Uncovering the Golden Veil: Applying the Evidence for Telephone Screening to Detect Early Postpartum Depression

Dina N. BenDavid, DNP, FNP-C

Diane F. Hunker, PhD, MBA, RN

Kathleen C. Spadaro, PhD, PMHCNS, RN

ABSTRACT

Postpartum depression (PPD) is often detected later than symptom onset, or even undetected, because of lack of prompt or adequate screening. An evidence-based PPD screening protocol using a telephone-based format within a primary care practice was developed to identify symptoms and initiate treatment between 2 and 3 weeks postpartum. The Edinburgh Postnatal Depression Scale was used, with positive screens referred for provider and support services, and then tracked for follow-through. Fifty-two percent of women screened positive. Sixty-four percent accepted both provider and support referrals, with 89% follow-through with provider referrals and 78% follow-through with support referrals. Outcomes support early screening for PPD using a telephone-based format to effectively identify symptoms and acceptance of referrals by participants.

The Journal of Perinatal Education, 25(1), 37–45, <http://dx.doi.org/10.1891/1058-1243.25.1.37>

Keywords: postpartum depression screening, maternal depression, perinatal depression, perinatal mental health, evidence-based practice

Postpartum depression (PPD) has acquired heightened publicity since actress Brooke Shield's candid testimonial on *The Oprah Winfrey Show* in 2005. However, the link between depression and the postnatal period has been known since the ancient era of Hippocrates (Unterman, Posner, & Williams, 1990). Despite this, it was not until 1994 that this association was formally recognized in the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed., text rev.; *DSM-IV*; American

Psychiatric Association [APA], 2000; Miller, 2002). As many as 2 in 10 postpartum women are affected by PPD, although it is suggested many cases remain undiagnosed (McCarthy & McMahon, 2008). Among women who have previously suffered some degree of PPD, the rate of recurrence is 62% (National Institute for Health Care Management [NIHCM], 2010). Therefore, these groups of women are at even higher risk and especially vulnerable. PPD can result in devastating consequences

for the mother, infant, and family unit, ranging from marital discord to unmet infantile needs (Beck, 1995, 2001). Unfortunately, PPD is often detected much later than symptom onset or is even left undetected because of lack of prompt or adequate screening (Gjerdingen & Yawn, 2007). Because nurses have more contact with patients than any other health-care discipline, they have unique opportunities to screen patients for PPD symptoms.

Among the most troubling consequences of PPD is the effect on the mother's ability to care for her newborn, such as being unable to identify her child's cues for hunger and other needs, and the hindrance of mother–infant bonding (Beck, 1995, 2001). Field (1998) found that children of depressed mothers are more susceptible to social, psychological, cognitive, motor, and neurological impairments. These children are prone to emotional problems and distressed behaviors, which can often continue into adulthood (Field, 1998). Hipwell, Murray, Ducournau, and Stein (2005) found that having a mother with PPD increases a child's likelihood to exhibit aggressive behaviors, ranging from verbal to physical misconduct.

Women with undiagnosed PPD are at increased risk for substance abuse and complications such as psychiatric admissions (NIHCM, 2010). In 2004, there were 240,000 inpatient maternal admissions involving at least one mental health diagnosis (NIHCM, 2010). If left untreated, PPD can develop into serious sequelae, such as postpartum psychosis, suicide, or infanticide (Gaynes et al., 2005; Pearlstein, Howard, Salisbury, & Zlotnick, 2009).

Women are typically not screened for PPD until the first postnatal visit, generally 6–8 weeks postpartum for an uneventful vaginal birth. However, because PPD symptoms can be seen as early as 2 weeks postpartum (Chaudron, Szilagyi, Kitzman, Wadkins, & Conwell, 2004; Dennis, 2004), the postnatal visit timing may result in delayed treatment. The delay of treatment is the main factor in prolonged episodes of PPD, with 25%–50% of mothers with PPD experiencing episodes lasting 6 months or longer (Beck, 2002).

Adequate screening protocols should be in place to identify possible depression among these women. PPD screening is endorsed, along with proper

support and follow-up for those who screen positive (American College of Nurse-Midwives, 2002; American College of Obstetricians and Gynecologists, 2010; Earls, 2010; Hirst & Moutier, 2010; U.S. Preventive Services Taskforce, 2009). The literature suggests most obstetricians are not screening for PPD appropriately. A review of 512 outpatient obstetric (OB) charts revealed that OB providers only documented formal screening for PPD 39% of the time and counseled patients 35% of the time (Delatte, Hongyuan, Meltzer-Brody, & Menard, 2009). Therefore, PPD screening and assessment should also take place in alternative settings to ensure prompt diagnosis and treatment.

Beck's (2002) meta-analysis of 85 studies reveals that maternal mood in the early postpartum period is significantly predictive of PPD. Likewise, research has shown that PPD screening scores at 1–3 weeks postpartum highly correlate with scores throughout the first postpartum year (Chaudron et al., 2004; Dennis, 2004). This evidence suggests it may be prudent to screen for PPD at 2 weeks postpartum. Research has shown earlier detection and treatment of maternal depression decreases the duration of illness (Field, 1998; Poobalan et al., 2007). Based on this evidence, it is reasonable to conclude that earlier screening produces a greater likelihood for improved patient outcomes.

Barriers associated with health-care access must be considered, particularly with mothers of lower socioeconomic status. Cost, time, and transportation may be issues among this population. Alternative access to health care, such as telephone-based interventions, offer greater flexibility and accessibility. Telephone screening can be as effective as in-person screening in detecting PPD symptoms and is generally well-accepted among postpartum women (Baker-Ericzen, Connelly, Duenas, Landsverk, & Horwitz, 2012; Hanusa, Scholle, Haskett, Spadaro, & Wisner, 2008; Mitchell, Mittelstaedt, & Schott-Baer, 2006). In addition, the perceived anonymity of telephone-based screening may encourage participants to be more forthcoming. Because shame and stigma are largely associated with PPD (Beck, 1993, 2001), the privacy of telephone-based screening may improve help-seeking behaviors among these women.

The purpose of this evidence-based practice (EBP) project was to implement telephone-based PPD screening in an urban primary care practice serving a vulnerable population. This project sought

Beck's (2002) meta-analysis of 85 studies reveals that maternal mood in the early postpartum period is significantly predictive of PPD.

to identify at-risk women early in the postpartum period in an unconventional and cost-effective format. The main objective was to demonstrate how universal PPD screening implemented in primary care could result in increased PPD detection and treatment.

STRATEGIES FOR CHANGE

Intervention

This pilot project was an EBP, administration-approved procedural change that entailed telephone-based PPD screening for all women in a primary care practice between 2 and 3 weeks postpartum. The project was implemented from August 26, 2013, to November 1, 2013. Provider and support referrals were arranged for women screening positive and accepting the referrals, and follow-through was tracked for all appointments made. The health center involved in the pilot did not have a policy for PPD screening, nor was PPD screening routinely performed. Three EBPs were integrated into this pilot project, including (a) PPD screening in a primary care setting, (b) early PPD screening between 2 and 3 weeks postpartum, and (c) telephone-based PPD screening. Institutional review board (IRB) approval was obtained from the Chatham University IRB on August 13, 2013.

Design

This EBP project was implemented within the women's health department at a large interdisciplinary federally qualified health center. The women's health department provided primary care, gynecological services, well-women care, and family planning services. The department did not provide obstetric care, although all pregnant patients were followed for primary care needs as well as family planning case management or perinatal home visiting if appropriate.

The primary project team consisted of one nurse practitioner (NP), as well as one registered nurse (RN) and two family planning case managers, who served as the telephone screeners. The NP trained the telephone screeners on all logistics of the project, including using and scoring the screening tool, telephone scripts, algorithms, and protocols. The NP was available as a support person at all times during implementation and oversaw that all procedures occurred correctly. Each of the three telephone screeners had background and training in working with postpartum women and addressing

Three EBPs were integrated into this pilot project, including (a) PPD screening in a primary care setting, (b) early PPD screening between 2 and 3 weeks postpartum, and (c) telephone-based PPD screening.

maternal-child health needs. Two of the screeners were fluent in Spanish and Portuguese, which was especially valuable because many of the participants spoke only one of these languages. Each screener reached out to the panel of patients whom they saw prenatally. This was comforting to the patient because she had an established relationship with the screener, who had served as a means of prenatal social support. The telephone screeners were the only clinicians making contact with the patient. All women between 2 and 3 weeks postpartum from the department's perinatal database were invited to participate.

Participants consisted of new mothers who were patients at an inner city health center in Southeastern Massachusetts. The characteristics and demographics among the population were relatively consistent. Most of these mothers were racial minorities, in the upper teens or twenties, primiparous, and had an unplanned pregnancy; most also had low income and limited social support.

Phone scripts and algorithms were devised by the NP to ensure consistency among all screens. Algorithm details were formulated based on expert consultations, review of relevant studies conducting similar interventions, as well as implementation site protocols. Algorithms outlined every aspect of the telephone exchange, with a plan of action for every scenario, including negative or positive screens, acceptance or refusal of referral, and suicidal ideation with or without an active plan. Proper procedures were in place to appropriately address any possible scenario. These scripts were presented and approved by the university IRB committee.

The Edinburgh Postnatal Depression Scale (EPDS) was used to screen women for depression symptoms and identify self-harm ideation. The EPDS has well-demonstrated reliability, sensitivity, specificity, and positive predictive value (PPV) in English and various languages (Boyd, Le, & Somberg, 2005; Gaynes et al., 2005; Georgiopoulos, Bryan, Wollan, & Yawn, 2001; Harris, Huckle, Thomas, Johns, & Fung, 1989; Thompson, Harris, Lazarus, &

Richards, 1998). A systematic review of 36 studies found the specificity of the EPDS to range from 0.79 to 0.96, most sensitivity rates at 1.0, and the highest PPV at 0.92 (Boyd et al., 2005). The EPDS, the most widely used and straightforward PPD screening tool, is a 10-item scaled questionnaire and generally takes 5 minutes or less to complete (Cox, Holden, & Sagovsky, 1987). The EPDS can be publicly used and replicated without permission, provided copyright is respected. An EPDS cutoff score of >8 is recommended to identify probable minor depression, detect those at risk for depression, or for use in high-risk mothers (Boyd et al., 2005; Cox et al., 1987; Dennis, 2004; Murray & Carothers, 1990). The women being screened are low-income mothers with limited social support residing in an inner city area; therefore, all are deemed high risk (Beck, 2001) and a cutoff score of >8 was used. To ensure accuracy, the clinicians performing the screening were trained how to properly administer and score the EPDS. The Spanish- and Portuguese-speaking screeners presented the EPDS in the participant's native language.

All patients with a positive screen were referred to their primary care provider for further mental health assessment and possible treatment and also referred to support services. These appointments were made for the patient by the screener. If a patient refused the referrals, it was noted on the outcome tracking sheet. The screeners advised any patient declining referral to contact the office at any time if a change in mind occurred. The screeners also ensured the woman was aware of the location and phone number of the area crisis center. In addition, the screeners noted all comments made by the participant for feedback and satisfaction on the intervention.

Two-week follow-up calls were made to each woman who screened positive and accepted referral. This call provided added support and determined patient follow-through for referred services. To ensure completeness of data, if the patient was unable to be reached, referral status was determined by reviewing the status report from the support organization and the scheduling system of the health center.

In addition, an informational PPD booklet and resource list was mailed to all participants regardless

of their screening score. Because not all women may develop depression at this point in the postpartum period, this sought to educate the mother on PPD, help raise awareness, and destigmatize the condition.

KEY MEASURES FOR IMPROVEMENT

Several outcomes were tracked, measured, and analyzed in this project. The primary outcomes included (a) acceptance of PPD screening among postpartum mothers, (b) detection of PPD symptoms in the early postpartum period, and (c) identification of postpartum self-harm ideation in the early postpartum period. Several secondary outcomes included (d) acceptance of PPD follow-up among postpartum mothers, (e) acceptance of PPD support among postpartum mothers, (f) adherence to PPD follow-up among postpartum mothers, and (g) adherence to PPD support among postpartum mothers.

Because PPD screening was not routinely performed at the health center, external benchmarking was performed by comparing the outcomes to data found in the literature. A review of literature revealed between 85% and 98% of women felt PPD screening was desirable and had no emotional or practical difficulties completing it (Buist et al., 2006; Gemmill, Leigh, Erickse, & Milgrom, 2006; Hanusa et al., 2008); therefore, the benchmark deemed appropriate for acceptability of PPD screening was 90%. Literature revealed between 52% and 56% incidence of positive PPD screens for high-risk women when screened between 2 and 3 weeks postpartum (Chaudron et al., 2010; Lucero, Beckstrand, Callister, & Sanchez-Birkhead, 2012; Reck, Stehle, Reinig, & Mundt, 2009); therefore, the benchmark deemed appropriate for positive screens was 50%. Significant variation on the prevalence of postpartum suicidal ideation is reflected in the literature, ranging from 22% to 62.5% of women screening positive (Le, Perry, & Ortiz, 2010; Lucero et al., 2012; Sit, Seltman, & Wisner, 2011), and 3.2% of all women screened for PPD in another study (Wisner et al., 2013); therefore, the benchmark deemed appropriate for women identified with postpartum suicidal ideation was 3%.

In addition, various studies reflect the acceptance and adherence to provider and support referrals among women with PPD. Literature revealed between 61% and 73% of women accepted provider and support referrals for PPD (Dennis et al., 2009; Hanusa et al., 2008; Horowitz, Murphy, Gregory, & Wojcik, 2011); therefore, the benchmarks deemed

Positive EPDS screens were identified in 51.9% of participants.

appropriate for acceptance to provider and support referrals were 60% and 70%, respectively. Conversely, literature revealed a wide range of women (49%–85%) who were lost to follow-up for PPD provider or support services (Chaudron et al., 2010; Dennis et al., 2009). In addition, the no-show rate for the women's health department was approximately 33%; therefore, the benchmarks deemed appropriate for adherence to provider and support referrals were 60% and 70%.

EFFECTS OF THE CHANGE

Analysis of Demographic Data

Twenty-seven women participated in the project, with ages ranging from 18 to 42 years old. The mean participant age was 26 years ($SD \pm 6.23$), with more than 48% ($n = 13$) between ages 18 and 25 years. Participant gravida ranged between 1 and 5, with 40.7% ($n = 11$) being gravida 1 (G1). Participant parity ranged between 1 and 4, with 63% ($n = 17$) being para 1 (P1). Most participants were single (78%) and insured under Medicaid (82%). In addition, 40.7% of participants ($n = 11$) were Hispanic and approximately 33% of participants ($n = 9$) were not proficient in the English language. The native language of nearly 70% of participants ($n = 19$) was not English, with 48.1% ($n = 13$) of those native Spanish. A previous history of diagnosed depression was identified in approximately 22% ($n = 6$) of all participants, and 33% ($n = 2$) among those screening positive. Nearly 33.3% ($n = 9$) had a cesarean. Last, nearly all participants (96.3%, or 26) lived in the Greater New Bedford area (Table 1).

Analysis of Outcome Data

One hundred percent of participants ($n = 27$) found PPD screening acceptable. Positive EPDS screens were identified in 51.9% of participants ($n = 14$). The range of EPDS scores was 0–15; the overall mean score was 7.7 ($SD = 4.67$). The mean of positive scores was 11.6 ($SD = 1.86$), whereas the mean of negative scores was 3.5 ($SD = 2.67$). Approximately 7% of participants ($n = 2$), or 14% of those screening positive, voiced suicidal ideation; however, both identified this “hardly ever” occurred and neither had any active plan. Provider referrals were accepted by 64.3% of participants screening positive ($n = 9$), with 89% of those participants ($n = 8$) keeping the appointment. Support referrals were accepted by 64.3% of participants ($n = 9$), with 78% of participants ($n = 7$) keeping the appointment (Table 1).

TABLE 1

Participant Demographics—Data Presented as a Percent of Sample ($N = 27$)

Variables	<i>n</i> (%)
Age	
18–25	13 (48.1)
26–30	7 (25.9)
31–40	6 (22.2)
>40	1 (3.7)
Marital status	
Single	21 (77.8)
Married	6 (22.2)
Gravidity	
G1	11 (40.7)
G2	6 (22.2)
G3	2 (7.4)
G4	6 (22.2)
G5	2 (22.2)
Parity	
P1	17 (63.0)
P2	4 (14.8)
P3	4 (14.8)
P4	2 (7.4)
Insurance	
Medicaid	22 (81.5)
Commercial	5 (18.5)
Nationality	
White	3 (11.1)
Hispanic	11 (40.7)
Guatemalan	6 (22.2)
Cape Verdean	3 (11.1)
Portuguese	1 (3.7)
Brazilian	1 (3.7)
Filipino	1 (3.7)
Moroccan	1 (3.7)
English proficiency	
Yes	18 (66.7)
No	9 (33.3)
Primary language	
English	8 (30.0)
Spanish	14 (48.1)
Portuguese	4 (14.8)
Tagalog	1 (3.7)
Arabic	1 (3.7)
Previous depression diagnosis	
Yes	6 (22.2)
No	21 (77.8)
Type of birth	
Vaginal	18 (66.7)
Cesarean surgery	9 (33.3)
Home location	
Greater New Bedford	26 (96.3)
Greater Fall River	1 (3.7)

Statistical analysis explored EPDS screening results with participant demographics using Fisher exact test (two-sided) for dichotomous variables and Pearson chi-square (two-sided) for variables with more categories. Significance was only found in one category;

age ($p = .007$) with women 30 years and older screening positive compared to the younger women. No significance was noted in the following categories: type of insurance either Medicaid or commercial ($p = 1.0$), type of birth either vaginal or cesarean surgery ($p = .103$), nationality using categories of White, Hispanic, Guatemalan, other ($p = .327$), depression history ($p = 1.0$), English proficiency ($p = .695$), parity ($p = .142$), and gravida ($p = .190$).

Most women who accepted referrals for depression also accepted referrals for support (75%). There was no significant difference seen in the number of participants who accepted referrals for depression versus did not accept referrals with age ($p = .380$), nationality ($p = .382$), insurance type ($p = 1.0$), parity ($p = .496$), gravida ($p = .732$), birth ($p = 1.0$), marital ($p = .505$), English proficiency ($p = .580$), depression history ($p = 1.0$), or EPDS scores ($p = .085$). There was a trend with EPDS scores that women with lower EPDS were more likely to not accept referrals for depression treatment. The statistical findings are supportive of the literature, in that PPD can affect women of all ages, nationalities, and demographics.

Interpretation of Outcome Data

The benchmark for PPD screening acceptability was 90%, whereas the benchmark for positive EPDS screens at 2 weeks postpartum was 50%. The benchmark set for any degree of suicidal ideation was 3%. The benchmark was 60% for provider referral acceptance and 70% for provider appointment adherence. In addition, the benchmark was 60% for support referral acceptance, and 70% for support appointment adherence. Therefore, the findings of all seven outcomes met or exceeded the set benchmarks (Table 2). These findings were also supported in the literature (Baker-Ericzen et al., 2012; Chaudron et al., 2004; Dennis, 2004; Hanusa et al., 2008; Mitchell et al., 2006).

Participant Feedback

Many participants voiced comments about the intervention. The screeners documented all commentary for evaluation. Participant comments revealed personal feedback that can foster project improvement and sustainability. Many women screening negative were “grateful” for the call and “appreciated the concern” as well as the information provided. Participants screening positive also verbalized comments. Several women used the words *tired* and *overwhelmed* when referring to postpartum adjustment.

TABLE 2
Evaluation of Outcomes

Outcomes	Benchmark ^a	Implementation
		Rate (<i>n</i>)
PPD screening acceptance	90%	100% (27)
Positive EPDS screen	50%	51.9% (14)
Suicidal ideation	3%	7% (2)
Provider referral acceptance	60%	64.3% (9)
Provider appointment adherence	70%	89% (8)
Support referral acceptance	60%	64.3% (9)
Support appointment adherence	70%	78% (7)

Note. PPD = postpartum depression; EPDS = Edinburgh Postnatal Depression Scale.

^aReferences: Buist (2006), Chaudron et al. (2010), Dennis et al. (2009), Gemmill et al. (2006), Hanusa et al. (2008), Horowitz et al. (2011), Reck et al. (2009).

One participant confessed, “It’s not that I don’t love my baby. But sometimes I kind of regret this ever happened.” Another woman claimed, “I like obsess over everything, even the littlest things . . . then it causes me so much anxiety.” Two women admitted to having debilitating panic attacks since birth of the baby. Such qualitative findings correlate with Stages 1 and 2 of Beck’s (1993) PPD theory, which conceptualizes PPD-related “loss of control.”

During the follow-up call, several participants confirmed the merit of the PPD resource packet. One woman said, “It was really nice to actually read about other moms who feel the way I do.” These women were thankful for reaching out and facilitating emotional revival. One participant declared she was “so glad someone reached out to help” and another admitted she “probably would not have said anything to anyone” if we had not called. The same participant repeatedly thanked the screener for validating her feelings.

Project Limitations

Although this project demonstrated the value of telephone PPD screening, approximately 22% ($n = 8$) of all eligible women could not be reached because of disconnected number, no answer, or no response from a message or mailed cover letter. Likewise, postpartum women were seen daily for medical office visits; however, because in-person encounters did not meet project parameters, these women could not be included in the project. In addition, many screening opportunities fell outside the specified timeframe of 2–3 weeks postpartum. Although the

project validated early PPD detection, early screening may not be feasible for some women for various reasons, such as availability or transportation issues.

RECOMMENDATIONS

This evidence-based pilot project well illustrates the impact of PPD screening initiatives. The impact of such an intervention can be remarkable because it has the potential to positively impact not only mothers but children and families as well. However, screening for PPD should not be limited to the context set forth in this project. Women should be screened for PPD among various timeframes, contexts, and settings.

Broadening the prospects for depression screening may yield a greater likelihood for symptom identification. Symptoms of PPD may arise at any point during the first postpartum year (Beck, 2001; Gaynes et al., 2005); therefore, women should be screened at every medical encounter during this timeframe. In addition, women may be more comfortable discussing symptoms and struggles within a particular context or with a specific provider; therefore, multiple settings and platforms should be used for PPD screening. Opportunities to screen new mothers for depressive symptoms are vast and range from home visiting programs, telephone encounters, or medical office visits. Mothers can be screened during obstetric, primary care, and pediatric visits. Substantial evidence supports PPD screening in each of the aforementioned settings (Earls, 2010; Horowitz et al., 2011; Yawn et al., 2012).

Another compelling context in which to screen for PPD is during pediatric well-child visits throughout a child's first year of life, which would provide seven assessments at regular intervals. Because of PPD's considerable implications on children, the pediatric setting is an appropriate venue in which to screen postpartum women for depression. Such an intervention would involve little workflow disruption because mothers can complete the EPDS while waiting to see the pediatric provider. Completion of the EPDS takes only minutes, and as demonstrated in this EBP project, is well accepted among postpartum women.

CONCLUSION

The harmful effects of PPD are extensive, ranging from maternal and familial dissonance to impaired child development, or more serious effects such as infant neglect, maternal suicide, or infanticide. Many barriers impede help seeking for perinatal mental

One participant declared she was "so glad someone reached out to help," and another admitted she "probably would not have said anything to anyone" if we had not called.

health needs; consequently, women often suffer in silence. However, these women can be easily identified if adequate screening measures are in place. Clinicians should attempt to screen new mothers for PPD symptoms during all clinical encounters during the first postpartum year.

This project demonstrated the benefit of early PPD screening in a cost-effective, nontraditional format. The delivery approach, telephone screening, was found feasible and acceptable by all the primary care participants. Depressive symptoms were identified in a clinically significant number of women, and the women were thus referred for prompt treatment and support services. It is likely these women would not have been identified without execution of this pilot project. By identifying symptoms of early PPD, referring to treatment, and following patient adherence to treatment, nurses can provide an evidence-based intervention that promotes healthy outcomes for mothers and newborns.

ACKNOWLEDGMENTS

Thank you to the following professionals who facilitated the development or implementation of this project and helped make it possible.

Cheryl Tatano Beck, DNSc, CNM, FAAN; Gail Brennan, LCSW; Beth Buxton, LCSW; Nancy Byatt, DO, MBA; Cindy-Lee Dennis, PhD, RN; Liz Friedman, MFA; Janice Goodman, PhD, PMHCNS-BC; Barbara Hanusa, PhD, MS; Deborah Issokson, PsyD; Anne Lynch, MA, RN; Barbara Yawn, MD, MSc, FAAFP; Viviana Abreu, CFP; Stephanie Machado, CFP; and Carla Roderick, BSN, RN

REFERENCES

- American College of Nurse-Midwives. (2002). *Position statement: Depression in women*. Retrieved from <http://www.midwife.org/ACNM/files/ACNMLibraryData/UPLOADFILENAME/000000000061/Depression%20in%20Women%20May%202013.pdf>
- American College of Obstetricians and Gynecologists. (2010). Committee Opinion No. 453: Screening for depression during and after pregnancy. *Obstetrics & Gynecology*, 115, 394–395.
- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text rev.). Washington, DC: Author.

- Baker-Ericzén, M. J., Connelly, C. D., Duenas, C., Landsverk, J. A., & Horwitz, S. M. (2012). A collaborative care telemedicine intervention to overcome treatment barriers for Latina women with depression in the perinatal period. *Families, Systems, & Health, 30*(3), 224–240.
- Beck, C. T. (1993). Teetering on the edge: A substantive theory of postpartum depression. *Nursing Research, 42*(1), 42–48.
- Beck, C. T. (1995). The effects of postpartum depression on maternal-infant interaction: A meta-analysis. *Nursing Research, 44*(5), 298–304.
- Beck, C. T. (2001). Predictors of postpartum depression: An update. *Nursing Research, 50*(5), 275–285.
- Beck, C. T. (2002). Postpartum depression: A metasynthesis. *Qualitative Health Research, 12*(4), 453–472.
- Boyd, R. C., Le, H. N., & Somberg, R. (2005). Review of screening instruments for postpartum depression. *Archives of Women's Mental Health, 8*, 141–153.
- Buist, A., Bilszta, J., Milgrom, J., Barnett, B., Hayes, B., & Austin, M. P. (2006). Health professional's knowledge and awareness of perinatal depression: Results of a national survey. *Women and Birth, 19*(1), 11–16.
- Chaudron, L. H., Szilagyi, P. G., Kitzman, H. J., Wadkins, H. I., & Conwell, Y. (2004). Detection of postpartum depression symptoms by screening at well-child visits. *Pediatrics, 113*(3), 551–558.
- Chaudron, L. H., Szilagyi, P. G., Tang, W., Anson E., Talbot, N. L., Wadkins, H. I., . . . Wisner, K. L. (2010). Accuracy of depression screening tools for identifying postpartum depression among urban mothers. *Pediatrics, 125*(3), e609–e617.
- Cox, J. L., Holden, J. M., & Sagovsky, R. (1987). Detection of postnatal depression: Development of the 10-item Edinburgh Postnatal Depression Scale. *British Journal of Psychiatry, 150*, 782–786.
- Delatte, R., Hongyuan, C., Meltzer-Brody, S., & Menard, K. (2009). Universal screening for postpartum depression: An inquiry into provider attitudes and practice. *American Journal of Obstetrics & Gynecology, 200*(5), e63–e64.
- Dennis, C. L. (2004). Can we identify mothers at risk for postpartum depression in the immediate postpartum period using the Edinburgh Postnatal Depression Scale? *Journal of Affective Disorders, 78*(2), 163–169.
- Dennis, C. L., Hodnett, E., Kenton, L., Weston, J., Zupancic, J., Stewart, D. E., & Kiss, A. (2009). Effect of peer support on prevention of postnatal depression among high risk women: Multisite randomised controlled trial. *British Medical Journal, 338*, a3064.
- Earls, M. F. (2010). Incorporating recognition and management of perinatal and postpartum depression into pediatric practice. *Pediatrics, 126*(5), 1032–1039.
- Field, T. (1998). Early interventions for infants of depressed mothers. *Pediatrics, 102*(5 Suppl. E), 1305–1310.
- Gaynes, B. N., Gavin, N., Meltzer-Brody, S., Lohr, K. N., Swinson, T., Gartlehner, G., . . . Miller, W. C. (2005). *Perinatal depression: Prevalence, screening accuracy, screening outcomes and summary*. Retrieved from <http://archive.ahrq.gov/clinic/epcsums/peridepsum.pdf>
- Gemmill, A. W., Leigh, B., Ericksen, J., & Milgrom, J. (2006). A survey of the clinical acceptability of screening for postnatal depression in depressed and non-depressed women. *BMC Public Health, 6*, 211.
- Georgiopoulos, A. M., Bryan, T. L., Wollan, P., & Yawn, B. P. (2001). Routine screening for postpartum depression. *Journal of Family Practice, 50*(2), 117–122.
- Gjerdingen, D., & Yawn, B. (2007). Postpartum depression screening: Importance, methods, barriers and recommendations for practice. *Journal of the American Board of Family Medicine, 20*(3), 280–288.
- Hanusa, B. H., Scholle, S. H., Haskett, R. F., Spadaro, K., & Wisner, K. L. (2008). Screening for depression in the postpartum period: A comparison of three instruments. *Journal of Women's Health, 17*(4), 585–596.
- Harris, B., Huckle, P., Thomas, R., Johns, S., & Fung, H. (1989). The use of rating scales to identify post-natal depression. *British Journal of Psychiatry, 154*, 813–817.
- Hipwell, A. E., Murray, L., Ducournau, P., & Stein, A. (2005). The effects of maternal depression and parental conflict on children's peer play. *Child: Care, Health and Development, 31*(1), 11–23.
- Hirst, K. P., & Moutier, C. Y. (2010). Postpartum major depression. *American Family Physician, 82*(8), 926–933.
- Horowitz, J. A., Murphy, C. A., Gregory, K. E., & Wojcik, J. (2011). A community-based screening initiative to identify mothers at risk for postpartum depression. *Journal of Obstetric, Gynecologic, and Neonatal Nursing, 40*(1), 52–61.
- Le, H., Perry, D., & Ortiz, G. (2010). The Postpartum Depression Screening Scale-Spanish version: Examining the psychometric properties and prevalence of risk for postpartum depression. *Journal of Immigrant and Minority Health, 12*(2), 249–258.
- Lucero, N. B., Beckstrand, R. L., Callister, L. C., & Sanchez-Birkhead, A. C. (2012). Prevalence of postpartum depression among Hispanic immigrant women. *Journal of the American Academy of Nurse Practitioners, 24*(12), 726–734.
- McCarthy, M., & McMahon, C. (2008). Acceptance and experience of treatment for postnatal depression in a community mental health setting. *Health Care for Women International, 29*(6), 618–637.
- Miller, L. J. (2002). Postpartum depression. *Journal of the American Medical Association, 287*(6), 762–765.
- Mitchell, A. M., Mittelstaedt, M. E., & Schott-Baer, D. (2006). Postpartum depression: The reliability of telephone screening. *Maternal Child Health Nursing, 31*(6), 382–387.
- Murray, L., & Carothers, A. D. (1990). The validation of the Edinburgh Post-natal Depression Scale on a community sample. *British Journal of Psychiatry, 157*, 288–290.
- National Institute for Health Care Management. (2010). *Identifying and treating maternal depression: Strategies & considerations for health plans*. Retrieved from http://nihcm.org/pdf/FINAL_MaternalDepression6-7.pdf
- The Oprah Winfrey Show. (2005). Postpartum depression [Television series episode]. In E. Rakieta (Executive producer), *The Oprah Winfrey Show*. Retrieved from <http://www.oprah.com/oprahshow/Postpartum-Depression/1>

- Pearlstein, T., Howard, M., Salisbury, A., & Zlotnick, C. (2009). Postpartum depression. *American Journal of Obstetrics and Gynecology*, 200(4), 357–364.
- Poobalan, A. S., Aucott, L. S., Ross, L., Smith, W. C., Helms, P. J., & Williams, J. H. (2007). Effects of treating postnatal depression on mother-infant interaction and child development: Systematic review. *British Journal of Psychiatry*, 191, 378–386.
- Reck, C., Stehle, E., Reinig, K., & Mundt, C. (2009). Maternity blues as a predictor of DSM-IV depression and anxiety disorders in the first three months postpartum. *Journal of Affective Disorders*, 113(1), 77–87.
- Thompson, W. M., Harris, B., Lazarus, J., & Richards, C. (1998). A comparison of the performance of rating scales used in the diagnosis of postnatal depression. *Acta Psychiatrica Scandinavica*, 98, 224–227.
- U.S. Preventive Services Task Force. (2009). Screening for depression in adults: U.S. Preventive Services Task Force recommendation statement. *Annals of Internal Medicine*, 151(11), 784–792.
- Unterman, R. R., Posner, N. A., & Williams, K. N. (1990). Postpartum depressive disorders: Changing trends. *Birth*, 17(3), 131–137.
- Wisner, K. L., Sit, D. K., McShea, M. C., Rizzo, D. M., Zoretich, R. A., Hughes, C. L., . . . Hanusa, B. H. (2013). Onset timing, thoughts of self-harm, and diagnoses in postpartum women with screen-positive depression findings. *Journal of the American Medical Association Psychiatry*, 70(5), 490–498.
- Yawn, B. P., Dietrich, A. J., Wollan, P., Bertram, S., Graham, D. Huff, J., . . . Pace, W. D. (2012). TRIPPD: A practice-based network effectiveness study of postpartum depression screening and management. *Annals of Family Medicine*, 10(4), 320–329.

DINA N. BENDAVID is a family nurse practitioner specializing in women's health. She has a vast array of clinical expertise, though her passion lies in maternal-infant health and personal wellness. She is also an adjunct professor of nursing at the graduate level at Maryville University and Southern New Hampshire University. DIANE F. HUNKER is an associate professor of nursing and the Director of Nursing Programs at Chatham University. She teaches at the baccalaureate, master's and doctoral levels. Her scholarly interests include maternal-infant health and graduate and online nursing education. KATHLEEN C. SPADARO is an assistant professor of nursing at Chatham University teaching master's and doctoral level nursing. She has been involved in numerous research projects involving mood and healthcare interventions including a postpartum telephone screening and case management study. She also has a part-time private practice and specializes in women's issues.