Postpartum mood and anxiety disorders (PMADs) are the most underdiagnosed, underreported, and undertreated complication of childbirth with up to 400,000 infants born in the United States every year to mothers who are depressed (Earls, 2010). Universal screening has not yet been mandated within the United States, which leaves many organizations struggling to meet the recognized needs of this vulnerable population with little guidance. In an effort to provide education, screening, and referral resources to pregnant and postpartum women in rural Northern Arizona, we developed a nurse-led interdisciplinary program in a hospital setting that initiated PMAD screening despite dwindling financial resources and increased productivity requirements for nurses.

**Key Words:** Depression; Depressive disorder; Postpartum; Pregnancy complications; Puerperal disorders.

Implementing a Perinatal Mood and Anxiety Disorders Program

Terry Smith, MS, RNC-OB, and Gayle Kipnis, MSN, RNC-OB, AHN-BC

Abstract

Postpartum mood and anxiety disorders (PMADs) are the most underdiagnosed, underreported, and undertreated complications of childbirth. The consequences of PMADs are far-reaching. Like a pebble in a pond, untreated PMADs create a ripple effect that can affect a woman’s ability to bond with her new infant, interact with her significant other, and resume her prepregnancy lifestyle including personal, social, domestic, and work-related activities (Goodman & Tyer-Viola, 2010). The statistics of this problem cannot be ignored as perinatal depression alone has been reported to affect up to 19.2% of new mothers during the first 3 months after giving birth (Gaynes et al., 2005).

In the United States, universal screening has not yet been mandated. With little guidance or direction, this leaves many organizations struggling to meet the recognized needs of this vulnerable population. In an effort to...
provide education, screening, and referral resources to pregnant and postpartum women in rural Northern Arizona, a nurse-led interdisciplinary program was developed in a hospital setting that initiated screening to identify women at risk for developing postpartum depression despite dwindling financial resources and increased productivity requirements for nurses. The purpose of this article is to share the experience of initiating this program in order that other organizations may use it as a resource.

Background

PMADs are an umbrella term that encompass the range of mood disorders from mild baby blues to postpartum depression and the extremes of postpartum psychosis; it also includes the anxiety disorders of postpartum obsessive compulsive disorder, postpartum panic disorder, and posttraumatic stress disorder (Beck, 2008a). The strongest predictors of postpartum depression include a history of previous depression or anxiety, occurrence of postpartum blues, poor social support, low self-esteem, life stress, a strained marital relationship, difficult infant temperament, and fatigue (Beck, 2008b). As research advances on PMADs, postpartum depression is being differentiated from the other disorders in order to facilitate more accurate diagnoses. Specifically, postpartum “blues” or “baby blues” are often mistaken for postpartum depression. Baby blues are estimated to occur in 50% to 90% of childbearing women but do not meet the DSM-IV-TR criteria for a major depressive episode (Lintner & Gray, 2006).

Our initial awareness of PMADs and the impetus for the following program arose from a personal account that was shared at an educational offering. A young woman stood before a crowd of more than 100 laypeople and healthcare professionals as she related her story as a survivor of postpartum obsessive–compulsive disorder. Eighteen weeks after the birth of her second child, she became haunted by horrifying and persistent thoughts of hurting her baby. She shared her attempts to get professional help, which resulted in being separated from her newborn and family, institutionalized, and convinced that she was a threat to others. Utilizing online resources, her husband accessed a knowledgeable healthcare provider who assisted the healthcare team in obtaining an accurate diagnosis that allowed his wife to be successfully treated and rejoin her family. This story is neither unique nor isolated. As a result, it inspired us to take a look at our own community and how we provide education to patients and healthcare providers regarding PMADs, how we identify women at risk for or who are suffering from PMADs, and ultimately our ability to provide services to this vulnerable population once they are identified.
Program Development
The first step in developing our own program was to gather a group of individuals who would be key stakeholders. The Perinatal Nurse Educator assembled an interdisciplinary team that consisted of registered nurses (RNs) from labor and delivery, postpartum, mental health, and childbirth education along with a social worker, clinical psychologist, nurse midwife, and an obstetrician. In collaboration, we discovered that pregnant women were being routinely screened for gestational diabetes, preeclampsia, and preterm labor, but not for the most common and disabling medical problem related to childbearing, PMADs (O’Hara, 2009). In addition, we found that education and referral resources were scarce. Based on statistics of postpartum depression alone, we determined that in the community we serve, as many as 300 pregnant women a year could be undiagnosed.

The team reviewed current evidence-based literature and guidelines of practice regarding existing PMAD programs. These programs were found to occur at the national level in Canada, Australia, and Scotland, and more recently were sponsored and coordinated in North America in six states by the U.S. Department of Health and Human Services, Health Resources and Services Administration (Alder et al., 2008; Buist et al., 2007; Shade, Borst, Valliere, & Herceg-Baron, 2011). Although the publications described various key components of program development, few discussed how to implement a program at the level of an individual community. Common threads of successful program development were found to include three integral components: (1) provide education for laypeople and healthcare providers, (2) ensure resources for referrals of women needing additional services, and (3) establish screening protocols.

Providing Education
The recognition and treatment of women suffering from PMADs begins with education. The American College of Obstetricians and Gynecologists, Association of Women’s Health, Obstetric, and Neonatal Nurses, American College of Nurse Midwives, and Agency for Healthcare Research and Quality (AHRQ), among others, all agree that nurses and physicians need additional education on how to recognize, screen, and treat PMADs (Logsdon, Wisner, Billings, & Shanahan, 2006).

Access to educational opportunities is limited for healthcare professionals who reside in more rural communities. Flagstaff is a city located in Northern Arizona with an estimated population of 60,000. It is also the county seat of Coconino County, the second largest county by land area in the 48 contiguous states, with a population of 127,450. Coconino County contains Grand Canyon National Park, the Havasupai Nation, and parts of the Navajo Nation, Hualapai Nation, and Hopi Nation.

We determined that a conference in Northern Arizona would allow us to reach the largest number of healthcare providers in the most cost-effective way. Following nearly a year of preparation that included obtaining funding through grants from local and state organizations, we offered a free 2-day conference on perinatal mood and anxiety disorders that was developed by the Arizona Postpartum Wellness Coalition.

Attendees included over 100 healthcare providers of all levels from throughout the state of Arizona. Speakers included experts in the field of PMAD identification and treatment. The content was an overview of PMADs that included physiology, etiology, risk factors, screening, diagnoses, treatment modalities, and how professional providers can work as a team to achieve optimal outcomes. The conference also offered a unique opportunity to assess the level of awareness of PMADs across Northern Arizona that included current frequency of screening, knowledge, and use of resources. A survey revealed that prior to the conference, awareness of resources at the local, state, and national levels was limited, screening for PMADs was not routine, less than 50% provided PMAD educational support, and less than 60% of attendees had knowledge of support groups in their communities (Figure 1). Three months following the conference, an identical second survey demonstrated that there was significant improvement in awareness of resources at the various levels, PMAD screening remained minimal, but over 75% of attendees were providing educational support. In Flagstaff, there was an increase in knowledge of local support resources due to the simultaneous development of our cost-free Pregnancy and Postpartum Adjustment Group.

In addition, PMAD educational information and available resources are now included in all childbirth education classes as well as in the hospital discharge teaching classes. PMAD posters and pamphlets are
posted in areas where women receive care. The Perinatal Nurse Educator also provides outreach education in the community.

Resource Development
Our interdisciplinary group determined that it was not enough to merely educate, but it also was essential to establish local resources and a referral list for support of women who were identified as being at risk for developing or suspected of having PMADs. This was accomplished by verifying and updating established resource lists with additional state and national resources. Grant funding enabled the creation of our support group that is advertised through a brochure, “Pregnancy and Postpartum Adjustment Group,” that includes an overview of symptoms of “baby blues” and PMADs, preventive self-help measures, advice for partners, treatment options, and a list of resources for families. This brochure is provided to each mother in her discharge packet following birth. Since it can often take weeks for evaluation of nonemergent mental health conditions in our community, the support group is conducted by a licensed clinical social worker and clinical psychologist who can expedite access to mental health services if necessary. Other referrals to the support group come from physicians, emergency department nurses, breastfeeding counselors, and other community members. Referrals can also be made directly to the clinical psychologist who specializes in PMADs.

Establishing a Screening Protocol
The final implementation phase of our program began with the evaluation of screening tools to identify women who are at risk to develop postpartum depression. We conducted a literature review to identify screening tools, with a focus on those that would meet the needs of the maternal population of Northern Arizona. The tools were limited to the Edinburgh Postnatal Depression Scale (EPDS), the Postpartum Depression Screening Scale, and the nine-item depression module of the Patient Health Questionnaire. Although all three tools demonstrate adequate reliability, validity, specificity, and sensitivity, the 10-item EPDS, developed by Cox, Holden, and Sagovsky (1987), was chosen over the other tools for these reasons: it is the most commonly used screening tool for postpartum depression, there is no cost for clinical use, subject burden is low with the tool taking 5 minutes to complete, it has been translated and validated in multiple languages, it has an anxiety subscale, it does not require training to administer, and it is easy to score. We established a cutoff score of 10 as our screening protocol, even though it may detect baby blues as well as postpartum depression because baby blues can be a precursor of postpartum depression.

In our community, our goal has been to offer postpartum depression screening to every new mother prior to discharge from the hospital (Figure 2). Although some literature disputes screening at this early point, research shows a highly significant positive correlation between EPDS scores 2 to 3 days postpartum and at 4 to 6 weeks postpartum with good specificity, sensitivity, and positive predictive values (Jadri et al., 2006; Teissedre & Chabrol, 2004). In the Northern Arizona community, 25% to 35% of postpartum mothers do not return for their 6-week postpartum follow-up appointment, which may be due to the vast geographic region that we service. This is comparable to data collected in Texas that showed that only 65.2% of women received their postpartum checkups (Cheng, Fowles, & Walker, 2006).

Even though PMADs have been declared a major public health problem (Wisner, Chambers, & Sit, 2006), there is still controversy on whether screening for PMADs is cost-effective. There is no conclusive answer as it is difficult to disentangle the actual cost of screening from the costs of treatment and those associated with false-positive scores. In countries with socialized medicine, the comprehensive postpartum depression programs that have been instituted have been determined to not be cost-effective (Hewitt & Gilbody, 2009; Paulden, Palmer, Hewitt, & Gilbody, 2009). However, through grant funding, we have been able to establish a conservative screening program with a support group for referrals in our Northern Arizona community; however, to ongoing the funding must be maintained.

Another way we have maintained cost-effectiveness is to find an alternative member of the direct patient care team to assist with distribution of the EPDS to each postpartum mother. Our audiology technicians were consistently at the bedside of new mothers, at least once prior to discharge for approximately 20 minutes, to administer the newborn hearing screens. Now, during

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Figure 1. Perinatal Mood Disorders: Assessment and Treatment Conference Survey Results

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<tr>
<th>Awareness of PMAD support group in Flagstaff</th>
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<th>Awareness of PMAD resources in Arizona</th>
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the hearing screening of the newborns, they also give each mother the voluntary and confidential 10-question EPDS tool. Following completion, the audiology technicians collect the tool and review question ten for a score indicating suicidal ideation, which would necessitate an immediate notification of the primary nurse and a behavioral health consult. Otherwise, the collected EPDS is placed in a confidential folder for scoring by the social worker.

Our screening protocol indicates that the primary care providers are notified of EPDS scores of 10 or greater by the hospital social worker and as a result are better prepared to follow up with these patients at their 6-week visit. Based on our hospital algorithm, each new mother with a score of 10 or higher receives a follow-up phone call from our hospital social worker to provide additional resources and invite them to the pregnancy and postpartum adjustment support group.

In the first 4 months of our program, we have screened 300 mothers; 50 had scores of 10 or higher (16.7%). This correlates with the 2005 report by the AHRQ (Gaynes et al., 2005), which reported that up to 19.2% of new mothers may have minor or major depression during the first 3 months postpartum (Beck, 2008b).

Conclusion

Research shows that early identification and treatment of postpartum depression and PMADs is a well-recognized public health priority with nurses well positioned to act as leaders (Segre, O’Hara, Arndt, & Beck, 2010). To enhance the wellness of a community, we need to address postpartum depression that can affect nearly one-fifth of all mothers, newborns, and their families. We have shown that this can be accomplished with a nurse-led interdisciplinary approach that promotes PMAD education, screening, and support prior to and following hospital discharge.
Suggested Clinical Implications

• This program can be adapted for use in other communities. It begins with a baseline assessment of PMAD education, screening, and referral resources.

• Screening for postpartum depression can be initiated within the hospital setting as the first step in raising awareness.

• Hospital nurses, as leaders, can be change agents by collaborating with other members of the healthcare team to initiate PMAD programs.

• Think community-wide: Include mental health nurse practitioners, midwives, pediatricians, family-practice physicians/nurse practitioners, and others on your team.

• Be creative! Funding for hospital-initiated, community-based projects can be secured through private and public grants, and other resources.

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References


Arizona Postpartum Wellness Coalition: www.postpartumcouples.com

Indiana Perinatal Network: www.indianaperinatal.org/sections/M&F_postpartum.php

Online Postpartum Depression Support Group: www.ppdsupportpage.com

Postpartum Support International: www.postpartum.net

Wisconsin Association for Perinatal Care (algorithm for management of perinatal depression & antidepressant medication chart): www.perinatalweb.org

For 21 additional continuing nursing education articles on women's health topics, go to nursingcenter.com/ce.