TRANSFORMING HEALTH REDUCING POST-PARTUM DEPRESSION IN CLINICAL PRACTICE

by

Sophia Diana Falana

A DNP Project Submitted to the Faculty of the

COLLEGE OF NURSING

In Partial Fulfillment of the Requirements

For the Degree of

DOCTOR OF NURSING PRACTICE

In the Graduate College

THE UNIVERSITY OF ARIZONA

2 0 1 9

THE UNIVERSITY OF ARIZONA
GRADUATE COLLEGE

As members of the DNP Project Committee, we certify that we have read the DNP project prepared by Sophia Diana Falana, titled Transforming Health Reducing Post-Partum Depression in Clinical Practice and recommend that it be accepted as fulfilling the DNP project requirement for the Degree of Doctor of Nursing Practice.

Jane M Carrington
Jane M. Carrington, PhD, RN, FAAN Date: Nov 21, 2019

Rene Allen Love
Rene Allen Love, PhD, DNP, PMHNP-BC, FNAP, FAANP Date: Nov 21, 2019

Christy L Pacheco
Christy L. Pacheco, DNP, FNP-BC Date: Nov 22, 2019

Final approval and acceptance of this DNP project is contingent upon the candidate's submission of the final copies of the DNP project to the Graduate College.

I hereby certify that I have read this DNP project prepared under my direction and recommend that it be accepted as fulfilling the DNP project requirement.

Jane M Carrington
Jane M. Carrington, PhD, RN, FAAN Date: Nov 21, 2019
DNP Project Committee Chair
College of Nursing

ACKNOWLEDGMENTS

While my name is on the title page, this project is the work and culminations of countless individuals who have helped me along the way. First and foremost, giving honor and glory to God who is the head of my life, my comforter, my bright and shining star. Thank you for surrounding me with the individuals listed below that blessed me with knowledge, encouragement, and guidance. Thank you for my "shipwrecked" and "ground shifting" moments that strengthened me during this transformation process.

To my son Langston Percell Hill "you can call me Langston if you want to" (in my Langston's voice), baby I thank you. Thank you for choosing me as your mother and giving me the opportunity to go after my dreams when it seemed impossible as a single mommy. Thank you, Langston, for your patience throughout this process and the love you showered me with. My son, thank you for being the best gift God has EVER given me. As always, I love you more than all the words in the books in the galaxy, and yes that is A LOT!!

To my chair Dr. Jane M. Carrington "yes ma'am", I thank you. Thank you for always being there from the first day I asked you to be my chair. You have been an amazing resource and shared a wealth of knowledge. Thank you for sacrificing your time to respond to countless emails, text messages, voice mails, phone calls, in person meetings, and trips to see me when I first moved to Arizona to make sure Langston and I was settling in. Thank you for being my mentor, my friend, my counselor, and most importantly my sandpaper. As always, looks like you're BIG stuck with me!

To my committee members Dr. Rene Love and Dr. Christy Pacheco, thank you for your input throughout this process, for listening and helping me shape the vision I had for this project and my career. Thank you for the time you have taken to review and strengthen my project, and most importantly, finding resources for me when I truly needed it. I thank you.

To Christina Kelso, thank you for your help and guidance with finding site placements. Dr. Leslie Dupont, thank you for reading over my work and scheduling last minute writing sessions with me. You two are truly gifts placed in my life that helped me immensely.

To Patricia Rollins the Director of Nursing of Women Services, to Denise Hackett the Chief Nursing Officer, to Denise Ramos the Case Manager of Postpartum Services, and to the Nursing Staff of the Postpartum and Labor and Delivery Unit of Mountain Vista Medical Center, thank you for all your patience, time, and support throughout this process. I am extremely grateful that you allowed me to complete my project with your unit.

To all my clinical instructors, preceptors, and members of their staff, thank you for teaching me the skills I needed to become an excellent provider. To Brett Curran, to Dr. Terry Lozier, and to Dr. Jeanne Keller, thank you for your patience, grace, and professionalism during my clinical rotations.

To my "Carrington Cats", friends and colleagues who told me not to give up and who believed I could do this even when I wanted to quit, thank you from the bottom of my heart. I am blessed beyond belief to have you in my life.

Lastly, to my close friends "my prayer team", my "orange" person, and my family who loves me despite my flaws and shortcomings, who simply take me as I am, thank you is simply not enough. I love every one of you from the bottom of my heart. My grandparents and siblings, thank you for always believing in me, praying for me, and teaching me knowledge is power. Mommy: Chelsey Mills, thank you for teaching me to reach past the sky and reminding me "It's not where you come from, but where you are going." Mommy I love you and appreciate you. You all have sacrificed so much for me to be able to accomplish this dream. Thank you for your persistent and unwavering love and support, I am forever grateful.

"*Saving lives one assessment at a time*"- Sophia Diana Falana

DEDICATION

To my son: Langston Percell Hill

Remember, it’s not about where you come from but where you are going!

Don’t allow anyone to define who you are or what you are capable of doing in this world.

“Knowledge is the only thing that cannot be taken from you”- Papa Charles;

“Keep your eyes on the prize even when the nights are long, and the days are short”- Papa Bill.

As always, I love you more than all the words in the books in the galaxy, and yes that is A LOT!!

Joshua 1:9

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ABSTRACT

An estimated 10-20% of women are diagnosed with post-partum depression (PPD) within their first year after childbirth. New mothers are currently taught essentials in caring for their newborn infants; little emphasis, however, is placed on signs and symptoms of post-partum depression. The purpose of this quality improvement project was designed to address the gap in patient education at hospital discharge and to increase referrals to outpatient behavioral health services, thus, improving patient outcomes. This quality improvement project investigated if postpartum women who received education regarding PPD detection at Mountain Vista Medical Center and those who were deemed at risk for PPD according to the Edinburg Postnatal Depression Scale (EPDS) received referrals for outpatient behavioral services from the nursing staff compared to the current standard of using half of the EPDS tool. This project was guided by the Nurse Communication Framework, and the Diffusion of Innovation Theory. The Plan, Do, Study, and Act quality improvement model helped to achieve the two specific aims of this quality improvement project: (1) provide an educational program for nursing staff to heighten their awareness of PPD and teach them how to administer the EPDS; (2) implement change in practice to have new mothers assessed for PPD risk using EPDS for 80% of the discharges. The use of the EPDS tool for discharge went from 50% to 85% exceeding the goal of this quality improvement project.

INTRODUCTION

Postpartum Depression

Postpartum depression (PPD) is one of the most common and serious conditions a woman can develop after childbirth. Since 2010, an estimated 10%-20% of women have been diagnosed with PPD within their first year after childbirth (Neiman, Carter, Van Sell, & Kindred, 2010). Of these, 25% are part of disadvantaged families who exhibit ongoing depressive symptoms beyond the initial postpartum year (Stewart & Vigod, 2016). In the United States of America (USA), there are roughly four million live births annually with an average of 15% of the mothers developing PPD, totaling roughly 600,000 women annually (Postpartum Progress Inc. [PPI], 2017). There are also approximately six million women who miscarry or whose babies are stillborn annually, and of those, 15% develops PPD, averaging about 900,000 women annually (PPI, 2017). Yet, here in the USA, it is not considered a part of the standard of care to screen mothers nor mandated for states to report findings of PPD, despite the high prevalence (Wilkinson, Anderson, & Wheeler, 2017). During this time of vulnerability, the baby — as well as the mother who is often forgotten or pushed into the shadows — should become every provider's responsibility.

Problem Statement

PPD, often mistaken or minimized as "baby blues," is classified by the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders, fifth edition (DSM-5), as a major depressive episode occurring during pregnancy or four weeks following delivery with mood symptoms (2013). New mothers are currently taught the essentials of caring for their newborn infants, such as feeding, sleep patterns, and health risks. It is during the time

leading up to the pre-pregnant physiology phase where most women experience symptoms due to hormonal changes. New mothers, however, receive little to no education on the signs and symptoms of PPD. Symptoms of PPD that new mothers will experience include, but are not limited to, sleep disturbance often beyond the care for the baby, irritability, increased anxiety, feeling of being overwhelmed, low social support, marital difficulties, abuse, obsessional preoccupation of baby's health, suicidal ideation, and worries of causing baby harm (Stewart & Vigod, 2016). Symptoms and factors, such as these, provided evidence that the mother needed a different level of care after delivery of the baby. This quality improvement project investigated if postpartum women who received education regarding PPD detection at Mountain Vista Medical Center (P) and those who were deemed at risk for PPD according to the Edinburg Postnatal Depression Scale (EPDS) received referring outpatient services from nursing staff (I) compared to the current standard of partial assessment (C) increased referral services for outpatient behavioral health services (O) by 80% at hospital discharge (T).

Statement of Project Purpose

The purpose of this quality improvement project was designed to address the gap in patient education at hospital discharge and increased referrals for outpatient services if they were needed. Nurses who cared for women after childbirth were uniquely prepared to educate women about PPD. Assessing the knowledge of the nurses initially helped to determine the gap in patient education regarding PPD. Then providing education on assessment, detection, and treatment options for nurses who were in contact with these women helped to increase referrals to case management for further assessment and for early referrals to outpatient services as part of the communication and documentation upon hospital discharge.

Specific Aims

Two specific aims guided this quality improvement project:

1. Provide an educational program for nursing staff to heighten their awareness of PPD and teach them administration of the EPDS.
2. Implement change in practice to have new mothers assessed for PPD risk using EPDS for 80% of the discharges.

Local Problem

The U.S. Department of Agriculture (USDA), (2018) uses an urban-rural classification system to help separate rural areas from urban areas by way of population size, metropolitan counties vs. nonmetropolitan counties, and by degree of urbanization and adjacency to a metro area. Rurality was not the focus of this report; however, it helped to provide perspective for the sample selected in this report. It is estimated that 9%-20% of women, who have given birth that is a part of a rural community, may develop PPD and go undiagnosed or will not follow through with treatment referrals (McCloskey & Reno, 2019). According to the American Health Rankings Analysis of CDC, 12.8% of women in 2018 who experienced a live birth were diagnosed with PPD in Arizona (United Health Foundation, 2019). Poor reporting of PPD symptoms may occur in rural areas such as Arizona, since most rural women attribute their PPD symptoms to non-physiological causes that cannot be prevented but can be managed by having a support system and using non-pharmacological methods. A provider must understand that a woman living in a rural area may not seek help or support due to the inability to continue with daily activities despite signs and symptoms that may warrant the need to seek further treatment (Mollard et al., 2017). Women living in rural areas are likely to seek advice from an informal

network such as their community or close relatives and friends rather than their health care provider (HCP).

Stakeholders

For this quality improvement project, stakeholders included the nurse manager of the unit as well as the case manager for PPD services who referred clients to outpatient behavioral health for further services, the obstetrician, the nurse educator, the nursing staff of the women health services unit, management, and administration. Identifying pertinent stakeholders early on was critical to the success of this quality improvement project, ensuring a well-developed and realistic intervention that increased the likelihood for a successful educational intervention moving forward (Institute for Healthcare Improvement [IHI-b], 2017).

Summary

This quality improvement project provided education and increased assessment of PPD. Mothers are often forgotten during this transitional period. It is the nursing staff and providers responsibility to educate the mothers as much as possible with what to expect when they leave the hospital. This project helped to identify those that had early signs and symptoms of PPD, as well as teach new mothers the signs and symptoms to look for, when and whom these women should call for help.

Theoretical Framework

Introduction

The purpose of this project was to help identify the gap in patient education at hospital discharge and increase patient outcomes through access to outpatient behavioral health services in the community. The Effective Nurse-to-Nurse Communication Framework (ENNCF) and

Diffusion of Innovation Theory for Clinical Change provided a theoretical framework that helped guide this quality improvement project (Carrington, 2012; Rogers, 1983). This section will present an overview of the ENNCF and Diffusion of Innovation theory and demonstrate how both were reworked into frameworks that guide this project on the topic of reducing post-partum depression in clinical practice.

Overview of Effective Nurse-to-Nurse Communication Framework

The ENNCF was informed by the constructs of symbolic interaction theory (mind, self, and society; Blumer, 1969; Mead, 1967), information theory (entropy, negentropy, redundancy, probability, and noise; Shannon, 1967), Gerbner's communication model (Gerbner, 1956), and extensive research and literature that help nurses communicate effectively using electronic and verbal communication tools (Carrington, 2012). When the framework was created, there was little evidence that displayed effective nurse-to-nurse communication in the electronic health record (EHR). The ENNCF was designed to help communicate patient's status associated with a clinical event (Carrington, 2012).

According to the framework, the clinical event or change in patient condition as manifested by pain, fever, bleeding, changes in output, respiratory status, and level of consciousness is the message that stimulates communication. The responding nurse — or the nurse caring for the patient at the time of the clinical event — used electronic or verbal communication to transmit the message of the clinical event. The receiving nurse is the receiver of the message and continues care.

Symbolic Interaction Theory

Symbolic interaction theory was initially developed by Mead's key concepts to communication: "mind, self, and society" (Blumer, 1969; Mead, 1967). Blumer further explained that the concept of the "mind" refers to an individual's perception of their environment. Whereas, "self" refers to the way an individual perceived how himself/herself affects their "cognition, social position, pressures on self, and group affiliation" (Blumer, 1969; Mead, 1967). "Society" refers to social interactions that help a person decipher meaning through interactions with peers or colleagues (Blumer, 1969). Using the concepts of the Symbolic Interaction Theory helps to explain how a person describes how a clinical event can be influenced by one's environment, peers, and affiliations.

Information Theory

Developed by Shannon, information theory consists of constructs entropy, negentropy, redundancy, probability, and noise basis off three elements: the sender, device, and receiver (Shannon, 1967). Entropy is the measure of miscommunication or uncertainty as it relates to the information being shared by the sender to the receiver. Entropy is increased when the information being shared is unclear, random, or unpredictable (Shannon, 1967). Negentropy is the opposite of entropy, or increased information or understanding. When negentropy is increased with information or details of the clinical event, entropy is decreased (Shannon, 1967). Redundancy is the repetition of information being used in a repetitive fashion. This occurs when the receiving nurse ("the receiver") receives the same information through multiple channels such as the shift change report by the "sender" and the documentation submitted in the EHR by the "device"; thus, decreasing entropy and increasing negentropy (Shannon, 1967). As in any

human error regarding communication, sometimes information is not passed on correctly or some information is lost in translation, known as noise. As the noise or distortion of the information being translated increases, so does entropy, making the information difficult to be understood or interpreted causing a decrease in negentropy (Shannon, 1967). A decrease in negentropy and an increase in entropy is caused when the probability is closely related to entropy; whereas, it is the probability that information will be miscommunicated when the sending nurse hands off the clinical event to the receiving nurse due to lack of information shared verbally or by lack of documenting in the "device" (the EHR; Shannon, 1967).

Gerbner's Communication Model

Gerbner's communication model organized the concepts of both the symbolic interaction theory and the information theory. It gives a better understanding of how the two are combined. Gerbner's communication model suggests that the clinical event is anything that changes a patient's conditions as it is perceived by the sender. The communication agent (sender) perceives a clinical event through a communication channel (device: EHR). When this message is received, there is an inherent message or non-inherent message that a person (receiver) has the decision to act on the information or do nothing (Gerbner, 1956).

The ENNCF (2012) proposed that when a responding nurse had interpreted a clinical event basis from her assessment of the patient's condition, they would choose to communicate the information to the receiving nurse using verbal and electronic communication. The receiving nurse interprets the information received, and her perception of the information determines the type of care provided to the patient (Carrington, 2012).

Effective Communication of Post-Partum Depression

Adopting the framework to the quality improvement project proposed that when a responding nurse detected a clinical event or PPD symptoms through assessment using the Edinburg postnatal depression scale (EPDS), the responding nurse would communicate with the clinical team (case manager assigned for PPD, provider on the unit and/or oncoming or receiving nurse) who was considered the receiving nurse by way of documenting in the EHR and verbal shift report. The receiving nurse would then receive the information from the EPDS score and determine if the patient needed to be referred to case management for behavioral health services for continual care of present symptoms. However, every mother who was admitted to the unit was educated on how to care for their health regarding PPD prevention and detection.

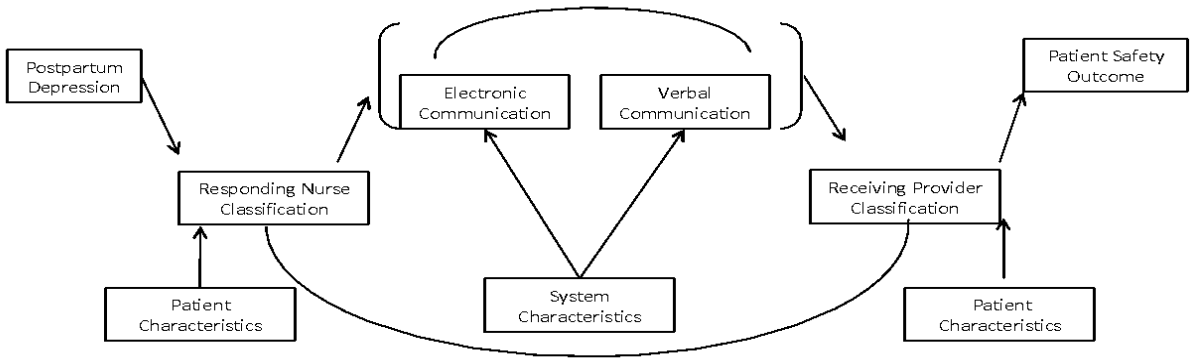


FIGURE 1. The nurse communication framework. (Adapted from The Effective Nurse to Nurse Communication Framework Carrington, J. M., (2012). Development of a conceptual framework to guide a program of research exploring nurse-to-nurse communication. *CIN: Computers, Informatics, Nursing*, *30*(6), 293-299.)

Overview of Diffusion of Innovation Theory

The diffusion of innovation theory was created by Everett Rogers in order to express how certain characteristics guide the adoption of a new activity or innovation throughout a system (Rogers, 1983; Sanson-Fisher, 2004). There are many versions of Rogers' diffusion model re-

enacted into clinical practice in order to help bring insights as to why some practices influenced change and others do not; however, for the sake of this project, diffusion of innovation theory that focused on clinical change was used to help facilitate this project's adoption. This version of Rogers' diffusion model had five elements that helped determine whether diffusion or adoption will occur: relative advantage, compatibility, complexity, trialability, and observability (Rogers, 1983).

Relative Advantage

Relative advantage is the magnitude of an innovation determined better than the idea it displaced (Rogers, 1983). If a proposed change alters the environment it wants to change "negatively," relative advantage expressed that the innovation will not be implemented successfully. However, if it affects the environment "positively" and individuals that are part of the environment accepts the change, then the innovation will be implemented successfully and adopted (Rogers, 1983).

For this project to have a "relative advantage," it must propose a change in the current environment of assessing using half of the EPDS when the mother is admitted to the unit and discharged from the unit using the full version of the EPDS to assessing 80% of the time only at discharge from the unit. Assessing mothers upon discharge is the most efficient intervention to complete in order to capture more women who may display symptoms of PPD before discharging from the unit (Logsdon et al., 2018). Those who are deemed at risk for PPD after completing the EPDS would leave the hospital with resources to help them.

Compatibility

Rogers defined an innovation to be compatible with clinicians when it can address a solution to an issue the clinician perceived as a problem, while being consistent with its current values and needs of its potential adopters (Rogers, 1983). For example, screening for PPD at hospital discharge is compatible with researcher's beliefs that it is the best way for early detection for treatment for behavioral health services in women who suffers from PPD after delivery.

During the implementation process of this project, it is recommended for mothers to be assessed for PPD at hospital discharge using the EPDS for 80% of the discharges. This is congruent with the shared values and beliefs of the unit. When PPD is treated early, research has shown that mothers are able to have successful recovery from it sooner (O'Conner et al., 2016).

Complexity

Complexity can be described as an innovation perception of being difficult to understand and use (Rogers, 1983). If an innovation that is being implemented is perceived as being too complex to understand or use, it is more than likely not to be adopted quickly. Therefore, an innovation that is simple and easy to understand and increases productivity will be more successful in the environment it is trying to change.

During the implementation process of the project, the nurses of the postpartum unit will be educated on the use of the EPDS and how to calculate the scores to determine severity of the mother's symptoms. Only parts of the EPDS is already implemented on the unit as part of the nurse's assessment. With this current standard, the nurse must ask the patient the questions and it doesn't offer the full EPDS scale. With the proposed intervention of the project, it offers a full

scale of the EPDS in both English and Spanish languages as a paper version. The mother completes the form in the privacy of her hospital room before being discharged from the hospital. This innovation seems easier for the nurses to implement given it allows the patient time to complete the form honestly, instead of the nurse waiting for a response with a computer in front of them.

Trialability

Trialability as described by Rogers is the timeframe used to test and modify the innovation to the environment it wants to change (Rogers, 1983). This timeframe allows clinicians and personnel to test out the innovation before it is officially implemented. This gives the staff who works in the environment a chance to know the procedure prior to use and modify it to their facility, making it logistically possible to implement.

The implementation timeframe of the project from October 11, 2019 to November 5, 2019 offers a trialability phase for the innovation. During this time, the project will use the PDSA cycle to help guide the implementation process. After each cycle, members of the quality improvement team would be able to evaluate and review the results of the cycle, examine what went right or wrong, and, more importantly, voice the modifications needed to reach unit goals during the next cycle.

Observability

Observability is depicted by how much of the results of an innovation implementation is visible to others (Rogers, 1983). For an innovation to be taken seriously after being implemented, the main stakeholders of the facility and influential clinicians must advocate for

this change. When they do, it will have a positive impact on the adoption rate of the innovation (Rogers, 1983).

At the end of each PDSA cycle, the quality improvement team will gather to review and examine the results achieved. This will help the team see the impact each of them have contributed towards the goals of the project. The director of the unit, charge nurses, and the case manager agreed to help encourage each nurse of the unit to use the paper EPDS to help assess for PPD at hospital discharge 80% of the time, as well as, refer those at risk for PPD to case management. This will improve the adoption rate of the innovation in a positive way when staff nurses can visibly see the buy-in from management.

The diffusion of innovation theory (Rogers, 1983) proposed that an innovation changes an environment in a positive way, when it is compatible with the views and needs of the environment. During that time, it also addresses a perceived problem with a solution so that adoption will occur. Rogers (1983) also stressed the need for a trial period where the innovation can be tested and modified for the environment it wants to change, thus, allowing time for others to see the change.

The use of the diffusion of innovation theory would help to increase the adoption rate of the project by using the five elements of the theory: relative advantage, compatibility, complexity, trialability, and observability (Rogers, 1983). For the adoption rate of this project to increase, members of the quality improvement team must understand that assessing for PPD using the EPDS 50% of the time upon hospital discharge would not effectively capture women who are suffering from PPD compared to using the EPDS 80% of the time (relative advantage). The project urged that, when the EPDS screening tool is being implemented on the postpartum

unit of MVC 80% of the time at hospital discharge, it is addressing the concern of a gap in patient education regarding PPD and increasing referrals for outpatient behavioral health services (compatibility). The complexity of the EPDS tool being used is decreased due to the tool already being in use on the unit. Granted, it is not the full EPDS version; it is, however, not a tool the nurses of the unit are unfamiliar with. Except now the nurse is handing the patient a paper version of the tool in a language the patient understands and offering them privacy while filling it out, while remaining nearby if the patient has any questions. Each PDSA cycle allows for the unit to experience a "trial period" where the innovation can be tested and modified according to the needs of the unit. At the end of each cycle, the stakeholders would be able to see an increase in the adoption rate, as well as, see how many mothers were educated about PPD and referred to case management for further treatment.

Each of these elements of Roger's theory were incorporated into this quality improvement project. I used the adapted communication framework to guide nurse communication using the EPDS and these concepts were incorporated within my communication during the project. I was consistent in my communication using these elements of Roger's theory to inform my communication and while addressing the nurses' issue with workflow and workload

Summary

In summary, here I have presented the ENNCF developed by Dr. Jane M. Carrington that was created based on extensive research, as well as, the constructs of Mead and Blumer's symbolic interaction theory (mind, self, and society), Shannon's information theory (entropy, negentropy, redundancy, probability, and noise), and Gerbner's communication model. I also

presented diffusion of innovation theory developed by Everett Rogers (1983) based on relative advantage, compatibility, complexity, trialability, and observability which explores why innovations implemented in a clinical setting adopt more rapidly than others. Both frameworks were adopted for this quality improvement project. The quality improvement project helped to identify mothers who were suffering from PPD before leaving the hospital so that they were referred to behavioral health services for continual care, as well as, educated all mothers on how to care for their health regarding PPD prevention and detection.

Review of Literature

An online search was performed using Medline, the Cumulative Index of Nursing and Allied Health Literature (CINAHL), and PsychINFO. The online search was performed using the key terms “postpartum depression” or “postnatal depression.” The only limit placed on the search was results had to print in the English language. The results yielded more than 7,500 references from 1968 to the present. Those results were then further limited by the last 10 years of publications and cross-referencing terms of interest: utilizing screening tools yield 116 references; postpartum depression hospital discharge education yield 23 references; postpartum depression treatment options yield 68 references; who screens for postpartum depression yield 149 references, and postpartum depression education yield 726 references. All available literature was further sorted manually to determine what articles will best fit the rural population of women here in America. This further narrowed the papers to 43.

Articles were narrowed even further to issues here in the United States by using common ideas. The common ideas are: limited access to care in rural areas, PPD screenings completed at the pediatric or mother wellness visit, PPD screenings completed at hospital discharge, PPD

education at hospital discharge, what PPD screening tools will work for multiple clinical settings, and when should the mother seek further treatment options. Ten of the most relevant papers are included here (Appendix C).

Synthesis of Evidence

Research has identified PPD as a serious but undetected health problem that needs further treatment after detection. It is not clear as to the exact cause of PPD and why some women develop it and others do not. Research has suggested that a link exists between PPD and personal or family history of depression and anxiety, weak support systems, stressful life events, experienced perinatal loss, or experienced depression after delivery (Venkatesh, Kaimal, Castro, & Perlis, 2017).

According to Milgrom et al. (2015), patient safety is declining due to hospital staff failing to educate patients before discharge about the signs and symptoms of PPD, when to call for help, and who to call for help when in a PPD crisis. Women who have given birth and their loved-ones are not taught how to identify the signs and symptoms of PPD, thus, decreasing the chances of detecting it sooner rather than later. In the USA, according to Wilkinson et al. (2017), it is not considered a part of the standard of care to screen mothers nor is it mandated for states to report findings of PPD, despite the high prevalence. With this type of considerations, it is quite difficult to develop a clinical plan to help these individuals who may suffer from this disorder. When trying to find research that was conducted here in the U.S. for this disorder, it was quite hard to find, and little was discovered that fit the themes for this project. Most of the evidence or research were from those that are overseas in the U.K. or is dated beyond the recommended limit for considering the information as relevant. The trouble that occurs, according to Mgonia and

Schoening (2016), is in both timing and technique. Some providers are at a loss or in great debate as to who is responsible for assessing these women (i.e., primary care provider or mental health provider) and how to bill for it (Mgonia & Schoening, 2016). In 2016, the US Preventive Services Task Force (USPSTF) updated its recommendation on depression screening to include pregnant and postpartum women (O'Connor, Rossom, Henninger, Groom, & Burda, 2016). At the conclusion of its research, determined screening pregnant and postpartum women for depression reduced depressive symptoms, increased detection, and decreased the prevalence of depression in a given population. This recommendation was considered a B recommendation, meaning the net benefit of screening mothers for PPD is moderate or moderate to substantial (USPSTF-b, 2012). Therefore, this type of screening is covered by all public and private insurance companies as a preventive method screening (Yogman, 2016). This helped to answer the dreaded question providers had regarding billing.

Strengths

The literature provided diverse insight and perspectives into the problem of PPD regarding screening tools, PPD education at hospital discharge, and who should screen and provide referrals for further service for PPD. Evidence demonstrated that early detection of PPD will lead to a better outcome for not only the mother, but also their children (Neiman et al., 2010). In 2016, the USPSTF reviewed evidence that suggested using the English-language Edinburgh postnatal depression scale (EPDS) based on 23 studies (N=5398) with a cutoff of 13 verified sensitivity ranging 0.67 to 1.00 (O'Conner et al., 2016). It also verified specificity as 0.87 or higher compared to the patient health questionnaire instruments that were scarce or inconclusive with the results (O'Connor et al., 2016). Another study suggests that an appropriate

cut off point for the EPDS should be set to 10, making it possible to detect those that have minor and major depression symptoms (Knight et al., 2016).

The literature provides evidence that screening for PPD by hospital-based perinatal nurses were found acceptable and favorable by new mothers and nursing staff. Some research has provided evidence that nurses are involved in the early part of postpartum care that places them at the optimal position to screen for PPD (Logsdon et al., 2018). According to Wilkinson et al. (2017), some nurses believe that screening for PPD is important and is their duty. In a study completed by Segre et al. (2010), demonstrated in a survey of 520 nurses, 93.7% believed that a nurse-performed PPD screening and education would be beneficial to their patients, and 75% were willing to attend a training on how to properly screen and educate their patient on PPD. The nurse plays a key role in discharge teaching and education of the new mother, thus, placing them in a perfect position to ensure adequate referrals and coordination of care to mothers providing them with community resources regardless if they are at high risk or not. If the mothers are at high risk, the nurse can provide the scores to the provider of the unit and immediately refer the patient to a behavioral health specialist that will link the patient to further care (Logsdon et al., 2018). The USPSTF recommends that after the pregnant or postpartum woman has been determined to be at risk for PPD, it is important that she is referred out for further care (USPSTF-a, 2019). The nurse can help the clinician with this task by referring the mother to case management. Case management will assist the mother in creating an individualized plan of care that will link her to a behavioral health provider with an outpatient intake appointment, community resources such as support groups, as well as, encouraging the new mother to follow

up with the behavioral health specialist. The nurse can, also, stress the importance of following up and educating them on how it can help her and her child in the future

Weakness, Gaps and Limitations

Further research is needed to address gaps, weaknesses, and limitations in several areas. The limitations in evidence include a small number of studies, few trials conducted in the US primary care settings, and small study sizes (O'Conner et al., 2016). Most of the studies, conducting PPD identification, were performed overseas in the United Kingdom (U.K.). Only two USPSTF studies completed in the United States were included in the recommendation (USPSTF-a, 2019). Further research is needed to determine the best screening tool for PPD upon hospital discharge. Although the EPDS is a good screening tool to use to screen for depression, it focuses on the symptoms of the mother for the last seven days, which may not illustrate a woman's mood entirely since giving birth. Most mothers are only at the hospital after giving birth 24- to 48-hours. Further research will be needed to determine the best cut-off point for this time period that will best capture those with minor and major depression symptoms. Moreover, the USPSTF investigated other screening tools, with the PHQ demonstrated scarce data, which is not promising for the providers who are looking for the best screening tool for their setting.

Summary

The literature review provided evidence that screening for PPD at hospital discharge is an effective way for early detection of PPD. It provided evidence that states the EPDS screening score the mother received at hospital discharge will be equal to or higher than the score she receives at six weeks postpartum check-up when it is no longer considered "baby blues" but actual PPD (Wilkinson et al., 2017). For this quality improvement project, the EPDS, which can

be found in Appendix D, will be utilized for the detection of PPD. The hospital-based perinatal nurses of Mountain Vista Medical Center has the unique advantage in educating the mothers on PPD signs and symptoms, providing community resources such as support groups, and encouraging them to go to their follow up behavioral health appointment, thereby, increasing patient outcomes and quality of life.

METHODS

Introduction

The purpose of this project is to help identify the gap in patient education at hospital discharge and to increase assessment of patients and referrals to outpatient services in the community..

The two specific aims that will help guide this quality improvement project:

1. Provide an educational program for nursing staff to heighten their awareness of PPD and teach them how to administration of the EPDS.
2. Implement change in practice to have new mothers assessed for PPD risk using EPDS for 80% of the discharges.

Setting

The setting is located at Mountain Vista Medical Center (MVC), located on the outskirts of Phoenix, Arizona in Mesa, Arizona. MVC is a part of the Steward Family Hospital, offering a 17 private bed postpartum unit that accommodates rooming-in for mother and baby serving those in the inner city, as well as, the rural areas of Arizona (Steward Health Care, 2019).

Participants

The nursing staff administered the EPDS screening tool for the quality improvement project. They were recruited based on who were scheduled to work on the ward during the implementation process. On the postpartum unit, there were only two shifts offered for the nursing staff, day shift or night shift. Day shift nursing schedule were from 7am to 7pm, and Night shift were from 7pm to 7am. The criteria for participation for this project included (a) to be employed by Mountain Vista Medical Center as an RN (b) having an Associate's or Bachelor of Science Nursing (BSN) degree (c) and licensed as a RN in the state of Arizona in good standing.

Intervention

The planned intervention for this quality improvement project was to have new mothers assessed by the full version of the EPDS assessment tool in order to detect risk for PPD prior to discharge. Current practice includes standard discharge teaching, screening for PPD upon entrance onto the unit, and assessed for PPD upon discharge using half of the EPDS.

Plan-Do-Study-Act (PDSA) Cycle

Plan

The 'Plan' (P) phase of the PDSA was to identify how the quality improvement intervention would be implemented. During this phase, the plan of execution was identified, including the proposed outcomes and steps of execution (IHI-a, 2016). During the planning phase of the cycle, I focused on a plan to analyze how often the EDPS was being used to assess women who delivered at MVC, in addition to, how many women were being referred out to outpatient behavioral health services. I hoped to increase the amount of EDPS evaluation tools from 25% to 80% by the end of October 2019. To help execute this plan, I would provide

education to eight charge nurses assigned to the postpartum unit on PPD and the administration of the EPDS assessment tool during their monthly meeting. Then, I would meet with the dayshift and nightshift nurses before change of shift to educate them on PPD and the administration of the EPDS assessment tool.

Do

During the 'Do' (D) phase of the PDSA, you are assessing what happens once you set the plan into motion (IHI-a, 2016). During this phase, you must ask yourself "What did you observe?" "Did everything go as planned," and/or "Did I have to modify the plan?" (IHI-a, 2016). Nurses taught their patients about PPD and how to answer the EPDS assessment tool questions; thus, helping to identify those that are at risk or identified as a person suffering from PPD so they can be referred to outpatient behavioral health services.

Study

During the 'Study' (S) phase of the PDSA cycle, the results will be analyzed after implementation (IHI-a, 2016). During this phase, the number of EPDS assessment tools utilized, the number of women identified as at risk for PPD, and the number of women referred to outpatient behavioral health services will be gathered. The data will be compared with the goal of 80%.

Act

During this final phase, the 'Act' (A) phase of the PDSA cycle, you will identify what was concluded from the implementation (IHI-a, 2016). During this phase, the implementation of the EPDS assessment tool to identify those at risk for PPD and referral out to behavioral health

services will be reviewed. This phase helps to identify changes needed in order to increase implementation rates of 80% in the next cycle.

Quality Improvement Project

The plan for the first PDSA cycle is to meet with the staff nurses at their staff meetings, meet with stakeholders, and prepare for education in-service. During the education in-service (on October 9 & October 11, 2019), I provided education about PPD and the administration of the EPDS assessment tool, and sought input for the process: where the original assessment tool should be stored, what is needed to complete the assessment tool, what is the process for a mother who scores at risk for PPD, and where completed forms will be stored. The next phases of the PDSA will be determined based on the outcome of the first cycle.

Ethical Considerations

To ensure privacy and protection to all participants involved in this quality improvement project, approval for this project was obtained prior to implementation from the University of Arizona College of Nursing Departmental Review Committee and the University of Arizona Institutional Review Board (IRB) (Polit & Beck, 2017). Permission to conduct this project without oversight by the University of Arizona was obtained by the IRB as an exemption; all necessary IRB forms and documents can be found in Appendix B. Verbal permission was already given by the Director of Nursing of the Postpartum Unit of Mountain Vista Medical Center, as well as, by the Chief Officer of Nursing Services (Appendix A).

Beneficence

The benefit of this project was to address the gap in patient education and to enhance outpatient behavioral health services regarding PPD care. Nursing staff helped assess individuals

using the EPDS; these individuals have the right to be protected from potential exploitation and biases, thus by keeping the questionnaire responses anonymous and only informing providers of those patient scores obtained from the scale that warrant further outpatient behavioral health treatment (Polit & Beck, 2017). This helped eliminate biases that can occur due to sampling problems.

Respect for Persons

Individuals had the right to decline assessment for PPD, had the right to ask questions, and had the right to refuse any information about PPD without coercion or threats (Polit & Beck, 2017). Utilization of the EPDS assessment tool did not include sensitive information from the EHR that identified the patient or nursing staff.

Justice

Participants of this project was based on study requirements and not on population vulnerability. This project did not involve working with any vulnerable groups such as children, pregnant women, the mentally disadvantaged, or economically/educationally disadvantaged persons (Polit & Beck, 2017). This project targeted the population of women that were identified as high risk for PPD according to the scores of the EPDS obtained at hospital discharge.

This study maintained the individual's privacy according to the hospital privacy policy and procedures that was based on the compliance with the Health Insurance Portability and Accountability Act of 1996 (HIPAA). Compliance with HIPAA helped to ensure that all participants' privacy was protected (Polit & Beck, 2017)..

Data Collection and Evaluation Plans

Tools for Data Collection and Process

As part of the usual hospital discharge instructions, the nurses of the postpartum unit administered a paper version of the EPDS after an educational training. The EPDS would be used in this project to screen individuals for PPD. EPDS is a widely used self-reported validated 10-question screening tool that assess the frequency of symptoms in the last seven (7) days (Cox et al., 1987; Mgnoja & Schoening, 2016). Trying to find the appropriate cut off point when using this tool has been a great debate. However, to make it easier to detect both minor and major depression during this project, the EPDS was modified to address the symptoms of the mother since giving birth rather than the last seven days, and the cut-off point was set at anything greater than 10 (Knight et al., 2016). Once a new mother was found to be at risk for PPD based on her score according to the EPDS, she was referred to case management for further assessment and for referral for outpatient behavioral health appointment for treatment. All mothers were given educational resource handouts that informed them of the signs and symptoms of increased PPD, when to call for help, and who to call for help based on the Preventive Task Force guidelines plus the national crisis hotline for PPD *1-800-PPD-MOMS.*

Plans for Data Analysis

Data analysis was based on how often the nursing staff utilizes the EPDS paper version screening tool and how many patients are referred for behavioral health services. The EPDS paper screening tool was included in the hospital discharge instructions to be assessed before the patient was discharged from the unit so that a high-risk patient left with a referral for behavioral health services. The EPDS was a screening tool used for detection of PPD. not to diagnosis

individuals with PPD. Further assessment by a case manager specialized in PPD assessment and detection for MVC helped the patient find outpatient behavioral health services, for those with scores greater than 10 would be consulted. The EPDS is formatted in a semi-Likert scale ranging from 0 to 30 (Cox et al., 1987). One major advantage of using this tool was that it was concise and did not take a long time to use and calculate.

The nurse delivered her normal discharge instructions, in addition, the nurse also taught the mother about PPD signs and symptoms and completing the EPDS. The nurse handed the tool over to the mother to answer the questions. The nurse informed the mother that she was available to the patient if the patient had any questions while using the tool. The nurse would then calculate the score and inform the provider of the postpartum unit of the individual's scores. All individuals were educated on signs and symptoms of PPD and given PPD handouts and magnet. Those that were not considered at risk or scored lower than 10 would not be referred to a behavioral health provider and would visit her primary care provider (PCP) for normal follow up. The provider of the postpartum unit would add further instructions in order to consult case management who was assigned to the unit for assumed PPD cases, in addition to normal follow up appointment with her PCP for further assessment of PPD symptoms and to assist in finding outpatient behavioral health services if the individual scored greater than 10 on the scale (USPSTF, 2019).

After data has been analyzed, findings were shared with members of the quality improvement team. Members of the quality improvement team included staff members of the Postpartum Unit at Mountain Vista Medical Center and myself. Utilizing the two part model for improvement (Figure 2) created by the Institute for Healthcare Improvement (IHI), the model

helped to accelerate the quality improvement implementation process of this project and was not meant to replace change models established by the organization already in use (IHI-a, 2016).

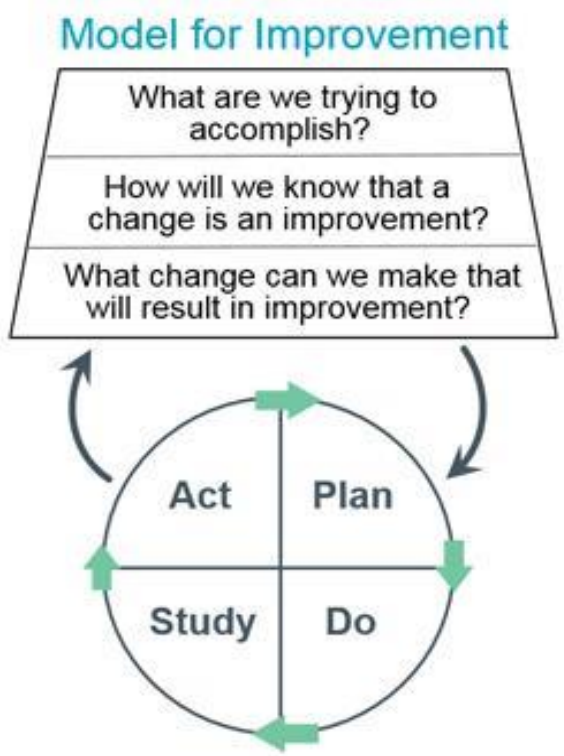


FIGURE 2. Model for improvement from the IHI (2016).

First component, the quality improvement team was informed of time frame for implementation and goals of the project, how the project would be measured to see if improvement was occurring, and when the team would come together to discuss ideas for improving change (IHI-a, 2016). Quantitative measures such as how many EPDS scales have been completed would be counted weekly. This would assist in identifying if specific changes needed to occur in order to help in the advancement of implementation of this project. Nurses on the unit would assist in determining what changes needed to occur that would help yield a clinical improvement.

The Plan-Do-Study-Act (PDSA) cycle is the second component on the Model for Quality Improvement (IHI-a, 2016). The PDSA cycle was used to evaluate the change that occurred on the unit by planning the change, doing the change, reviewing the results, and acting on what was learned from the gathered information (IHI-a, 2016). After the evaluation of the change on the unit, the quality improvement team was able to identify ways to help make the implementation process smoother, thus maximizing improvement outcomes for the patients (IHI-a, 2016). After analyzing the data collected from this quality improvement project, the team was able to identify those that were considered at high risk for PPD and referred them to behavioral health services. This would be able to help create and implement a new policy and procedure for this unit in order to start assessing mothers at hospital discharge for PPD, thus, increasing patient quality of life.

Conclusion

In the USA, 10%-20% of mothers suffer from PPD (Neiman et al., 2010). PPD is considered a serious diagnosis. With early detection, mothers can receive the treatment that they need to enter remission sooner rather than later, thereby, improving the quality of life for mother and baby. This quality improvement project can assist the residents of Maricopa County of Arizona identify those that are at risk and refer them to behavioral health services upon discharge from Mountain Vista Medical Center. It will also assist the residents with learning signs and symptoms of PPD, not only for themselves or loved ones but also for others in the community. This will allow the opportunity to help someone else who maybe suffering. This allows mothers to know they are not alone, and it is not their fault. This quality improvement project will also be

able to further assist in the detection, prevention, and increase treatment efforts of PPD that is listed in the USPSTF 2019 and Healthy People 2020.

RESULTS

Here, I present the results of the quality improvement project that was guided by the following aims: provide an educational program for nursing staff to heighten their awareness of PPD and teach them how to administer the EPDS and implement change in practice to have new mothers assessed for PPD risk using EPDS for 80% of the discharges. As described in the methods section, the Plan, Do, Study, Act (PDSA) framework was used to guide the project.

Getting Started

To begin the project, I met with stakeholders on the unit. It was then that I described the project and planned the process of introductions with staff and scheduled the education process. I conducted two education sessions whereby I taught the nurses about post-partum depression and the EPDS survey. I also introduced the project.

Education Sessions

The first education session was held at the charge nurse's monthly meeting where eight nurses attended. Comments and feedback included how the quality improvement project will be implemented on the unit, where the EPDS tools will be located on the unit, and what the compliance goal would be for the unit. Like the first session, the second session was held during the dayshift and nightshift before change of shift. Here, six members of staff attended and asked questions such as how to use the EPDS, how to calculate the scores of the EPDS, and who would help to identify outpatient behavioral services for the mothers once deemed at risk.

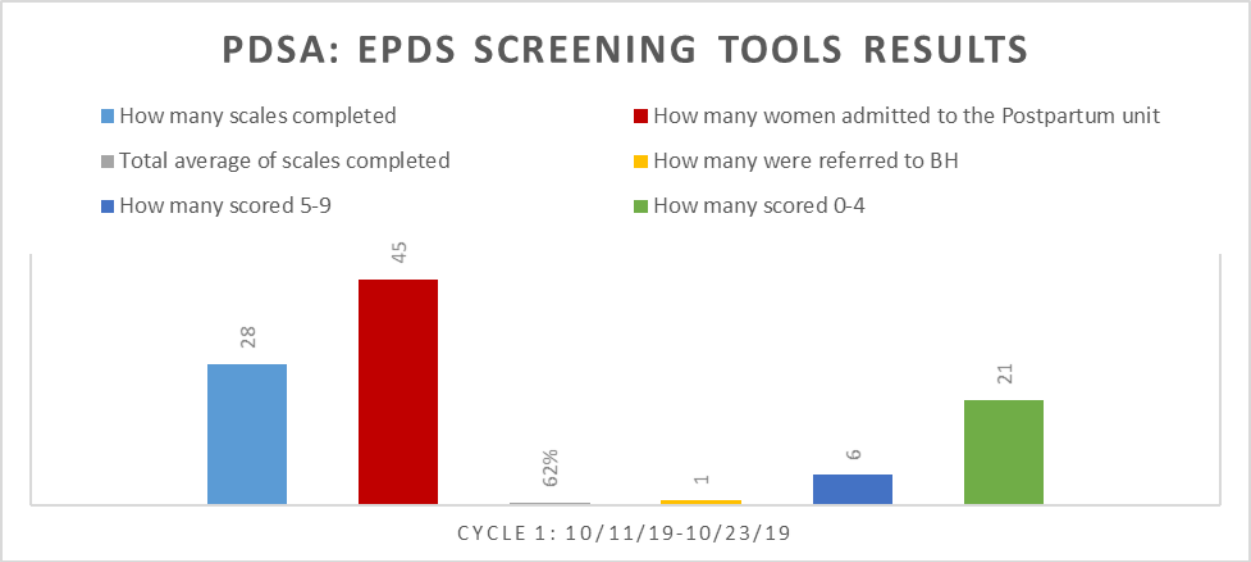
PDSA Cycles

PDSA Cycle 1

The first cycle consisted of teaching about PPD, teaching how to use the EPDS scale and calculation of scores, and included consultation to case management for outpatient behavioral health services for those who scored ≤10 on the EPDS. Here we learned that on average eight (8) patients are admitted and four surveys are completed per day or 50%. When asked what was needed to include completion of the survey into standard of care, nurses stated the EPDS scale would need to be in English and Spanish languages, and the EPDS would need to be kept at the nurses' station (Appendix D).

To address this issue in the first cycle, surveys were copied (English and Spanish versions) (Appendix D) and kept at the nurses' desk. I remained on the unit to help answer questions and remind nurses of the project and need for the survey to be completed. First cycle began with 28 surveys completed, number of admissions (n=45), 50% compliance at the beginning of the first cycle and at the conclusion of the cycle, 62 % done. Of the 28 mothers only one scored ≤10 on the EPDS, and she was referred to case management for further evaluation for PPD that warranted an outpatient behavioral services appointment before discharge. Further evaluation of the data exposed six mothers scored between 5-9 and 21 mothers scored between 0-4 (Table 1).

TABLE 1. *PDSA cycle 1.*

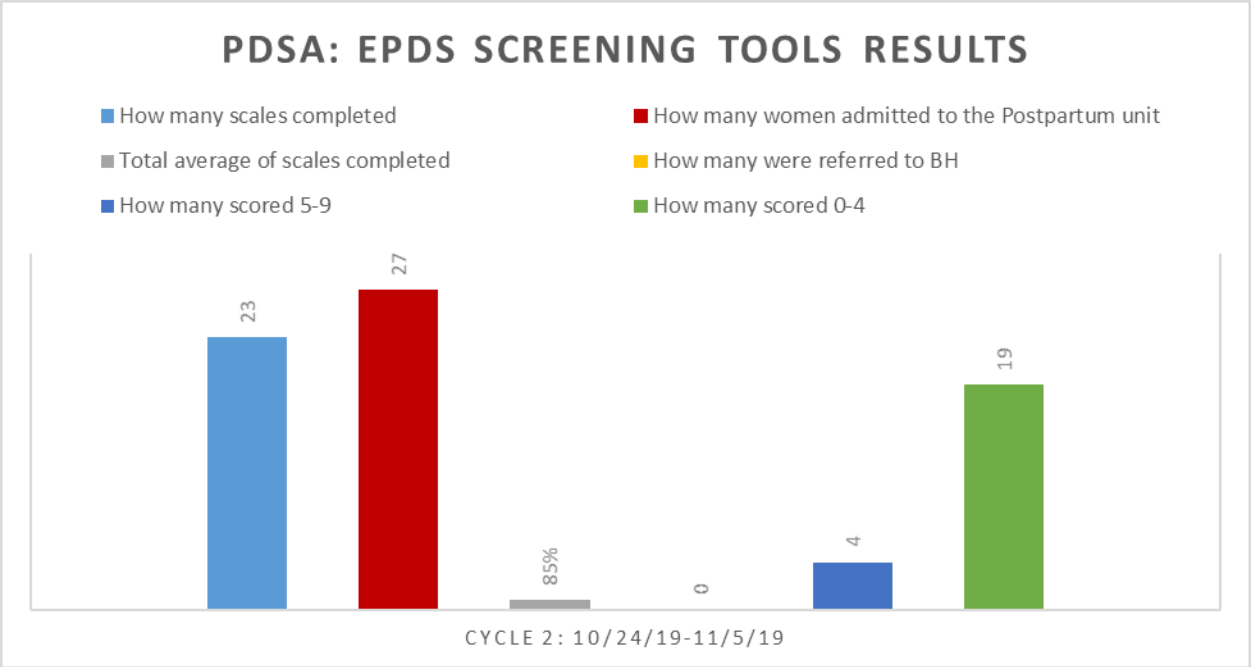


PDSA	Goals	Outcome
10/11/19-10/23/19	Have EPDS scales in English and Spanish and keep at nurses' desk.	These were done and results from 50% to 62%

PDSA Cycle 2

Adjustments from the first cycle included adding the EPDS scales to the charts before the patient is transferred from the labor and delivery unit as suggested by the postpartum nurses during the review and evaluation meeting. I met with stakeholders to let them know about the first cycle and changes in process to increase survey completion. These included making sure the EPDS scales were added to the charts behind the documentation for the baby's birth certificate. At the conclusion of the second cycle, 85% of surveys were completed based on 27 admissions and 23 surveys filled out. Of the 23 mothers who completed the survey, none of them scored ≤10, which would result in a consult for outpatient behavioral health services. Further evaluation showed 19 mothers scored between '0' and '4,' and four mothers scored between '5' and '9' on the EPDS (Table 2).

TABLE 2. *PDSA cycle 2.*



PDSA	Goals	Outcome
10/24/19-11/5/19	Place EPDS survey's in patients' chart prior to transfer to Labor and Delivery	This was done and compliance went from 62% to 85%

Project Aims

Based on the above results, I can present the results of the aims that guided this project:

Aim 1

The project aim was to provide an educational program for nursing staff to heighten their awareness of PPD and teach them how to administer the EPDS.

The nursing staff was presented with an educational PowerPoint presentation that taught them about the prevalence of PPD in Arizona (Appendix E), what is PPD, what are postpartum blues or "baby blues," signs and symptoms of PPD, risk factors that contribute to PPD, what is the EPDS and how to administer and calculate the scores to identify severity, where would the EPDS paper version be stored on the unit, how often the EPDS would be collected as well as,

who should the nurse call for a consult once the mother was deemed at risk for PPD by scoring ≤10 on the EPDS.

The nursing staff was also informed about consulting the case manager assigned to the unit for those that are deemed at risk for PPD to assist in scheduling outpatient behavioral health services upon discharge. All nursing staff that were assigned to the postpartum unit during the implementation time frame October 11, 2019 to November 4, 2019 were educated. The quality improvement team was pleased with the teaching they received in the beginning at the first charge nurse's monthly meeting. They felt that the presentation about PPD was informative and helped answer questions they did not know such as the prevalence rate of PPD here in Arizona and nationally. They also revealed the teaching taught them how to use the EPDS correctly.

Aim 2

The second specific aim was to implement change in practice in order to have new mothers assessed for PPD risk using EPDS for 80% of the discharges.

Women in this sample were assessed for PPD at hospital discharge by answering questions from the EPDS by themselves. At first, when I presented the concept, mothers were being assessed upon admission to the floor by the admitting nurse and upon leaving the unit by the discharge nurse who only had access to a partial electronic version of the EPDS and not the full version of the scale. Once the quality improvement team — that included the stakeholders, members of the unit staff nursing, and I — came up with a good plan to implement the paper version of the EPDS only then did the compliance rate improved from 50% to 85%. Table 1 and Table 2 display the results from each round of the PDSA cycle that guide the implementation process of this project.

Summary

Out of the 73 patients admitted to the postpartum unit, 51 completed the paper version of the EPDS. The cases were examined to determine if the EPDS, whether English or Spanish version, was administered to the mother prior to being discharged from the hospital (Appendix D). They were also examined for referrals to case management for outpatient behavioral health services according to the score received (≤10) on the EPDS. The PDSA was used to help move the implementation process along during the implementation time frame of October 11, 2019 until November 5, 2019. Each nurse, whether charge nurse or floor nurse, was educated about PPD and how to administer the EPDS screening tool. Questions were answered throughout the implementation process. After each cycle of the PDSA, the results were reviewed and the project was modified to help increase the compliance rate in order to reach the goal of 80%. The first PDSA cycle evaluated by the quality improvement team increased the number of mothers assessed prior to discharge from 50% to 62%. Furthermore, at the conclusion of the second PDSA cycle, the quality improvement team noted an increase from 62% to 85% of assessing using the EPDS at hospital discharge. The quality improvement team was able to exceed the goal of 80% at hospital discharge; thus answering the research question: if postpartum women at Mountain Vista Medical Center who received education regarding PPD detection and those who were deemed at risk for PPD according to the Edinburg postnatal depression scale (EPDS) (Appendix D) received referrals for outpatient behavioral services from nursing staff compared to the current standard of partial assessment increased by 80% of hospital discharge.

DISCUSSION

The purpose of this project was to help identify the gap in patient education at hospital discharge and increase patient outcomes through access to outpatient behavioral health services in the community. Mothers are often educated about caring for their infant upon discharge, but rarely are they taught about caring for themselves, which is important as well, especially those who are deemed at risk for PPD (Falana & Carrington, 2019). This quality improvement project was guided by two important aims: provide an educational program for nursing staff to heighten their awareness of PPD and teach them how to administer the EPDS and implement change in practice to have new mothers assessed for PPD risk using EPDS for 80% of the discharges.

The Effective Nurse-to-Nurse Communication Framework and Diffusion of Innovation Theory for Clinical Change theoretical framework were the guides for this quality improvement project (Carrington, 2012; Rogers 1983). The Effective Nurse-to-Nurse Communication Framework was used to help properly communicate with the quality improvement team that there was a clinical event occurring based on the lack of assessment of the patient. The clinical event in this quality improvement project was PPD. Once the responding nurse had interpreted that the patient was experiencing PPD symptoms through her assessment after the patient had completed the EPDS screening and scores calculated (≤10), the responding nurse would then communicate with the clinical team, in this case, the case manager, who specialized in PPD detection (receiving nurse), assigned to help mothers find outpatient behavioral health services by way of documentation in the EHR and verbal consultation. The receiving nurse or in this case the case manager would then receive the information from the EPDS score and help find outpatient behavioral health services and continual care for the patient.

The Diffusion of Innovation Theory was used to help create change in a positive manner that helped the adoption rate of the EPDS upon discharge 85% of the time, exceeding the aims goal of 80% that this project set (Rogers, 1983). With the use of this theoretical framework themes (relative advantage, compatibility, complexity, trialability, & observability), it helped to expose the concerns of how often the EPDS screening tool (50%) was being used on the postpartum unit of MVC, it helped to address the concern of a gap in patient education regarding PPD and it helped to increase referrals to outpatient behavioral services for those that were deemed at risk according to the EPDS scores collected during the trial period of October 11, 2019 – November 4, 2019 that was allowed (Rogers, 1983).

Before implementation of this quality improvement project, a few adjustments had to occur when using the EPDS. To make sure this project followed the recommendation set by Knight and colleagues (2016), the cut off score was set to anything equal to or greater than 10 to capture those at risk for minor and major PPD symptoms (Falana & Carrington, 2019). The scale was further modified to capture symptoms of the mother since giving birth rather than the last seven days. The scale was simple and easy to use, plus calculating the scores was not perceived as complex. This helped to increase the adoption rate.

Sample

There were 73 patients admitted to the postpartum unit, 51 patients completed the paper version of the EPDS during the implementation period of this project. There was only one patient excluded from the sample because the patient decided to remain on the labor and delivery unit and for the sake of this project it only focused on the admission to the Postpartum unit not those that were transferred. The total sample for this project was seventy-two (N=72).

During the implementation process, the rate of the project was determined how the unit moved through each phase of the Plan, Do, Study, and Act (PDSA) cycle. PDSA was used to help the implementation process along and evaluate the changes that occurred on the unit. During the first meeting, it was determined that the first cycle was successful, the EPDS scales would need to be available in both English and Spanish versions, as well as, stored at the nurse's station for easy access. The first PDSA cycle was between October 11, 2019 until October 23, 2019. During this time, nurses were educated about PPD, how to use, administer, and calculate the EPDS scales appropriately, as well as, educating mothers about PPD and consulting case management for those who deemed at risk according to the EPDS before discharging from the hospital. The results of the first cycle revealed there were 45 mothers admitted to the postpartum unit from labor and delivery; however, only 28 EPDS scales were completed with one case management for outpatient behavioral health services consult completed due to scoring ≤10, 6 mothers scored between 5-9, and 21 mothers scored between 0-4. (N= 45, 62%) (Table 1). The second meeting revealed that implementation would be easier if the tool was placed in the patient's chart before being transferred to the postpartum unit from labor and delivery. Nurses of the quality improvement team members voiced that it was more difficult than they thought to make sure to go to the nurse's station to retrieve the scales, especially on the weekends when the floor is busier. However, making sure that the tool was already in the patient's chart behind the documentation for the baby's birth certificate would be ideal for the unit instead. The second PDSA cycle was implemented between October 24, 2019 and November 5, 2019. There were 27 mothers admitted to the unit during this time and of those 23 mothers completed the EPDS scales

with 19 mothers scoring between ‘0’ and ‘4,’ and four mothers scoring between ‘5’ and ‘9’ (N=27, 85%).

Limitations

There were some limitations that were discovered during the project implementation. The dates on some of the EPDS were not completed, making it difficult to further assess the data into a specific date versus a timeframe. Also, the scales did not have an area for demographics about the mother (e.g., mother’s history of anxiety and depression, age, race, support system, etc.). Moreover, separating the postpartum unit from the labor and delivery unit was a limitation due to some mothers remained on the labor and delivery unit for various reasons. Data from this population of women were not included in this project due to the focus on the postpartum unit alone.

Strengths

Some of the strengths of the project was the educational presentation and the implementation process. The quality improvement team felt that the education of PPD and how to use the EPDS were enlightening and informative to them furthering their knowledge and feeding their desire to help this population of women more. Although the unit was using the EPDS, it was revealed that they were only using a partial version of the screening tool. The quality improvement team agreed that the paper version of the questionnaire allows the mother to be more honest and open with herself, instead of dreading the fact that someone else asking her the question while standing at a computer recording her answers. The team felt that the paper version depicted a more honest response from the mothers.

Framework

During the implementation process of the project, the Nurse Communication Framework and the Diffusion of Innovation Theory worked well with this project as it was implemented. The Nurse Communication Framework helped the team communicate effectively the clinical event the mothers were experiencing and making sure the mother was discharged with outpatient behavioral health services. The use of the Diffusion of Innovation Theory helped to explain the decision process the nurses had to go through in order to increase the use of the EPDS at hospital discharge. Rogers theory (1983) helped the nurses gain knowledge and insight about the innovation and how increasing the adoption rate of assessment of PPD using the EPDS at hospital discharge will increase mothers receiving outpatient behavioral health services. The evidence-based intervention proved to be easy to implement during the time frame allotted, especially given that it is already implemented on the unit, and the paper tool of the EPDS was proven to be easier to use than the chart version if it is placed in the chart prior to transferring to the postpartum unit allowing the staff to observe progression. All of this helped to increase the use of the EPDS from 50% to 85% use.

Future Implications

Project findings were shared with members of the quality improvement team from the postpartum unit of MVC. Suggestions were given and questions were answered. The team found the unit increased the use of the EPDS from 50% to 62% during the first PDSA cycle and increased the use of the EPDS from the second PDSA cycle from 62% to 85%. The team revealed that, for the unit to improve to 100% use of the EPDS, an “opt out” box should be added on the scales so that they know who did not want to participate in the screening for better

tracking. They also suggested that a checks and balance system should be added to keep tracking on who is completing the task for targeted intervention such as adding this to the Task manager. This way, the nurses will be alarmed that the task must be completed before the patient can be discharged fully from the unit.

Conclusion

The quality improvement project concluded in November 2019 with the quality improvement team exceeding the projects aim goal of 80% to that of 85% use of the EPDS for detection of PPD symptoms upon hospital discharge. This project, according to Falana and Carrington (2019), addressed the goal of *Healthy People 2020* by increasing screenings for depression in mothers after delivery and referring individuals for outpatient behavioral health services for treatment. The nursing staff that participated in this project demonstrated how nurses have the unique position of increasing this type of evidence-based intervention given they had already built a rapport and trusting relationship with the mothers due to carrying for the mother and baby. This project further supports the logic of Logsdon and colleagues (2018); if the mother is at risk for PPD, the nurse is able to detect it through the use of an assessment tool such as the EPDS at hospital discharge and provide the scores to the provider of the unit for behavioral health services for further care, thus, decreasing the number of women that go undetected until six months into postpartum when it is considered a major depressive disorder (Falana & Carrington, 2019).

OTHER INFORMATION

Projected Budget

The projected budget for this DNP project is relatively minimal. The author anticipates the cost for the following items: travel expenses to site, printing of the EPDS, educational PowerPoint for the nurses on the use of the EPDS, and the educational materials about PPD given to each patient at hospital discharge during the implementation process (Appendix F).

APPENDIX A:

MOUNTAIN VISTA MEDICAL CENTER SITE APPROVAL LETTER

Mountain Vista Medical Center
A STEWARD FAMILY HOSPITAL

Steward

July 22, 2019

To Whom It May Concern:

Please note that Sophia Diana Falana, BSN, RN UA Doctor of Nursing Practice- PMHNP student, has permission of Steward Healthcare to conduct a quality improvement project at our Mountain Vista Medical Center facility in Mesa, AZ for her project, "Transforming Health Reducing Post-Partum Depression in Clinical Practice: A Quality Improvement Project."

Ms. Falana will provide an educational program for nursing staff to then guide discharge education provided to new mothers upon being discharged from the facility. She will recruit nurses through monthly meetings. The meetings will provide a description of the project, what they will be asked to do, and the time involved. Ms. Falana's activities will be completed once 85% compliant has been met or by October 31, 2019.

Ms. Falana has agreed to provide to my office a copy of the University of Arizona Determination before she recruits participants. She will also present aggregate results to the host site.

If there are any questions, please contact my office.

Signed,

Denise Hackett RN, BSN, MSN-L
Chief Nursing Officer
1301 S. Crismon Road, Mesa, AZ 85209
Mountain Vista Medical Center
P: 480.358.6268
denise.hackett@steward.org

APPENDIX B:

THE UNIVERSITY OF ARIZONA INSTITUTIONAL REVIEW BOARD APPROVAL LETTER

THE UNIVERSITY OF ARIZONA
Research, Discovery & Innovation

Human Subjects Protection Program

1618 E. Helen St.
P.O.Box 245137
Tucson, AZ 85724-5137
Tel: (520) 626-6721
http://rgw.arizona.edu/compliance/home

Date:	September 26, 2019
Principal Investigator:	Sophia Diana Falana
Protocol Number:	1909000315
Protocol Title:	Transforming Health Reducing Post-Partum Depression in Clinical Practice
Determination:	Human Subjects Review not Required

Documents Reviewed Concurrently:

HSPP Forms/Correspondence: *Sophia Diana Falana IRB form.pdf*

Regulatory Determinations/Comments:

- Not Research as defined by 45 CFR 46.102(l): As presented, the activities described above do not meet the definition of research cited in the regulations issued by U.S. Department of Health and Human Services which state that "Research means a systematic investigation, including research development, testing, and evaluation, designed to develop or contribute to generalizable knowledge. Activities that meet this definition constitute research for purposes of this policy, whether or not they are conducted or supported under a program that is considered research for other purposes. For example, some demonstration and service programs may include research activities. For purposes of this part, the following activities are deemed not to be research."

The project listed above does not require oversight by the University of Arizona.

If the nature of the project changes, submit a new determination form to the Human Subjects Protection Program (HSPP) for reassessment. Changes include addition of research with children, specimen collection, participant observation, prospective collection of data when the study was previously retrospective in nature, and broadening the scope or nature of the study activity. Please contact the HSPP to consult on whether the proposed changes need further review.

The University of Arizona maintains a Federalwide Assurance with the Office for Human Research Protections (FWA #00004218).

APPENDIX C:

LITERATURE REVIEW TABLES

Project Question: *Postpartum women at Mountain Vista Medical Center (P) who receive education regarding PPD detection and those who are deemed at risk for PPD according to the Edinburg Postnatal Depression Scale (EPDS) receive referring outpatient services from nursing staff (I) compared to the current standard of no assessment (C) will improve patient outcomes for outpatient behavioral health services (O) by 80% (T).*

Author / Article	Qual: Concepts or Phenomena Quan: Key Variables Hypothesis Research Question	Theoretical Framework	Design	Sample (N)	Data Collection (Instruments/Tools)	Findings
Evans, M. G., Phillippi, S., Gee, R. E. (2015). Examining the screening practices of physicians for postpartum depression: implications for improving health outcomes.	Purpose: to identify reasons why PPD screening are lowest among physician groups and lowest for those reporting PPD symptoms in mothers		Systematic Literature Review	169 studies narrowed down to 90 by limiting the results to research carried out with the United States	PubMed and PsychINFO searches used for articles published between 2003 and 2013 using key words: attitude, beliefs, clinic, depression, family, identify, maternal, obstetric, pediatric, physician, postpartum, practice, primary care, provider, recognition, routine, and screening.	The 90 articles included in the research literature showed that the hypotheses to be true with the majority of physician groups reporting low use of screening instruments for PPD, and the lowest rate of physicians being pediatricians. Most if not all physicians reported throughout the studies, they feel that it is their responsibility to recognize PPD, screen for it however their everyday practice usage of screening tools proves otherwise.
Ho, S., Heh, S., Jevitt, C. M., Huang, L., Fu, Y., & Wang, L. (2009). Effectiveness of a discharge education	Experimental group that receive the discharge education about postnatal depression by Postpartum Ward nurses during hospitalization after	n/a	RCT evaluation study conducted in a regional hospital in Taipei	200 first time mothers randomly placed in the control and experimental group equally dispersed. Control group (N=100) and Experimental group	Socio-demographic variables including: age, education, family income, working status during their pregnancy, plan of the pregnancy, newborn's gender, type of feeding, and the first month of the	No significance was found that were different among the women socio-demographically. Response rate control group 83% while 92% of the experimental group at 6 weeks. 19/92 (21%)

Author / Article	Qual: Concepts or Phenomena Quan: Key Variables Hypothesis Research Question	Theoretical Framework	Design	Sample (N)	Data Collection (Instruments/Tools)	Findings
program in reducing the severity of postpartum depression a randomized controlled evaluation study.	delivery will experience less depression at 6 weeks and 3 months postpartum respectively than the control group who received the usual education program			(N=100).	postnatal experience. Differences in both groups were analyzed using the Chi-square test, ANOVA, and Pearson correlation. T-test was used to analyze the differences of means on the post-test of the EPDS scores of both groups experimental and control using SPSS 13.0 setting significance at 0.05.	in the experimental group scored 10 or greater on the EPDS while 26/88 (30%) scored 10 or greater at 6 weeks postpartum. 9/83 (11%) in the experimental group scored 10 or grater while 13/80 (16%) scored 10 or greater at 3 months postpartum. Both groups showed a significant reeducation at both 6 weeks and 3 moths. This showed that the EPDS scores of both groups reduced significantly at 3 months. 83 women (46%) were found to have positive PPD symptoms and 93% of those women reported that the symptoms started during the first week after delivery.
Knights, J. E., Salvatore, M. L., Simpkins, G., Hunter, K., & Khandelwal, M.	Purpose: determine if the early EPDS score is predictive of the late EPDS score done at outpatient	n/a	Retrospective cohort study at Cooper University Hospital in Camden, NJ.	N=256 women's charges who delivered in 2013 under the Cooper Facility Group (CFG)	Patients who presented for their outpatient appointment completed an EPDS questionnaire in accordance to usual	92.2% or 189/205 of women EPDS scores remain the same at late screening from early. 16 women whose scores

Author / Article	Qual: Concepts or Phenomena Quan: Key Variables Hypothesis Research Question	Theoretical Framework	Design	Sample (N)	Data Collection (Instruments/Tools)	Findings
(2016). In search of best practice for postpartum depression screening: is once enough?	postpartum visit			practice. Excluded= 51 patients due to they had less than 2 postpartum EPDS scores (N=17), the early EPDS scores was not done within 96 hour of delivery (N=7), outpatient EPDS was done before 2 weeks or after 8 weeks postpartum (n=14), women lost to follow up (N=9), and women less than 18 years old at delivery (N=5). Leaving 205 patients that met criteria.	practice. Questionnaires were split into three groups: <10 (low risk for PPD), 10-13 (borderline risk for PPD), and > or equal to 14 (high risk for PPD). Using Pearson Chi-Square early and late EPDS scores were compared, the relationship between the scores were analyzed using the Spearman Rho Correlation test assuming the EPDS groups would not change setting the sample at 200 power of 80% and alpha-error at 5% was needed.	worsened were more likely because they had untreated depression symptoms prior and/or a diagnosis of fetal anomaly. An early EPDS score <10 had a 92.7% probability of maintaining low risk screening scores at a later time. This study proposes that women that have low risk scores at early screening may not need to rescreen so that limited resources are geared towards those at moderate to high risk women. Also, proposing that women know their scores early on at hospital discharge so that treatment are sooner rather than later.
Liberto, T. L. (2012). Screening for depression and help-seeking in postpartum women during well-baby	Purpose: Examine the literature on screening for depression and help-seeking behaviors by postpartum women during pediatric	n/a	Integrated Review	35 articles relevant to help seeking, PPD, and screening in the pediatric setting	MEDLINE, CINAHL, Mental Measurement Yearbook, PsychINFO, PsychARTICLES, Academic Search Premier, and Women's Studies	Review of the literature shows that women who have PPD after birth generally do not seek help for depression nor recognize symptoms of depression. Women who

Author / Article	Qual: Concepts or Phenomena Quan: Key Variables Hypothesis Research Question	Theoretical Framework	Design	Sample (N)	Data Collection (Instruments/Tools)	Findings
pediatric visits: an integrated review.	visits, identify gaps in the literature relative to depression and help-seeking behaviors, and discuss implications for practice and future research.					goes untreated may experience maternal distress and infant emotional, cognitive, and developmental problems during childhood.
Logsdon, M. C., Vogt, K., Davis, D. W., Myers, J., Hogan, F., Eckert, D., & Masterson, K. (2018). Screening for Postpartum Depression by hospital-based perinatal nurses.	Screening and education of women prior to hospital discharge were acceptable to new mothers, and if PPD continues for new mothers in the community after hospital discharge?	n/a	Descriptive approval obtained from the academic of health sciences center research committees and university IRB	New mothers that were identified as at risk for depression by EPDS score greater than (N=75) and mothers that were identified as low risk for depression (N=26)	Descriptive and correlational statistics were used. Chi-square techniques were used to test for differences (1) acceptability about being screened for PPD, (2) acceptability about nurses educating on resources, (3) experienced PPD symptoms after discharge, and (4) whether a health care provider asked about PPD after discharge	82.1% had positive feelings about being asked about PPD and nurses educating on resources. Only 43.6% were asked about PPD after discharge with n=21 or 46.8% were asked by both an obstetrician. Women stated that obstetricians asked them about PPD symptoms (n=29.5%) slightly more than pediatricians
Mgonja, S., & Schoening, A. (2016). Postpartum depression screening at well-child	Research question: can screening mothers at well-child appointments can identify women with PPD?	Theoretical framework: Plan-Do-Study-Act	Design The Model for Improvement that integrated the PDSA using these conceptual questions to guide	Sample: 37 mothers of a private faith based primary care clinic in the Midwest that were asked to participate completed	**Data Collection (Instruments/tools)** The EPDS screening tool was used to identify mothers who were at risk for PPD. The nurse was used to administer the	Findings: 35 of the 37 mothers answered the questionnaire. One refused and the other was incomplete. These were not included in the final

Author / Article	Qual: Concepts or Phenomena Quan: Key Variables Hypothesis Research Question	Theoretical Framework	Design	Sample (N)	Data Collection (Instruments/Tools)	Findings
appointments: a quality improvement project.			its process: *What are we trying to accomplish?, How do we know if a change is an improvement?, and What change can we make that will result in improvement?*	the EPDS during the 9-weeks implementation	tool, add up the results from the tool, and report to the provider those with scores 10 and higher	results for the EPDS but for staff compliance score. Overall staff compliance was 78.7% for administering the EPDS to the mothers. Of the 35 valid screenings 5 or 14.3% were positive for PPD mother ages ranged from 20-34 years and infant ages range from 2 weeks-12months. 2 mothers screened positive for PPD and infant ages were 12 months. The screening showed higher scores for mother who had older children 88%. Staff compliance was at its highest in the first week and became intermittent throughout the 9 weeks. Re-evaluating the PDSA every 2 weeks and staff would meet to review the data and go over reason their noncompliance with screenings.

Author / Article	Qual: Concepts or Phenomena Quan: Key Variables Hypothesis Research Question	Theoretical Framework	Design	Sample (N)	Data Collection (Instruments/Tools)	Findings
Mitchell, A. M., Mittelstaedt, M. E., & Schott-Baer, D. (2006). Postpartum.	Purpose: evaluate the reliability of screening women for PPD symptoms by telephone screening	n/a	Correlational design	Sample come from a Midwestern community hospital 126 women agreed to participate prior to hospital discharge. However, 106 women were in the final sample. Inclusion criteria: (1) English speaking, (2) 18 years of age and older, (3) available by telephone during the initial 6-8 weeks of the postpartum period.	Data collection occurred during the hospital stay and 8 weeks after discharge for 9 months. Initial data collection used self-reported demographic form completed by mother before leaving hospital that include: age, marital status, employment status, number of prior pregnancies, patient personal and family history of depression, current medications, and if they were experiencing an increased feeling of anxiety after childbirth and prior to hospital discharge. Those who agreed to participate signed a written agreement. Plus, they gave telephone information and when is the best time to reach them morning, afternoon, or evening. Everyone was advised that if the call came at a inconvenient time then the call can be	106 women gave data over the 2-month follow call period (84% response rate). Maternal mean age was 30.4 years. 33 participants were first time mothers, 86% were married, 95% of the fathers were actively employed, and 51.3% of the mothers were employed during pregnancy and intended to take maternity leave. 93.1% were Caucasian, and 79% had attend college or completed 4-year university. N=26 or 23% reported they had prior depression history and no treatment prior to given birth. N=11 or 9% reported they were taken an antidepressant for existing depression symptoms. 27% of women who were screened using the PDSS proved have moderate to severe depression level (scores ranging from 60-128). Other symptoms

Author / Article	Qual: Concepts or Phenomena Quan: Key Variables Hypothesis Research Question	Theoretical Framework	Design	Sample (N)	Data Collection (Instruments/Tools)	Findings
					rescheduled. At 8 weeks of postpartum clients were called and assess for PPD symptoms using the PDSS (Postpartum Depression Screening Scale) consisting of 35 Likert questions.	were evaluated sleeping/eating disturbances= 80%, anxiety/insecurity= 77%, emotional lability 82%, mental confusion= 80%, loss of self= 87%, guilt/shame= 82%, and contemplating harming oneself= 90%. This study showed that a telephone screening is a reliable method to screening for PPD symptoms that may occur later than 6-week office visit.
O'Connor, E., Rossom, R. C., Henninger, M., Groom, H. C., & Burda, B. U. (2016). Primary care screening for and treatment of depression in pregnant and postpartum women evidence report and systematic review	To help the USPSTF update its recommendation depression screening and expand it to include evidence related to pregnant and postpartum women	n/a	Systematic literature review with data extraction and synthesis	Independently reviewed N= 6536 titles and abstracts and 478 full text articles	Used MEDLINE, PubMED, and the Cochrane Collaboration Registry of Controlled Trails through January 20, 2015 references and government websites. Used various the depression screening instruments. Limited to English-language, 18 years of age and older, those that scored high for depression.	Pregnant and postpartum women 18 years and older (n=11869) showed 18-59% relative reductions with screening programs, or 2.1%-9.1% absolute reductions at 3-5 month follow up appointment after being involved with screening programs for PPD with or without treatment compared to usual care. 23 studies

Author / Article	Qual: Concepts or Phenomena Quan: Key Variables Hypothesis Research Question	Theoretical Framework	Design	Sample (N)	Data Collection (Instruments/Tools)	Findings
for the US preventive services task force.						(n=5398) with a cutoff of 13 on the English Language EPDS demonstrated sensitivity ranging from 0.67 to 1.00 and specificity consistently 0.87 or higher. Data showed scarce for those who used the PHQ instruments. CBT was used for pregnant and postpartum women whose screened detected depression showed an increased in remission compared to usual care with absolute increase ranging from 6.2%-34.6%. This research review showed that screening pregnant and postpartum women for PPD may reduce depressive symptoms and reduce the prevalence of depression in a given population.

Author / Article	Qual: Concepts or Phenomena Quan: Key Variables Hypothesis Research Question	Theoretical Framework	Design	Sample (N)	Data Collection (Instruments/Tools)	Findings
Segre, L. S., O'Hara, M. W., Arndt, S., & Beck, C. T. (2010). Screening and counseling for postpartum depression by nurses: the women's views.	Research Question: Will American women suffering from postpartum depression will be willing to be screened and counsel for postpartum depression by a nurse?	N/A	Descriptive Survey	Sample (1): 691 of 958 predominately white postpartum women with relatively high annual incomes. Same (2): 132 low-income women, some of whom were ethnic minorities that were recruited from the *Healthy Opportunities for Parents to Experience Success-Healthy Families Iowa* (HOPES-HFI).	Sample (1): Survey materials were added to a packet mailed to those already enrolled in an ongoing study of the emotional experiences of postpartum women but who agreed to be in the research who were 18 years old and older. Sample (2): Packets were mailed to the women who were enrolled in the HOPES-HFI program who agreed to the survey of the 12 sites for the program who were 18 years old and older. Each sample group were given a pre-posted-envelope to mail back the survey	The response rate of sample (1) were 72% and sample (2) were 30%. From both groups more than 90% agreed that it is acceptable for nurses to perform screening for postpartum depression and perform the necessary counseling for it. From both sample groups more than half answered "definitely willing" on the survey when asked if they would be willing to see a nurse for counseling.
Thombs, B. D., Arthurs, E., Coronado-Montoya, S., Roseman, M., Delisle, V. C., Leavens, A., ... Zelkowitz, P. (2014).	Whether depression screening improves depression outcomes among women during pregnancy or the postpartum period	n/a	A systematic review with data extraction and synthesis	9,242 unique titles/abstracts and 15 full text articles were reviewed. Only 1 was an RCT that was included but none was during pregnancy.	Use of CINAHL, EMBASE, ISI, MEDLINE, AND PsychINFO databases through April 1, 2013; manual journal searches, reference list reviews, citation tracking of included articles, and trial	The present systematic review showed that there is no evidence from any well-designed and conducted RCT that screening for depression would benefit women in pregnancy or postpartum. There are

Author / Article	Qual: Concepts or Phenomena Quan: Key Variables Hypothesis Research Question	Theoretical Framework	Design	Sample (N)	Data Collection (Instruments/Tools)	Findings
Depression screening and patient outcomes in pregnancy or postpartum: a systematic review.					registry reviews was utilized in the search for relevant data.	only at least 10 states in the US that have active legislation related to screening for postpartum depression. Without evidence from RCTs that depression screening would benefit patients the possibility of adverse events due to depression during pregnancy and postpartum should be considered to implement screenings for these patients.

APPENDIX D:

ENGLISH LANGUAGE EDINBURGH POSTNATAL SCALE (EPDS)

○ Check this circle if you are choosing to "opt out" of the assessment at this time

Delivery Number:

English Language Edinburg Postnatal Scale (EPDS)

Date:
Baby's Age:

As you have recently had a baby, we would like to know how you are feeling. Please UNDERLINE the answer which comes closest to how you have felt SINCE GIVING BIRTH, not just how you feel today.

Here is an example, already completed.
I have felt happy:
Yes, all the time
Yes, most of the time → This would mean: "I have felt happy most of the time" during the past week
No, not very often
No, not at all

. Please complete the other questions in the same way.

Since given birth how do you feel:

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

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

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

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

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

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

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

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

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

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

Total Score

Patient Referred to Case Management for BH Services

EDINBURGH POSTNATAL DEPRESSION SCALE (EPDS) J. L. Cox, J.M. Holden, R. Sagovsky From: British Journal of Psychiatry (1987), 150, 782-786.

○ Marque este círculo si elige "optar por no participar" de la evaluación en este momento

Delivery Number: _____

Spanish Language Edinburg Postnatal Scale (EPDS)

Date/Fecha:
Baby's Age/Edad del bebé:

Como usted está embarazada o hace poco tuvo un bebé, nos gustaría saber como se ha estado sintiendo. Por favor MARQUE la respuesta que más se acerca a como se ha sentido desde que dio a luz.

Me he sentido contenta:
Sí, siempre
Sí, casi siempre ⟶ Esto significaría: Me he sentido feliz la mayor parte del tiempo durante la pasada semana.
No, muy a menudo
No, nunca

Por favor complete las otras preguntas de la misma manera.

Desde que naces, ¿cómo te sientes?:

1. He podido reír y ver el lado bueno de las cosas
   Tanto como siempre
   No tanto ahora
   Mucho menos
   No, no he podido

2. He mirado al futuro con placer
   Tanto como siempre
   Algo menos de lo que solia hacer
   Definitivamente menos
   No, nada

3. *3. Me he culpado sin necesidad cuando las cosas marchaban mal
   Si, casi siempre
   Si, algunas veces
   No muy a menudo
   No, nunca

4. He estado ansiosa y preocupada sin motive
   No, nada
   Casi nada
   Si, a veces
   Si, a menudo

5. *He sentido miedo o panico sin motive alguno
   Si, bastante
   Si, a veces
   No, no mucho
   No, nada

6. *Las cosas me oprimen o agobian
   Si, casi siempre
   Si, a veces
   No, casi nunca
   No, nada

7. * Me he sentido tan infeliz, que he tenido dificultad para dormir
   Si, casi siempre
   Si, a menudo
   No muy a menudo
   No, nada

8. *Me he sentido triste y desgracidad
   Si, casi siempre
   Si, bastante a menudo
   No muy a menudo
   No, nada

9. *He estado tan infleiz que he estado llorando
   Si, casi siempre
   Si, bastante a menudo
   Solo ocasionalmente
   No, nunca

10. *He pensado en hacerme dano a mi misma
    Si, bastante a menudo
    Si, a menudo
    Casi nunca
    No, nunca

_____
Total Score

_____
Patient Referred to Case Management for BH Services

EDINBURGH POSTNATAL DEPRESSION SCALE (EPDS) J. L. Cox, J.M. Holden, R. Sagovsky From: British Journal of Psychiatry (1987), 150, 782-786.

EPDS Scoring

Edinburgh Postnatal Depression Scale (EPDS) Scoring & Other Information

ABOUT THE EPDS

Studies show that postpartum depression (PPD) affects at least 10 percent of women and that many depressed mothers do not get proper treatment. These mothers might cope with their baby and with household tasks, but their enjoyment of life is seriously affected, and it is possible that there are long term effects on the family.

The Edinburgh Postnatal Depression Scale (EPDS) was developed to assist health professionals in detecting mothers suffering from PPD; a distressing disorder more prolonged than the "blues" (which can occur in the first week after delivery).

The scale consists of 10 short statements. A mother checks off one of four possible answers that is closest to how she has felt during the past week. Most mothers easily complete the scale in less than five minutes.

Responses are scored 0, 1, 2 and 3 based on the seriousness of the symptom. Items 3, 5 to 10 are reverse scored (i.e., 3, 2, 1, and 0). The total score is found by adding together the scores for each of the 10 items.

Mothers scoring above 12 or 13 are likely to be suffering from depression and should seek medical attention. A careful clinical evaluation by a health care professional is needed to confirm a diagnosis and establish a treatment plan. The scale indicates how the mother felt during the previous week, and it may be useful to repeat the scale after two weeks.

INSTRUCTIONS FOR USERS

1. The mother checks off the response that comes closest to how she has felt during the previous seven days.
2. All 10 items must be completed.
3. Care should be taken to avoid the possibility of the mother discussing her answers with others.
4. The mother should complete the scale herself, unless she has limited English or reading difficulties.
5. The scale can be used at six to eight weeks after birth or during pregnancy.

EDINBURGH POSTNATAL DEPRESSION SCALE (EPDS) J. L. Cox, J.M. Holden, R. Sagovsky From: British Journal of Psychiatry (1987), 150, 782-786.

APPENDIX E:

TEACHING POWERPOINT

Transforming Health Reducing Post-Partum Depression in Clinical Practice

Sophia Diana Falana, BSN, RN

Background

- Postpartum Depression-MDD episode that occurs during pregnancy or four weeks following delivery accompany with mood symptoms (Stewart & Vigod, 2016; APA, 2016)
- 10-20% of women diagnosed (Neiman, Carter, Van Sell, & Kindred, 2010)
- Continuing to increase
- Frequently missed mental health diagnosis

ject - PowerPoint

What does the evidence show?

- In USA, screening for PPD is not considered a part of standard of care (Wilkinson et al., 2017)
- Screening effectively can help detect depression and allow for early intervention
- Many barriers to effective screening exist:
  - Time limitations
  - Lack of confidence
  - Inadequate training or community resources
  - Proper billing for screening

ject - PowerPoint

Project Purpose and Question

- Purpose Statement

The quality improvement project is designed to address the gap in patient education at hospital discharge and to increase patient outcomes through access to outpatient services.

- Project Question

Will Postpartum women at Mountain Vista Medical Center who receive education regarding PPD detection and those who are deemed at risk for PPD according to the Edinburg Postnatal Depression Scale (EPDS) receive referrals for outpatient services from nursing staff compared to the current standard of partially assessing for PPD?

Significance

- 15 % women develop PPD or about 900,000 women annually(PPI, 2017)
- When identified, PPD is treatable
- Outcomes are poor when left untreated, threatening health of mother and baby

Local Problem

- 9-20% of women in rural communities may develop PPD (McCloskey & Reno, 2019)
- AZ, 12.8% developed PPD in 2018 (United Health Foundation, 2019)
- Poor reporting of PPD symptoms may occur
- Rural women rather than seek professional help rely on relatives or community members

Myths and Links

- PPD often mistaken as "baby blues" (APA, 2013)
  - Serious but undetected health problem
  - Exact cause is unclear
- Links that Exists (Venkatesh, Kaimal, Castro, & Perlis, 2017)
  - Personal/family Hx of depression and anxiety
  - Strong/weak support system
  - Stressful life events
  - Perinatal loss
  - Depression after delivery

What are signs and symptoms of PPD?

- Sleep disturbances
- Irritability
- Increased anxiety
- Increased depression
- Feeling overwhelmed
- Suicidal, etc.

t - PowerPoint

Project Aims

PROVIDE AN EDUCATIONAL PROGRAM FOR NURSING STAFF TO HEIGHTEN THEIR AWARENESS OF PPD AND TEACH THEM HOW TO ADMINISTER THE EPDS.

IMPLEMENT CHANGE IN PRACTICE TO HAVE NEW MOTHERS ASSESSED FOR PPD RISK USING EPDS FOR 85% OF THE DISCHARGES.

THE UNIVERSITY OF ARIZONA College of Nursing

9

ect - PowerPoint

Quality Improvement PDSA Model

Set Aims

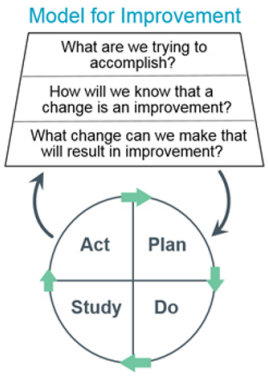
- Increase knowledge of indications and intention to screen

Define Measures

- How many assessment tools being used
- How many women were identified
- How many were referred to outpatient BH services

Outcomes

- Increase nurse intention to assess for postpartum depression and providers to refer patients to outpatient BH services



(IHI, 2016)

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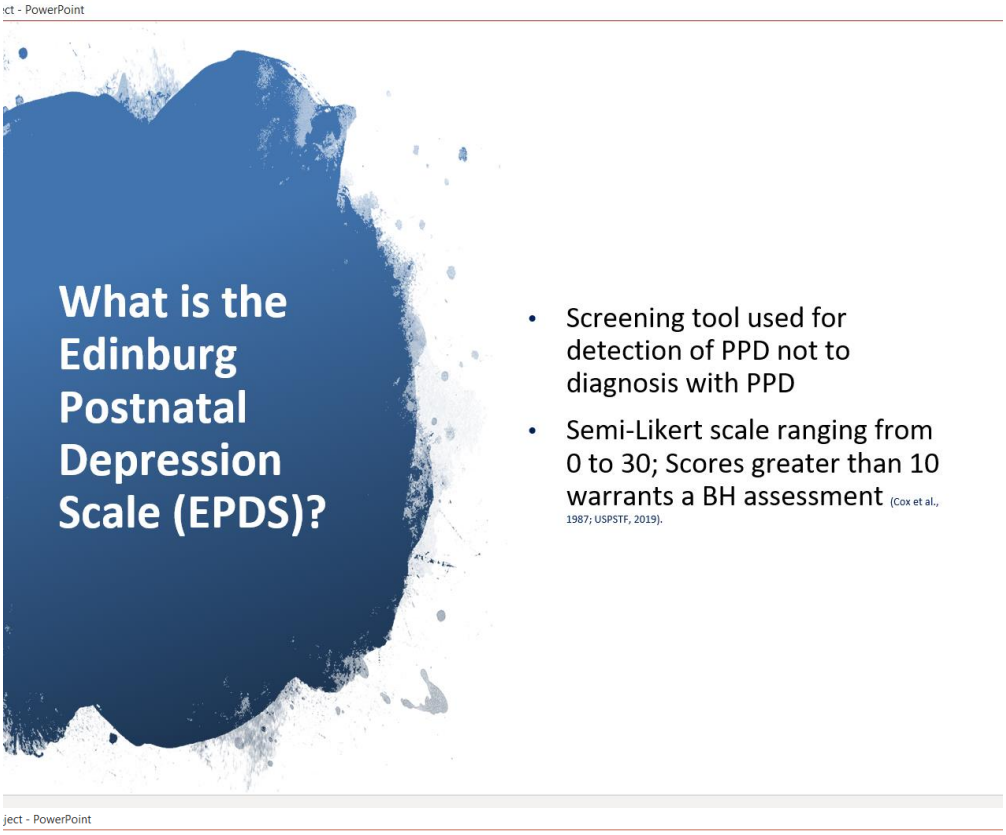

Assessment Tool

- EPDS for screening
  - Focusing on the last 7 days
  - 10-question screening tool
  - Cut-off: Scores≥10
  - Referred to provider to further outpatient treatment

(USPSTF, 2019)

Administration of the EPDS?

MVC
POSTPARTUM RN

DISCHARGE

Where to find the EPDS?

- The paper version used for this folder will be found at the nurse's station in a 3-ring binder labeled "Edinburg Postnatal Depression Scale"
- Once a week the EPDS will be collected from the 3-ring binder and restored

erPoint

QUESTIONS

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oject - PowerPoint

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APPENDIX F:

PROJECTED BUDGET

Projected Budget

Travel Expense	$50
Printed Educational PowerPoint	$0
Printed EPDS	$30
Total:	$80

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