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ORIGINAL CONTRIBUTION

Beyond screening: assessment of perinatal depression in a perinatal care setting

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Abstract Although screening for perinatal depression substantially improves detection, screening alone does not improve treatment entry or outcome. This paper summarizes a pilot evaluation of the feasibility and patient acceptance of on-site diagnostic assessment in perinatal care settings for women who screen positive for perinatal depressive symptoms. The model included screening, assessment by the perinatal care provider, an algorithm to guide decisions, guidelines for evidence-based antidepressant treatment, support through phone and webbased consultation, and quality monitoring to track and remedy "missed opportunities" for screening and assessment. A mean of 17.1% of women screened were identified as having depressive symptoms in need of further assessment. Of those identified, a mean of 72.0% received a diagnostic assessment on site. A mean of 1.4% of patients refused on-site diagnostic assessment. It is feasible to incorporate assessment for depression into perinatal care. This paves the way for better engagement in treatment, and better clinical outcomes.

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Keywords Perinatal depression · Screening · Pregnancy · Postpartum

Introduction

Major depression is a highly prevalent disorder during pregnancy and postpartum. About 9.4–12.7% of women are estimated to develop major depressive episodes during pregnancy (Gaynes et al. 2005). Untreated antenatal depression has been associated with altered fetal heart rate and movement (Dieter et al. 2008) and increased risk of preterm labor (Li et al. 2009). Compared to controls, offspring of mothers with antenatal depressive symptoms are more irritable at birth (Zuckerman et al. 1990) and show ongoing alterations in stress responsiveness and temperament later in childhood (Huot et al. 2004). Postpartum maternal depression, with a period prevalence of 21.9% within a year after giving birth (Gaynes et al. 2005), can adversely affect mother–infant interactions and the subsequent emotional and cognitive development of the child (Murray et al. 2003; Beebe et al. 2008).

Due to increased contact with health professionals, and often increased health care coverage, pregnancy could be an opportune time to detect and treat depression (Smith et al. 2004). However, depression is under-recognized and undertreated in obstetric practices (Coates et al. 2004). A study of 3,000 obstetric/gynecologic outpatients found that 77% of those who met criteria for psychiatric diagnoses (predominantly depression) were not recognized as having a psychiatric problem by their health care providers (Spitzer et al. 2000). A subsequent study of women receiving prenatal care found that only 1 in 5 women who met criteria for psychiatric diagnoses (predominantly depression) had chart documentation of receiving mental health

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Screening for Depression in the Postpartum Period: A Comparison of Three Instruments

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ABSTRACT

Objectives: **Postpartum depression, the most prevalent complication of childbirth, is often unrecognized. Our objective was to compare the effectiveness of three screening instruments—Edinburgh Postnatal Depression Scale (EPDS), Patient Health Questionnaire (PHQ-9), and the 7-item screen of the Postpartum Depression Screening Scale (PDSS)—for identifying women with postpartum depression in the first 6 months after delivery.**

Methods: **We administered the three instruments via telephone to women who were ≥18 years and had delivered infants 6–8 weeks earlier. We arranged home interviews to confirm DSM-IV criteria current major depressive disorder (MDD) in women who had an above-threshold score on any of the instruments. For women who screened negative on the 6–8 week call, we repeated the screening at 3 months and 6 months to identify emergent symptoms. The primary outcome measures were the screening scores and DSM-IV diagnoses.**

Results: **Of 135 women reached, 123 (91%) were screened, 29 (24%) had home visits, and 13 (11%) had an MDD within 6 months of delivery. Analyses of the scores at 6–8 weeks postpartum and the DSM-IV diagnoses indicated the EPDS at a cutoff point of ≥10 identified 8 (62%) of cases, the PHQ-9 at a cutoff point of ≥10 identified 4 (31%), and the PDSS 7-item Short Form (PDSS_SF) at a cutoff point of ≥14 identified 12 (92%). However, 15 of 16 (94%) women without current MDD screened positive on the PDSS_SF. The EPDS was significantly more accurate ($p = 0.01$) than the PDSS_SF and PHQ-9 with the cutoff points used. After correcting for verification bias, we found the EPDS and the PDSS_SF were significantly more accurate than the PHQ-9 ($p < 0.03$).**

Conclusions: **Administering the EPDS by phone at 6–8 weeks postpartum is an efficient and accurate way to identify women at high risk for postpartum depression within the first 6 months after delivery.**

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ORIGINAL CONTRIBUTION

Obstetric care provider engagement in a perinatal depression screening program

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Abstract To investigate obstetric care provider attitudes toward perinatal depression screening and factors associated with variable screening rates. Provider attitudes about depression screening were investigated via structured interviews (open-ended and rating scale questions) and analyzed using qualitative content analysis. Most providers (86%) found screening effective at identifying women at risk for perinatal depression (average rating of 8.7 on 10-point analog scale). However, 95% overestimated their own screening rates and 67% inaccurately thought they achieved universal screening. Providers not directly involved in their office-based screening process demonstrated lower average screening rates (37%) than those who maintained active involvement (59%; p=0.07). Obstetric care providers support perinatal depression screening in the context of a program that assumes responsibility for processing screens, conducts assessments of at-risk women and provides referrals to mental health professionals. Provider participation in screening and tying screening to routine obstetric outpatient activities such as glucose tolerance testing are associated with higher screening rates.

Keywords Perinatal depression · Depression screening · Provider attitudes

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Introduction

Depression is among the most common of perinatal complications, occurring in up to 19% of women (Gaynes et al. 2005). Antepartum depression can compromise pregnancy outcome (Orr et al. 2002; Federenko and Wadhwa 2004) and postpartum depression can disrupt the parent-infant relationship and negatively impact childhood development (Onunaku 2005; Seifer and Dickstein 2000; Taaffe et al. 2006). Perinatal depression screening is recognized as an effective means of identifying women at risk for depression during pregnancy (Gaynes et al. 2005). The American College of Obstetricians and Gynecologists recommends screening pregnant women for depression, while Healthy Start Initiative Grants (DHHS, HRSA, Maternal and Child Health Bureau) and two state governments have enacted legislation to encourage screening (http://www.njleg.state.nj.us/2006/Bills/S0500/213_I1.HTM; http://ilga.gov/legislation/BillStatus.asp?DocTypeID=SB&DocNum=15&GAID=9&SessionID=51&LegID=27225).

The existing literature largely supports routine perinatal depression screening, but data detailing the implementation of universal screening initiatives are sparse. Several studies have indicated that validated screening instruments are more accurate in identifying at-risk women than reliance on clinical judgment alone and have been shown to accurately predict major depression in pregnant and postpartum women (Gaynes et al. 2005; Evins et al. 2000). Among these, the Edinburgh Postnatal Depression Scale (EPDS) is one of the most widely-used and well-studied (Cox and Holden 2003). The one-page, 10-question instrument has 92.5% specificity and 88% sensitivity to detect major depression and has been validated for antepartum screening (Cox and Holden 2003). Screening using standardized

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Institution From the Department of Family Medicine and Community Health (DG, MM, BC), the Department of Psychiatry (SC), the School of Public Health (PM), University of Minnesota, St. Paul.
Title Stepped Care Treatment of Postpartum Depression: Impact on Treatment, Health, and Work Outcomes.[Article]
Source Journal of the American Board of Family Medicine. 22(5):473-482, September/October 2009.
Abstract Purpose: The purpose of this study was to pilot a stepped collaborative care intervention for women with postpartum depression and evaluate health differences between self-diagnosed depressed and nondepressed women.

Methods: Five hundred six mothers of infants from 7 clinics completed surveys at 0 to 1, 2, 4, 6, and 9 months postpartum and a Structured Clinical Interview for DSM-IV (SCID). SCID-positive depressed women were randomized to stepped collaborative care or usual care. Nine-month treatment, health, and work outcomes were evaluated for stepped care women (n = 19) versus control depressed women (n = 20), and self-diagnosed depressed women (n = 122) versus nondepressed women (n = 344).

Results: Forty-five women had SCID-positive depression whereas 122 had self-diagnosed depression. For SCID-positive depressed women, the stepped care intervention increased mothers' awareness of their depression diagnosis (100% vs 61%; P = .008) and their receipt of treatment (94% vs 56%; P = .019). Self-diagnosed depressed women (vs nondepressed women) had more depressive symptoms and acute care visits, worse general and mental health, and greater impact of health problems on regular activities.

Conclusions: The stepped care intervention improved women's knowledge of their postpartum depression diagnosis and their receipt of treatment. However, our formal diagnostic procedures missed many women whose depressed mood interfered with their health and function.

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Title Practice Benefit from Participating in a Practice-based Research Network Study of Postpartum Depression: A National Research Network (NRN) Report.[Miscellaneous Article]
Source Journal of the American Board of Family Medicine. 23(4):455-464, July/August 2010.
Abstract Background: At the midpoint of a large clinical trial taking place in a practice-based research network (PBRN), we asked leaders of the enrolled practices about the impact of participating in a PBRN study.

Methods: Using semistructured interviews, the lead study nurse and physician from each site were queried about the impact of study participation on issues related to the study topic of postpartum depression (PPD) as well as any other impacts on the practice not directly related to PPD. From the results, initial themes were identified by 3 of the investigators (BPY, SB, MK) and confirmed by all the authors. Interviewee responses were grouped by theme.

Results: Forty-eight study leaders from 28 solo, moderately sized group and residency practices were interviewed during a period of 60 days. Practices were located in 20 different states, and 54% were in rural communities. Six major themes emerged. Study participation led to: (1) the recognition of the need for systematic approaches; (2) more effective teamwork and communication within the practice; (3) adaptation and extension of the PPD study tools and a systematic approach to the care of other chronic conditions; (4) increased professional self-worth and community recognition; (5) opportunity and support for staff members to "stretch" into new roles; and (6) increased research literacy within the practice.

Conclusions: Participating in a PBRN research study can provide advantages to practices that extend beyond the study's specific purpose and content. These results provide further support for the value of PBRN research funding.

Author Keywords Practice-based Research; PBRN; Postpartum Depression.
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Author Yawn, Barbara P. MD, MSc; Pace, Wilson MD; Wollan, Peter C. PhD; Bertram, Susan BSN, MSN; Kurland, Margary BSN; Graham, Deborah MSPH; Dietrich, Allen MD
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Title Concordance of Edinburgh Postnatal Depression Scale (EPDS) and Patient Health Questionnaire (PHQ-9) to Assess Increased Risk of Depression among Postpartum Women.[Article]
Source Journal of the American Board of Family Medicine. 22(5):483-491, September/October 2009.
Abstract Objectives: To compare the Edinburgh Postnatal Depression Scale (EPDS) and Patient Health Questionnaire (PHQ-9) as screening tools for postpartum depression.

Methods: This study population included the first 500 women to enroll and return their packets during an ongoing study of postpartum depression.

Results: The primary outcome of this study was to find rates of concordance and discordance in the EPDS and PHQ-9 categories of "normal" and "increased risk for major depressive disorder." Overall, 97% of eligible women enrolled and 70% returned the packets that included the EPDS and PHQ-9. Four hundred eighty-one of the first 500 packets had complete data, with elevated EPDS or PHQ-9 scores in 138 and 132 women, respectively. Concordance of the EPDS and PHQ-9 were present in 399 women (83%): 326 (67.8%) had "normal" score on both, and 73 (15.2%) had elevated scores for both. Discordant scores in 82 women included 17 with elevated PHQ-9 scores but normal EPDS scores and 65 with elevated EPDS scores and PHQ-9 scores <10. In multivariate logistic regression modeling, only age >30 and low education level were predictive of discordant scores, using EPDS and PHQ-9 scores of >=10 as elevated (odds ratio, 1.9 and P = .02; and odds ratio, 2.3 and P = .01, respectively). PHQ-9 scores of 5 to 9 have been referred to as consistent with "mild depressive symptoms" and appropriate for "watchful waiting" and repeat PHQ-9 at follow-up. Using this follow-up approach would require re-evaluation of 120 (25%) of the women screened.

Conclusions: Postpartum depression screening is feasible in primary care practices, and for most women the EPDS and PHQ-9 scores were concordant. Further work is required to identify reasons for the 17% discordant scores as well as to provide definitive recommendations for PHQ-9 scores of 5 to 9.

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Universal Perinatal Depression Screening in an Academic Medical Center

Trent E. J. Gordon, MS, Ida A. Cardone, PhD, Jennifer J. Kim, PhD, Scott M. Gordon, MD, and Richard K. Silver, MD

OBJECTIVE: To develop a department-based program to identify and treat women at risk for perinatal depression.

METHODS: Private and employed physician groups were engaged to conduct antepartum maternal depression screening using the Edinburgh Postnatal Depression Scale. A comprehensive program was established to ensure that patients identified as being at risk would receive appropriate care. The program 1) developed a network of existing community mental health providers to accommodate screen-positive referrals, 2) created a 24/7 hotline staffed by mental health workers to respond to urgent/emergent patient needs, 3) provided nursing and physician education via a comprehensive curriculum on perinatal depression, and 4) facilitated outpatient depression screening that included a centralized scoring and referral system.

RESULTS: A total of 4,322 women completed 4,558 screens during the initial 24 months (June 2003–May 2005). Although initial uptake of the screening program was gradual, all 20 departmental obstetric practices were screening their patients at the end of the first year. Depression screening was accomplished between 28–32 weeks of gestation, and postpartum screening (during the 6-week postpartum visit) was subsequently added. Overall, 11.1% of women screened positive in the antenatal period, and 7.3% screened positive in the postnatal period. Three hundred three women were referred for evaluation and care.

CONCLUSION: Department-based, perinatal depression screening was feasible when individual physician practices were not required to develop the infrastructure necessary to respond to at-risk patients. We believe that the provision of clinical safety nets (mental health provider network and the hotline) were essential to the universal acceptance of this program by practitioners.
(Obstet Gynecol 2006;107:342–7)

LEVEL OF EVIDENCE: III

Pregnancy and the postpartum period include multiple interactions between a patient and her caregiver. These contact points represent excellent opportunities to engage women in a myriad of health issues related to their pregnancy, including perinatal depression, which affects 13–18% of all pregnant women.[1–3] However, discussion surrounding a patient's mental well-being rarely occurs because of several barriers that exist. For example, obstetricians, family medicine physicians, and certified nurse midwives may not feel comfortable discussing a patient's mental health. They may lack formal training in this area or might fear what the patient may disclose. They may also worry that their practice is not positioned to easily respond with a prompt mental health referral if a need is identified. Alternatively, a patient may not initiate such discussions because of the stigma that surrounds mental illness. In addition, the litany of routine screening tests and office activities required in the course of prenatal care is daunting and leaves little room for additional activities. Thus, in the usual clinical setting, a patient's emotional state may never be discussed, leaving depressed patients in an undiscovered and, perhaps, intensified state, at risk of hurting either themselves or their children if they remain unidentified.

In response to these challenges, we convened a multidisciplinary steering committee that included obstetricians, psychiatrists, psychologists, nurses, administrators, and technical communication specialists to develop a comprehensive program that would require limited direct initiative from individual de-

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One Year Design and Implementation of an Integrated System for Screening, Diagnosis, and Treatment of Perinatal Depression at a Large HMO.

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Background: Until recently, there was no integrated system for screening, diagnosis or treatment of Perinatal Depression at Kaiser Permanente Medical Center in San Francisco. Furthermore, expertise was lacking, and no up to date evidence based treatment guidelines existed.

Objective: Design and implement a system that would effectively care for the needs of women with Perinatal Depression.

Method: In January 2009, a small multidisciplinary group comprised of a Psychiatrist, Obstetrician, Obstetrical Nurse Practioner, and Psychiatric Social Worker convened to design and implement an integrated system of screening, diagnosis, and care of women with Perinatal Depression.

Results: By January 2010 the following programs and innovations were fully operational and integrated across medical specialties:

1. Routine screening using the PHQ-9 at the 12 and 28 week prenatal visits and at the 6 week postnatal visit.
2. Weekly drop-in Perinatal Support Group for pregnant and postpartum women led by psychiatrist and psychiatric social worker. Group is free of charge and women may bring their newborns/infants.
3. Creation and distribution of current, evidence-based guidelines regarding treatment with antidepressant medications in pregnancy and lactation.
4. Creation of a Primary Care Psychiatry Consultation Service offering real-time, immediate telephone consultation with psychiatrist for all primary care and ob/gyn clinicians to ensure rapid implementation of appropriate treatment.
5. Fully integrated electronic medical record within Kaiser Permanente to enable seamless multidisciplinary care.

Conclusion: We have demonstrated that it is possible, with collaboration between medical specialties, and with the aid of a fully integrated electronic medical record, to create and implement an efficient system of screening and care for women with perinatal mood disorders within one year.

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Title Relationship Between Parenting Stress and Concerns Identified by Developmental Screening and Their Effects on Parental Medical Care-Seeking Behavior.[Article]
Source Clinical Pediatrics. 48(4):362-368, May 2009.
Local Message The library owns this title from 1975 to the present.
Abstract This cross-sectional study examines the relationship between parenting stress and concerns identified by developmental screening and their effects on parents' decisions to seek medical care for their children. A total of 182 parents completed both the Parenting Stress Index (PSI) and the Parents' Evaluation of Developmental Status (PEDS) when their children were admitted to a sick child care program that provides parents the option of requesting medical evaluations for their children with mild acute illnesses. Although 31.6% of parents (N = 62) requested medical evaluations, neither PSI nor PEDS scores were associated with these requests. However, PEDS scores indicating significant parental concerns about their child's development or behavior predicted clinically significant levels of parenting stress on the PSI (odds ratio 4.9; 95% confidence interval, 1.5-15.9; P = .007). Primary pediatric health care providers who routinely perform developmental screening need to consider this relationship when interpreting developmental screening results and offer supportive and referral services to families as needed.

Author Keywords developmental screening; parenting stress; child development; parent-child relations; medical care-seeking behavior.
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