemented to investigate whether early treatment for depression in the mother decreases the cognitive and behavioral deficits in children that are associated with maternal depression.

In summary, the development of a screening protocol to detect depression in the postpartum women and the research questions generated by this protocol will enhance the body of knowledge available to APNs in the primary care community related to the screening and detection of PPD.

Conclusion

Due to the far reaching effects of PPD and the low rate of screening for this disorder, the APN in the primary care setting needs a concise, reliable method to approach this problem in daily practice. The development of a telephone screening protocol to detect postpartum depression in the primary care population facilitates the ability of the APN to detect depressive symptomatology and provide early treatment for this disorder during a vulnerable time in a woman's life. The protocol also provides an opportunity to facilitate needed education for colleagues in the primary care environment regarding PPD, as well as providing education to postpartum women and their families through the implementation of the protocol. Finally, the telephone screening protocol is a means to collect data to further add to the body of knowledge regarding PPD. Together these

factors ensure a holistic, client-centered, research based approach to the screening of postpartum women for depression in the primary care setting.

APPENDIX A

APPENDIX A

Telephone Screening Protocol to Detect Postpartum Depression (PPD) in the Primary Care Population

PURPOSE: To provide a mechanism to screen for symptoms associated with the development of postpartum depression and provide the new mother with information regarding normal adjustment issues inherent in the postpartum period.

GOAL: Through the process of screening, identify those mothers who may be at risk for the development of PPD, to ensure early treatment of the disorder, decreasing the maternal/infant functional limitations associated with depression.

FORMAT: Framed as a postpartum follow-up phone call, the protocol will be administered by the clinic RN per phone, during the first ten days of the postpartum period.

Introduction: I'm calling to see how you and your family are doing since you've been home from the hospital with your new baby. I would like to ask you a series of questions related to common concerns experienced by new mothers in the early postpartum period and then answer any questions you may have. The interview will take approximately ten minutes to complete.

Consent to participate: Is this a good time to talk? Confirm alternate date/time if necessary.

SUBJECTIVE:

1. The first question will relate to physical concerns common to new mothers and their babies during this time. Please answer "yes" or "no" to the following questions:

Rationale: Increase somatic complaints, inability to rest related to anxiety, weight loss or gain or multiple somatic complaints may indicate depressive symptomatology in the mother.

The RN will inquire regarding the symptoms listed below. If the answer is positive the RN will clarify the response in the comment section.

	Y	N	COMMENT
a. Do you have any concerns how your bottom is healing?	☐	☐	
b. Is your baby breastfed?	☐	☐	
c. Do you have any concerns regarding your breasts?	☐	☐	
d. Are you able to eat three nutritious meals daily?	☐	☐	
e. Are you able to obtain rest each day to avoid fatigue?	☐	☐	

2. Do you have any concerns regarding the baby's health?

Rationale: Over concern for the health of the infant/failure to thrive/ increased fussiness may indicate risk A temperamental baby who is difficult to console may increase perceived childcare stress in the mother, also increasing risk for PPD.

	Y	N	COMMENT
a. Is your baby having difficulty feeding?	☐	☐	
b. Does your baby have 6-8 wet diapers daily?	☐	☐	
c. Does your baby have difficulty sleeping?	☐	☐	
d. Are you able to effectively calm baby?	☐	☐	

II. The next section will focus on how you and your family are adjusting to the addition of your baby in your family. Please answer "yes" or "no" to the following questions:

Rationale: Lack of adequate social support or lack of spousal support, dissatisfaction with primary intimate relationship and/or inappropriate expectations of mother may indicate risk for the development of PPD.

	Y	N	COMMENT
a. Is your partner willing and able to help with child care and household duties ?	☐	☐	
b. Does your partner have appropriate expectations of mother/infant during postpartum period?	☐	☐	
c. Are family members available to provide support?	☐	☐	
d. Do you know two persons you can call upon if help is needed?	☐	☐	

III. Next, I would like to discuss some emotional concerns that new mothers may have after they come home from the hospital. Please answer "yes" or "no". If the response is "yes", please note the number of days in the last week the feeling has been experienced: 1-2, 3-4 or 5-7 days.

Rationale: five or more symptoms, lasting 2 or more weeks, which are a change in previous function such as increased fatigued, labile mood, anger, excessive guilt, feeling anxious or overwhelmed, inability to concentrate, and/or lack of interest in previously enjoyed activities may indicate depression per DSM-IV criteria.

1. Emotional concerns:	Y	N	# of days
a. Have you had crying spells or mood swings?	☐	☐	_____
b. Have you been more irritable or more angry than usual?	☐	☐	_____
c. Have you had feelings of anxiety or being overwhelmed?	☐	☐	_____

	Y	N	# of days
d. Have you had difficulty making decisions, concentrating, thinking or getting things done?	☐	☐	_____
e. Have you feelings of guilt or hopelessness?	☐	☐	_____
f. Have you experienced low mood or the inability to enjoy your previous activities?	☐	☐	_____

A positive response to items c-f, indicates the need to assess the concept of **suicidality**. Feelings of anxiety, difficulty concentrating, making decisions, experiencing feelings of hopelessness or guilt are included in the diagnostic criteria for depression. Item f, has been shown to be a reliable indicator of depression in the primary care population.

****Sometimes when women feel depressed, they may have considered no longer wanting to live.**

	Y	N	# days
a. Have you considered this thought in the last week?	☐	☐	_____
b. Have you ever considered harming your baby?	☐	☐	_____
c. Have you considered a plan to carry out these thoughts?	☐	☐	_____

If the mother answers yes to any of the above, **immediate intervention by the PCP is indicated.

Upon this line of questioning, does the mother exhibit signs of impaired reality testing or appear unable to care for herself or her infant? If these elements of present, the nurse must suspect the onset of **postpartum psychosis**. Again, immediate intervention is indicated.

At the other end of the spectrum, should the mother only endorse mood swings and increased irritability without associated physical, support or historical symptoms, the RN may suspect **maternity blues.** The blues is best treated with support and reassurance.

OBJECTIVE:

Prior to the implementation of the screening tool, the RN must review the client's medical record for risk factors noted in prenatal history.

Rationale: History variables may predict those at risk for PPD: Current depression, history of depression, first degree relative with depression, current stressful life events or poor birth outcome (the birth of a still born infant, infant with a birth defect, or a traumatic birth) may indicate risk for the development of PPD.

Please circle the objective risk factors noted:

Current depressive episode, history of prior depression, Family history of depression, Stressful life events or Poor birth outcome.

Describe:

CLINICAL IMPRESSION/PLAN:

Circle the statement that best describes the client's behavior; indicate follow up appointment.

1. Concerns re: ability to hurt self or baby:
   ***affirmative response requires immediate intervention from primary care provider. Depending severity of the symptoms presented, the PCP will provide assessment in the office setting or will refer to a mental health provider.**

2. Emotional concerns endorsed:
   ***Endorsement of III(f) or more than three emotional concerns for greater than 3 days in the past week will require an office visit to assess the noted symptoms. This appointment will be scheduled after consultation with the client's PCP.**

   ***Endorsement of 2 emotional concerns, or endorsement of multiple physical concerns, lack of support or presence of other risk factors, require follow-up phone call in one week per clinic RN.**

3. No concerns noted:
   ***Six week postpartum visit** as scheduled.

4. Education provided: List topics discussed.

RN SIGNATURE_____

APPENDIX B

APPENDIX B

INITIAL POSTPARTUM CONTACT

INTRODUCTION: I'm calling to see how you and your family are doing since you've been home from the hospital with your new baby. I would like to ask you a series of questions related to common concerns experienced by new mothers in the early postpartum period and then answer any questions you may have. The interview will take approximately ten minutes to complete.

SUBJECTIVE DATA:

I. The first questions relate to **physical concerns** common to new mothers and their babies during this early postpartum period. Please answer "yes" or "no" to the following questions:

1. Do you have concerns related to your health?

	Y	N	COMMENT
a. Do you have concerns how your bottom is healing?	☐	☐	
b. Is your baby breastfed ?	☐	☐	
c. Do you have concerns regarding your breasts?	☐	☐	
d. Are you able to eat three nutritious meals daily?	☐	☐	
e. Are you able to obtain rest each day to avoid fatigue?	☐	☐	

2. Do you have any concerns regarding your baby's health?

	Y	N	COMMENT
a. Is your baby having difficulty feeding?	☐	☐	
b. Does your baby have 6-8 wet diapers per day?	☐	☐	
c. Does you baby have difficulty sleeping?	☐	☐	
d. Are you able to effectively calm baby?	☐	☐	

II. The next section will focus on how **you and your family are adjusting** to life with the addition of your baby, please answer "yes" or "no" to following questions:

	Y	N	COMMENT
a. Is your partner willing and able to assist in childcare and household duties?	☐	☐	
b. Does your partner have appropriate expectations of mom/infant in the postpartum period?	☐	☐	
c. Are family members available to provide support?	☐	☐	
d. Do you know two persons you can call upon to help if needed?	☐	☐	

III. Next, I would like to discuss some **emotional concerns** that new mothers may have after they come home from the hospital. Please answer the questions **"yes" or "no".**

If you respond "yes", please note the number of days in the last week the feeling has been experienced; **1-2, 3-4, or 5-7 days.**

	Y	N	# of days
a. Have you had crying spells or mood swings?	☐	☐	_____
b. Have you been more irritable or angry than usual?	☐	☐	_____
c. Have you had feelings of anxiety/ feel overwhelmed?	☐	☐	_____
d. Have you had difficulty thinking, making decisions or getting things done?	☐	☐	_____
e. Have you experienced feelings of hopelessness or guilt?	☐	☐	_____
f. Have you experienced low mood or have you lost interest in your previously enjoyed activities?	☐	☐	_____

****Women who endorse a positive response to the above questions must answer :**

****Sometimes when women feel depressed, they may have considered no longer wanting to live.**	Y	N	# of days
a. Have you considered this thought in the last week?	☐	☐	_____
b. Have you considered a plan to carry out that thought?	☐	☐	_____
c. Have you considered harming your baby?	☐	☐	_____

OBJECTIVE DATA:

After review of the medical records; does the client have any risk factors related to the development of PPD? **Circle risk factor(s):** History of prior depression, Family history of depression, Stressful life events, Poor birth outcome

Describe:

CLINICAL DECISION MAKING/PLAN:

Circle the statement that best describes client's behavior; indicate follow-up appointment:

a. Concerns related to ability to harm self or baby?
***Immediate intervention by PCP indicated.**

b. Emotional concerns related to increased risk for depression?
***Endorsement III(f) or 3 or more emotional symptoms with or without other risk factors require office evaluation after consultation with PCP.**

***Endorsement of 2 emotional concerns, or endorsement of multiple physical concerns, lack of support or presence of other risk factors, without emotional distress require a follow-up phone call in one week per clinic RN.**

c. No concerns noted at this time?
***Six week postpartum checkup as scheduled.**

d. Education Provided:

RN SIGNATURE_____

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