Published in final edited form as:

MCN Am J Matern Child Nurs. 2010 ; 35(5): 280–285. doi:10.1097/NMC.0b013e3181e62679.

Screening and Counseling for Postpartum Depression by Nurses: The Women's Views

Lisa S. Segre, PhD[Assistant Professor],
College of Nursing, University of Iowa

Michael W. O'Hara, PhD[Professor and Starch Faculty Fellow],
Department of Psychology, University of Iowa

Stephan Arndt, PhD[Professor], and
Department of Psychiatry, Carver College of Medicine, Professor, Department of Biostatistics,
College of Public Health, Director, Iowa Consortium for Substance Abuse Research, University of Iowa

Cheryl T. Beck, DNSc, CNM, FAAN[Distinguished Professor]
School of Nursing, University of Connecticut

Abstract

Purpose—In this Part 2 article of research examining a model of care in which nurses screen and counsel postpartum women for postpartum depression, acceptability of such a model to postpartum patients was evaluated with a diverse sample of American women.

Study Design and Methods—Descriptive survey of two groups: 691 predominately white postpartum women with relatively high annual incomes (Sample 1) and 132 low-income women, some of whom were ethnic minorities (Sample 2). The surveys were distributed and needed to be mailed back to the investigators. The response rate was 72% in Sample 1 and 30% in Sample 2.

Results—The overwhelming majority in both groups (>90%) felt that it was acceptable for nurses to perform screening for postpartum depression and for nurses to do the necessary counseling. More than one-half in each sample were “definitely willing” to see a nurse for counseling. Although women in both samples had positive views, when compared with each other, women with higher incomes (Sample 1) had more positive views of nurse delivered mental health care. More than one-half in each sample were “definitely willing” to see a nurse for counseling. For Sample 1, 15% reported having taken medications for postpartum depression; in Sample 2 this number was 22.3%.

Clinical Implications—Nurses have frequent contact with postpartum women; as such, they are well positioned to provide depression screening and counseling. Nurse-delivered mental health care has the potential to obviate many barriers that prevent the detection and treatment of depression, and ultimately improve outcomes for infant and children.

MeSH Key Words

Postpartum Depression; Nurses' Role; Counseling; Patient Acceptance of Health Care

Corresponding Author: Lisa-segre@uiowa.edu.

The authors have disclosed that there are no financial relationships related to this article.

Disclosure of financial support: financial support was provided by the National Institute of Mental Health grants (NIMH -Supplement to MH59668) and (NIMH K-23 MH075964).

Introduction

This is part 2 of a research study designed to evaluate a successful program used in the United Kingdom through which registered nurses screen postpartum women for depression and then counsel affected women. In Part 1, the views of American nurses were presented, and it was found that nurses sampled in the US had positive reactions to the program (Segre, O'Hara, Arndt, & Beck, 2010). In this article (Part 2), the views of postpartum women to the acceptability of such a program are described.

Depression during pregnancy and the postpartum period compromises a woman's parenting ability, affecting self-care during pregnancy and sensitive parenting in the postpartum period (Newport, Wilcox, & Stowe, 2001); this, in turn, is associated with delays in cognitive, social and emotional development of exposed children (Beck, 1998). The UK has integrated a nurse-delivered home-based depression screening and counseling into its system of universal postpartum child health surveillance (Cowley, Caan, Dowling, & Weir, 2007). American nurses are equally well positioned to deliver such perinatal mental health services (Horowitz & Goodman, 2004).

A critical step in implementing such a model lies in assessing women's views about being screened and/or counseled by a nurse. Understanding the consumer's view of a program is essential; in a previous study of depressed low-income African-American women, they remained reluctant to see a psychologist for cognitive behavioral counseling despite efforts which the researchers felt would be helpful to the patients, including free day care and transportation to treatment (Miranda, et al., 2003). Those researchers did discover that the women were more likely to attend treatment if the study psychologists first established a relationship with them via telephone (Miranda, et al., 2003).

A review of the literature reveals that women have mixed views about being screened for depression during pregnancy or the postpartum period. In a qualitative British study, 39 postpartum women were queried on their acceptance of depression screening with the Edinburgh Postnatal Depression Scale (EPDS), a ten-item depression screening tool tailored to postpartum women (Cox & Holden, 2003). Approximately one-half (54%) considered the EPDS over simplistic and transparent (Shakespeare, Blake, & Garcia, 2003). In contrast, the collective results of three large Australian studies indicated the majority of perinatal women viewed the EPDS or similar questionnaires favorably (Buist, et al., 2006; Gemmill, Leigh, Ericksen, & Milgrom, 2006; Matthey, et al., 2005). A more recent qualitative study of ethnically diverse, American postpartum women indicated that 34 of the 42 of study participants (81%) welcomed maternal-depression screening by their child's pediatrician (Feinberg, Smith, & Naik, 2009). The available research on this topic, however, gives us limited information; only one of these studies included the views of American women, and none of the studies assessed women's views about being screened and counseled by nurses. This study was done in order to inform the development of a nurse-delivered model of postpartum mental health care in the US.

Study Design and Methods

Study Design

This was a descriptive survey.

Instrument

The survey was developed by the investigators, and described postpartum depression, the UK model of nurse-delivered screening and treatment, and introduced the idea of implementing nurse-delivered screening and counseling in the US. The first five items

assessed emotional health history and experience with professional depression treatments. A four-point Likert scale (i.e., strongly disagree to strongly agree) assessed women's views of depression treatment delivered by mental health professionals, as well their views of nurse-delivered mental health services, including their opinion of the risks of nurse-delivered counseling and their willingness to receive counseling from a nurse. The remaining items assessed women's preference for professional treatment provider as well as their views of appropriate settings for nurse-delivered screening and treatment programs. Participants' demographics were also recorded, including race, ethnicity, marital status, education, income level, and age.

Sample

There were two distinct samples in this study. Sample 1 was white, married, and well educated postpartum women. They completed 691 of the 958 surveys distributed (72% response rate). The second sample consisted of low-income ethnically diverse young mothers who were enrolled in the *Healthy Opportunities for Parents to Experience Success-Healthy Families Iowa* (HOPES-HFI) program. Of the 433 HOPES-HFI clients who received the survey, 132 completed it (30% return rate).

Demographics for both samples are described in Table 1. The majority of women in Sample 1 reported annual incomes over \$50,000. Their average age was 30.4 (SD=4.95) years. For Sample 2, 18.9 % were either nonwhite or mixed race; approximately one-quarter was Hispanic. Over one-half were unmarried; approximately one-quarter had not completed high school; and over three-quarters reported annual incomes of less than \$30,000. The average age was 25.3 (SD=5.88) years. Women in this sample all had young children, but were not necessarily in the postpartum period.

Data Collection Procedures

The University's Institutional Review Board approved all the procedures and assessment instruments for this study. For Sample 1, the survey materials were added to a packet sent to subjects already enrolled in an ongoing study of the emotional experiences of postpartum women. Using public birth-record data, all women age 18 and above recently giving birth in one of four Iowa counties received a letter describing the study. Women agreeing to participate were sent a packet of questionnaires that included the survey of views toward nurse-delivered mental health care. The surveys were collected from August 2005 to February 2006. Because women completed a number of instruments for the ongoing study, in addition to the survey about nurse-delivered care, they were compensated \$15.

For Sample 2, women were recruited from HOPES-HFI, which serves high risk families as assessed on multiple risk factors including inadequate income, young age, single marital status, substance abuse, domestic violence, low birth weight or late prenatal care, and depression. Eligible families receive in-home visits from a HOPES-HFI family-support social worker. For this sample the surveys packets containing a cover letter, a brief survey, and postage-paid return envelope, were distributed from October, 2006 to March, 2007. At each of the 12 HOPES-HFI program sites (in 9 Iowa counties), the family-support workers distributed the packets to any HOPES-HFI participants who were 18 years of age and older. Interested HOPES-HFI participants understood that compensation was unavailable and independently completed and mailed the survey directly to the PI.

Power

Comparisons between the two study samples ($n = 691$ and $n=132$) had sufficient power ($> 80\%$) to detect small to medium effect sizes. For example, when comparing the ordinal variables, we had over 80% power to detect effect sizes (Cohen's d) of 0.27 or greater. For

the categorical variables, we had over 80% power to detect a Cohen's *W* of 0.01 using a 1 df chi-square test and 0.11 for a 2 df test. The second sample (*n* = 132) provided sufficient power (> 80%) to detect a Cohen's *W* of 0.25 or greater, a medium sized effect.

Results

The results of chi-square analysis (Table 1) confirm significant demographic differences between the samples. Sample 2 (HOPES-HFI) had significantly more ethnic minority women, significantly more single mothers, fewer years of education, fewer financial resources, and were significantly younger than the women in Sample 1. This difference provided the opportunity to evaluate whether key demographic differences were associated with different views of nurse-delivered postpartum mental health care.

Women's experiences with sad mood or loss of interest

Approximately one-half (46.2%, *n*=319) of women in Sample 1 had experienced sad mood or loss of interest in their activities for at least two weeks during pregnancy or the postpartum period. However, only 21.7% of the sample (*n*=150) sought treatment from a mental health professional. Few Sample 1 women (14.5%, *n*=100) used medication for depression. Although relatively few took advantage of professional mental health services, many of these women reported favorable (i.e., at least "somewhat helpful") opinions of both psychotherapy (95.2%, *n*=654) and medication (91.0%, *n*=627) treatments.

For Sample 2, the HOPES-HFI clients' self-reported history of depressive symptoms and treatment reveals that less than half (41.7% *n*=55) had experienced a sad mood or loss of interest in their activities for at least two weeks during pregnancy or the postpartum period. Many (40.2% *n*=53) reported they had received professional treatment in the past, and 22.3% (*n*=29) had used medication for depression during pregnancy or the postpartum period. Regardless of whether they had received professional treatment in the past, most (91.9%, *n*=114) felt professional counseling would be at least "somewhat helpful" and 83.1% (*n*=103) felt that medication would be at least "somewhat helpful."

Women's views of a nurse-delivered screening program

Sample 1 women's views of nurse-delivered screening programs were positive. Almost all (97.2%, *n*=672) were willing to complete a depression screening tool given to them by a nurse (Table 2). When asked where they would place a screening program (respondents could choose more than one setting), the most frequently chosen location was the Ob-Gyn clinic (81.6%, *n*=557), followed by the Family Practice clinic, the home (56.1% each, *n*=383), and the Pediatric clinic (46.0%, *n*=314).

The HOPES-HFI Sample 2 women also had favorable views of being screened by nurses for depression (Table 2). The majority (95.4%, *n*=125) indicated a willingness to complete a depression screening tool given by a nurse. When asked to indicate appropriate settings for a screening program (respondents could choose more than one), the most frequently chosen settings were the home (71.0%, *n*=93), the Family Practice clinic (51.9%, *n*=68), and the Ob-Gyn clinic (42.0%, *n*=55).

Women's views of nurse delivered counseling

Sample 1 women reported positive views of nurse-delivered counseling, as assessed by multiple items (Table 2). The majority (95.8%, *n*=657) positively endorsed the statement that "depression counseling by a nurse is better than not receiving any treatment." Only 3.3% (*n*=23) viewed nurse-delivered counseling as risky. Most (66.8%, *n*=456) reported that they would be "definitely willing" to see a nurse for treatment, and an additional 30.8%

(n=210) indicated they “might consider” such a treatment option. Many (80.4%, n=551) positively endorsed the item “I would be more likely to obtain help from a nurse than another type of mental health professional.” When given a choice of treatment professionals, the three most frequently selected categories were nurses (37.3%, n=252), obstetricians (18.9%, n=128), and psychologists (12.6%, n=85). When asked their preference for the location of nurse-delivered depression counseling (respondents could choose more than one), the most frequently chosen setting was the Ob-Gyn clinic (71.0%, n=484), followed by the home (65.7%, n=448), the Family Practice clinic (54.7%, n=373), and the Pediatric clinic (40.9% n=279).

Sample 2 HOPES-HFI women also reported positive views of being counseled for depression by a nurse (Table 2): most (90.0%, n=116) felt “depression counseling by a nurse is better than not receiving any treatment.” Fewer than one in five considered depression counseling by nurses to be risky. Only eight out of 132 indicated they would *not* be willing to see a nurse for treatment. In fact, most (69%, n=89) “strongly agreed” or “agreed” with the item, “I would be more likely to obtain help from a nurse than another type of mental health professional.” When asked from which type of professional they would prefer to obtain mental health care, this sample of low-income women most frequently chose nurses (18.9%, n=24), followed by social workers (13.4%, n=17), and then obstetricians or other physicians (11.0% each, n=14). When asked to indicate appropriate settings for a nurse-delivered counseling program (respondents could choose more than one) these women most frequently chose the home (71.8%, n=94), followed by the Family Practice clinic (41.2%, n=54), the Ob-Gyn clinic (28.2%, n=37), and the Pediatric clinic (14.5%, n=19).

Because nearly 20% of this sample of low-income women were ethnic minorities (i.e., Hispanic or African American women), we could also assess whether there were differences between the views of the ethnic minorities and nonethnic white women within this sample. Only one significant difference emerged: 60.53% of nonethnic whites opted to place screening for maternal depression in Family Practice compared to 36.59% of ethnic minority women ($\chi^2 = 6.11$; $df=1$, $p < .01$).

Because the women from Samples 1 and 2 came from significantly different demographic populations, particularly with regard to income, their views were compared. This comparison showed women with higher income were significantly *less* likely to have received professional treatment ($\chi^2 = 20.29$; $df=1$, $p < .001$). With respect to views of nurse screening and counseling, the women with higher incomes were more likely to endorse the statement, “nurse counseling is better than no treatment,” less likely to feel that the nurse-delivered counseling model is risky, more likely to indicate a willingness to see a nurse for treatment, and more likely to obtain help from a nurse than another mental health professional (Table 2). Finally, the two groups differed in terms of preferred counselor: high-income women more frequently chose nurse or obstetrician while low-income women more frequently chose specialized mental health professionals, especially social workers ($\chi^2 = 69.54$; $df=8$, $p < .001$).

Study Limitations

The significant differences between the views of the two samples of women might be an artifact of the notable methodological differences in the administration of these two surveys: specifically, in Sample 1, only postpartum women were eligible to participate. Subjects signed an informed consent document, completed several instruments in addition to the survey, and, because they were required to complete several documents, were compensated for participation. In contrast, women in Sample 2 were not necessarily in the postpartum period (although they all had children), they received the survey from their family support worker, completing and returning the survey constituted their informed consent, and they

were not compensated. These methodological differences might account for the widely discrepant response rates of the two samples (72% vs. 30%). This study could be repeated in a single, demographically-diverse sample of women to compare more precisely the views of women from different demographic backgrounds.

Discussion and Clinical Nursing Implications

Our data suggest that women across a broad economic spectrum would accept nurse-delivered care for postpartum depressive symptoms. Almost all of the women were “willing or definitely willing” to complete a screening tool given to them by a nurse and more than half were “definitely willing” to see a nurse for counseling. Moreover, the women in both samples most frequently chose nurses as their preferred counselor, revealing that nurses can, indeed, serve as the “*trusted provider*” (Miranda, et al., 2003) to whom women might comfortably turn when experiencing depression during the postpartum period.

We have previously published Part 1 of this study which showed that nurses in the US felt that the model of nurse-delivered screening during the postpartum period was appropriate. The results published here parallel those results. Interestingly, for nurses and both groups of women, the pediatrics’ clinic was less frequently chosen as a desirable venue for nurse-delivered screening. Not only was nurse-delivered screening positively endorsed by over 90% of nurses and both samples of women, but more than one-half of nurses and women endorsed nurse-delivered counseling.

Without systematic screening, many postpartum women will unnecessarily suffer from depression, compromising not only their own well being but also that of their infants. In contrast to informal, routine clinical evaluation, systematic depression screening increases the likelihood of detection (Evins, Theofrastous, & Galvin, 2000). Depression treatment, in turn, improves outcomes for both women and children. In women, treatment was associated with fewer depressive symptoms, increased marital satisfaction, and social adjustment (O’Hara, Stuart, Gorman, & Wenzel, 2000). In children, remission of maternal depression was associated with a significant reduction in diagnoses and symptoms (Weissman, et al., 2006). The onset of depression can happen anytime during pregnancy or the postpartum year (Gavin, et al., 2005). If nurses could integrate systematic screening into all clinical settings serving pregnant and postpartum women (e.g., obstetrics, maternity, and pediatric clinics) then detection, referral and, treatment of depression might increase. Future research should test the effectiveness of nurse-delivered screening and counseling in terms of outcomes (e.g., percentage of women identified, the number of women who received treatment, and the outcome of treatment, costs to the system).

Nurse-delivered postpartum mental health care may seem like a radical change in current clinical practice because it moves mental health care into the realm of maternal child health nursing. Nonetheless, it is already an established evidence-based practice in the UK, and an acceptable concept to both American nurses and women. Nurse-delivered perinatal mental health care is a model whose time has come.

Acknowledgments

The authors acknowledge Dr. Scott Stuart, Ms. Jane Stockton, as well as the HOPES-HFI home-visitors and clients who participated in this study.

References

- Beck CT. The effects of postpartum depression on child development: A meta-analysis. Archives of Psychiatric Nursing. 1998; 12:12–20. [PubMed: 9489170]

- Beck, CT.; Gable, RK. Postpartum Depression Screening Scale Manual. Los Angeles: Western Psychological Services; 2002.
- Buist A, Condon J, Brooks J, Speelman C, Milgrom J, Hayes B, et al. Acceptability of routine screening for perinatal depression. *Journal of Affective Disorders*. 2006; 93:233–237. [PubMed: 16647761]
- Cowley S, Caan W, Dowling S, Weir H. What do health visitors do? A national survey of activities and service organization. *Public Health*. 2007; 121:869–879. [PubMed: 17606280]
- Cox, J.; Holden, J. Perinatal mental health: A guide to the Edinburgh Postnatal Depression Scale (EPDS). London: Gaskell; 2003.
- Evins GG, Theofrastous JP, Galvin SL. Postpartum depression: A comparison of screening and routine clinical evaluation. *American Journal of Obstetrics and Gynecology*. 2000; 182:1080–1082. [PubMed: 10819833]
- Feinberg E, Smith MV, Naik R. Ethnically diverse mothers' views on the acceptability of screening for maternal depressive symptoms during pediatric well-child visits. *Journal of Health Care for the Poor and Underserved*. 2009; 20:780–797. [PubMed: 19648705]
- Gavin NI, Gaynes BN, Lohr KN, Meltzer-Brody S, Gartlehner G, Swinson T. Perinatal depression: A systematic review of prevalence and incidence. *Obstetrics and Gynecology*. 2005; 106:1071–1083. [PubMed: 16260528]
- Gemmill, AW.; Leigh, B.; Ericksen, J.; Milgrom, J. A survey of the clinical acceptability of screening for postnatal depression in depressed and non-depressed women. *BMC Public Health*. 2006. Retrieved from <http://www.biomedcentral.com/1471-2458/6/211>
- Horowitz JA, Goodman JH. Identifying and treating postpartum depression. *Journal of Obstetric, Gynecologic, and Neonatal Nursing*. 2004; 34:264–273.
- Matthey S, White T, Phillips J, Taouk R, Chee TT, Barnett B. Acceptability of routine antenatal psychosocial assessments to women from English and non-English speaking backgrounds. *Archives of Women's Mental Health*. 2005; 8:171–180. [PubMed: 15915317]
- Miranda J, Chung JY, Green BL, Krupnick J, Siddique J, Revicki D, et al. Treating depression in predominantly low-income young minority women: A randomized controlled trial. *JAMA*. 2003; 290:57–65. [PubMed: 12837712]
- Newport DJ, Wilcox MM, Stowe ZN. Antidepressants during pregnancy and lactation: Defining exposure and treatment issues. *Seminars in Perinatology*. 2001; 25:177–190. [PubMed: 11453615]
- O'Hara MW, Stuart S, Gorman LL, Wenzel A. Efficacy of Interpersonal Psychotherapy for postpartum depression. *Archives of General Psychiatry*. 2000; 57:1039–1045. [PubMed: 11074869]
- Segre LS, O'Hara MW, Arndt S, Beck C. Postpartum depression: Do nurses think they should offer both screening and counseling? *MCN The American Journal of Maternal Child Nursing*. 2010; 35(4)
- Shakespeare J, Blake F, Garcia J. A qualitative study of the acceptability of routine screening of postnatal women using the Edinburgh Postnatal Depression Scale. *British Journal of General Practice*. 2003; 53:614–619. [PubMed: 14601337]
- Weissman MM, Pilowsky DJ, Wickramaratne PJ, Talati A, Wisniewski SR, Fava M, et al. Remission in maternal depression and child psychopathology: A STAR*D-Child Report. *JAMA*. 2006; 295:1389–1398. [PubMed: 16551710]

Table 1

Sample Demographics

Demographic Variables	Sample 1 N (%)	Sample 2 N (%)	p
Race ¹			< 0.001
Caucasian	666 (98.3)	107 (81.1)	
African American	5 (0.7)	9 (6.8)	
Asian	5 (0.7)	2 (1.5)	
Native American/Alaskan Native	1 (0.1)	5 (3.8)	
More than one race/Other	1 (0.1)	9 (6.8)	
Ethnicity ¹			< 0.001
Latino	11 (1.6)	35 (26.9)	
Non Latino	672 (98.4)	95 (73.1)	
Marital Status ¹			< 0.001
Married	611 (89.9)	50 (39.1)	
Separated/Divorced	8 (1.2)	8 (6.3)	
Single/with no partner	17 (2.5)	18 (14.1)	
Single/with partner	44 (6.5)	52 (40.6)	
Education ¹			< 0.001
Less than High School	8 (1.2)	31 (24.0)	
High School Graduate or GED	59 (8.7)	45 (34.9)	
Post High School	613 (90.2)	53 (41.1)	
Income ²			< 0.001
\$9,999 or less	22 (3.3)	39 (39.0)	
\$10,000 to \$19,999	30 (4.5)	27 (27.0)	
\$20,000 to \$29,999	52 (7.8)	18 (18.0)	
\$30,000 to \$39,999	77 (11.5)	11 (11.0)	
\$40,000 to \$49,999	78 (11.6)	5 (5.0)	
\$50,000 or more	411 (61.3)	0 (0.0)	
Average Age ²	30.4(SD=4.95)	25.3(SD=5.88)	< 0.001

¹ Fisher's Exact test² Mann-Whitney test

Table 2**Women's Views of Nurse-Delivered Screening and Counseling**

Survey Item	Sample 1 N (%)	Sample 2 N (%)	p *
"Willing to Complete Screening Tool Given by a Nurse"			0.309
Strongly Agree	258 (37.3)	44 (33.6)	
Agree	414 (59.9)	81 (61.8)	
Disagree	12 (1.7)	4 (3.1)	
Strongly Disagree	7 (1.0)	2 (1.5)	
"Nurse Counseling is better than no Treatment"			0.007
Strongly Agree	362 (52.8)	54 (41.9)	
Agree	295 (43.0)	62 (48.1)	
Disagree	15 (2.2)	8 (6.2)	
Strongly Disagree	14 (2.0)	5 (3.9)	
"Depression Counseling by Nurses is Risky"			0.002
Strongly Agree	7 (1.0)	5 (3.9)	
Agree	16 (2.3)	19 (14.6)	
Disagree	449 (65.4)	71 (54.6)	
Strongly Disagree	215 (31.3)	35 (26.9)	
"Willing to See a Nurse for Counseling"			0.003
Yes	456 (66.8)	71 (54.2)	
Maybe/Uncertain	210 (30.8)	52 (39.7)	
No	17 (2.5)	8 (6.1)	
"More likely to obtain counseling from a nurse than a mental health professional"			0.002
Strongly Agree	181 (26.4)	24 (18.6)	
Agree	370 (54.0)	65 (50.4)	
Disagree	123 (18.0)	29 (22.5)	
Strongly Disagree	11 (1.6)	11 (8.5)	

* Mann-Whitney