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Postpartum Depression Education and Screening in a Hospital Setting

Amanda Snyder
Walden University

Walden University

College of Health Sciences

This is to certify that the doctoral study by

Amanda Rae Snyder

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Dr. Mary Verklan, Committee Chairperson, Nursing Faculty
Dr. Courtney Nyange, Committee Member, Nursing Faculty
Dr. Lilo Fink, University Reviewer, Nursing Faculty

Chief Academic Officer and Provost
Sue Subocz, Ph.D.

Walden University
2020

Abstract

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BS, Mount Carmel College of Nursing, 2002

Proposal Submitted in Partial Fulfillment

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Abstract

It is estimated that 24.3% of women in Florida who have recently given birth experience postpartum depression (PPD), which approximates the national percentage. Perinatal nurses are often not provided specific education relating to PPD nor provided reliable methods to screen patients in the hospital setting. The focus of this project was to increase the number of mothers identified as needing follow-up for PPD by formally educating perinatal staff members on the signs and symptoms of depression, while including validated methods of screening patients compared to the current practice of general assessment and verbal interviewing. The approach was supportive of the organization's mission centered around the quality caring model in which the care is focused on the nurse first, followed by the patient, then coworkers, and lastly, caring for the community. Following an educational presentation, a total of 48 perinatal nursing staff participated. Participants' baseline knowledge of postpartum depression increased by 83.4% and the percentage of mothers the staff identified as at risk for or experiencing depression increased by 32%. Social change occurred because nurses can now quickly identify patients at risk for or experiencing depression and provide immediate intervention and resources while in the hospital setting.

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Section 1: Introduction

Introduction

The evidence-based care of the mother-baby dyad has magnified in complexity over the recent decades, and nurses often lack the knowledge to address these complexities. One area of knowledge deficit for perinatal nurses includes postpartum depression (PPD). Research has shown that maternal mortality rates have increased due to suicide as a result of PPD, more than hemorrhage and hypertension combined (American College of Obstetrics and Gynecology [ACOG], 2015). ACOG recommends that pregnant patients be screened for PPD at least once during their perinatal period by a provider who specializes in obstetrics (ACOG, 2015). It was estimated that 24.3% of women who recently had a baby in Florida experienced PPD, which approximates the national percentage (Florida Department of Health [FDOH], 2018). The problem at the project site is that it currently does not screen patients for PPD nor provide formal education on PPD screening for the perinatal staff. The goal of this project was to provide an educational intervention to the perinatal staff regarding the identification of postpartum women who are experiencing PPD or who are susceptible to it. The educational material was provided in a verbal and visual presentation preceded by a pretest and followed by a posttest to determine the level of knowledge gain. Implementing an educational project targeted toward preparing and informing perinatal nurses on the risks and effects of PPD will have a significant impact on the mothers, the children, and also the community. In Section 1 I discuss the problem statement, purpose

of the study, nature of the doctoral project, and significance of the project to the nursing practice.

Problem Statement

The evidence-based care of the mother-baby dyad is complex, and nurses often lack adequate knowledge to address these complexities. One area of knowledge deficit for the nurses who hold specialty care positions in perinatal nursing is PPD. PPD affects 10%-20% of new mothers and can begin immediately after delivery and last up to 1 year (FDOH, 2018). It is estimated that 24.3% of women who recently had a baby in Florida experience PPD, which approximates the national percentage (FDOH, 2018). The highest percentages of women experiencing PPD are non-Hispanic Black, followed by non-Hispanic White and Hispanic (FDOH, 2018). The community at the center of my project has a total population of 59.3% non-Hispanic white, 22.3% Hispanic, and 16% non-Hispanic Black. The gap between the nurse's knowledge of this subject and nursing practice could ultimately be detrimental to the patient and family units in the community. The setting for my doctoral project experiences 3,200-3,500 deliveries annually and houses a Level-III Neonatal Intensive Care Unit. Prior to completing orientation, nurses receive no formal education regarding PPD. Their current method of practice is general assessment and verbal interviewing of patients displaying signs and symptoms of depression. Due to the potential adverse effects that can result from PPD, it is crucial for the nursing staff be educated on how to effectively assess a patient's risk for PPD using a validated screening tool such as the Edinburgh Postnatal Depression Scale (EPDS).

Research has shown that maternal mortality rates have increased due to suicide as a result of PPD, more than hemorrhage and hypertension combined (ACOG, 2015). The ACOG recommends that pregnant patients be screened for PPD at least once during their perinatal period by a provider who specializes in obstetrics (ACOG, 2015). In response to this recommendation, the project consisted of the development and implementation of an educational program for perinatal nursing staff that instructs them on how to properly assess mothers for PPD using the EPDS.

Purpose

PPD is a major public health concern as evidenced by the detrimental consequences for both mother and child. Research has identified that one in 10 children are cared for by a mother who experiences depressive symptoms, and by providing perinatal staff the skills to quickly identify mothers susceptible to PPD, the adverse effects can be avoided (Trussell et al., 2018). The approach for carrying out this project of lessening the gap-in-practice is to help nurses identify the vulnerable population of patients experiencing PPD that if not identified, could result in catastrophic events such as suicide or infant mortality at the hands of the mother. The practice focus question relating to the project was:

> PFQ: Will formally educating the perinatal staff on PPD with the use of the EPDS increase the number of mothers identified as requiring follow-up for PPD according to their EPDS score as compared to the current method of general assessment of signs and symptoms and verbal interviewing by the staff?

The purpose of this project was to lessen the gap between knowledge and practice by providing the perinatal nursing staff with the knowledge and tools needed to effectively identify and assess postpartum patients at risk for or suffering from PPD while in the hospital setting. Educating staff with the evidence-based practice data supportive to the patient care practice will allow them to be better equipped in identifying mothers at risk or those who are experiencing PPD while in the hospital setting, which will facilitate mothers receiving early treatment.

Nature of the Doctoral Project

The literature search consisted of published literature identified through the electronic databases of CINAHL, MEDLINE, ProQuest Nursing & Allied Health Source, and PubMed. The public website databases used included the Centers for Disease Control and Prevention (CDC), the FDOH, and the Centers for Medicare and Medicaid Services. Search keywords included *postnatal depression, postpartum depression, postpartum depression screening tool, standard postpartum patient care,* and the *Edinburgh Postnatal Depression Scale.* The sources of evidence included peer-reviewed journal articles and websites that provided valid and supportive data relating to the significance of depression of the postpartum patient and the need for formal education for perinatal staff. Exclusion literature included articles where English was not the primary language. The years for the literature search included 2014-2019.

The nature of the practice focused project was a before and after approach. A retrospective review of electronic medical records to identify how many women required PPD follow-up were derived from the electronic health records. The data was provided in

reports from the Information and Technology (IT) department with all patient identifiers omitted. I entered the data into an Excel spreadsheet that is stored on a password secured computer in a single occupancy locked office.

A pretest was administered to the perinatal nursing staff upon arrival to the mother baby conference room located on the fifth floor of the pavilion prior to the educational presentation. They were allotted 10 minutes to complete the test. The staff placed the completed pretest in a sealed envelope labeled "pretest," which was placed in a locked drawer in the team leader's office on the mother baby unit to which only I will have access. I entered the data from the pretest into an Excel spreadsheet that is stored on a password secure computer in a single occupancy office.

The educational information was provided in a PowerPoint verbal presentation followed by a brief visual demonstration on the process of how to administer and score the EPDS tool. The educational presentation took 30 minutes. Upon completion of the presentation and demonstration, I allowed for a question and answer session for 10 minutes to provide clarification to the staff of any unclear information.

Upon completion of the presentation and demonstration, a posttest, identical to the pretest, was again administered to the staff. They were given 10 minutes to complete the questionnaire. The staff placed the completed posttests in the envelope labeled "Posttest." The envelope was sealed in a locked drawer in the team leader's office on the mother baby unit to which only I will have access. I entered the data from the posttest into an Excel spreadsheet that is stored on a password secure computer in a single

occupancy office. The data in the Excel spreadsheet from the pre- and posttest were compared and displayed in a pie chart to demonstrate the percent of knowledge gain.

A review of electronic medical records identified how many women required PPD follow-up and/or were identified as at-risk or suffering from depression according to their EPDS score. The data was provided in reports from the IT department with all patient identifiers omitted. I entered the data into an Excel spreadsheet that is stored on a password secured computer in a single occupancy locked office.

The project was supportive of the implementation of practice change as proposed in the *Doctor of Nursing Practice Handbook*. The connection between the findings and the gap in practice were identified through a review of the medical records to determine if the number of women identified for PPD increased according to the scores documented by the perinatal staff from the screening tool. I requested the de-identified patient referral data covering a 3-month period from the IT department to compare to the data provided in the retrospective review. Other sources of evidence that I utilized to identify the gap in practice related to the need for formal education of the staff included educational transcript records pertaining to staff training and delivery of care. The de-identified patient data allowed me to determine the percentage of depression diagnoses prior to implementation of the postpartum education.

Significance

The significance of the project is in part to empower patients to participate in their care through screening, early diagnosis, and appropriate treatment resulting in a decrease in maternal suicide and infant mortality at the hands of the mother. The key stakeholders

that will be impacted are physicians. These stakeholders are crucial to the success of this project. The goal is to inform them of the statistical data supportive of this project and the project goals relating to its implementation. I anticipate that there will be some hesitation in their approval solely relating to the need to provide further assessment and care to patients identified at risk for PPD. To address this potential hesitation, I enlisted the help of the behavioral health departmental leadership team to provide various options of consults and resources. The collaboration between the various disciplines allowed question and answer sessions to occur to alleviate any concerns. Other key stakeholders were the frontline providers in the organization's ancillary departments, including the IT department, case management or social work, and the legal department. The IT department was a key stakeholder because they modified the electronic medical record, including orders and consults, that the providers can access in the system. Case management and the social service department were involved in the screening of the patient and frontline to arrange post-discharge referral treatment plans. I also enrolled assistance from the legal department. As the EPDS, which is considered the golden standard of PPD screening, was implemented, I wanted to ensure that there was no copyright infringement and the facility can administer the screening tool freely to patients. The largest group of key stakeholders were the perinatal nursing staff. The objective of the Women and Children's Pavilion is one that promotes evidence-based practice and high-quality care; therefore, the nurses have become accustomed to changing their processes to reflect evidence-based practice. However, due the increased number of changes, the staff could have felt overwhelmed or stressed by another change. Multi-level

collaboration between all key stakeholders provides the capability to address the needs of the patient, both in the hospital setting and within the community.

The process outlined in this project has potential transferability in that is utilizes the PICO question development process followed by a literature review, implementation plan, and an evaluation method. Other clinical areas that identify patient care issues can use this process to make practice changes that are supported by evidence-based data. It is replicable in nature and allows customizing dependent on the patient population.

At-risk behaviors displayed by depressed mothers who place the infant or child in danger include lack of interest in and supervision of the child, lack of basic safety measures regarding car seat restraints or safe sleep positions, lack of guidance and supervision of nutrition resulting in overweight or underweight children, and lack of stable home environment. These behaviors can be deterred with early screening and treatment of mothers for PPD (Trussell et al., 2018), effecting positive social change. The early identification of patients who are at risk for or experiencing depression provides an avenue to early intervention and treatment to decrease the adverse events often seen involving women with PPD. Depressed mothers struggle with everyday life and may become unengaged and withdrawn from those around them. They may become increasingly irritable resulting in more frequent thoughts of harming the infant or themselves, which results in more child welfare service involvement.

Summary

The objective of this project was to provide educational information to the perinatal nursing staff specific to depression of the postpartum patient including methods

of screening patients with a valid screening tool in the hospital setting. By providing this information, the goal was to better equip the perinatal nursing staff with the knowledge needed to effectively perform their important roles as care providers to an extremely vulnerable population, thus improving the percentage of patients identified as at risk for or suffering from depression when compared to their current practice of general assessment and verbal interviewing. Upon completion of the screening and prior to discharge, patients will be provided external resources to seek treatment within the community to improve their mental and behavioral health condition, potentially decreasing the adverse effects of PPD on themselves and their children. A before and after design was used to evaluate the level of knowledge gained, with a visual presentation between the tests and a return demonstration on administering the valid screening tool to the postpartum patients. The goal of the project was to make a positive social change and impact on the community as evidenced by decreased maternal suicide and infant mortality at the hands of the mother resulting from PPD. Section 2 present the model and theories on which the project was based, the local context supportive of the significance of this project, and my role in the implementation of this project.

Section 2: Background and Context

Introduction

The purpose of the project was to lessen the gap between perinatal nurses' knowledge of PPD and the practice of identifying and screening patients at risk for or experiencing PPD in the hospital setting. The practice focused question was:

> PFQ: Will formally educating the perinatal nursing staff on PPD with the use of the EPDS increase the number of mothers identified as requiring follow-up for PPD according to their EPDS score as compared to the current method of general assessment of signs and symptoms and verbal interviewing by the staff?

In the following sections I discuss the intended model and theory supportive of the practice change, identifying the relevance to nursing practice, local background and context, and the role of the DNP student.

Concepts, Models, and Theories

The theory chosen to support the project was the Lean Six Sigma theory (LSS), specifically its strategy of define, measure, analyze, and improve (DMAIC). The LSS theory is a quality improvement tool that focuses on providing value and improving performance by systematically eliminating waste, which is defined as anything that does not add value to the final product or service (Inal et al., 2018).The LSS theory, through its DMAIC strategy, provides a comprehensive approach and guidance to eliminate unnecessary patient treatments, consultations, and referrals, which is contrary to the current practice of nursing staff's random determinations based on their personal beliefs and experiences but no formal education. The main assumptions of the LSS theory are

that alleviating wasteful elements within a process will expedite patient care in the most cost-efficient way and will provide a more comprehensive, purposeful, and individualized plan of care.

The main assumptions associated with the LSS theory will be addressed through the DMAIC strategy. The first step in the strategy of defining provided the foundation on which the project was established. It helped identify the practice issue, the key stakeholders, and the excessive tasks being performed by the perinatal nursing staff. To address the practice issue, staff were provided formal education via a PowerPoint presentation and visual demonstration on administering the EPDS screening tool. Physicians and other multidisciplinary team members identified as key stakeholders will be incorporated into the patient's plan as assigned and not on an automatically assumed need for service. The next step in the strategy iis to measure. The measuring step addresses the assumption of expediting the patient care in the most cost-efficient way. According to the score obtained from the EPDS screening tool, an individualized plan of care consisting only of appropriate consultations and referrals will be initiated. The numeric value will provide additional documented support for future payment reimbursement, funding, and billing. The last assumption of providing a more individualized and comprehensive plan will be achieved through the DMAIC strategy steps of analyzing and improvement. By analyzing the patient's score obtained from the screening tool, the perinatal staff will be able to prioritize the most crucial needs for the patient and develop a plan of care that will result in early identification of need for treatment and better overall management of the patient's PPD. The patient's care plan

will be designed with purpose and intent considering their current and postdischarge needs.

Overall, less time and expenses will be spent on unnecessary consults and services and more time spent on identifying the precise needs of the postpartum patient. Through implementing the project, this theory will improve the quality of the processes and lessen the gap between knowledge and practice by alleviating the unnecessary tasks nurses are currently performing, such as designing patient care plans relative to their general assessment and lack of personal expertise and without the proper knowledge and tools to screen patient for PPD. In response, the nursing staff will be equipped with the EPDS to effectively assess all postpartum patients at risk for or suffering from depression, without any interference of their own biases. The numeric value rendered from the screening tool will provide direction to the perinatal staff relating to the necessary physician consultation, social service needs, and external resource follow-ups, which will limit the financial responsibilities of unnecessary consultations.

> The American Nurses Credentialing Center (2008, pg.64) reported that models are the driving force of nursing care; a schematic description of a theory, phenomenon, or system that depicts how nurses practice, collaborate, communicate, and develop professionally to provide the highest quality care for those served by the organization. Professional practice models illustrate the alignment and integration of nursing practice with the mission, vision, and values that nursing has adapted (American Nurses Credentialing Center, 2018).

The organization has developed its mission statement based on the quality caring model (QCM) by Duffy in 2003. The QCM focuses on the caring of the individual, patient and families, coworkers, and community. All these aspects are important to the foundational belief of the study organization that a new Women and Children's Pavilion was recently built in response to the community's desire to keep the mothers and children local while decreasing the need to transfer them to other facilities further from home. The concept of the QCM will be presented to the staff members during general orientation at the beginning of their employment and annually through educational modules, thus increasing their level of awareness of the importance of the QCM. By incorporating a concept that the staff is already familiar with, the goal will be to lessen resistance to the new practice change.

Relevance to Nursing Practice

For several years, PPD was never discussed with mothers during or after their hospital stay. The stigma attached to mental and behavioral health has inhibited mothers from receiving treatment both in and out of the hospital. PPD can be shadowed by the "baby blues" which are common in the immediate postpartum period but often precede PPD (Fellmeth et al., 2019). It is crucial that nurses are equipped with the skills and tools to effectively identify patients at risk for or suffering from depression. The educational presentation and demonstration of the use of a valid screening tool such as the EPDS will help lessen the gap between knowledge and practice for perinatal nurses at the forefront of patient care, thus resulting in earlier identification for patients, earlier treatment, and fewer adverse events.

The educational project increases the nurse's knowledge of PPD, including the history and current issues identified within the community that correlate with PPD. The perinatal nursing staff also gains the knowledge on how to properly screen and score postpartum patients for depression and the proper process to implement the necessary consults and referrals according to the patient's screening score. The education provided enhances the nurses' skill level, which in turn allows them to provide a higher quality of care resulting in better enhanced outcomes. Overall, due to the expansion of their skill set and knowledge, the nurses gain more confidence in providing higher complexity care and are more satisfied in their roles of caring for such a vulnerable population.

Background and Context

The organization at the center of this project experiences approximately 3,200-3,500 births annually, thus creating an optimal opportunity for the perinatal nurse to assess and screen patients for PPD. There is no current practice in the organization of formally assessing and screening patients for PPD, which is contrary to the gold standards of care of the postpartum patients. In 2015, perinatal women were screened with the Florida Pregnancy Risk Assessment Monitoring System (PRAMS) to identify those experiencing significant PPD symptoms, and it was determined that 24.3% had in fact experienced symptoms, which was higher than the national percentage of 23.0% (FDOH, 2015). The PRAMS also determined that 25.2% of the women who had experienced PPD were African American and 22.8% were Hispanic. This was significant to the local population, which consists of 51% females composed of 16.1% and 23.65% African American and Hispanic persons respectively (U.S. Census Bureau, 2018). The

organization has recently expanded to a Level III Neonatal Intensive Care Unit, which encourages higher risk mothers and increased intensive care admissions of the infants, thus resulting in higher occurrences of stressors on the mothers, further increasing the need for depression screening of the postpartum patient. With the proper resources in place as a result of this project, patients at risk for or suffering from depression will be identified sooner and treatment will be initiated quicker, thus lessening the potential for adverse events.

For this project, the approval from the organization's Institutional Review Board (IRB) committee, Professional Improvement Committee (PIC) and Walden University IRB was essential to execute the project. Due to the structure of the project's objective to implement a practice change through formal education of the staff, there was no requirement to obtain permission from the staff to participate in the education presentations. The patients' autonomy was maintained by the IT department's removal all identifiers in the data they provide regarding the number of women referred for follow-up for PPD. The final project was presented to the PIC for review and final approval. The PIC consists of the organization's executive team members, legal department, specialized research mentors, and staff nurses. Their purpose is to determine the validity and benefit of the project for the organization and to ensure protection of the patient. The Unit Based Council, which is a subgroup of the shared governance, was the forefront delivery system of the project and became involved in the project implementation after approval from the IRB and the PIC. The strategic plan was to better equip the perinatal nursing staff with the tools to assess and screen all postpartum patients for depression while in the hospital

setting, thus enhancing the health of the women and families in the community and decreasing the adverse events resulting from unidentified and untreated PPD.

The project is significant because according to the Association for Women's Health, Obstetrics, and Neonatal Nursing (AWHONN) position statement, all pregnant and postpartum women should be screened for mood and anxiety disorders (AWHONN, 2015). Nurses are in key positions to screen women, provide education regarding perinatal mood and anxiety disorders to pregnant and postpartum women and their families, and ensure appropriate treatment referrals (AWHONN, 2015). It is suggested that depression screening be available along the continuum of pregnancy into the pediatric setting because PPD can occur up to the first year of life. An estimated 10%–20% of women experience depression or anxiety during pregnancy or in the postpartum period (AWHONN, 2015).

Research indicates the following factors increase a woman's risk of developing PPD: younger maternal age, lower education, single marital status, low socioeconomic status, personal or family history of a mood disorder, psychosocial stress and lack of social support (FDOH,2017). Many of these indicators apply to the population of child-bearing age females within the community. The CDC and the FDOH initiated the PRAMS project for Florida in 1993 in response to research indicating the infant mortality rate was no longer declining as rapidly as it had been in the U.S. data collected by Florida PRAMS include information on maternal health and behaviors, prenatal and postpartum care, and infant health (FDOH, 2015). In 2015, the Florida PRAMS, estimated the percentage of mothers under the age of 19 years old, who had experienced at least one

stressor during the 12 months prior to delivery, at 84.0% compared to 20-24-year-old patients averaging 81.9% and just one stressor can cause mothers to have significant PPD (FDOH, 2015).

Role of the DNP Student

My professional role in relationship to this doctoral project is that of primary developer and presenter. I have been an OB nurse for 17 years and have a passion for providing high quality care to moms and babies within the community. I was employed at this organization for 13 years prior to seeking an opportunity to enhance my education, thus enrolling in the Master of Science degree in Nurse Education program in 2015 and later the Doctorate of Nurse Practice program again at Walden in 2018.

While I was employed at the organization, I identified the need for PPD screening for our patients, which was and is currently not being done. I realized that I needed to gain the skills and knowledge, in order to implement the change in the appropriate way and give back to the organization that provided so much to me professionally in the past. My role as the project leader will focus on the development of the content used to educate the staff. As the project leader, I will also present the information on various weekdays and during various shifts. I will make myself readily available to staff via email should the situation arise. I will assume the responsibility as the main-point person for communications and collaborations, to ensure a work in progress and to stay focused on the tasks at hand. Lastly, as the leader I will be the point person for data collection and security. Upon completion of the project, it will be my responsibility to ensure that the

appropriate team members within the organization have access to the project information and data results I collected for further enhancement in the future.

Identifying the problem was the simple part, knowing how and why and with whom, was by far the more complex part. Research has identified at-risk behaviors displayed by depressed mothers that place the infant or child in danger that include lack of interest and supervision of the child, lack of basic safety measures regarding car seat restraints or safe sleep positions, lack of guidance and supervision of nutrition resulting in overweight or underweight children, and lack of stable home environment (Trussell et al., 2018). The Doctorate of Nurse Practice (DNP) program at Walden University has provided an exemplary outlined process to achieve my goals of implementing a quality improvement practice change. I have learned of the importance and modeled the DNP Essentials according to the American Associations of Colleges of Nursing throughout my enrollment in this program (American Associations of Colleges of Nursing, 2015). The DNP Essentials provide an understanding of the roles and responsibilities, as a DNP graduate, that I should possess, and this project is the best representation of it. By truly understanding the method and process will allow me to professionally practice at the level I am educated. My practicum experience has enabled me to answer those questions and network with the key stakeholders, in order to make the project implementation successful. It is both encouraging and rewarding to be among a group of people that have the same passion and enthusiasm for education and high-quality patient care as I do. My preceptors are extremely knowledgeable about this patient population and encourage the

implementation of my project, as they too have identified the crucial need to provide this service to the mothers and families within the community.

My motivation for this project is to improve the mental and behavioral health of mothers within the community that may not have had the support in the past. Research has shown that maternal mortality rates have increased due to suicide as a result of PPD, more than hemorrhage and hypertension combined (ACOG, 2015). My goal is to equip the organizational staff members with the tools and knowledge to care for mothers who are struggling mentally and due to culture restraints may not have an avenue to talk about it. I am confident that the practice change of screening mothers within the hospital setting will result in a much greater health enhancement within the community and lessen the adverse events associated with PPD such as maternal suicide and infant mortality at the hands of the mother. Research has identified that one in ten children are cared for by a mother who experiences depressive symptoms (Trussell et al., 2018).I have no bias relative to this topic and my goal is to have every postpartum mother assessed and screened for PPD regardless of age, race or ethnicity, socioeconomic background, or education level.

Summary

The goal of the proposed project is to lessen the gap in knowledge and practice of the perinatal nursing staff relating to PPD assessment and screening, which will be achieved by providing formal education, both verbally and visually demonstrating the process of assessing and screening postpartum patients for depression while in the hospital setting. With the use of the LSS's DMAIC strategy, the nurses will be better

equipped in determining the appropriate plan of care and arrange consultations or referrals accordingly. The PDSA model will provide a cohesive approach of planning, doing, and studying, and adopting, that staff at the forefront of patient care and still be effective in evaluating the success of the project. The staff will also gain experience utilizing this type of model to be used in the future project implementations when staff identifies the need for change. As the project leader, my goal is to provide evidence-based research data and validated screening tools to the staff to enhance the care of the complex dyad. I will remain to be the project point-person to provide support to the staff before, during, and after the implementation of the proposed project. Section III with discuss the methods used to collect and analyze the evidence-based data used to formally educate the staff will be discussed. The topics will include the sources of evidence including published outcomes and research, archival and operational data, evidence generated, and the analysis and synthesis of the research data supportive of the proposed project.

Section 3: Collection and Analysis of Evidence

Introduction

Pregnancy-associated suicide kills more women than hemorrhage or preeclampsia, underscoring the importance of screening and treatment for perinatal mood disorders (Agency for Healthcare Research and Quality, 2019). As a result, organizations such as the ACOG and the AWHONN identify the importance of screening mothers for PPD while admitted to the hospital for delivery (ACOG, 2018; AWHONN, 2015). The current problems identified in the organization at the center of the project were the lack of formal education of the perinatal nursing staff and depression screening for postpartum patients within the Mother Baby unit. There are approximately 300 deliveries a month at the acute care hospital, which provides an optimal situation for nurses to assess and screen postpartum patients for depression while in the hospital for delivery. The purpose of the project was to provide formal education to the perinatal nursing staff by delivering a PowerPoint presentation and a visual demonstration on the correct processes for screening and scoring patients for PPD. The strategy suggested for the implementation of the project was the DMAIC model derived from the LSS theory. The DMAIC strategy provided a cohesive approach to the identified practice problem that could alleviate unwarranted treatments and unnecessary consultations or referrals. In Section 3 I discuss the practice-focused question, sources of evidence, data collection, and analysis/synthesis of the data that were the foundation for the formal education for the perinatal nursing staff.

Practice Focused Question

The current method of determining if a postpartum patient is experiencing depression remained at the perinatal nurse's discretion, depending on their personal and professional experience. The staff does not receive formal education relating to PPD upon employment nor does the organization use a valid screening tool to screen postpartum patients for depression. The practice focused question used to address the gap between knowledge and practice was:

> PFQ: Will formally educating the perinatal staff on PPD with the use of the EPDS increase the number of mothers requiring follow-up for PPD according to their EPDS score as compared to the current method of general assessment of signs and symptoms and verbal interviewing by the staff?

The purpose of knowledge clarification is to better equip the perinatal nursing staff with more enhanced assessment skills to better identify mothers requiring treatment for PPD. The approach included verbal presentation of information via a PowerPoint and visual presentation of the process of administering an approved valid screening tool. Staff were provided a pretest to determine baseline level of knowledge with a posttest following the presentations to determine knowledge gained. A question and answer session was provided to the staff at the completion of every presentation session to clarify any uncertainties they may have. By allowing the perinatal nursing staff time to ask questions and practice the administration and scoring of the screening tool, staff will possess the skills to better present the information to patients and administer the EPDS correctly. The effectiveness of the nurse's ability to determine the patient's needs will

allow for appropriate consultations and postdischarge referrals and alleviate unnecessary interventions. Immediate examination and assessment by behavioral health providers will be provided for any patient identified as posing potential harm to themselves or the infant while in the hospital setting.

Sources of Evidence

The *Doctor of Nursing Practice Manual* provides guidelines related to the education of staff and the appropriate sources of evidence to utilize in the various steps of project development. For my project of the education of perinatal staff relating to PPD, the sources of evidence included peer-reviewed journal articles and websites to provide valid and supportive data relating to the significance of depression of the postpartum patient and the need for formal education for perinatal staff. The databases used for data gathering included CINAHL, MEDLINE, ProQuest Nursing & Allied Health, and Ovid Nursing Journals. Public websites that I also referenced included the CDC, FDOH, and Centers for Medicare & Medicare Services. The search terms and Boolean operators included *postpartum depression* and *postnatal depression*, or *PND* or *PPD, Edinburgh Postnatal Depression Scale, hospital setting* or *clinical environment* or *inpatient setting*. The years of publication were 2014-2019. The literature review included data originally published in English and excluded publications about depressive conditions not related to postpartum or depressive condition relating to men or children. The total number of journals accessed from the inclusion criteria was 110. The number of articles used was 15.

In response to the low rates of national PPD screening, Clevesy et al. (2019) identified the need for standardized and consistent PPD screening of patients, enhancing early recognition and intervention. The study took place in a community women's health clinic in the United States that contained OB/GYN providers, nurse midwives, nurse practitioners, and assistants who provided prenatal and postnatal care to women. Education relating to PPD was provided to staff members following a medical record review that revealed 56% contained documentation on depression, and none contained documentation of the use of a valid screening tool. A plan do study act model was used to collect and analyze the data and determine if there was an increase in women screened for depression using a valid screening tool. It was found that the percentage of medical records containing documentation of PPD using the EPDS, a valid screening tool, increased to 92.7% posteducational presentations (Clevesy et al., 2019). The study is supportive of the project in that it accomplished the identified objective of increasing the number of patients screened for PPD by staff who were educated on the characteristics of PPD and the use of the EPDS.

In a descriptive cross-sectional study, a random sampling of postpartum patients and health care workers in a health facility in Ghana was taken with the purpose of determining the prevalence of PPD and interventions used for its management (Anokye, Acheampong, Budu-Ainooson, Obeng, & Akwasi, 2018). With the use of a valid screening tool that was administered to postpartum patients, the staff was able to identify greater than 86% of the mothers sampled as having indicators for PPD, of which 53% were identified as having major depressive disorder. Various methods of interventions

were provided to the mothers which included psychosocial support, professionally based postpartum home visits, interpersonal psychotherapy, and cognitive therapy, with the most effective being psychosocial support. One method of psychosocial support involved professionally based postpartum home visits (Anokye, et al., 2018). The findings are supportive of the project in that the objective is to identify the patients in the hospital who are at risk or experiencing PPD and develop a plan of care as outpatients that would include provider follow-ups, home visits, and support groups.

A prospective observation cohort study focused on the importance and feasibility of universal screening of both antenatal and postnatal patients over a 4-year period from a large academic medical center discussed the impact of implementing a universal depression screening tool (Venkatesh, Kaimal, Castro, & Perlis, 2017). There were more than 8,000 participants, of which 98% were screened for depression, and 6.5% were identified with depression by using the EPDS, a universal screening tool. The results confirmed the feasibility of universal screening of pregnant patients and the importance of screening patients during the prenatal phase. The findings align with the doctoral project because they proved the feasibility of implementing a universal depression screening to postpartum patients in a large organization and maintaining consistency over a substantial time period (Venkatesh et al., 2017).

A study performed at Mount Sinai Hospital examined the feasibility of adding clinical decision support to the electronic health record (EHR) as a hard stop to inhibit providers from further charting on the patient prior to completing the universal depression screening (Loudon, Nentin, & Silverman, 2016). By integrating a clinical

decision module within the health record, they demonstrated the ability to screen and identify PPD symptoms in 99.5 % of the Mount Sinai Hospital OB/ GYN Ambulatory Practice over a 4-year period. Though the study was successful in the implementation of an impactful module that inhibited providers to continue charting the patient's assessment without addressing the hard stop of PPD screening, like other studies, the identified limitation was the patients' declination to participate in the screening (Loudon et al., 2016). The findings helped identify potential barriers in the doctoral project and allowed me to determine various methods of resolution prior to actual implementation within the organization.

A study performed in a Magnet designated community hospital aimed to describe the clinical nurse specialist role in developing and implementing a staff nurse education program to promote practice accountability using peer review principles (Semper, Halvorson, Hersh, Torres, & Lillington, 2016). The educational program modeled principles established by the American Nurse Association's Code of Ethics. During the implementation of the study, various barriers were identified relating to both the presenter and the receiver. One limitation identified was addressing concerns with those who display strong or abrasive personalities. To address this barrier, the leadership team established standardized expectations for all nurses and reviewed them on a regular basis to adapt a new standard practice where more nurses consistently performed the peer reviews (Semper et al., 2016). I anticipated that nurses would experience the same barrier of dealing with strong willed or abrasive patients in attempts to get the patient to agree to complete the screening tool. By consistency, it will become a normal practice for staff to

explain and assist patients when completing the tool. Nurses will be educated with the appropriate information to address any patient concern regarding the intent of the screening tool.

Shadadi, Sheyback, Balouchi, & Shoorvazi (2018) investigated the obstacles surrounding clinical education among nurses specifically relating to the barriers associated with clinical nurse education in a meta-analysis. The four areas of obstacles found in the clinical nurse education were individuals, management, facilities, and others. The solution to the obstacle of individuals was focused on buy-in by the staff. The study identified the importance of assessing the readiness of the staff and how to prepare for resistance and pushback. It was suggested that the solution to staff hesitation is to first identify the nurses' interested in clinical education and determine who would be champions for the various shifts. It was found that the implementation was smoother and more successful when using the suggested solution (Shadadi, et.al, 2018). The application of this study to the project was the anticipation of hesitation of the nursing staff, and as the presenter, I needed to be prepared to utilize the staff members who were eager to implement the change. The champions will also be used in the future to help sustain and hardwire the process.

The above studies, in addition to others rendered during the literature search affirm the necessity, feasibility importance and barriers associated with the universal screening of postpartum patients for depression. In reference to the proposed doctoral project, the educational information and the newly implementation of the use of the EPDS, will assist the targeted organization's perinatal nursing staff in identifying PPD in

some of their most vulnerable patient population. Special consideration must be taken to identify and address the anticipated barriers prior to and during the implementation phase of the project. As the presenter of the information, this step is crucial to improve the staff's buy-in and alleviate resistance as identified in the discussed studies to enhance the success of the project.

Evidence Generated for the Project

The participants for the proposed project will include all 50 perinatal nursing staff members on the Mother Baby unit within the Women and Children's Pavilion. The perinatal nursing staff members will include all full-time, part-time and per-diem staff who work 12-hour shifts. Their clinical experience ranges from new graduate to having more than 10 years. The nurses that will be excluded from the project will be those on approved leave of absence at the time of implementation of the project. Those staff members not included in the project will be provided the educational information upon returning to work. Other staff members not included will be ancillary support staff and patient care assistants.

After receiving Institutional Review Board Approval, I began the initial stage of the project by providing staff with a PPD pretest. I administered the paper-pencil pretest prior to the educational presentation which should take no more than 5 minutes to complete. The participant placed the completed pretest in the envelope marked "Pretest," which I collected at the end of the session. I placed the pretest envelope in a secured file cabinet located in a private office to be compared to the posttests completed at the end of the presentation.

The education sessions was provided during various shifts in the department conference room to provide adequate opportunity for all perinatal staff members to attend. The information was in a PowerPoint presentation lasting 15 minutes and a visual demonstration of the administration of the EPDS lasted 10 minutes. A question and answer session, along with a practice session lasting 10 minutes immediately followed the presentation. The project in its entirety lasted 45 minutes.

Upon conclusion of the presentation, I administered the PPD posttest to the present staff. The paper-pencil test took no more than 5 minutes to complete. The participant places the completed posttest in the envelope marked "Posttest," which I collected at the end of the session. The posttest envelope was placed in a secured file cabinet located in a private office until time of analysis.

Trained nurses will administer the screening tool to the patients 24 hours after delivery. The nurse will explain the purpose of the screening tool to the patient and answer any questions the patient has at that time. The nurse will score the screening tool after it has been completed by the patient, according to the instruction provided by the developer of the screening tool. Once the score is determined, nurses will then consult the appropriate providers for further evaluation and arrange for the appropriate post-discharge follow-up.

The organization's operational records, including employee educational transcripts and patient records will be obtained from two separate departments. The Professional Development department, which is responsible for employee orientation and development, will provide the deidentified employee educational and competency

transcripts from their initial hire date to present. The person responsible for providing the information is Denise Hain, Director of Professional Development. These reports will provide the educational content employees receive upon employment to the organization along with any annual education completed related to the proposed project topic. The IT department will provide the deidentified retrospective report of patients identified at risk for or experiencing PPD, including those with a depression diagnosis according to their medical coding, diagnosis, consultations and EPDS score, over the last 3 months. Jessica Lemire is the designated representative for the IT department, who will be providing the deidentified patient information reports. The reports will be received via confidential email, then downloaded to a password protected computer, only accessible to myself until time of analysis. After completion of the educational presentation, a 1-month prospective deidentified patient report will be provided by Jessica Lemire, the representative for IT department, which will include patients identified at risk for, or experiencing depression, according to their medical coding, diagnosis, consultations and EPDS score for comparison. The reports will be received via confidential email, then downloaded to a password protected computer, only accessible to myself until time of analysis.

Postpartum Depression Pretest/Posttest

The questionnaire that will be administered to nurses before and after the educational presentation is modeled after the Collaborate Practice Assessment Tool (CPAT) developed by the National Center for International Practice and Education (Shrouder, 2013) (Appendix A). The instrument assesses collaborative practice among care provider team members, patients and clients. The six question pre and pos-test

pen/pencil test was modified by me to specifically apply to the perinatal nursing staff and the patient population they serve compared to the original which addressed a general staff and patient population. The main purpose of the tool is to provide self-reflection on their strengths or limitations and to steer educational efforts. Results from one pilot study showed high internal consistency reliability and excellent model fit for seven factors reflecting collaborative practice (Shrouder, 2013).

Edinburgh Postnatal Depression Scale

The EPDS was developed by a transcultural/social psychiatrist, a psychologist and health visitor, and part-time psychologist trainee, who had clinical experience with the impact of perinatal depression on the family (Cox, 2017) (Appendix B). It is a screening tool to determine the level of depression a postpartum patient is experiencing while in the hospital. It is considered the Golden Standard for identifying postpartum patients at risk for or experiencing depression (AWHONN, 2016). The EPDS has been used in several obstetrical units worldwide for many decades and is still used frequently in obstetrical units today (Cox, 2017). The EPDS tool is a 10-item tool that will be in the form of a handout provided to patients 24 hours after delivery that discusses how the patient is or has been feeling. Nurses will provide the patient with the key explanation and instructions, including that the patient is to answer the questions in reference to the past 7 days. The patients will be encouraged to complete the tool however, they may decline if they choose. If the patient declines to complete the screening tool, then the nurse will chart in Cerner under the PPD screening navigation bar that the patient declined. The nurse will also answer any questions and or concerns the patient has at the

time of administration and as needed. All education relating to the subject will be charted under patient education section in Cerner, the electronic health record system.

Analysis/Synthesis

Data collected from the various instruments listed below will be analyzed and synthesized by myself. The answers provided from the PPD pretest and PPD posttest will be entered in an Excel Spreadsheet to show the variance in "yes" answers compared to "no" answers, with a goal of 20% increase in "yes" answers after the educational presentation. In order to ensure all employees are accounted for, a roster will be presented at every educational presentation and staff will be asked to sign-in. The anonymous pre and post-tests will be counted at the completion of each administration to ensure all tests are returned and placed in a sealed envelope labeled with the appropriate "Pretest" or "Posttest" label. The staff members on hospital approved leave of absence will be removed from the n=50 of staff nurses to alleviate outliers. I will request the assistance of a non-nursing hospital personnel team member to observe the nurses completing the pre and post-test.

The deidentified 3-month retrospective patient data will be examined to determine the percentage of patients identified at risk for, or experiencing, PPD out of the total number of women admitted to give birth within the three months prior to the educational intervention. The inclusion criteria will include ICD-10 code F53.0, depression diagnosis, psychiatric consultations, and EPDS scoring. Outliers will include any patient with a mental health diagnosis other than depression as their primary diagnosis.

The prospective data obtained for the month following the educational intervention will be examined and compared to the data collected in the retrospective 3-month review to determine the percentage of patients identified at risk for, or experiencing, depression according to their medical coding, diagnosis, consultations and EPDS score. The same inclusion criteria will be used to determine the mothers identified after the staff is provided the educational presentation.

Summary

Evidence has shown that the standardized use of a valid screening tool is effective in the identification of signs and symptoms of depression during the postpartum period. With the help of the proposed educational presentation, the perinatal nursing staff will be better equipped in identifying the vulnerable population in their care. The education will be provided to all nursing staff members on the Mother Baby unit in a 45-minute verbal and visual presentation. During the presentation, staff will be administered pre-test and post-test questionnaires, a PowerPoint, and demonstration of the administration of the EPDS. The staff will be encouraged to participate in the discussion and demonstration, and a question and answer session will be allowed to clarify any unclear information. Evidence gathered from both organizational operational reports and deidentified retrospective and prospective reports will provide data on the initial education staff receives upon employment to the organization along with identifying the increase or decrease in number of postpartum patients identified at risk or experiencing depression. Two instruments that will be used to help gather this data are the PPD pretest/posttest and EPDS tools. Analysis and synthesis will be performed on all data

received by myself and entered into Excel spreadsheet database on a password locked computer only accessible to me. Section 4 will further discuss the findings and recommendations identified after the implementation of the proposed project.

Section 4: Findings and Recommendations

Introduction

The primary purpose of the project was to educate the perinatal nursing staff on the mother baby unit on the purpose and process of administering a standardized depression screening tool to all postpartum patients. Perinatal nursing staff members were verbally provided an educational PowerPoint presentation and demonstration of the proper way to administer the EPDS. The staff members then practiced completing the screening tool and exchanged their forms with other staff members to practice scoring them. The gap in knowledge at this organization was two-fold. The perinatal nursing staff received no formal education during orientation or annually targeted toward screening postpartum patients for depression. The practice-focused question was:

> PFQ: Will formally educating to the perinatal nursing staff on PPD with the use of the EPDS increase the number of mothers requiring follow-up for PPD according to their EPDS score as compared to the current method of general assessment of signs and symptoms and verbal interviewing by the staff?

The educational presentation was provided to the perinatal nursing staff in 10 different sessions to allow all staff members to attend. It consisted of a pretest questionnaire, verbal presentation, demonstration of screening form administration and practice scoring, question and answer session, and a posttest questionnaire. Upon completion of the educational sessions, staff members began administering the screening tools to all patients 24 hours after their delivery.

Summary of Findings

The purpose of the project was to educate the perinatal staff on depression of the postpartum patient and provide a standardized screening tool to better identify patients with PPD versus the current practice of not screening any postpartum patient for depression. PPD is a major public health concern as evidenced by the detrimental consequences for both mother and child. Research has identified that one in 10 children are cared for by a mother who experiences depressive symptoms and by providing perinatal staff the skills to quickly identify mothers susceptible to PPD, the negative adverse effects can be mitigated or avoided (Trussell et al., 2018). One objective of the project was to educate perinatal staff members on the topic of PPD and to introduce the proper administration of a standardized screening tool such as the EPDS. The second objective was to increase the percentage of mothers screened for PPD while in the hospital setting in order to initiate treatment quicker and provide community resources upon discharge.

Objective 1

Objective 1 was to educate perinatal nursing staff on the topic of PPD and introduce the administration of the EPDS. To accomplish this, I developed a PowerPoint presentation using information I obtained from a literature review and statistical data gathered from valid websites including FDOH and the AWHONN. Also, as a result of my research, I identified the EPDS as an evidence-based, standardized screening tool for PPD for staff to begin using.

Before the educational session, I collected baseline data from staff members using the PPD pretest. The purpose was to determine the percentage of knowledge gain after the staff was provided the educational information. I administered the paper-pencil pretest prior to each educational presentation, which took no more than 5 minutes to complete. The participants placed the completed pretest in the envelope marked "Pretest," which I collected at the end of the session. The pretest envelope was then placed in a secured file cabinet located in a private office to be compared to the posttests completed at the end of the presentation.

The education sessions were held during various shifts in the department conference room to provide adequate opportunity for all perinatal staff members to attend. The information was provided in a PowerPoint presentation lasting 15 minutes and a visual demonstration of the administration of the EPDS lasting 10 minutes. A question and answer session along with a practice session lasting 10 minutes immediately followed the presentation. The project in its entirety lasted 45 minutes.

Upon conclusion of the presentation, I administered the PPD posttest to the present staff. The paper-pencil test took no more than 5 minutes to complete. The participants placed the completed posttest in the envelope marked "Posttest," which I collected at the end of the session. The posttest envelope was placed in a secured file cabinet located in a private office until time of analysis.

I analyzed and synthesized the data collected from the PPD pretest and PPD posttest instruments. The answers provided from the PPD pretest and PPD posttest were entered in an Excel spreadsheet to show the variance in "yes" answers compared to "no"

answers, with a goal of 20% increase in "yes" answers after the educational presentation. To ensure all employees were accounted for, a roster was presented at every educational presentation and staff were asked to sign-in. The anonymous pre- and posttests were counted at the completion of each administration to ensure all tests were returned and placed in a sealed envelope with the appropriate "Pretest" or "Posttest" label. The staff members on hospital-approved leave of absence were removed from the 50 staff nurses to alleviate outliers. Two staff members were on quarantine for the coronavirus after traveling outside of the country and were unable to attend the presentations, resulting in a participant size of 48. I requested the assistance of a nonnursing hospital personnel team member to observe the nurses completing the pre- and posttest (Table 1).

Table 1

Percentage of Knowledge Gain from Pretest to Posttest Questionnaires

	Knowledge base of nursing staff
Pretest	10.4%
Posttest	93.8%

I calculated the initial knowledge base according to the number of staff members who answered "yes" to all questions on the pretest questionnaire. The data showed that out of the 48 pretest questionnaires, only 5 staff members answered "yes" to all six questions, compared to the posttest questionnaire, in which 45 out of 48 staff members answered "yes" to all questions. The results from the comparison of the pre-and posttest questionnaires found an 83.4% increase in staff's knowledge regarding PPD and the process of screening postpartum patients in the hospital setting. The results surpassed the

original goal of 20% knowledge gain implying that most staff gained knowledge regarding PPD.

Objective 2

Objective 2 was to determine if using a standardized screening tool would increase the percentage of mothers identified at risk for or experiencing depression while in the hospital setting. To achieve this objective, a 3-month deidentified retrospective data search was performed to compare with a 30-day prospective deidentified data search following the implementation of the administration of the EPDS to determine the variance in percentage of mothers identified at risk for or experiencing depression while in the hospital setting. The deidentified 3-month retrospective patient data was examined to determine the percentage of patients identified at risk for or who experienced PPD out of the total number of women admitted to give birth within the 3 months prior to the educational intervention. The inclusion criteria included the ICD-10 code F53.0, depression diagnosis, psychiatric consultations, and EPDS scoring. Outliers included any patient diagnosed with a mental health disorder other than depression as their primary diagnosis. The total number of delivered patients in the 3-month period was 834, with 6 of those patients considered outliers according to the exclusion criteria (n = 828). Examination of the data found that 12 patients or 1.4% of delivered mothers during the 3-month timeframe were at risk for,or experienced depression during their hospital admission following delivery according to the inclusion search criteria of an ICD-10 code F53.0, depression diagnosis, psychiatric consultations, and EPDS scoring (Table 2).

Table 2

Percentage of Patients at-Risk for or Who Experienced Postpartum Depression

	Percentage of delivered mothers at-risk for or experiencing depression
90 day retrospective study	1.4%
30 day prospective study	32.7%

I examined the deidentified 30-day prospective data obtained following the educational intervention was examined and compared it to the data collected in the retrospective 3-month review to determine the percentage of patients identified at risk for or experiencing depression according to the inclusion criteria involving medical coding, diagnosis, consultations, and EPDS score. There were 301 deliveries, with one patient identified as an outlier according to the exclusion criteria listed above. Of the 300 patients who delivered, 98 were found to be at risk for or experiencing depression (n = 300).

Findings and Implications

The project design used a before and after approach beginning with educating the perinatal nursing staff on how to identify depression in the postpartum patient using a valid screening tool, followed by the actual administration of the screening tool to postpartum patients in the hospital setting. According to the data collected from the pretest/posttest questionnaires that was provided to staff, the knowledge gained by the staff surpassed the initial goal of a 20% improvement, implying that nursing staff were prepared to begin administering the depression screening tool to postpartum patients while in the hospital setting. Nursing staff's eagerness and buy-in was evident from the numerous e-mails and phone calls inquiring about the go-live date of the project.

The retrospective and prospective data search found a substantial percentage increase of patients identified as at risk for or experiencing depression after implementing the use of a standardized depression screening tool. The percentage increased from 1.4% from the 3-month retrospective data search of deidentified patients with a ICD-10 code F53.0, depression diagnosis, psychiatric consultations, and EPDS scoring compared to an increase of 32.7% of patients found from the 1-month prospective data search with the same inclusion criteria. Three patients within the 32.7% scoring were found to have an extremely high score indicative of experiencing depression. The data indicate that the use of the standardized depression screening tool for postpartum patients while in the hospital setting was effective.

Individuals

Patients were provided the screening tool on the postpartum unit and instructed by the nursing staff on how to complete the form. Nursing staff members were educated on the importance of the form, in that PPD affects 10-20% of new mothers, and can begin immediately after delivery and last up to one year (FDOH, 2018). The administration of the screening form with a non-judgmental or prejudicial approach allowed open conversation and a trusting relationship between the nurse and patient resulting in a high participation rate of the patient population. Patients could decline to participate, however, staff still provided education on signs and symptoms of PPD, and a list of community resources at discharge. Nursing staff stressed the importance of seeking medial attention if the depressive signs or symptoms occur within the first year from delivery. Patients were given the opportunity to ask questions and clarify any misunderstandings during

their discharge education session to ensure they understood PPD onset and the various methods to seek treatment.

Communities

The purpose of the proposed project is to identify postpartum patients at risk or experiencing depression while in the hospital setting and provide treatment or community resources prior to discharge. Through the proposed project, staff were able to identify 32.7 percent of postpartum patients within a month timeframe as being at risk or who experienced PPD while in the hospital setting. It is relevant because it is estimated that 24.3% of women who recently had a baby in Florida experience PPD, which approximates the national percentage (FDOH, 2018). Nursing staff followed the appropriate protocol steps in initiating necessary consultations to the OB provider, social worker, and in some instances, a psychiatric provider. The patients identified were provided both inpatient and outpatient individual plan of care. Research has shown that maternal mortality rates have increased due to suicide as a result of PPD, more than hemorrhage and hypertension combined (ACOG, 2015). The overall goal of the project was to help identify the number of women at risk for or experiencing depression while in the hospital setting following delivery, and decrease the potential of adverse events associated with depression. The evidence over the first month of the proposed project indicates that the organization will be successful in achieving the goal of identifying women at risk for or experiencing depression.

Institution

The proposed project was a significant change for the institution in supporting the recommendation of the American College of Obstetricians and Gynecologists (ACOG),that pregnant patients be screened for PPD at least once during their perinatal period by a provider who specializes in obstetrics (ACOG, 2015). Prior to the implementation, there was no formal method of screening postpartum patients for depression, and the responsibility was placed on the nursing staff according to their experience and perceptions without receiving any formal training. Since the implementation of my proposed project, the nursing staff has become empowered and confident in making a successful practice change within their special patient population. The institution now has a process to provide a higher level of quality care by using the golden standard of depression screening according to the Association of Women's Health, Obstetrics, and Neonatal Nursing (AWHONN, 2015), to the mothers within the local community, thus increasing the trust in other areas of care within the institution. As the Clinical Nurse Specialist for the organization at the center of this project, I am confident the implemented project will lay the foundation for additional quality practice changes.

Systems

Since the implementation of the project, myself and the leadership team have identified other areas within the hospital that the screening of maternal patients would be beneficial. It is the plan to incorporate screening for PPD within our pediatric, neonatal intensive care, and emergency department patient populations. By expanding the

screening to other areas within the facility we will be able to continually screen postpartum patients even if they do not attend their postnatal check-up appointment with their primary provider. The importance of expanding the use of the screening tool is crucial as depression can occur any time within the first year of the infant's life (AWHONN, 2015)

Another component within the system that arose with the implementation of the project related to the electronic health record. During optimization of the OB departments, it was realized that the screening tool was already a template within the IT system and in the future would be easier to track and initiate consultations. The accessibility and functionality will help staff quickly identify the patients at risk for or experiencing depression, and with the help of multidisciplinary team members develop an individualized plan of care prior to discharge from the hospital. The quick identification and treatment will have an improving impact on the negative adverse effects associated with depression. Research has identified that one in ten children are cared for by a mother who experiences depressive symptoms and by providing perinatal staff the skills to quickly identify mothers susceptible to PPD, the negative adverse effects can be avoided (Trussell, et.al, 2018), and by early identification and treatment.

Recommendations

The project was implemented over an 8-week period that was divided into 4 weeks of educating the staff and 4 weeks of screening postpartum patients for depression. As the project facilitator, my role was to provide education to the staff in several education sessions and monitor their progress of initiating depression screening of the

postpartum patient. One goal was to increase the nursing staff's knowledge base regarding PPD which was accomplished according to the results of the pretest/posttest questionnaires administered to the staff members during the educational sessions. The questionnaire was administered to nurses before and after the educational presentation which was modeled after the Collaborate Practice Assessment Tool (CPAT) developed by the National Center for International Practice and Education (Shrouder, 2013). One recommendation to further enhance the staff's knowledge on PPD was to have the staff complete annual education relative to the topic. Along with the leadership team and nursing profession development team, we identified the importance of on-going education, in addition to the education new staff members would receive in orientation.

Another recommendation relating to the capturing of all screening tools focused on the incorporation of the screening tool into to the electronic health record. When the project was initiated the screening tool was in paper form and by the completion of the project the IT department had identified the template for the same exact screening form, which would help capture additional data that may have originally been lost with the paper forms, alleviate human error of manually scoring the screening form, and ensure the correct consultations were placed according to the patient's screening score. In the future as the project progresses, the data entered into the electronic health record will be able to be extracted from all healthcare providers from one source thus providing consistency among providers (Dressler, et.al, 2019). The anticipated date for completion of the optimization is the end of July. Until then the staff have become more comfortable in the process of screening patients, scoring them and placing the correct consults.

The last recommendation centers around expanding the use of the screening tool to other areas within the obstetrical departments, specifically the antepartum and labor and delivery areas, neonatal intensive care units and pediatrics. These areas are of the same importance as the mother baby unit because antepartum patients may spend a substantial amount of time pending delivery, and with the added stressors of bedrest and hospitalization, would be at an extremely high risk for depression. It was discussed with the leadership team that in the future, it would be possible for other departments to screen patients resulting in a better baseline and pattern of depression the patient may be experiencing. Expanding the screening process into other departments will allow healthcare professionals to identify the difference between "baby blues" and PPD because they may interact with the patient in different stages throughout the first year. PPD can be shadowed by the "baby blues" which are common in the immediate postpartum period, but often precede PPD (Fellmeth, et.al, 2019). Since the process has been completed for the mother baby department, those nursing staff members are a good resource to help facilitate the education on those additional units.

Strengths and Limitations

Strengths

One strength of the project was the eagerness and commitment of the staff. On many occasions during the implementation phase staff members verbalized their understanding of the importance of screening postpartum patients for depression and how they were curious why the organization did not have a standardized screening method for patients in the past. Staff members shared their own personal stories about experiencing

depression and how they wished they had the opportunity to complete a screening tool when they delivered. A study in Sweden, identified the struggles nurses have building a trusting relationship with patients and how their eagerness and commitment to develop a supporting relationship overcame the barriers of screening patients for PPD (Malin, et.al, 2017). The staff's eagerness made the implementation easier and with less resistance. As a nursing staff member at the organization, my availability on-site to answer questions and guide the nurses on the process helped encourage the progression of the project and manage barriers as they occurred.

Another strength of the project was the practice advancement from no depression screening method to utilizing a standardized evidence-based screening method. The trajectory goal was to identify more maternal patients at risk for or experiencing depression while in the hospital setting, which was achieved. It was not difficult to go from nothing to something, especially with the support from the staff, OB providers and other multidisciplinary team members. PPD should be viewed based on the biopsychosocial model of psychiatric disorders as a synergic contribution of several biological, psychological and social factors (Enatescu, et.al, 2017), thus requiring a multidisciplinary approach. All multidisciplinary team members were willing to participate in ensuring that the postpartum patients are receiving the highest quality care according to the Association of Women's Health, Obstetrics and Neonatal Nursing standards (AWHONN, 2015).

Limitations

One limitation relating to the proposed project was the restriction and barriers placed by members of the organizational executive team. The manager of the Mother-Baby Department frequently postponed educational sessions for various reasons along with the go-live date for initiation of the screening. As the manager, I was at her discretion for implementation of the project, therefore, the amount of time spent waiting to begin the project was mostly idle time waiting for her approval to begin. The reasons for delay centered around staffing and budget restraints. In accordance to any change within any organization, it is important to assess not only the staff's readiness and ability to make change but the organization's readiness and ability or resistance is inevitable (Marvin, et.al, 2018).

Another limitation was the utilization of paper screening tool compared to the ability to chart within the electronic health record. The organization was in the process of optimizing the EHR for the areas involving postpartum patients. During the optimization, it was realized that the screening form was already within the EHR. The plan was to activate the electronic screening form, which would allow the staff to electronically chart the patient's screening score and the system would calculate the results and initiate the necessary consultations. Due to the recent COVID-19 pandemic, many of the IT staff members were furloughed or pulled to work on other projects, thus, resulting in a postponement in utilizing the EHR. As a result, additional steps had to be added to ensure the collection of the paper screening forms was achieved and properly manually documented within the EHR. If optimization of the EHR, including the initiation of the

electronic screening tool would have occurred, there would have been less opportunities for gaps in ensuring all patients had documentation of being offered the screening tool, their score if the participated and the necessary consultations initiation. By identifying these barriers at the start of the project implementation, we were able to troubleshoot and resolve issues sooner (Afrizal, et.al, 2019). In the future, due to the barriers associated with the EHR and the struggle to make changes quickly, I would address the IT component much sooner rather than later to avoid further delays.

Summary and Conclusion

The goal for the proposed project encompassed the combination of educating the staff on PPD and the process of administering the EPDS screening tool to patients while in the hospital setting. The findings from the pre- and posttest questionnaires, which was completed by the staff members at the end of the education presentations, confirmed the growth of staff's baseline knowledge of PPD. The staff were then able to implement the skills and knowledge they gained from the educational presentation to initiate screening postpartum patients for depression while in the hospital setting using the EPDS. The findings obtained from the retrospective and prospective data demonstrated a significant percentage increase of patients identified at risk for or experiencing PPD. Patients who participate in completing the screening tool while in the hospital setting are more likely to be identified and receive a individualized plan of care prior to discharge, thus decreasing the potential of adverse events associated with PPD.

PPD is occurring at a rapid rate among many women within the community and the organization can administer valid screening tools to help identify these patients while

in the hospital setting. Nurses are in an optimal position to open the line of communication and discuss such a stigmatized topic while administering a valid screening tool to the patient. The EPDS screening tool is designed to identify mothers at risk for or experiencing depression while in the hospital setting and is considered the standard screening form for postpartum patients. Implementation of this DNP project has had a positive impact on the postpartum patients as evident by the findings of the percentage of mothers identified at risk for or experiencing depression while in the hospital setting. The educational information provided to the nursing staff members including the process of administering a screening tool are skills and knowledge that they will be able to utilize throughout their career while caring for this special patient population. Section five will discuss my dissemination plan, analysis of self and summary.

Section 5: Dissemination Plan, Analysis of Self, and Summary

Introduction

The scholarly project has successfully been implemented. The purpose of the project was to educate the staff on PPD and how to administer a standardized screening tool. The educational presentations taught the staff the statistical significance PPD has within their community, the potential signs and symptoms patients may exhibit, and how to administer a standardized screening tool to patients while they are in the hospital setting. The gap between the nurse's knowledge of PPD and nursing practice could ultimately be detrimental to the patient and family units within the community. Prior to the project implementation, the responsibility to identify maternal depression fell solely on the nurse's experience and opinion. The practice focus question was:

> PFQ: Will formally educating the perinatal staff on PPD with the use of the EPDS increase the number of mothers identified as requiring follow-up for PPD according to their EPDS score as compared to the current method of general assessment of signs and symptoms and verbal interviewing by the staff?

A PowerPoint of the findings from the project was presented at the bimonthly OB GYN meeting at the organization. The leadership team plans to use the new practice in the future to help achieve the recognition as a Center of Excellence for inpatient treatment of PPD. In the future, the psychiatric consult resulting from the patients screening tool score will determine if patients qualify for a new revolutionary intravenous treatment for PPD.

Analysis of Self

Practitioner

Currently, I am the perinatal clinical specialist in the organization at which the scholar project was implemented. My role in the organization focuses on quality and safety initiatives in the perinatal departments. Being a DNP graduate will further support my role as the content expert in my field according to the American Association of Colleges of Nursing (AACN), Essential III: Clinical Scholarship and Analytical Methods for Evidence-Based Practice. The skills provided include the ability to appraise evidence-based literature, design and implement quality practice change, and disseminate the research findings (AACN, 2006). The DNP project findings validate the process of utilizing those skills in improving patient care of this special population.

Scholar

The knowledge and experience I have gained from my project will further expand my skills as an advance practice nurse. As a doctoral prepared nurse, I now possess the skills to perform valid literature reviews to identify evidence-based findings and integrate the findings with the gaps in practice. As an advanced practice nurse, I have the ability to design an effective method of implementation, evaluate measurable outcomes, and disseminate the findings into nursing practice and other components of patient care (see AACN, 2006). The knowledge I have gained while enrolled in the DNP program at Walden University will be applicable throughout my career providing patient care in both inpatient and outpatient environments, and it is my intent to utilize this knowledge to the fullest.

Project Manager

The progression through the DNP Program at Walden University prepared me to be an effective and efficient project manager. The skills I gained helped me execute the development, implementation, and evaluation of a complex project. As the project manager, my responsibilities included practice gap analysis, evidence-based research review, education of involved parties, application of practice change, and evaluation of effectiveness of the nursing practice change. Project managers are an essential component in implementing practice change, and I am confident the knowledge I have gained will allow me to lead many changes throughout my career as an advanced practice nurse. Change does not happen easily; however, the stronger the leader the greater the possibility change will occur (Mélanie et al., 2017). As healthcare continues to evolve, it is pertinent that organizations employ staff members who possess these critical skills of developing, evaluating, and disseminating evidence-based research into practice.

Many obstacles arose as the project progressed, including approval from the organization's IRB, scheduling conflicts, and physician involvement. The IRB approval was the first obstacle I had to overcome. It is crucial to obtain IRB approval prior to beginning any research, as its primary purpose is to protect human participants' rights and welfare (Lapid, Clarke, & Wright, 2019). The committee only met once a month and the agenda had to be approved the month prior to the meeting. Many members of the executive team were not sure on how to contact representatives from the IRB. I networked with the members of the Professional Development department and was able to schedule a meeting with one of the representatives. She assisted me in completing and

submitting my proposal to the board. Now that I am familiar in the process, I can assist other employees faced with the similar issue.

My next challenge centered around scheduling conflicts. As I developed the presentation schedule, the manager of the department was hesitant to allow staff to attend the presentations as they were beginning education on Trauma Informed Care. Because depression is often a result of Trauma Informed Care, I approached the developer of that presentation and asked her if we could combine the presentations to alleviate staff needing to attend several education presentations. She happily agreed and we both were able to accomplish educating the staff. Assessing the nursing staff's readiness to change is important because they help in introducing, managing, and maintaining the change (Amarneh, 2019). In the future, I would take future educational plans into consideration prior to developing a schedule.

The last conflict I experienced centered around provider participation. I met with the OB medical director, who approved the implementation of the screening tool. He instructed me to send an e-mail to all the providers discussing the project and objectives to solicit any input. Effective collaboration of nurses and midwives with physicians who work together in a dynamic and complex care environment helps to enhance patient well-being, quality of care, and provider satisfaction (Melkamu, Woldemariam, & Haftu, 2020). After a 2-week waiting period, I received zero input from the other providers; however, the medical director reassured me that this was normal and approved me to begin implementation. During the initial phases of the project implementation, few providers expressed their lack of awareness of the project and with the OB medical

director's support, the project did not stall. Throughout the various conflicts, I relied on the guidance of my committee chair, and over time, all barriers were overcome.

Summary

The evolution of healthcare provides an avenue for advanced practice nurses to identify areas for improvement in organizations. The educational intervention used provided the perinatal nursing staff with an additional layer of knowledge to assist in providing an even higher level of quality care to their specialty patient population. The project accomplished not only the goal of enhancing staff's education, but it also increased the percentage of postpartum patients identified as at risk for or experiencing depression while in the hospital setting by 32%. As additional support is introduced, such as electronic record keeping capability, increased provider participation, and expansion of community resources, the well-being of mothers and infants will continue to improve. I am confident the implementation of depression screening of postpartum patients is a small representation of the potential for numerous quality improvement capabilities in the organization. Staff members involved are empowered to make the necessary patient care changes to ensure they are providing high quality, safe patient care.

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Appendix A: Postpartum Depression Pretest/Posttest

	YES	NO
The Mother Baby Department has developed effective communication strategies to share patient/client's inpatient and outpatient consults according to their Edinburgh Postnatal Depression Scale score.		
Perinatal nursing staff members feel comfortable assessing the patient/client for postpartum depression.		
Perinatal nursing staff members are held accountable for screening every postpartum patient for depression.		
Perinatal nursing staff members acknowledge the process of administering the Edinburgh Postnatal Depression Screening tool.		
Perinatal nursing staff are encouraged to practice within their full professional scope, by assessing and screening patients for postpartum depression.		
Perinatal nursing staff members have the responsibility to communicate and provide their expertise in assessing postpartum patients for depression and notifying provider.		

Appendix B: Edinburgh Postnatal Depression Scale

file:///C:/Users/amand/Downloads/edinburgh-postnatal-epression-scale-en.pdf