JNPD

Journal for Nurses in Professional Development • Volume 36, Number 1, 7–11 • Copyright © 2019 Wolters Kluwer Health, Inc. All rights reserved.

Developing a Hospital-Based Postpartum Depression Education Intervention for Perinatal Nurses

CE
1.0 ANCC Contact Hour

Nikiya L. Lewis, DNP, APRN, FNP-C

Perinatal nurses in the hospital setting have prolonged contact with new mothers and are in a vital position to provide postpartum depression patient education. This study describes the development and implementation of an education intervention that led to nurses' increased knowledge and provision of postpartum depression patient education. The framework can be utilized by nursing professional development practitioners to develop staff education programs to improve patient education in various clinical settings.

Postpartum depression (PPD) is a serious psychological condition that can develop within the first 6 weeks of delivery (Ho et al., 2009). It is very common among both new and experienced mothers. During the first year after having children, approximately 15% of pregnant women are diagnosed with PPD (Selix, 2015). Often, it is something that is not easy for women to discuss (Selix, 2015). Many new mothers feel guilty or inadequate as a mother when experiencing overwhelming feelings of sadness and frustration after childbirth (Selix, 2015). These feelings of guilt can be attributed to the stigma that is associated with depression (Hannan, 2016). A mother's perception of how the postpartum period should occur can contribute to her PPD, especially when she does not feel as though she has lived up to the perception of motherhood (Hannan, 2016). Only 40% of women seek treatment for perinatal mood disorders (Mental Health America, 2013). Untreated depression can have lasting effects on the physical and mental health of the woman, her child, and family. It can lead to an increased risk for substance abuse, suicide, and poor health for the woman (Beardslee, Gladstone, & Diehl, 2014). Infants born to mothers with untreated depression are at risk for having mental, emotional, and behavioral problems (Beardslee et al., 2014). Children of these mothers may be at risk for developing psychosocial and psychiatric problems (Beardslee et al., 2014).

Women do not present for their postpartum evaluations until 4–6 weeks after delivery (Berens, 2016). During this critical time period, many are already suffering from the symptoms of PPD and usually will be reluctant to discuss their feelings with the healthcare provider (Berens, 2016). Studies have indicated that less than half of women will receive treatment for PPD (Farr, Ko, Burley, & Gupta, 2016). A woman's lack of knowledge of PPD has been identified as a critical barrier to diagnosis and treatment (Farr et al., 2016).

Perinatal nurses work in a variety of settings and provide nursing care to women, newborns, and their families during pregnancy, childbirth, and during the first few weeks after childbirth (Canadian Association of Perinatal and Women's Health Nurses, 2018). Perinatal nurses working in the hospital setting have a prolonged amount of contact with new mothers and are in a vital position to educate them on PPD (Logsdon, Eckert, Tomasulo, & Myers, 2013). Adequate patient education regarding PPD increases an individual's knowledge about PPD and promotes better communication between the patient and provider (Youash et al., 2013). The ability of the nurse to provide postpartum patients with appropriate education regarding the risk factors and symptoms of PPD and the importance of timely reporting may lead to the early identification and treatment of PPD. Nurse's knowledge and willingness to provide appropriate education for PPD varies among nurse to nurse. This can have a direct impact on the amount of education that patients receive for PPD. By increasing the perinatal nurses' knowledge of PPD, they may be more inclined to provide consistent PPD education to patients.

REVIEW OF THE LITERATURE

Existing literature indicates that many perinatal nurses lack knowledge about PPD, which is essential to providing effective PPD teaching to postpartum women. Although the literature suggests that nurses lack knowledge of PPD, limited studies were found that addressed the relationship between registered nurses' knowledge and practice of PPD education. In an exploratory study by Suplee, Kleppel, and Bingham (2016), postpartum nurses from six hospitals

Nikiya Lewis, DNP, APRN, FNP-C, is Assistant Professor of Nursing, Georgia Southern University, Statesboro.

The author declares no conflicts of interest.

ADDRESS FOR CORRESPONDENCE: Nikiya Lewis, DNP, APRN, FNP-C, P.O. Box 8158, School of Nursing, Georgia Southern University, Statesboro, GA 30460 (e-mail: nlewis@georgiasouthern.edu).

DOI: 10.1097/NND.0000000000000595

in New Jersey and Georgia participated in focus-group discussions to identify the types of educational materials and discharge information provided to patients on the warning signs of postpartum complications. Inconsistencies were noted in the information that was taught to patients between and within the focus groups. This study revealed that many of the nurses included in the study were not knowledgeable of the most common postpartum warning signs and suggested the need for additional education and guidance for nurses on how to teach women about postpartum warning signs (Suplee et al., 2016). The authors identified the importance of providing postpartum women with consistent patient education. A systematic review by Legere et al. (2017) revealed that professional development strategies aimed at PPD improved healthcare provider outcomes, including nurses and midwives. As a result of professional development, healthcare providers demonstrated improved confidence and were more knowledgeable of PPD (Legere et al., 2017). The review also revealed that any strategy used to deliver PPD education to healthcare providers would be beneficial compared to no education at all (Legere et al., 2017). Logsdon et al. (2013) stated that, prior to the implementation of evidence-based guidelines, the characteristics of nurses responsible for implementing the interventions must be examined as they may have a direct impact on nurses' use of the guidelines. In both studies conducted by Logsdon and colleagues (Logsdon et al., 2013; Logsdon, Foltz, Scheetz, & Myers, 2010), a statistically significant relationship was found between PPD teaching to new mothers and nurses' self-efficacy related to PPD teaching. PPD teaching at delivery results in most of the women being educated on PPD (Farr, Denk, Dahms, & Dietz 2014). It is essential for nurse leaders to provide opportunities for nursing staff to ensure that they are current and knowledgeable about PPD (Logsdon et al., 2013).

THEORETICAL FOUNDATION

Nursing professional development (NPD) practitioners must assume the role of preparing nurses for the practice of patient education through staff training and development programs (Bastable, 2014). In order to successfully implement PPD education interventions in the practice setting, nurse leaders must first target PPD knowledge acquisition for the nurse. Research has demonstrated that individuals are more likely to avoid activities that are outside their level of comfort and capability and to perform activities they are more confident in (Robb, 2012). This demonstrates the premise of Bandura's self-efficacy theory. Perinatal nurses must receive appropriate education on PPD in order to increase their level of confidence in providing PPD education to patients. It can therefore be theorized that the higher the perinatal nurse's perceived self-efficacy in providing PPD education, the more committed he or she will be toward implementing interventions aimed at educating patients on PPD.

METHODS

A gap in the literature exists between PPD education for nurses and the provision of PPD patient education. The purpose of this study was to conduct a needs assessment of the PPD nursing education process in the maternity unit of a regional hospital in Southern United States, develop and implement an educational intervention to support nurses in the provision of patient education, and evaluate the effect of the educational intervention to determine the value on nursing practice. The intended outcome was that after the educational intervention had been implemented, nurses would have increased knowledge of PPD and demonstrate consistent practice of PPD patient education.

The following question was used to guide this study: Does a PPD educational intervention promote improved PPD patient education provided by perinatal nurses?

Setting and Participants

The setting for this study was a 150-bed regional hospital with approximately 1,600 births a year in the Southern United States. A convenience sample of 53 registered professional nurses and two licensed practical nurses practicing on three inpatient units in the women's services department at a regional hospital in Georgia were invited to participate in the program and complete surveys. Twenty-six nurses attended the program and completed surveys for a response rate of 49%.

Ethical Considerations

The Georgia Southern University International Review Board granted ethical approval for this study. Written permission to conduct the study at the hospital was obtained from the Director of Nursing. Implied consent was obtained from nurses who completed and return the pre- and posttests. In order to protect participant confidentiality, no potential identifiers were included on pre- and posttests received from participants.

Design

A pretest and posttest design was used to evaluate nurses' knowledge of PPD. Evidence of PPD education was documented in the patient's medical record by nursing staff. Aggregated, de-identified data were collected from the hospital's information technology department during a 4-week time prior to and after implementation of the educational intervention to determine how often the PPD education was documented in the postpartum patient's medical record.

Procedures

A meeting was held with the Director of Women's Services in February 2017 to discuss the current processes that nurses

use to deliver patient education to patients for PPD. The results of the meeting determined, although a PPD and baby blues education tool was available, were not routinely provided to all postpartum patients with discharge education. It was also noted that continuing education for PPD was not offered to nursing staff. In collaboration with the director, it was determined that a continuing education program that addressed PPD would be beneficial to nursing staff. Because nursing staff often rotated areas within the department, it was also determined that staff working in each unit should be included. In collaboration with the clinical director, a continuing education program for perinatal nursing staff working in the labor and delivery unit, postpartum unit, and nursery was developed. The program was based on a review of literature and consisted of the incidence and prevalence of PPD and issues surrounding stigma associated with PPD. It also included a discussion of the symptoms, risk factors, diagnosis, and treatment of PPD, guidelines for screening, and resources for referral. The role of the nurse in the provision of PPD patient education related to patient teaching and anticipatory guidance was also included. After the development of the program, multiple content expert practitioners and academic professionals reviewed the content and proposed delivery of information; no changes were recommended.

The continuing education program was presented in a PowerPoint format using lecture and interactive discussion. Interactive discussion was used to explore nursing staff's experiences with stigma associated with PPD and personal challenges with providing PPD patient education. It was also used to address questions asked by nursing staff during the program. Eleven 2-hour continuing education programs were scheduled over the course of 9 days for nursing staff to attend; however, additional programs had to be conducted due to nurse staffing and patient census. Although 2 hours were allotted for each program, all were completed in less than 1 hour 20 minutes. Programs were conducted individually and in groups. Prior to completing the program, all nurses in attendance were informed about the purpose and procedures of the educational program. Once pretest was completed, a 60-minute PPD presentation was given. During the program, the hospital's current "PPD and Baby Blues" patient education handout was reviewed with staff. Nurses were also instructed how and where to document PPD education in the patient's medical record. At the conclusion, a knowledge posttest was administered.

Measurements

For this study, a 10-question PPD knowledge-based pre- and posttest was administered. Evidence of PPD education was documented in the postpartum patient's medical record by nursing staff. Aggregated, de-identified data were collected from the hospital's information technology department prior to implementation of the educational intervention and 4 weeks afterward to determine how often PPD education was documented in the postpartum patient medical record.

Data Analysis

Composite mean scores and frequencies were calculated for quantitative variables. Paired-samples *t* tests were used to compare mean differences between nurse knowledge of PPD before and after the intervention. Data were tested for normality using Shapiro–Wilk test ($p > .05$). Multiple regression analysis was used to test if nurses' age, total years of nursing practice, total years of perinatal nursing practice, and current department worked were predictors of nurse knowledge of PPD. A 95% confidence interval (CI) was used to evaluate the difference in proportions of nurse application of PPD education before and after the intervention. All statistical analyses were conducted in SPSS software (Version 23).

RESULTS

This study examined the educational needs of a women's services department and the effect of a PPD education intervention for perinatal nurses. The intended outcome was that, after the educational intervention had been implemented, nurses would have increased knowledge of PPD and demonstrate consistent application of PPD education.

A total of 26 female registered professional nurses participated in the intervention and completed pre- and postmeasurement surveys (see Table 1). Nurses ranged in age from 24 to 66 years, with a mean of 43.8. The average number of years of nursing practice and perinatal nursing practice was 41 and 30, respectively. The ethnic makeup of the sample was 88.5% Caucasian and 11.5% African American. The sample consisted of perinatal nurses from the three departments within the Women's Services Unit, labor and delivery (11.5%), postpartum (42.3%), and nursery (46.2%).

Knowledge of PPD

A paired-samples *t* test was calculated to compare the mean pretest score to the mean final exam score. The mean score on the pretest was 68.88 ($SD = 10.25$), and the mean score on the posttest was 94.14 ($SD = 8.68$). Nurses had a significant increase in PPD knowledge from pretest to posttest, $t(24) = -9.690$, $p < .001$. A multiple linear regression was calculated to predict nurses' pretest knowledge scores based on their age, years of perinatal nursing practice, and current department worked. The regression equation was not significant, $F(5, 17) = 0.842$, $p > .05$. Neither age, years of perinatal nursing practice, nor current department worked was a significant predictor of nurses' knowledge of PPD before the intervention.

TABLE 1 Full Sample of Demographics (Total Sample, *N* = 26)

	n (%)
Age, mean (*SD*)	43.8 (10.8)
Gender	
Male	0 (0%)
Female	26 (100%)
Race	
White	23 (88.5%)
African American	3 (11.5%)
Asian	0 (0%)
Hispanic	0 (0%)
Other	0 (0%)
Years of nursing practice	
Less than 2	0 (0%)
2–5	4 (15.4%)
6–10	2 (7.7%)
11–15	2 (7.7%)
16+	18 (69.2%)
Years of perinatal nursing practice	
Less than 2	3 (12%)
2–5	5 (20%)
6–10	4 (16.8%)
11–15	1 (4%)
16+	12 (48%)
Current department worked	
Labor and delivery	3 (11.5%)
Postpartum	11 (42.3)
Nursery	12 (46.2)

Frequency and Effectiveness of the Educational Intervention Reflecting the Application of Patient Education by Nurses

One hundred nine postpartum patients were discharged during the 4-week time prior to the intervention; 0.9% (P1) received PPD education prior to discharge. One hundred twenty-nine postpartum patients were discharged over the course of 4 weeks postintervention; 93.8% (P2) received PPD education. The ratio between P1 and P2 is 0.96. A 95% CI of the ratio between P1 and P2 is CI 0.96 [0.05, 0.17]. The CI does not contain 1, which indicates a difference between the two proportions. The educational intervention did promote improved PPD education provided to patients by perinatal nurses.

DISCUSSION

The primary aim of this study was to evaluate the effect of a PPD educational intervention to determine its value on nursing practice. On the basis of the results, the PPD education intervention did promote improved PPD education provided by perinatal nurses.

Previous research has indicated that perinatal nurses working in the clinical setting play a vital role in educating patients on the symptoms of maternal depression (Logsdon et al., 2013). Nurses' knowledge about PPD and their willingness to provide education may have an impact on the provision of PPD patient education (Logsdon et al., 2013). In this study, nurses demonstrated increased knowledge of PPD. Consistent application of PPD patient education was also noted after the intervention. Findings suggest that nurses are more likely to educate patients on PPD if they are more knowledgeable of the condition. This reinforces Bandura's self-efficacy theory, which demonstrates that if nurses feel more knowledgeable and confident in their ability to perform a task, then they will be more committed to achieving it.

IMPLICATIONS FOR NPD

Patient education is an essential component of nursing practice. This study found that perinatal nurses are more likely to provide PPD education to patients when they are more knowledgeable about the condition. It highlights the importance of a needs assessment and continuing education and professional development for nursing staff. Results support the use of continuing education to improve nurses' confidence in their ability to provide patient education and to increase their knowledge of PPD. The outcomes of this study support research by providing strategies to increase nurses' ability to educate patients on PPD. NPD practitioners are tasked with improving healthcare outcomes and quality of care and reducing healthcare cost through nursing staff education (Jeffery, Longo, Sigma Theta Tau International, & Nienaber, 2016). According to London (as cited in Sherman, 2016), "One of the most important things nurses can do to improve outcomes is to educate patients about their self-care needs before discharge." Nurses can improve patient outcomes related to PPD by educating patients prior to discharge about the signs and symptoms of PPD and what to do should symptoms occur. NPD practitioners play a vital role in this process.

Limitations

Several limitations were noted in this study. The study was conducted at one institution. The sample size was small

and lacked diversity. All participants in the study were female, and 88% were White. Eighty-eight percent of the nurses participating in the study worked in the nursery and postpartum unit. Challenges were experienced in recruiting nurses from the labor and delivery unit to participate in the study. Data collected from the hospital's information technology department did not identify if PPD education was provided by nurses who participated in the study.

CONCLUSIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

PPD is a serious psychological condition that can develop within the first 6 weeks of delivery (Ho et al., 2009). Untreated, it can have lasting effects on the physical and mental health of the woman, her child, and family. Hospital-based perinatal nurses can be instrumental in improving patient outcomes related to PPD. Additional research studies should include larger sample sizes and more varied populations. Application of patient education should be measured for a longer time period in order to determine the long-term effects of nursing education. Future studies should also be done to determine the value of PPD patient education on patient identification and report of symptoms. The best teaching strategy for providing PPD education to nursing staff should also be explored. Increased nurse knowledge of maternal depression improves their ability to provide postpartum patients with appropriate education regarding the symptoms of PPD and the importance of timely reporting, which may lead to the early identification and treatment of PPD.

References

Bastable, S. B. (2014). *Nurse as educator. Principles of teaching and learning for nursing practice* (4th ed.). Burlington, MA: Jones and Bartlett Learning.

Beardslee, W. R., Gladstone, T. R. G., & Diehl, A. (2014). The impact of depression on mothers and children. *Zero to Three*, 4–11. Retrieved from http://eds.b.ebscohost.com.libez.lib.georgiasouthern.edu/eds/pdfviewer/pdfviewer?vid=5&sid=e740dc8c-76cd-4f2e-8809-3494bb26c0c9%40sessionmgr4010&hid=117

Berens, P. (2016). *Overview of postpartum care*. Retrieved from http://www.uptodate.com/contents/overview-of-postpartum-care?source=search_result&search=postpartum+visit&selectedTitle=1%7E150

Canadian Association of Perinatal and Women's Health Nurses. (2018). *Perinatal nursing standards in Canada*. Retrieved from http://www.capwhn.ca/uploads/documents//PERINATAL_NURSING_STANDARDS_IN_CANADA.pdf

Farr, S. L., Denk, C. E., Dahms, E. W., & Dietz, P. M. (2014). Evaluating universal education and screening for postpartum depression using population-based data. *Journal of Women's Health*, *23*(8), 658–663. doi:10.1089/jwh.2013.4586

Farr, S. L., Ko, J. Y., Burley, K., & Gupta, S. (2016). Provider communication on perinatal depression: A population-based study. *Archives of Women's Mental Health*, *19*, 35–40. doi:10.1007/s00737-014-0493-9

Hannan, J. (2016). Older mothers' experiences of postnatal depression. *British Journal of Midwifery*, *24*(1), 28–36. Retrieved from http://eds.a.ebscohost.com.libez.lib.georgiasouthern.edu/eds/pdfviewer/pdfviewer?vid=22&sid=44fa7b18-e19c-4592-8030-b5c2790d0006%40sessionmgr4010&hid=4208

Ho, S., Heh, S., Jevitt, C., Huang, L., Fu, Y., & Wang, L. (2009). Effectiveness of a discharge education program in reducing the severity of postpartum depression: A randomized controlled evaluation. *Patient Education and Counseling*, *77*, 68–71. doi:10.1016/j.pec.2009.01.009

Jeffery, A. D., Longo, A., Sigma Theta Tau International, & Nienaber, A. (2016). *Staff educators guide to professional development: Assessing and enhancing nurse competency*. Indianapolis, IN: Sigma Theta Tau International.

Legere, L. E., Wallace, K., Bowen, A., McQueen, K., Montgomery, P., & Evans, M. (2017). Approaches to health-care provider education and professional development in perinatal depression: A systematic review. *BMC Pregnancy and Childbirth*, *17*(239), 1–13. doi:10.1186/s12884-017-1431-4

Logsdon, M. C., Eckert, D., Tomasulo, R., & Myers, J. (2013). Self-efficacy and postpartum teaching: A replication study. *The Journal of Perinatal Education*, *22*(3), 166–170. doi:10.1891/1058-1243.22.3.166

Logsdon, M. C., Foltz, M. P., Scheetz, J., & Myers, J. A. (2010). Self-efficacy and postpartum depression teaching behaviors of hospital-based perinatal nurses. *The Journal of Perinatal Education*, *19*(4), 10–16. doi:10.6124/105812410X530844

Mental Health America. (2013). *Position statement 49: Perinatal mental health*. Retrieved from http://www.mentalhealthamerica.net/issues/position-statement-49-perinatal-mental-health

Robb, M. (2012). Self-efficacy with application to nursing education: A concept analysis. *Nursing Forum*, *47*(3), 166–172. Retrieved from http://eds.a.ebscohost.com.libez.lib.georgiasouthern.edu/eds/pdfviewer/pdfviewer?vid=2&sid= 8d3be6a3-dfd5-426f-a94d-0ea0c05d5c5e@sessionmgr102&hid=114

Selix, N. G. (2015). Creation of a national policy on perinatal depression: Role of the advanced practice nurse. *The Journal of Nurse Practitioners*, *11*(2), 214–219. Retrieved from http://eds.a.ebscohost.com.libez.lib.georgiasouthern.edu/eds/pdfviewer/pdfviewer?vid=16&sid=367a8ac9-79fe-46ec-814e-b43fe2143ae1%40sessionmgr4006

Sherman, J. R. (2016). An initiative to improve patient education by clinical nurses. *Medsurg Nursing*, *25*(5), 297–333. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=118640432

Suplee, P. D., Kleppel, L., & Bingham, D. (2016). Discharge education on maternal morbidity and mortality provided by nurses to women in the postpartum period. *Journal of Obstetric, Gynecologic, and Neonatal Nurses*, *45*, 894–904. doi:10.1016/j.jogn.2016.07.006

Youash, S., Cambpell, K., Avison, W., Peneva, D., Sharma, V., & Xie, B. (2013). Influence of health information levels on postpartum depression. *Archives of Women's Mental Health*, *16*, 489–498. doi:10.1007/s00737-013-0368-5