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Post-Partum Deprssion: An Educational Intervention for Nursing Staff in a Rural Hospital Obstetrics

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Table of Contents

Abstract **4**

Chapter 1: Introduction and Background **5**

Problem Statement 6

Objectives 7

Conclusion 8

Chapter 2: Review of Literature **9**

Postpartum Depression 9

Risk Factors 10

Screening and Screening Tools 11

Education 12

Beck's Depression Theory 14

Theoretical Model 15

Conclusion 15

Chapter 3: Methodology **17**

Setting 18

Participants 18

Study Procedures and Tools 19

Data security 20

Ethics and Human Subjects Protection 20

Timeline 21

Budget 21

Chapter 4: Data Analysis **22**

Results 22

Data Analysis 22

Description of the Instruments 24

Analysis of Research Questions 25

Clinical Questions 26

Conclusion 27

Chapter 5: Discussion **28**

Research Findings 28

Strengths 29

Limitations 30

Sustainability 30

Implications of Findings 31

Conclusion 32

References **33**

Appendices **40**

Abstract

Postpartum depression (PPD) is a type of depression that has occurred in women during pregnancy or after the delivery of a child. In the United States, approximately 13.2% of postpartum women were diagnosed with postpartum depression. Research indicated that early identification of PPD led to the best outcomes for postpartum mothers. Routine postpartum depression education and screening for postpartum depression did not exist in the perinatal unit at a Southeast Georgia rural hospital. Lack of nursing knowledge and skill were two barriers identified to screening patients for PPD and providing discharge education. The study provided an educational intervention to provide nursing staff with education on postpartum depression and appropriate screening practices for perinatal nursing staff to increase knowledge, attitude, and skill to improve routine screening, discharge education, and early identification of PPD. The study used a pretest and post-test survey to evaluate baseline knowledge and skill compared to post-educational intervention evaluation. During the four-week study timeline, the nursing staff screened postpartum patients for PPD using the Edinburgh Postnatal Screening tool. The PPD screening rate data was compared to pre-project data using a retrospective chart review. There were 16 nursing staff that completed the project. A dependent samples t-test was used to test if an educational intervention affected nursing staff knowledge of PPD and appropriate screening practices. The data indicated a statistically significant increase in knowledge of PPD *(M 18.25, SD 1.39), t* (15) = 2.34, *p* = .03) and appropriate screening practices *(M 2.44, SD 1.21), t* (15) = 2.61, *p = .02)*. The study data also supported a 100 percent increase in discharge education on PPD provided to patients. The results of this study supported the previous limited study's positive impact of an educational intervention to improve nursing staff knowledge of postpartum depression.

Keywords: postpartum depression, screening, EPDS, education, nursing staff

Chapter 1: Introduction and Background

Postpartum depression (PPD) has been diagnosed in women during pregnancy or after the delivery of a child (America's Health Ranking, 2021). Symptoms of depression have occurred up to twelve months after the birth of a child (ACOG, 2018). In the United States, approximately 13.2% of postpartum women were diagnosed with postpartum depression (AHR, 2021). In Georgia, the percentage of women diagnosed with PPD was slightly higher as of the last AHR report in 2019 at 14.1% (AHR, 2021). Risk factors for perinatal depression that were identified were depression or anxiety during pregnancy, stressful life events, complications during birth, inadequate support system, poor infant outcomes, and a history of depression (ACOG, 2018). Mukherjee et al. (2018) found that women who experienced at least one stressful life event during pregnancy had a much higher risk of developing PPD than women who had not had any stressful life events. The effects of PPD have been shown to extend beyond the mother and have affected parenting skills, child development, well-being, and the negative impacts on the family unit (Ying et al., 2021). In some cases, PPD was severe and lead to suicide or infanticide (Hutchens et al., 2020). PPD which led to suicide was the cause of approximately 20% of maternal deaths after the delivery of a child (Ghaedrahmati et al., 2017).

The American College of Obstetrics and Gynecology (ACOG) has recommended screening for postpartum depression at least once during pregnancy and postpartum (ACOG, 2018). Unfortunately, not all women were screened routinely; inconsistent screening practices further compounded the early identification of PPD (Nidey et al., 2020). In addition, PPD was easily overlooked due to the symptoms of PPD mimicking the expected signs of pregnancy and postpartum (ACOG, 2018). Research has shown that women experiencing depressive symptoms during pregnancy often had more severe PPD after the birth of their child (Fok et al., 2020). In addition, it is unknown how many women were undiagnosed, mainly due to underreporting by women, which was associated with embarrassment and not recognizing

symptoms of depression (Sidebottom et al., 2021). It has been estimated that less than 20% of women experiencing PPD discussed their symptoms with their healthcare providers (ACOG, 2018).

Screening for PPD was essential for the early identification of depressive symptoms in pregnancy and the postpartum period (Sidebottom et al., 2019). The United States Preventative Task Force (USPSTF) (2019) and ACOG (2018) recommended screening at least once during the perinatal period; however, universal screening standards have not existed. One proposed objective for Health People 2030 is to increase the number of PPD screenings performed (AHR, 2021). A procedure for routine PPD screening and education before discharge was not in place at the medical center in rural South Georgia. On average, there were 480 deliveries annually at this facility. The mothers were asked if they were suicidal or had thoughts of harming themselves or others on admission, but they were not routinely screened for depressive symptoms on admission or before discharge. In addition to the lack of routine screening, the nursing staff did not receive formal education on PPD and screening guidelines.

Problem Statement

In 2018 the Centers for Disease Control (CDC) analyzed the Pregnancy Risk Assessment Monitoring System (PRAMS) data to evaluate the number of women asked about depressive symptoms during pregnancy or the postpartum period. One out of every eight women with a live birth reported never being asked about symptoms of depression after delivery, and one out of every five women was not screened during pregnancy (Bauman et al., 2020). Recognition of signs and symptoms of PPD among healthcare professionals was vital to the early identification of PPD in pregnant and postpartum women (Zielinski, 2021). Nurses have had the unique ability to be instrumental in identifying signs and symptoms of PPD in their obstetric patient population. The nurse had an opportunity to establish a rapport with the patient and observe the mother's mood and interactions with their newborn (Zielinski, 2021). However, barriers to PPD discussion among nurses were often related to a lack of comfort, skill, and knowledge of PPD, screening, and interventions (Zielinski, 2021).

For this project, the investigator implemented a quality improvement initiative that provided PPD and screening education to perinatal nursing staff to increase knowledge, attitude, and skill to improve routine screening, discharge education, and early identification of PPD in a hospital setting. The postpartum patients were not routinely screened for PPD on admission or before their discharge. The principal investigator (PI) worked with the department manager to develop a permanent policy to provide scheduled nursing education and standard practice of routinely educating and screening mothers for PPD before discharge. This project is congruent to the strategic plan of the perinatal department to meet educational objectives as set forth by the facility for nursing staff and provide evidence base practice standards of care as outlined by ACOG.

Objectives

This project aimed to provide PPD education to the nursing staff and increase PPD screening in a perinatal unit at a rural hospital in Southeast Georgia. The PICOT question addressed by this project was: Among perinatal inpatient nursing staff, does an educational intervention on postpartum depression and screening improve knowledge and screening from baseline to 4 weeks?

The investigator began this project by providing a pretest evaluation of the nursing staff's PPD knowledge and skill, followed by an education session on PPD and how to screen for PPD using the Edinburgh Postnatal Depression Scale (EPDS) flowsheet. At the end of four weeks, a posttest was administered, and the nurse manager conducted a retrospective chart review to evaluate if knowledge and screening practices improved. Following the completion of the education and four-week evaluation, the clinical questions addressed were:

1. What effect will an educational intervention on PPD have on perinatal nursing staff knowledge from baseline to four weeks?
2. What effect will an educational intervention on PPD screening practices have on perinatal nursing staff knowledge of appropriate PPD screening?

3. Will providing an educational intervention on appropriate PPD screening practices increase screening rates from baseline to four weeks?
4. After an educational intervention on PPD, will perinatal nurses implement PPD discharge education for postpartum patients?
5. After four weeks, what is the percentage of identified PPD-positive screenings?

Conclusion

PPD has been associated with devasting effects on the postpartum mother, child, and family unit. The lack of standardized screening protocols has contributed to postpartum and pregnant women that were not identified early with symptoms of PPD. The site selected for this study did not have policies in place that educated nursing staff on PPD, appropriate screening practices, or education of patients on the signs and symptoms of PPD. The department also lacked a protocol for routine screening of postpartum patients for PPD. The purpose of this DNP project met the needs of the perinatal department and facility by providing education and training on PPD for the perinatal nursing staff, implementation of routine screening, and discharge education.

Chapter 2: Review of Literature

The literature review was conducted using the Georgia Library Learning Online (GALILEO) to access the databases of CINAHL, MEDLINE, and Academic Search Complete search literature. Keywords and Boolean phrases: postpartum depression and risk factors and screening and interventions or strategies or best practice, and education were used to complete the search. Inclusion criteria consisted of published dates 2017-2022, peer-reviewed, full text, English, and United States. In addition, studies outside of the United States, non-pregnant or postpartum women, and non-peer-reviewed were excluded from the search. The initial search yielded 4,078 articles; after the investigator set inclusion parameters, the search was narrowed to 469. After reviewing titles, abstracts, and removal of duplicates, 32 articles were included in this review of the literature.

Postpartum Depression

The American College of Obstetrics and Gynecology defined PPD as a mood disorder with major and minor depression occurring during pregnancy and up to one year after delivery. PPD was considered one of the most common complications associated with pregnancy and the birth of a child (ACOG, 2018). Studies consistently estimated that 10-20% of pregnant or postpartum women experienced symptoms of PPD (Nidey et al., 2019; Hutchens et al., 2021; Mukherjee et al., 2018; Fok et al., 2020). However, the actual rate of PPD was not easily identified due to inconsistent screening practices and early identification of PPD in the perinatal period (Nidey et al., 2019). While the effects of PPD were found to be debilitating to the mother, PPD could seriously hinder the mother's ability to care for her child effectively. As a result, the mother could no longer meet the infant's basic needs, including feeding and providing a safe environment for the infant to thrive (Zielinski, 2021; Fok et al., 2020; Hutchens et al., 2021).

Postpartum depression has potentially been challenging to identify due to the symptoms that mimic typical associated symptoms of pregnancy and postpartum. PPD has been categorized into three

forms of depression: postpartum blues, "baby blues," postpartum depression, and postpartum psychosis (Zielinski, 2021). Postpartum blues, also known as "baby blues," was determined the most common form of depression and usually resolved relatively quickly without any required interventions (Zielinski, 2021; Holman &McKeever, 2017). Postpartum depression occurred in one out of every seven women but could be easily overlooked due to the symptoms of fatigue, anxiety, and loss of sleep was also common in mothers without depression (Zielinski, 2021; Holman &McKeever, 2017; Hutchens et al., 2021). The more extreme depression, postpartum psychosis, only occurred in less than 0.2% of cases and even less harmed their infants (Holman &McKeever, 2017). However, the stigma and misinformation often impaired women from discussing their symptoms of depression with their providers. According to a study conducted by Holman et al. (2017), PPD was very treatable when identified but was often untreated because of the woman's unwillingness to express her feelings. The reluctance to report by women was often associated with the stigma that plagues mental illness or the inability to recognize the manifesting symptoms of postpartum depression (Sidebottom et al., 2021).

Risk Factors

Risk factors that were associated with increased risk for PPD were a previous history of depression, young maternal age, low socioeconomic status, stressful life events, and history of abuse (Fok et al., 2020; Zielinski, 2021; Holman & McKeever, 2021; Mukherjee et al., 2018). A meta-analysis conducted with 22,000 participants that showed a correlation between depression or anxiety during pregnancy, stressful life events, or a history of depression as risk factors for PPD. In 2017 Ko et al. evaluated data from the Centers for Disease Control (CDC) PRAMS (pregnancy risk assessment monitory system) (Robertson et al., 2004 as cited in Fok et al., 2020). Ko et al. (2017) found that PPD was higher among women of young maternal age, who gave birth to low-birth-weight infants, had three or more stressful life events, or were from specific ethnic backgrounds such as American Indian/Alaska natives.

In addition to the known associated risk factors, a few studies examined ethnicity's role in developing PPD. For example, Doe et al. (2017) conducted a retrospective chart review of 314 minority women of African American or Hispanic descent living in the Bronx. The study found that women who had immigrated to the United States from Mexico or South/Central America had a higher prevalence of PPD (32.6%) compared to those native to the United States. Other studies have also noted a higher incidence among particular racial groups, such as black or Hispanic women, than their Caucasian counterparts (Fok et al., 2020; Mukherjee et al., 2018).

Stressful life events and complications occurring during pregnancy or delivery increased the risk for PPD. Interestingly, Hutchens et al. (2021) looked at the mother's perception of care during delivery's impact on developing PPD. The study surveyed 1057 women across the United States. The results did have some suggestions of PPD of those with evaluated risk factors when the participant perceived their care to be of low quality compared to those with a higher quality of care received (Hutchens et al., 2021). Of course, further studies are warranted, but it does give pause to healthcare professionals to evaluate their encounters with perinatal patients and the role the quality of care can play in the patient’s development of PPD.

Screening and Screening Tools

ACOG (2018) and the USPSTF (2019) recommended screening at least once during the perinatal period. ACOG (2018) further suggested screening should occur during the comprehensive postpartum visit. However, one study estimated that only 42% of women had a discussion about depression initiated by their healthcare provider (Poon et al., 2021). A further complication of the screening process was the time constraint many providers had per patient. For example, Krishmarti et al. (2020) reported that OB/GYN providers in the United States spent approximately 25 minutes on each postpartum visit, limiting the number of topics addressed at each visit.

However, the frequency at which screening occurred is difficult to know since most statistical information was based on the reports from provider surveys (Sidebottom et al., 2021). In addition, there were no universal standards in place for routine screening practices. Further complicating routine screening was the lack of a universal screening tool. The most widely used screening tool was the Edinburgh Postnatal Depression Scale (EPDS), consisting of 10 self-reported questionnaire items about the woman's feelings or experiences related to depression (Cox et al., 1987).

The EPDS was first used over 30 years ago and today is available in 60 languages (Cox, 2019). Four of the reviewed studies reported validity and reliability as 84-95% and a specificity, and sensitivity of 77%-93.4%, respectively (Santos et al.2017; Heck 2018; Levis et al.2020; and Fellmeth et al.2021). In one study, the EPDS had a reliability of internal consistency with a Cronbach's Alpha score above .70, which is desirable for reliability (Heck, 2018). In addition, when the study compared the EPDS to the HAMD-17, there was a sizeable statistical significance of remission at 79% (Gerbasis et al., 2020). The EPDS was deemed a reliable and valid tool for screening minor and major depression (Cox, 1987). Furthermore, the EPDS was a feasible tool that could be used in the clinical setting due to its ease of use and short completion duration. After reviewing seven screening tools, the EPDS was chosen due to its reliability, validity, and ease of use in the clinical setting.

Education

The role of education in PPD identification has been positively correlated to increase awareness and the possible increase in early diagnosis and treatment (Lewis, 2020). Nursing staff who worked in a perinatal department were in a unique position to provide vital information regarding PPD symptoms and risk factors. The nurses in these departments worked one-on-one with the new mothers and developed a rapport making the mother more at ease to receive education and communicate any concerns she may be feeling (Lewis, 2020). However, barriers to providing PPD education to patients does exist among nurses. Nurses and healthcare professionals admitted that a lack of knowledge or

understanding of the significance of PPD prevented them from educating mothers on PPD symptoms and risk factors (Arifin et al., 2021; Zielinski, 2021). Higgins et al. (2018) conducted a descriptive study of 809 midwives and nurses to assess barriers to addressing mental health issues. More than 50% of the participants identified a lack of knowledge and skill as barriers to discussing mental health topics with perinatal patients (Higgins et al., 2018). Higgins et al. (2018) also felt that nurses were in perfect positions to recognize and identify symptoms of depression early if the nurse did not have perceived barriers to hinder discussion.

Studies were limited on the direct impact of education on PPD to nurses and improved screening and education of patients. One survey by Sudhanthar and Thakur (2019) did explore the competency of PPD screening completion at a pediatric clinic in Michigan. The authors found that the clinic had screening capability but was not consistently utilized. The purpose of the project was to increase screening rates at the clinic. The participants received a survey regarding their knowledge and current guidelines for screening for PPD, and the authors hoped that just completing a study alone would prompt provider screening. Still, at the end of one month, there was less than a five percent increase in screening (Sudhanthar and Thakur, 2019). The project's second phase was to add a protocol and provide education. At the end of the three months, the screening had increased by 33% (Sudhanthar and Thakur, 2019). Finally, the authors modified the clinic flow, and by the end of the six months, screening had increased to 82% (Sudhanthar and Thakur, 2019). The project clearly showed that improvement occurred after the staff received training and implemented a protocol with an integrated clinic flow design.

Continuing education for nurses has been shown necessary to provide safe and competent care. Unfortunately, most hospitals did not offer formal or ongoing education for nurses on PPD. Despite the known effects on both mother and baby, barriers to recognizing symptoms in postpartum mothers remained challenging for most nursing staff. Inconsistent professional development training for nursing

staff inhibited the development of the necessary skills to identify signs of depression in their patient population (Legere et al., 2017). Negative perceptions and stigmas were also contributed to decreased knowledge of the healthcare professionals, further impacting the mother's care outcome (Legere et al., 2017). A few studies examined how the education of nurses can improve the nurse's knowledge and skill. Most notably, Legere et al. (2017) conducted a systematic review of education and professional development needs; the study found that confidence and knowledge did improve after education, even if the training was brief.

Beck's Depression Theory

In 1993, Cheryl Beck developed a middle-range theory of postpartum depression and cited that loss of control was the premise of the problem (Beck, 1993). Beck felt that women who had PPD tried to cope with the feeling of loss of control in a four-stage process: encountering terror, dying to self, struggling to survive, and regaining control (Beck, 1993). Each stage was explained and explored by Beck, with the use of patient data to support the concepts from the 18-month-long study (Lasiuk and Ferguson, 2005). Beck's theory has been determined a valid tool for healthcare professionals to utilize in the recognition and care of the mother with PPD (Marsh, 2013). Beck's research revealed the lasting effects on the mother and child and felt that the impact could go beyond the first year of the child's life (Beck, 2002).

In 1996, Beck developed the Beck Depression Inventory-II (BDI-II) to evaluate the severity of depression. The 21-item questionnaire has been a widely used tool in screening and for PPD research (Holt et al., 2017). The BDI-II has shown good retest reliability and has been validated against the gold standard for diagnosing perinatal women (Holt et al., 2017). It was estimated that the BDI takes approximately 10 minutes to answer questions and the user would need a fifth-sixth grade reading level to be able to appropriately answer the questions (American Psychosocial Association, 2020). Some of the items that BDI-II evaluated included the mother's sleeping habits, loss of energy, crying, self-dislike,

and suicidal thoughts (Strunk et al., 2016). However, one area of concern that has repeatedly occurred, is the single-factor scoring system that could complicate the adequacy of the results for depression (Strunk et al., 2016). After the review of the research, the primary investigator chose the EPDS due to its simplicity and ease of use.

Theoretical Model

Beck's Postpartum Depression Theory was the framework that most closely aligned with the project. Cheryl Beck formulated her Theory in 1993 after a literature review of PPD. Beck (1993) found that the research was more focused on the symptoms of PPD and not the emotional manifestations that often occurred with PPD (Marsh, 2013; Beck, 1993). Beck discovered that women often felt like they had no control over their emotions and actions, thus coining the phrase "Teetering on the Edge" (Beck, 1993). Beck framed the loss of control into four stages: encountering terror, dying to self, struggling to survive, and regaining control (Beck, 1993). Beck's goal of her research was to determine the relationship between the woman's life experience and to development of PPD (Marsh, 2013).

One central aspect of Beck's Theory was that automatic negative thoughts or dysfunctional beliefs had an impact on the woman's susceptibility to the development of a mood disorder (Pedro et al., 2019). Recognizing negative thoughts and changing dysfunctional beliefs was beneficial in the treatment of postpartum depression through cognitive behavioral theory (Pedro et al., 2019). Through Beck's research, the Beck Depression Inventory (BDI) was developed in 1996 to assess the severity of depression symptoms using a 21-item questionnaire (American Psychological Association, 2022).

Conclusion

The review of research revealed the significance and importance of early identification and screening for PPD in postpartum women. The risk factors were named across multiple works of literature to aid in identifying those who may be at increased risk for PPD and should be closely evaluated if a woman presents with known associated risk. While there are no national or standard

guidelines for screening, the research detailed that the recommendations were to screen at least once during the perinatal period. The EPDS was a validated and reliable tool most commonly used across many clinical settings, making this an excellent tool to be used for this project. Education was a cornerstone to the early identification of PPD. While further research is needed to assess how education can improve effective patient education and screening, current research suggested both nursing staff and patients benefited from education and information concerning PPD. Hospitals can easily implement ongoing education training for nurses into department professional development to raise awareness and skills for nurses to recognize and screen for PPD. Cheryl Beck who was a middle-range theorist felt that PPD extended beyond just physical symptoms and that women experienced a range of emotions that made them feel like they were “teetering on the edge”. Beck’s research led to the development of the BDI tool to assess the severity of PPD. Beck was instrumental in how PPD was viewed, screened, and how PPD should be treated.

Chapter 3: Methodology

The perinatal unit for this project did not have any formal education or training on PPD, appropriate screening practices, or education for patients. Also, the unit did not routinely screen perinatal patients for PPD. This section will discuss the design of the project, the setting, the study population, sources of data, data security, ethics and human subject protection, timeline, and budget.

Project Design

The guiding framework for this project was the Plan-Do-Study-Act (PDSA). The Plan-Do-Study-Act (PDSA) is a model that has been used to implement change through a four-step process (Agency for Healthcare Research and Quality (AHRQ), 2020). The four steps aided thinking through the process in each stage from evaluating, improving, testing, and implementing (AHRQ, 2020). The four steps used in the PDSA are: Develop the initiative (Plan), Implement your plan (Do), Analyze the results (Study), and Adjust the process based on the results (Act) (American Medical Association, 2016). The PDSA has been used for quality improvement projects to guide the process of change (Hollister et al., 2021). The PDSA incorporated a small change process before moving on to the larger final quality improvement initiative (Barnes & Parish, 2017). The PDSA has been used in large or small projects and has provided a streamlined process for ongoing quality improvement practices (American Medical Association, 2016).

Change Model

The PDSA has been used often in healthcare to evaluate small-scale interventions' effectiveness and then changed quickly as needed to ensure long-term improvement (McGowan & Reid, 2018). This approach was shown to be favorable in nursing to lead and improve change in their perspective settings (McGown & Reid, 2018). The PI for this project used the four phases of the PDSA change process to develop and guide the project.

The first phase (Plan) consisted of identifying the need for the project, gaps in practice, and deciding what change needed to be implemented and was the plan feasible. The learned objective was to provide an educational intervention for the perinatal nursing staff on PPD, increase PPD screening rates, and implement PPD education in the discharge instructions for postpartum patients. The second phase (Do) was carried out by providing an educational intervention by PowerPoint presentation for the perinatal staff that included the PPD definition, the signs, and symptoms, appropriate screening practices using the EPDS, and the referral process. The participants completed a pretest before the education and again four weeks after the education for comparison. After four weeks, the nurse manager conducted a retrospective chart review to gather data on the number of PPD screenings that occurred, and PPD discharge education completed. The third phase (Study) was conducted over four weeks collecting data on screening rates and implementation of discharge PPD education to postpartum patients. At the end of the four weeks, the nursing staff completed a posttest that was the same as the pretest for comparison. The data collected was compared to the baseline data. The final phase (Act) evaluated what the study revealed, and could the change be implemented into practice. (Appendix A).

Setting

The site for this project was a rural 231-bed acute care hospital with a perinatal unit located in South Georgia. On average, the hospital has 480 deliveries annually. The department employed 27 registered nurses and one nurse manager. The participants in the study were the nursing staff employed in the perinatal department.

Participants

The study participants were employed nurses on the perinatal unit. The staff included nurses working in all three areas of the perinatal unit: labor and delivery, nursery, and postpartum. The nursing credentials included licensed practical nurses, associate degree-prepared registered nurses, bachelor-prepared registered nurses, and one master's prepared registered nurse. Student nurses and patient

care technicians were not included in the study. The nurse manager assisted in setting up appropriate times for mandatory education training, however, the nurses completed informed consent before participation and could choose not to participate in the study. The investigator nor the hospital gave any monetary incentive.

Study Procedures and Tools

Before the start of the project, the nurse manager conducted a retrospective chart review of the previous three months to assess the number of deliveries, PPD screenings completed, and referrals made. In the three months preceding the project's start, there were 87 deliveries. Of these mothers, only three received PPD screening and no referrals were made. No patient received PPD education before discharge.

This project provided an educational intervention for the nursing staff on a perinatal unit on PPD, appropriate screening practices, and educating postpartum patients on the signs and symptoms of PPD. The investigator used a pretest and posttest method to evaluate the knowledge of the obstetrics nursing staff in a rural South Georgia hospital. The pretest and post-test surveys gathered demographic information on gender, age, level of nursing education, and years of nursing experience. In addition to demographic information, the pre and post-test survey contained two PI-developed Likert scale questions and seven multiple-choice questions to assess their knowledge, comfort level, skill, and perception of PPD, symptoms, risk factors, and screening guidelines (Appendix C). There were 27 nurses present for the initial session. After obtaining consent the nurses completed the pretest survey. The pretest was followed by a 45-minute PowerPoint presentation that educated on PPD, risk factors, signs, symptoms, and appropriate screening practices using the EPDS. After the education session, over the next four weeks, the nurses began conducting PPD screening using the EPDS that was integrated into their electronic health system (Appendix D) and provided discharge education on PPD to their patients using the National Institute of Health action plan information flyer (Appendix E). At the end of the four

weeks, the nurses were provided with the same survey for post-test evaluation. These results were compared to the pretest data.

Data security

The investigator implemented data security to protect and provide confidentiality to the participants. All consents and tests were locked in a filing drawer when not in use by the investigator. The investigator stored electronic data on a virus and password-protected computer that only the investigator had access to. The password was not shared and met essential password requirements. Data will be destroyed as indicated by IRB guidelines and purposes.

Ethics and Human Subjects Protection

The investigator sent the project to the Georgia College and State University Institutional Review Board (IRB). The project received exemption status approval from Georgia College and State University IRB (Appendix F). The project did not require IRB approval from the project site location since no patient information was being utilized for this project. A letter of site approval and no facility IRB requirement were obtained from the organization. The investigator also completed the human subject and ethics online training. All research data was kept confidential, locked in a file drawer, and with a password-protected personal computer.

The investigator provided the participants with written and oral communication by the investigator in person regarding the study and their role in participation. There was no anticipated risk involved with this study, including taking the pretest and posttest. However, the participants were informed that should any anxiety or stress have occurred during the tests, they were free to stop and did not have to continue.

The participants were given informed consent to participate in the study (Appendix B). The participants were assigned a unique number code for pre and post-test data collection. These codes

were only available to the investigator. The data collected was kept in a locked file drawer to which only the investigator had access.

Timeline

This project began on August 5, 2022 and was completed over four weeks. A pretest was given at the beginning of the four weeks, with immediate education following the pretest. The posttest was presented at the end of the four weeks, and a review of charts to collect the data on screening rates and discharge PPD education received.

Budget

This project had no associated cost. The unit printed the discharge education information sheets at no cost to the investigator.

Chapter 4: Data Analysis

The results of this educational intervention for perinatal nursing staff on postpartum depression screening and patient education clinical project are reported here. Findings include descriptive information concerning the participants, pre-test and post-test results, and data addressing the clinical questions. 27 participants started the study, and 16 participants completed the study.

Results

Data screening was performed before conducting the statistical analyses. Data were initially collected using a paper pre-test and post-test survey. The data were then manually entered into SPSS version 28. Every third participant's data were verified for input accuracy, and no discrepancies were identified.

Demographic variables were examined for missing data. One participant did not note their level of education and it was left blank in SPSS. Seven participants did not provide their ages and were left as missing in SPSS. Two participants did not provide their years of work experience. These entries were left as missing in SPSS. One participant selected multiple answers on one of the multiple-choice questions. All questions were single-answer entries. For this participant, the first answer keyed was input into SPSS.

Data Analysis

After reviewing all interval and ratio level data for central tendencies, it was found that years of experience and pre-confidence of knowledge of postpartum depression were not normally distributed. The Fisher's Exact Score for Skewness for years of experience was 2.57, and kurtosis of 1.40 (Munro, 2012). Further examination of the data revealed that one participant's years of experience were greater than three standard deviations above the mean (Tabachnick & Fidell, 2013). After the removal of the participant's years of experience, the data was normally distributed with a Fisher's Exact score of 0.89 for skewness and kurtosis of 1.21 (Munro, 2012). For the pre-confidence of knowledge of postpartum depression, the Fisher's Exact Score for Skewness was 4.69, and kurtosis of 2.65 (Munro, 2012). Further

review of the data showed that one participant's pre-confidence of knowledge was more than three standard deviations of the mean. After the removal of that participant's data, the data were normally distributed with a Fisher's Exact score of 0.45 and kurtosis of 1.08 (Munro, 2012).

Twenty-seven participants began the study, and 16 completed the study. Of the eleven nurses that did not complete the study, one was a travel nurse whose contract ended before the end of the study, three worked as needed and did not work again during the study, and the remaining seven did not complete the post-test. Of the 16 participants that completed the study, all were female (100%, n = 16), with an average age of 41.2 years, had an associate's level degree in nursing (75.0%, n = 12), and had 14.6 years of experience. One completer did not answer the confidence of knowledge question. Further comparison of completers and non-completers are displayed in Table 1.

Table 1

Characteristics of Completers and Non-Completers

	Completers			**Non-Completers**		
	n	*M*	*SD*	*n*	*M*	*SD*
Age	16	41.25	11.60	11	46.00	15.47
LPN	0			0		
ASN	12			7		
BSN	3			4		
MSN	1			1		
Doctorate	0			0		
Years of Experience	16	14.64	7.26	11	11.36	12.75
Confidence Know	15	3.80	.41	11	4.00	.63*
Confidence Admin	16	3.31	1.01	11	4.00	.63
Likely to Screen	16	4.38	.62	11	4.64	.51
Pretest Total	16	16.94	2.35	11	17.64	2.01
Posttest Total	16	18.25	1.39			

** t (24.8) = 2.17, p = .04*

Description of the Instruments

This section describes the study instruments, mean scores, and standard deviations. Instruments used as continuous variables were normally distributed after transformation. The researcher developed the pre and post-test survey for this study. The pre and post-test consisted of three Likert scale questions and seven multiple-choice questions.

***Likert Scale Questions*.** Three Likert-style questions were made by the researcher in this study. Two questions were measured using a five-point Likert scale ranging from one to five, with one being strongly disagreed and five being strongly agreed. The third question was measured using a five-point Likert scale ranging from one to five, with one being not likely and five being most likely.

Question one measured the nursing staff's confidence in their knowledge of postpartum depression. In this study, the majority of the completers rated themselves as agreed or higher on this variable pre-test *(M 3.80, SD .414)* and post-test *(M 4.06, SD .443)*. Question two measured the nursing staff's confidence to administer and interpret the EPDS screening tool. The majority of completers for this variable rated themselves as agreed or higher pre-test *(M 3.31, SD 1.01)* and post-test *(M 4.00, SD .516).* Question three measured how likely the nursing staff was to screen and educate their patients on PPD. The majority of the completers rated themselves as likely or higher for this variable pre-test *(M 4.38, SD .619)* and post-test *(M 4.50, SD .516)*.

Multiple Choice Questions. The participants were given seven multiple choice questions pre and post-test to evaluate their knowledge and skill on the types of postpartum depression, symptoms when to screen, and best practices of screening for depression. The questions were scored using one as correct and zero as incorrect, and the sum was totaled. The total pre-test score ranged from 11-20, and the post-test total score ranged from 16 - 21.

Edinburgh Postnatal Depression Scale. The nursing staff used the EPDS to screen their patients for PPD prior to discharge. The EPDS consisted of 10 questions that asked about the postpartum

mother's mood and anxiety experiences over the previous seven days. The questions were then tallied based on the scoring schematic provided with the tool. If a patient scored greater than 12-13, then that patient was considered positive for PPD. Patients who scored 9-11 had possible indications of PPD, and those less who scored less than 8 were considered not likely to have PPD. During this study, no patient scored above 8.

Analysis of Research Questions

Before beginning the analysis, the independent variables (age, education, experience, knowledge, confidence in administering the EPDS, and likely to screen for PPD, pre-test total, and post-test total) were examined for multicollinearity with a comparison of completers and non-completers. There was not a statistically significant difference between completers and non-completers. Post-confidence knowledge and post-confidence of administration of EPDS were outcome variables and were not used to make any additional comparison analyses. Table 2 reports the Pearson Correlations between all the main variables in the study.

Table 2

Pearson's Correlations between the Major Variables

		1	2	3	4	5	6.	7	8	9	10
1. Age	*r*										
2. Experience	*r*	.398	--								
3. Conf Know	*r*	.055	-.213	--							
4. Conf Admin	*r*	.146	-.355	.703	--						
5. Likely	*r*	.088	-.087	-.559	.226	--					
6. Post conf know	*r*	.023	.120	.456	-.195	.395	--				
7. Post conf admin	*r*	.245	.120	.302	-.127	.417**	.875**	--			
8. Post Likely	*r*	-.011	-.031	-.134	.318	.209	.438	.500	--		
9. Pretest	*r*	-.205	-.145	.328	.037	-.017	.260	.329*	.302*	--	
10. Posttest	*r*	-.149	-.176	.073	-.059	.271	.190	.371	.000	.372	--

** Correlation is significant at the 0.01 level (2-tailed).

Clinical Questions

The following section will contain the clinical questions and their statistical data.

Clinical Question 1: What effect will an educational intervention on PPD have on perinatal nursing staff knowledge from baseline to four weeks?

A dependent samples t-test was used to test what effect an educational intervention had on the perinatal nursing staff's knowledge of PPD. The research hypothesis supported a significant increase in scores from the pre-test (*M 16.94, SD 2.35)* to the post-test *(M 18.25, SD 1.39), t* (15) = 2.34, *p* = .03. In this study, an educational intervention statistically significantly increased the perinatal nursing staff's knowledge of PPD from baseline to four weeks.

Clinical Question 2: What effect will an educational intervention on PPD screening practices have on perinatal nursing staff knowledge of appropriate PPD screening?

A dependent samples t-test was used to test what effect an educational intervention had on the perinatal nursing staff's knowledge of appropriate PPD screening practices. This variable was measured by question 7 on the pre and post-test. The research hypothesis supported a significant increase in scores from the pre-test *(*M 1.50, SD 1.55) to the post-test *(M 2.44, SD 1.21), t* (15) = 2.61, *p = .02.* In this study, an educational intervention statistically significantly increased the perinatal nursing staff's knowledge of appropriate PPD screening from baseline to four weeks.

Clinical Question 3: Will providing an educational intervention on appropriate PPD screening practices increase screening rates from baseline to four weeks?

Descriptive statistics were used to evaluate if an educational intervention would increase PPD screening rates from baseline to four weeks. There were 48 deliveries from August 4, 2022, to September 4, 2022. Only four patients received PPD screening during that time. After review, a miscommunication was noted due to the required corporate use of the PHQ-9. The nurses were unaware that an additional screening was required for this study. An announcement was made to the

nursing staff regarding the need to use the more appropriate EPDS screening tool. After the announcement, there were 15 deliveries from September 21, 2022, to October 5, 2022, and 12 of those patients received the appropriate PPD screening.

Clinical Question 4: After an educational intervention on PPD, will perinatal nurses implement PPD discharge education for postpartum patients?

Descriptive statistics were used to evaluate if perinatal nurses would implement PPD discharge education after an educational intervention. There were 48 deliveries from August 4, 2022, to September 4, 2022. All 48 patients received discharge education on PPD. There were 15 deliveries from September 21, 2022, to October 5, 2022. All 15 patients received discharge education on PPD. After the educational intervention, the perinatal nurses did implement PPD discharge education for postpartum patients.

Clinical Question 5: After four weeks, what is the percentage of identified PPD-positive screenings?

Descriptive statistics were used to evaluate what percentage of PPD-positive screenings were identified. In this study, there were no positive PPD screenings identified.

Conclusion

This chapter reported the results of the educational intervention project for perinatal nursing staff. A total of 16 perinatal nurses participated in a four-week educational intervention with a pre and post-test survey of knowledge and screening practices of PPD. Results indicated statistically significant increases in knowledge of PPD and appropriate PPD screening after an educational intervention. After identifying a miscommunication, there was an increase in PPD screening using the EPDS. The perinatal nurses implemented PPD discharge education during the study, and no patients were identified as positive for PPD. The results reflect the benefits of providing an educational intervention for perinatal nurses to positively impact desired outcomes.

Chapter 5: Discussion

This chapter will discuss the research findings of this educational intervention project and how an educational intervention was successful in increasing the knowledge, confidence, and screening practices of perinatal nursing staff. Additional discussion will focus on how the routine practice of providing PPD discharge education was implemented through the project. Further discussion will include strengths, limitations, sustainability, and future implications.

Research Findings

This study showed a statistically significant increase in nursing staff knowledge of PPD and appropriate screening practices after the nurses received an educational intervention. The study supports that providing PPD education for nursing staff is necessary for perinatal nurses to have an increased understanding of PPD and how to screen their patients appropriately. The study also supports previous research that a lack of knowledge of PPD and appropriate screening practices hindered nursing staff from educating their patients on PPD and routine screening for PPD (Higgins et al.,2018).

Before the project, the perinatal department did not provide PPD information on discharge and did not routinely screen their patients for PPD. Routine discharge education on PPD was implemented as part of the project. Patients received a one-page information flyer from the National Institute of Health that outlines signs and symptoms of postpartum blues, depression, and psychosis with a phone number to the national hotline. During the 6-week study period, there were a total of 63 deliveries. All 63 postpartum patients received PPD discharge education resulting in a 100 percent increase in PPD patient education. The results suggest that an educational intervention directly impacted the nursing staff's confidence to provide discharge education to their patients.

In addition to providing discharge education, the nursing staff also provided PPD screening using the EPDS tool. After the initial four-week study period, there were 47 deliveries, and only one patient received PPD using the EPDS. One of the barriers identified to successful screening for PPD was the

mandated screening using the PHQ-9 that had been integrated into practice a few days before the study started by the hospital organization. It is unclear of the reason for using the PHQ-9 over the EPDS or why the organization integrated the screening tool to be completed each shift. This change in protocol led to confusion among the nursing staff that, for this study, they would also need to complete the EPDS in a separate electronic health record file. After communication with the nursing staff, the decision was made to extend the screening period an additional two weeks. During the subsequent two weeks, there were 15 deliveries, and 12 received PPD screening using the EPDS. While the screening rates subsequently increased, it is uncertain how much the educational intervention played a role in the increase. However, this data is useful for the project's sustainability and will be discussed further in the "sustainability" section.

Strengths

The strength of this project was the educational intervention implemented for the perinatal nursing staff. The department needed to establish training on PPD and appropriate screening practices for their nursing staff. Additionally, the department did not screen for PPD or educate their patients on PPD. The project aimed to meet the needs of the department and organization to improve the standards of care for their patient population. The pretest and post-test survey results supported the need for this improvement for the perinatal nursing staff. As a result of the project, routine discharge education on PPD was implemented so that every patient receives information regarding PPD, symptoms, and how to seek help if needed.

Another strength to merge from the study was the support of the nurse manager of the perinatal unit. She was instrumental in the project by providing data from a retrospective chart review, providing time to educate the nursing staff, and ensuring that post-test surveys were completed. She also went above and beyond to print the discharge education materials and make them available to the

nursing staff to be provided at discharge. With her willingness to participate in the project, the project was possible.

Finally, the participation of the nursing staff was instrumental to the project. The nursing staff needed to screen their patients using the EPDS screening tool. This was an additional task to their routine workload. Initially, as previously discussed, the nurses needed to be fully aware that the screening should be done using the EPDS, but after clarity went on to make significant improvements in their screening rates. The participation of the nursing staff was paramount to completing this project.

Limitations

There were some limitations identified in the project. Most notable was the organizational implementation of mandatory screening of patients using the PHQ-9 every shift. This policy change began at the same time the project started. This change was not known by the PI of the project or the nurse manager until the scheduled project start date when it was discovered to be integrated into the electronic health record. This change confused the nursing staff, who thought they were appropriately screening for PPD. Ultimately, this is limited to the data findings on screening rates.

Another factor that limited the project was using paper pre and post-test surveys. The study began with 27 nurses and ended with 16 completing the study. Difficulty in collecting the post-test surveys from some nursing staff due to scheduling or other contributing factors resulted in fewer nurses completing the survey, and their data was not used. Repeating the study with an electronic survey may result in higher retention of study participants.

Sustainability

For the project's sustainability, the PI worked with the nurse manager to develop a protocol for the unit to include routine PPD education for the nursing staff (Appendix G). It would also be beneficial to work with the nurse manager to discuss with organizational stakeholders their decision to use the PHQ-9 screening tool to screen for PPD. Research has exhibited that the EPDS is the more appropriate

screening tool for PPD specifically as the PHQ-9 lacks some critical indicators for identifying PPD (Santos et al.2017; Heck 2018; Levis et al.2020; and Fellmeth et al.2021). However, it is undetermined their decision to screen patients each shift; further discussions would be needed to understand this strategy with possible plans to change the frequency of screening to one time during the patient's stay.

Implications of Findings

The results of this study supported an educational intervention that increased knowledge of PPD and appropriate screening practices of the perinatal nursing staff. The data is sufficient for future research to expand the limitations of this study. A prospective study with a longer time frame would be imperative to findings of positive PPD screenings as this study yielded none. The number of participants for this study was relatively small, so a prospective study to include multiple perinatal units could prove valuable to expand on the effectiveness and need for ongoing education for nursing staff on PPD. In preparation for this project, the PI learned that most perinatal units in the surrounding rural area needed to provide routine education on PPD and appropriate screening practices for their perinatal nursing staff. The meaningful data on the increase in knowledge supports the need for perinatal units to implement systematic education on PPD for nurses working on their units. For this project, the PI developed the pre and post-test survey questionnaire, for best assessment a standardized method of evaluation would be beneficial to provide best practice standards to assess nursing knowledge of PPD, screening practices, and how to effectively provide discharge education to postpartum patients. Research has shown that early identification of PPD leads to better outcomes for patients diagnosed with PPD. Research on best methods for providing education for nursing staff would provide better information on what method of education would be most effective to increase knowledge and nurse self-efficacy to decrease barriers for screening and patient education. Establishing routine education for perinatal nurses equips the nursing staff to recognize symptoms of PPD in their perinatal patients.

A final recommendation would be to establish standard screening practices for perinatal units for postpartum patients. Early identification and early treatment for PPD improves the outcomes for not only the mother, but the newborn as well (American Psychiatric Association, 2020). Planning for this project revealed that most facilities in this region do not routinely screen for PPD prior to discharge and previous research has reported similar information. In 2006, New Jersey was the only state to enact a Postpartum Depression Law that requires screening for PPD prior to discharge (Parenthetical, 2006). To date, only a few states have enacted a law that requires screening prior to discharge. Georgia does not have a postpartum depression law in place.

This project was a personal reminder for the need for PPD education and screening policies for perinatal units in every facility. My project was a small contribution to the advancement of nursing practice but is only the tip of a much larger ice burg. PPD can have devasting outcomes if not properly addressed. I understand the broader need for every perinatal unit to have PPD education and training for nursing staff to ensure that postpartum mothers are positioned to make informed decisions about their mental health needs. Healthy People 2030 has an initiative to increase screening for PPD, we have much more work to do if we are going to meet this objective by 2030.

Conclusion

This educational intervention project successfully increased the knowledge of nursing staff and established discharge education on PPD for postpartum patients. There was also a modest increase in screening for PPD when compared to a baseline of no screening for PPD. With additional time and established screening parameters, the number of screenings could substantially increase. This project served as a reminder of the importance of continuing education for nursing staff and what role nursing education can have on best practices for improving patients' overall health and outcomes.

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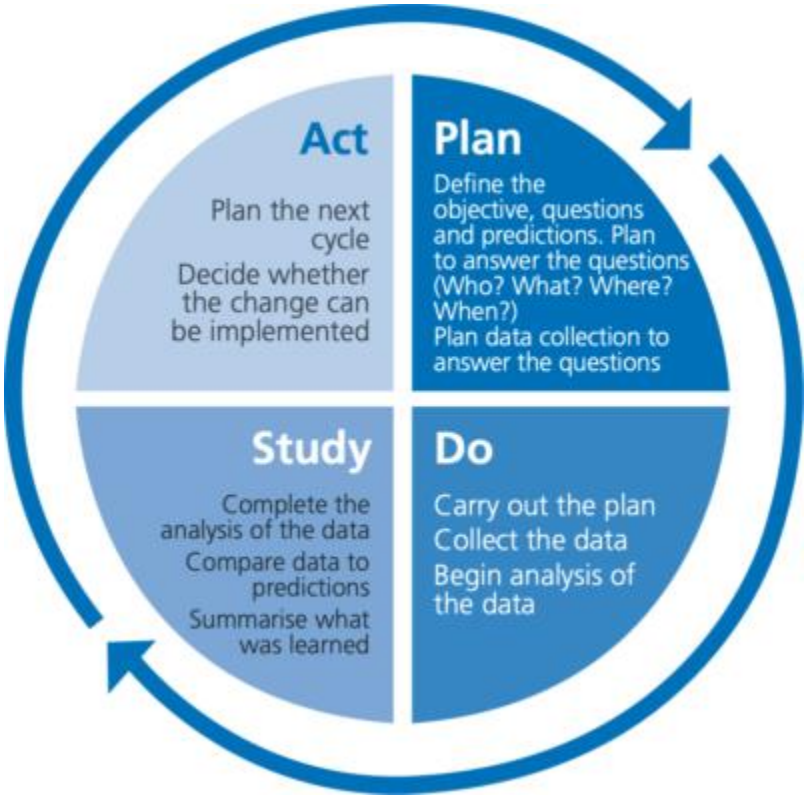
Appendices

Appendix A

PDSA Change Model



Appendix B
Informed Consent

INFORMED CONSENT

Among perinatal inpatient nursing staff, does an educational intervention on postpartum depression and screening improve knowledge and screening from baseline to 4 weeks?

I, _____, agree to participate in the research Postpartum Depression Education and Screening Practices for Nursing Staff Study Evaluation, which is being conducted by Tonya Jewell who can be reached at 770-655-7199 and/or tonya.jewell@bobcats.gcsu.edu. I understand that my participation is voluntary; I can withdraw my consent at any time. If I withdraw my consent, my data will not be used as part of the study and will be destroyed.

The following points have been explained to me:

1. The purpose of this study is to evaluate the effectiveness of postpartum depression education training for nursing staff working in a perinatal unit.
2. The procedures are as follows: you will be asked to take a pre-education test and post-education test at the beginning of the study and at the end of the study.
3. Your name will not be connected to your data. Therefore, the information gathered will be confidential.
4. You will be asked to sign two identical consent forms. You must return one form to the investigator before the study begins, and you may keep the other consent form for your records.
5. If you find that some questions are invasive or personal. If you become uncomfortable answering any questions, you may cease participation at that time.
6. This research project is being conducted because of its potential benefits, either to individuals or to humans in general. The expected benefits of this study include is to gain knowledge, awareness, and skill in identification, screening, and educating patients regarding postpartum depression.
7. You are not likely to experience physical, psychological, social, or legal risks beyond those ordinarily encountered in daily life or during the performance of routine examinations or tests by participating in this study.
8. Your individual responses will be confidential and will not be released in any individually identifiable form without your prior consent unless required by law.
9. The investigator will answer any further questions about the research should you have them now or in the future (see above contact information).
10. In addition to the above, further information, including a full explanation of the purpose of this research, will be provided at the completion of the research project on request.

11. By signing and returning this form, you are acknowledging that you are 18 years of age or older.

Signature of Investigator Date

Signature of Participant Date

Research at Georgia College involving human participants is carried out under the oversight of the Institutional Review Board. Address questions or problems regarding these activities to the GC IRB Chair, email: irb@gcsu.edu.

Appendix C
Pre and Post-Test

Postpartum Depression and Screening Pretest/Post-test

Quiz #_____

Sex (circle one): Male Female

Age:

Level of Nursing Education (circle one):

Licensed Practical Nurse ASN BSN MSN Doctorate

Years of Nursing Experience:

	Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
I feel confident in my knowledge on postpartum depression?					
I feel confident to administer and interpret the EPDS tool for postpartum depression?					

1. How likely are you to screen and educate your patients on postpartum depression?

   Please circle one:

   Not Likely Somewhat Likely Neutral Likely Most Likely

Please choose one answer for each of the following multiple-choice questions:

1. A postpartum patient with a history of depression asks when the symptoms of postpartum depression usually occur?
   A. Within 4 weeks after delivery
   B. When the infant is 6 months old
   C. When her menses returns
   D. After one-year post delivery
2. Which of the following are not causes or risk factors for Postpartum Depression?
   A. Hormone Levels
   B. Adolescents
   C. Traumatic Birth Experience
   D. Active support people
3. For which factor should you assess that is most closely associated with early recognition of postpartum depression?
   A. Breastfeeding
   B. Fatigue
   C. Appetite
   D. Date of return to work
4. You enter the postpartum patient's room and find her crying while she is providing care for her newborn. Which postpartum disorder should you suspect?
   A. Postpartum Depression
   B. Postpartum Blues
   C. Postpartum Infection
   D. Postpartum Psychosis
5. Clinical manifestations of Postpartum Depression include which of the following?
   A. Abrupt mood swings
   B. Delusions
   C. Intense Sadness
   D. Disorganized speech
6. Which of the following patients are exhibiting signs of Postpartum Psychosis?
   A. Crying while watching a Hallmark commercial
   B. Not sleeping or eating as usual
   C. Unkempt appearance
   D. Hearing voices and talking erratically.
7. ACOG recommends screening for postpartum depression when?
   A. 6 months postpartum
   B. During pregnancy only
   C. At least once during the perinatal period
   D. Only if she is exhibiting signs and symptom

Appendix D

EPDS

Edinburgh Postnatal Depression Scale[1] (EPDS)

Name: _____ Address: _____

Your Date of Birth: _____ _____

Baby's Date of Birth: _____ Phone: _____

As you are pregnant or have recently had a baby, we would like to know how you are feeling. Please check the answer that comes closest to how you have felt **IN THE PAST 7 DAYS**, not just how you feel today.

Here is an example, already completed.

I have felt happy:
- ☐ Yes, all the time
- ☒ Yes, most of the time — This would mean: "I have felt happy most of the time" during the past week.
- ☐ No, not very often — Please complete the other questions in the same way.
- ☐ No, not at all

In the past 7 days:

1. I have been able to laugh and see the funny side of things
   - ☐ As much as I always could
   - ☐ Not quite so much now
   - ☐ Definitely not so much now
   - ☐ Not at all

2. I have looked forward with enjoyment to things
   - ☐ As much as I ever did
   - ☐ Rather less than I used to
   - ☐ Definitely less than I used to
   - ☐ Hardly at all

*3. I have blamed myself unnecessarily when things went wrong
   - ☐ Yes, most of the time
   - ☐ Yes, some of the time
   - ☐ Not very often
   - ☐ No, never

4. I have been anxious or worried for no good reason
   - ☐ No, not at all
   - ☐ Hardly ever
   - ☐ Yes, sometimes
   - ☐ Yes, very often

*5 I have felt scared or panicky for no very good reason
   - ☐ Yes, quite a lot
   - ☐ Yes, sometimes
   - ☐ No, not much
   - ☐ No, not at all

*6. Things have been getting on top of me
   - ☐ Yes, most of the time I haven't been able to cope at all
   - ☐ Yes, sometimes I haven't been coping as well as usual
   - ☐ No, most of the time I have coped quite well
   - ☐ No, I have been coping as well as ever

*7 I have been so unhappy that I have had difficulty sleeping
   - ☐ Yes, most of the time
   - ☐ Yes, sometimes
   - ☐ Not very often
   - ☐ No, not at all

*8 I have felt sad or miserable
   - ☐ Yes, most of the time
   - ☐ Yes, quite often
   - ☐ Not very often
   - ☐ No, not at all

*9 I have been so unhappy that I have been crying
   - ☐ Yes, most of the time
   - ☐ Yes, quite often
   - ☐ Only occasionally
   - ☐ No, never

*10 The thought of harming myself has occurred to me
   - ☐ Yes, quite often
   - ☐ Sometimes
   - ☐ Hardly ever
   - ☐ Never

Administered/Reviewed by _____ Date _____

[1]Source: Cox, J.L., Holden, J.M., and Sagovsky, R. 1987. Detection of postnatal depression: Development of the 10-item Edinburgh Postnatal Depression Scale. *British Journal of Psychiatry* 150:782-786 .

[2]Source: K. L. Wisner, B. L. Parry, C. M. Piontek, Postpartum Depression N Engl J Med vol. 347, No 3, July 18, 2002, 194-199

Appendix E

Patient Education Action Plan

Action Plan for Depression and Anxiety Around Pregnancy

Having a baby brings a mix of emotions, including feeling sad and feeling overwhelmed. Many women experience deeper signs of depression and anxiety before and after birth. Be prepared. Watch for the signs.

If you...	You may be experiencing mood swings that happen to many pregnant women and new moms.
• Feel like you just aren't yourself • Have trouble managing your emotions • Feel overwhelmed but are still able to care for yourself and your baby	**These feelings typically go away after a couple of weeks.** • Take special care of yourself. Get your partner to watch the baby, get a babysitter, or team up with another mom to share child care so that you can rest and exercise. • Continue to watch for the signs of depression and anxiety in the yellow and red sections below. If things get worse, find someone to talk to. Talk to a health care provider if you feel unsure.

If you...	You may be experiencing postpartum depression and anxiety.
• Have feelings of intense anxiety that hit with no warning • Feel foggy and have difficulty completing tasks • Feel "robotic," like you are just going through the motions • Have little interest in things that you used to enjoy • Feel very anxious around the baby and your other children • Have scary, upsetting thoughts that don't go away • Feel guilty and feel like you are failing at motherhood	**These feelings will not go away on their own.** • Get help. Contact your health care provider or visit a clinic. • Call Postpartum Support International at **1-800-944-4PPD (4773)** to speak to a volunteer who can provide support and resources in your area. • Talk to your partner, family, and friends about these feelings so they can help you.

If you...	Get help now!
• Feel hopeless and total despair • Feel out of touch with reality (you may see or hear things that other people don't) • Feel that you may hurt yourself or your baby	• Call **9-1-1** for immediate help. • Call the National Suicide Prevention Lifeline at **1-800-273-TALK (8255)** for free and confidential emotional support—they talk about more than suicide. • Call the Substance Abuse and Mental Health Services Administration's National Helpline at **1-800-662-HELP (4357)** for 24-hour free and confidential mental health information, treatment, and recovery services referral in English and Spanish.

Depression and Anxiety Happen. **Getting Help Matters.**

To learn more, visit nichd.nih.gov/MaternalMentalHealth.
To find a mental health provider in your area, call 1-800-662-HELP (4357).

NIH *Eunice Kennedy Shriver* National Institute of Child Health and Human Development

NATIONAL CHILD & MATERNAL HEALTH EDUCATION PROGRAM

Appendix F

Institutional Review Board

Office of Academic Affairs

irb@gcsu.edu

http://www.gcsu.edu/irb

DATE: 2022-07-11
TO: Tonya Ladane Jewell
FROM: Kevin Hunt, Ph.D., Chair of Georgia College Institutional Review Board
PROJECT TITLE: #17565 Post-Partum Depression: An Educational Intervention for Nursing Staff in a Rural Hospital Obstetrics Department
ACTION: DETERMINATION OF EXEMPT STATUS
DECISION DATE: 2022-07-11
REVIEW CATEGORY: Exempt

Thank you for submitting an application to the Georgia College IRB for the above-referenced project. Based on the information you provided in your submission, IRB has determined that your project involving human subjects qualifies for EXEMPT status under 45CFR part 46 commonly known as the Revised Common Rule 2018.
Assignment of exempt status to this project means that this project is exempt from further IRB review. This exempt status is valid unless substantive revisions to the study design occur which would alter the risk to participants. If a substantive change is anticipated, you may submit an extension/modification form detailing these changes. Please consult the GC IRB if you have a question about a potential change to your exempt study.
Please note that all responsibilities required of conducting human subject research still apply to this project. Specifically, the Belmont Report principles of respect for persons, beneficence, and justice apply, and all investigators involved in this project must have and maintain current/valid certification of training with conducting research with human subjects
We will retain a copy of this correspondence within our records.

If you have any questions, please contact irb@gcsu.edu. Please include your project title and reference number in all correspondence with this committee. This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within Georgia College IRB's records.

Sincerely,
Kevin Hunt, Ph.D.

Appendix G

Perinatal Nurse Policy on Postpartum Depression

Postpartum Depression Continuing Education	Outcomes
As part of every new employee orientation, every newly hired nurse will be required to complete education on postpartum depression, risks, signs and symptoms, appropriate screening practices and tools, treatment, discharge education, and referral process. As part of ongoing training, each employed perinatal nurse will be required to complete annual education on postpartum depression, risks, signs and symptoms, appropriate screening practices, how to use the implemented screening tool, treatment, discharge education for patients, and referral process. The specific education will be determined by the nurse manager of the perinatal unit based on evidence- based practice and the American College of Obstetrics and Gynecology guidelines.	100% of all new hire perinatal nurses will be trained on PPD. 100% of all perinatal nursing staff will receive training annually on PPD.
Screening for Postpartum Depression	**Outcomes**
Each postpartum patient will be screened for postpartum depression prior to discharge using the Edinburgh Postnatal Depression Screening (EPDS) tool in the electronic health record. Post-partum mothers scoring above 12 or 13 require physician notification and a social service consult prior to discharge. EPDS score of 9-11 indicates possible depression. Refer patient to OBGYN for follow-up with a re-screen in 2-4 weeks. EPDS score of less than 8 indicates depression is not likely. Offer continued support. Document all scores, referrals, and follow-up requirements in patient electronic health record.	95% of all postpartum patients will be screened for postpartum depression.
Discharge Education for Postpartum Patients	**Outcomes**
Every postpartum patient will be provided with an Action Plan for Depression and Anxiety Around Pregnancy flyer and documented in the patient health record upon receiving.	95% of all postpartum patients will receive discharge education.