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Deploying a Validated Postnatal Depression Screening Tool & Guideline to Improve Evidence Based Screening for Postpartum Depression in Ambulatory Care

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Deploying a Validated Postnatal Depression Screening Tool & Guideline to Improve Evidence Based

Screening for Postpartum Depression in Ambulatory Care

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By

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Abstract

Problem Description: Postpartum depression (PPD) is a significant public health problem that is potentially disabling and can be life-threatening. It is one of the most common diagnoses for maternal morbidity and mortality, affecting one in ten women in the United States. Currently, there is no universal process for the identification of PPD within the ambulatory clinics in this regional health system caring for obstetrical patients. A quality improvement project was developed and implemented with a pilot group in the ambulatory setting.

Rationale: Without a standard process for screening, patients and their newborns may be at increased risk for detrimental consequences of PPD. The goal is to improve knowledge of a validated, evidence-based perinatal postpartum depression screening tool, and improve screening for postpartum depression with the tool at patient's comprehensive post-birth appointments.

Interventions: Following a detailed literature review, best practice interventions were implemented. The project sites postpartum depression screening (PPDS) tool was updated to the Edinburgh Postnatal Depression Scale (EPDS). Education was developed and presented regarding the project aims. Success of the interventions were measured with a postpartum depression knowledge questionnaire, an ambulatory EPDS guideline training assessment, chart audits, and an ambulatory EPDS project Evaluation.

Results: The pre- and post- assessments with the postpartum depression knowledge questionnaire indicated an overall knowledge increase of 11.4% regarding the EPDS, effects of PPD on mother and baby, and local PPD statistics. By the end of the specified project period 100% of the qualified patients were being screened at the recommended time with the validated evidenced-based EPDS; the screening for PPD improvement rate increased overall by 37%.

Virtual education was received positively with recommendations to continue rounding for in-person onsite project management support. There was a realization to the participants that PPD is more prevalent locally. The project evaluation highlighted the recommendations for more mental health providers that are accessible to this population.

Interpretation: In the current setting, education related to PPD increased the participants confidence in screening. The screening rate for PPD improved during the project from 63.1% to 100%. Additional goals were realized in that a standard approach with the EPDS is now part of the project sites practice and staff are trained in the use of the EPDS.

Conclusion: Statistics and evidence continues to evolve as it relates to PPD and the overall public health impact. The CDC updated national PPD statistics for women from affecting one in ten to affecting one in eight since initiation of this project. The quality improvement project was successful in improving knowledge and increasing postpartum screening rates within an ambulatory setting in a health system in the northwestern United States. It is recommended to continue to implement use of the EPDS with education and knowledge validation throughout the health system as evidence states the continued focused efforts will lead to improved maternal-child health outcomes.

Key Words: postpartum depression, postpartum depression screening, Edinburgh Postnatal Depression Scale (EPDS), PHQ-9, PPD, maternal depression, postpartum, postnatal depression, postpartum depression and anxiety, postpartum psychiatric disorders, prenatal depression screening, and PPD education.

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Problem Description

Introduction

Postpartum depression is a significant public health problem that is potentially disabling and can

be life-threatening (Bobo & Yawn, 2014; Sit & Wisner, 2009). Postpartum depression is one of the most

common diagnoses for maternal morbidity and mortality, affecting one in ten women in the United

States and one in eight internationally (Reproductive Health: Depression Among Women, 2020). Despite

these statistics, studies indicate that 50% of women with postpartum depression are going undiagnosed,

and only a small percentage of providers are screening for postpartum depression (Sudhanthar et al.,

2019). Postpartum depression can vary in presentation and in timeframe, occurring from 4-6 weeks to

up to a year after delivery (ACOG, 2018a; ACOG, 2018b). It can cause a multitude of symptoms, including

feelings of hopelessness, loss of energy, withdrawal, anger, and thoughts of harming oneself or the

newborn (National Center for Excellence in Primary Care Research [NCEPCR], n.d.).

Problem Background

Untreated postpartum depression increases physical, cognitive, and emotional health risk to the

woman, her child, and family. Racine et al. (2020) reported that postpartum depression can lead to an

increased risk of substance abuse, poor health, and suicide in women. Furthermore, postpartum

depression can negatively impact an infant's social interaction and maternal-infant attachment (Kendig

et. al., 2017). Other consequences of untreated postpartum depression include unsuccessful

breastfeeding, harmful parenting practices, and marital discord (Bobo & Yawn, 2014). Identifying

women with postpartum depression with a validated perinatal tool, such as the Edinburgh Postanal

Depression Scale (EPDS) or Patient Health Questionnaire-9 (PHQ-9), enables providers to assess in

further detail, provide treatment, and link them with specialized healthcare and mental health

professionals to improve maternal and child outcomes (January, J., & Chimbari, M. J. 2018).

Local Problem

According to the latest Pregnancy Risk Assessment Tracking System Report in the State of Idaho, the percentage of women who report being moderately or severely depressed three months after pregnancy is 23.5% (Idaho's Pregnancy Risk Assessment Tracking System [PRATS], 2016). An electronic health record audit, from 1/1/2017 to 4/9/2019, within a health system in the northwestern United States, identified 127 women with postpartum depression diagnosis system-wide with 32% of the diagnoses occurring one- to two- months post-delivery. The regional health system delivered 18,751 patients in the audit timeframe revealing less than 1% diagnostic rate. The audit also identified that only 38% of the total postpartum women who had appointments with obstetrical providers were screened for postpartum depression in the ambulatory setting and at inconsistent intervals. Currently, there is no universal process for the identification of postpartum depression in the ambulatory clinics in this regional health system caring for obstetrical patients, which puts patients and their newborns at risk for severe and potential detrimental consequences. This information signifies an opportunity to improve on evidence- based standardized screening for postpartum depression and support in the ambulatory setting within a health system in the northwestern United States.

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Available Knowledge

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Literature Review

The following evidence-based practice (EBP) question was developed for evidence review: For providers caring for postpartum women (P), is a standardized, validated, postpartum depression screening tool and process at the comprehensive post-birth visit (I) best practice for effective detection and diagnosis of postpartum depression (O) compared to reliance on self-reporting depression and anxiety concerns following birth (C)?

An electronic search of databases was used to identify studies related to the question. The electronic databases used for the search were MEDLINE, Cumulative Index of Nursing and Allied Health

Literature (CINAHL), Mendeley, McMaster Plus, and PubMed. The search terms used were postpartum depression, postpartum depression screening, Edinburgh Postnatal Depression Scale (EPDS), PHQ-9, PPD, maternal depression, postpartum, postnatal depression, postpartum depression and anxiety, postpartum psychiatric disorders, prenatal depression screening, and PPD education. Articles were excluded if they were not relevant to the evidenced-based question, if they were written in a foreign language, and if they were generalized to DSM- 5 depression without regard to post-birth (postpartum) women. The last electronic search for evidence-based practices was conducted on April 8, 2020.

A manual review of the electronically obtained information, based on the EBP question and search terms, yielded 138 articles. Of those, 21 articles were initially synthesized further based on their relevance to the developed question and appraised with objective analysis to establish quality and relevance (Reavy, 2016). One quality improvement study by Schaar, et al. 2018, was eliminated due to low appraised quality. The period of the research was from 2009-2020; 16 of the articles were in the last five years, and four were within the last 10 years. The evidence revealed postpartum women studied were primarily Caucasians in the United States. However, evidence was also reviewed from countries outside of the United States to include, but not limited to, Zimbabwe and Canada.

Synthesis of the Evidence

The John Hopkins Evidence Summary Tool and Synthesis and Recommendations Tool (Dang & Dearhold, 2018) along with the Critical Appraisal Tool for a Systematic Review (Reavy, 2016) were used to organize, appraise, and synthesize literature results. The level and quality findings of the literature review were as follows (see Appendix A): The Level II/B article included a quasi-experimental comparative design. The five Level III, primarily quality B articles, were two cross-sectional studies, a systematic review with meta-analysis, a systematic review, and a mixed-method design. The seven Level IV, primarily quality A, articles included: one evidenced-based patient safety consensus bundle, four

expert opinions, and two clinical practice guidelines. There were seven Level V evidence articles; five of these were quality improvement and the remaining two were literature reviews.

The majority of the evidence focused on details of screening tools, the timeframe of screening, training, and guideline or process. Seventeen of the articles recommended use of a validated screening tool for postpartum depression as a standard of care that enhances recognition of postpartum depression in women to prevent potential devastating outcomes and illnesses (ACOG, 2018a; ACOG, 2018b; Bina et al., 2019; Bobo & Yawn, 2014; Breedlove & Fryzelka, 2011; Clevesy et al., 2019; Earls, 2019; January & Chimbari, 2018; Kendig et al., 2017; Mollard et al., 2015; Rafferty et al., 2019; Russomagno & Waldrop, 2019; Sit & Wisner, 2009; Sorg et al., 2019; Sudhanthar et al., 2019; Ukatu et al., 2018; Van Der Zee-Van Den Berg et al., 2017). The Edinburgh Postnatal Depression Scale (EPDS) was universally recommended in the ambulatory setting (see Appendix B). Though the EPDS was highly recommended and notable, the Patient Health Questionnaire (PHQ-9) and Center for Epidemiological Studies-Depression tool (CES-D) were both marginally recognized in the literature as perinatal screening tools with a couple of recognitions each.

Seven articles included evidence and recommendations on the most effective time to screen women (ACOG, 2018a; ACOG 2018b; Earls, 2019; Rafferty et al., 2019; Russomagno & Waldrop, 2019; Sorg et al., 2019; Van Der Zee-Van Den Berg et al., 2017). The overall recommendation was to screen women with a validated tool for postpartum depression risk at least once in their prenatal period, a minimum of once at their comprehensive post-birth appointment, and the one, two, four, and six-month well-child checks because postpartum depression can occur up to a year after birth. Studies found that implementing the validated screening tools at the recommended intervals is more effective with adequate training of nurses in the ambulatory setting (Bina et al., 2019; Kendig et al., 2017; Lewis, 2019). Training must include education regarding postpartum depression, relevant local data, risk factors, signs and symptoms of postpartum depression, policies, procedures, and supportive resources

for the healthcare team. A postpartum depression guideline with a staged-based response was suggested by researchers and other experts (Kendig et. al., 2017; Russomagno and Waldrop, 2019). A staged-based response guideline provides an algorithm for healthcare providers regarding the assessment or needs of the woman who is experiencing various levels of postpartum depression from mild to severe including thoughts of harming oneself.

Recommendations for best practice are developed through synthesis of literature. The quasi-experimental comparative study stated that screening for postpartum depression has a positive effect on maternal mental health and that the Edinburgh Postnatal Depression Scale (EPDS) will statistically identify 79% of the women with postpartum depression, with 95% confidence intervals (Van Der Zee-Van Den Berg, et al., 2017).

In summary of the Level III reviews, relevant findings included the importance of nurse preparedness for identification of postpartum depression risk through screening, as well as comfort in conducting interventions associated with findings (Bina et al., 2019). In their cross-sectional study, January and Chimbari (2018) found that use of a validated tool will improve patients' ability to connect with additional healthcare providers to improve their overall health outcomes. Racine et al.'s (2020) mixed methods review notably indicated that maternal depression and its sequelae, including suicide, are leading causes of maternal mortality in the perinatal period. This reinforced the need for providers to make postpartum depression screening an essential component to their best practice delivery to prenatal and postpartum patients.

The expert opinions, sponsored by professional organizations, including the American College of Obstetricians and Gynecologists, recommend providers caring for obstetrical patients complete a full assessment of mood and emotional well-being with a validated tool at the comprehensive post-birth (postpartum) visit. Also recommended was that providers should screen for the risk of postpartum depression symptoms at least once during the prenatal period using a standardized, validated tool

(ACOG, 2018a; ACOG 2018b). Rafferty, et al. (2019) referenced the American Academy of Pediatrics'

recommendation that screening be done at the one, two, four, and six-month infant visits.

The Consensus Bundle on Maternal Mental Health: Perinatal Depression and Anxiety, sponsored

by the American College of Nurse-Midwives and developed by the Council on Patient Safety in Women's

Health Care, provided compelling evidence and recommendations for readiness, recognition, response,

and reporting for maternal mental health and perinatal screening (Kendig et al., 2017). The bundle is

consistent with other evidence-based recommendations, such as ensuring there is staff education

regarding the recognition and care of patients with postpartum depression.

The Level V/B findings based on non-research evidence of quality improvement (4) and

literature reviews (2) provided additional support for the use of standardized postpartum depression

risk assessment tool. Mollard, et al. (2015) reviewed 11 articles: seven quantitative, two qualitative, one

mixed-methods, and one non-experimental design. The authors recommend the EPDS as a standardized

screening tool to assess risk for postpartum depression symptoms and assist in initiating referral for

improved mental health outcomes. The EPDS is a consistent recommendation for postpartum screening

risk in the Level V/B findings (Clevesy et al., 2019; Sorg et al., 2019; Sundaram et al., 2014). The

recommended screening timing and intervals for postpartum depression risk screening is within the

prenatal and postpartum period and with the well-child checks at one, two, four, and six-months

(Russomagno & Waldrop, 2019; Sudhanthar et al., 2019; Ukatu et al., 2018). Russomagno & Waldrop

(2019) referenced and reinforced the Maternal Mental Health Perinatal Depression and Anxiety Patient

Safety Bundle from the Council on Patient Safety in Women's Health Care. The bundle recommends

using a staged-based guideline as an essential part of a comprehensive maternal mental health program

and postpartum depression and anxiety plan of care.

The evidence reviews, using the Johns Hopkins Model for appraisal of evidence, provided solid

support for a change in practice: implementation of a validated postpartum depression screening tool

(specifically the EPDS) to standardize depression screening and identify depression symptoms in postpartum women (Dang & Dearholt, 2018). The Ambulatory Services leadership within the organization supports the work for the health system and assists in providing needed feasibility resources such as electronic health record modification, staff training dollars, and time for training. Due to the lack of Level I evidence (e.g., randomized control trials (RCT), experimental studies, systematic reviews of RCTs with or without meta-analysis evidence), completion of a small test of change (pilot) is recommended prior to implementing a full-scale practice change (Dang & Dearhold, 2018).

Rationale

Theoretical Model

Implementation of the practice change takes a practical, purposeful, theoretical adaptation framework. Lewin's change theory (see Appendix C) along with the influencer model were chosen for this DNP quality improvement scholarly project (SP), (Grenny et al., 2013; Shirley, 2013). Lewin's change theory involves breaking down a status quo, or destabilizing, before building up a new way of operating (Lewin, 1947). Lewin theorized this three-stage model of change that is also well known as unfreezing-change-refreeze model (Shirley, 2013). The first step of this project required unfreezing of existing behaviors, habits, and attitudes towards postpartum depression screening. The second stage focused on moving, with the deployment of the evidenced- based screening process, guideline, and data collection. The third stage was project evaluation, sustainability and refreezing the new practice (Lewin, 1947).

The influencer model aligns well with Lewin's change theory as it emphasizes three key strategies to change success. The strategies are focus and measure, find vital behaviors, and engage all six sources of influence (Grenny et al., 2013). Engaging all six sources of influence such as personal motivation, personal ability, social motivation, social ability, structural motivation, and structural ability are key complementary tools within the unfreezing and change process of Lewin's change management theory. Focus and measure is the time to be clear about the aim of the project and be specific with data

analysis (Grenny et al., 2013). Finding vital behaviors involves leveraging key actions within the team to drive the results, which is key during the change phase of the implementation (Grenny et al., 2013).

Project Framework

The Kellogg logic model framework assisted in project planning, implementation, management, and evaluation. (W.K. Kellogg Foundation, 2004) (see Appendix E). The systematic logic model is a visual mapping of project deliverables that links process and change outcomes to short- term, intermediate and long- term goals with the theoretical principles and aims of the project (W.K. Kellogg Foundation, 2004). Furthermore, the Kellogg logic model framework details the relationship between the quality improvement scholarly project's resources, activities, outputs, and outcomes to identify anticipatory needs such as budget, data and resources needed to achieve success (W.K. Kellogg Foundation, 2004). The SMART criteria of specific, measurable, actionable, realistic, and timely goals guide the setting of the objectives throughout the framework.

Specific Aims

The overarching scholarly project aim is to improve postpartum women's post-birth mental health in the ambulatory setting at a health system in the northwestern United States by:

- Deploy an evidence-based, validated postpartum depression screening tool in the ambulatory setting.
- Developing a standardized process to increase effective, evidence-based screening for postpartum depression.
- Developing an evidence-based education program to improve clinical staff knowledge for postpartum depression screening, the Edinburgh Postnatal Depression Scale (EPDS), ambulatory guideline, and process for the ambulatory setting.

Context

Population

The clinical population of interest for the DNP quality improvement scholarly project (SP) are the postpartum patients who complete the screening tool. The SP participants are the physicians, registered nurses, and patient access specialist (registration staff) at an obstetrical specialty clinic in a health system in the northwestern United States. The physicians, nurses, and patient access specialist will be assessed for knowledge, receiving education, and deploying a validated evidence-based postpartum screening tool to increase mental health and wellness for postpartum patients in their local environment.

Settings and Resources

The State of Idaho has a total population of 1,787,065 and continues to increase in population as one of the fastest-growing states in the United States (United States Census Bureau, 2019). The SP will be conducted in the most populated county in Idaho, with more than one-fourth of the state's population is at 469,966. The primary race in the population health community is Caucasian at 91.9 % and the secondary are Hispanic or Latino at 8.5%. The percentages of other ethnicities to include African American, Black, Indigenous, Alaskan Native, or Asian, is minimal. The uninsured rate in the county is 9.5%. The poverty rate is 9.7% and a median household income currently listed with the United States Census Bureau (2019) is at $63,137 The United States Census Bureau (2019) education statistics for persons aged 25 and older in the county include: 95.1% are high school graduates or higher and 37.8% having a bachelor's degree or higher. Age and sex statistics are as follows: persons under five years of age, 5.6%; persons under eighteen years of age, 23.2%; persons sixty-five and over, 14.9%; female population of the county, 49.9% (United States Census Bureau, 2019).

Improving mental health and reducing suicide rank among the community's most significant health needs. According to the health system's community health needs assessment (2019), Idaho has one of the highest percentages (21.6%) of any mental illness (AMI) in the nation. There are shortages of

mental health professionals in all counties across the state, and suicide rates are consistently higher than the national average. This has an impact on population health and overall health of our communities. Mental health is important at every stage of life, from childhood and adolescence through adulthood. According to the 2019 community health needs assessment, mental illness, especially depression, increases the risk for a variety of physical health problems, particularly long-lasting chronic conditions like stroke, type 2 diabetes, and heart disease.

The SP was implemented in two obstetrical specialty clinics that are affiliated with a non-profit health system in the northwestern United States. The health system and clinics will remain anonymous for the SP per the request of the organization. The clinics were judiciously chosen for the SP. The physicians at this clinic are trained specialists for high-risk pregnancies and patients often experience stressful events and have the greatest risk factors for perinatal depression. They perform an average of 480 high-risk deliveries per year. The American College of Obstetricians and Gynecologists noted in Committee Opinion Number 757 (2018b) that patients are at higher risk for postpartum depression if they experience stressful events during pregnancy, undergo a traumatic birth, and have an infant(s) in the neonatal intensive care unit.

These ambulatory clinics are two of more than 200 total ambulatory multispecialty clinics within the regional non-profit health system in the northwestern United States that serves Southern Idaho, Eastern Oregon, and Northern Nevada. A local community report states, the health system has 1,005 beds throughout the eight hospitals, along with the ambulatory clinics. It is the largest employer in the State of Idaho and currently estimates having 14,434 employees, 1,542 providers, and 1,495 volunteers and board members.

Both clinics are staffed with the same providers and managed with the same nurse and office managers. There are five board-certified Maternal-Fetal Medicine physicians; three of the physicians are full-time, and two physicians are part-time. The staff mix for these specialty clinics includes six

registered nurses (RN), five sonographers, and five patient access specialists (registration staff). These

ambulatory clinic locations do not employ certified nursing assistants or medical assistants due to the

specified expertise and assessment skills required for the patient type. There are no clinic-based

educators, case managers, social workers, or behavioral health specialist in these physical clinic

locations.

Leadership for the SP clinics includes a physician medical chair, a nurse manager, a nurse lead,

and a practice manager. The nurse and practice managers have multiple clinic sites in the health system.

Because they have multiple site responsibilities, one of the six RNs in the clinic is designated as an RN

lead. The RN lead serves as the point nurse for the front office staff, physicians, and sonographers. The

clinic RN lead completes the schedule and timecards for the clinic. The practice manager is the business

partner for the clinic and collaborates with the staff with billing, coding, and scheduling. The medical

chair, nurse manager, practice manager, RN lead, and the ambulatory chief nursing officer are key SP

stakeholders within the project advisory council alongside the behavioral health clinical nurse specialist,

case manager director, perinatal clinical nurse specialist, service line project manager, and SP manager.

Congruence of Project with Organizational Mission, Values, Strategies and Needs Assessment

The SP fits the organization's mission, vision, and strategic plan for continuing to care for the

population and mental health needs of the community with a focus on maternal mental health. The

mission of "improving the health of people in the communities we serve," as stated in the regional

health system's 2019 community assessment, supports the vision of the SP.

Evaluating Change and Readiness for Change

The physicians in the clinic are primary providers for high-risk antepartum, intrapartum, and

postpartum inpatients and outpatients. They are consultants with intensivist and other specialty care

providers for obstetrical patients admitted throughout the health system. The physician team verbally

agreed to be engaged in the SP. They are early adopters and leaders within the health system. They

have representatives on the Perinatal Patient Safety Collaborative, OB policy, and electronic health record workgroups. The physicians and nurses in the clinics have been advocates for implementing evidence-based maternity bundles from the Council on Patient Safety in Women's Health Care, including OB hemorrhage, severe hypertension, and maternal venous thromboembolism (Kendig et al., 2017).

The providers in the health system are also engaged in continuing to adapt the Council on Patient Safety in Women's Health Care has a system-wide maternal mental health bundle that recommends mental health screening tools be made available in every clinical setting and supports a response guideline be developed based on the assessment of the patient and the total overall score identified on the tool. The bundle also advocates educating providers and staff on the use of identified screening tools (Kendig et al., 2017). The health system's Behavioral Health and Women's Service Lines have made a strategic commitment in Strategy 2020 to support the maternal mental health patient safety bundle.

The SP is relevant to the 2019 local health care community needs assessment, aiming to improve access to mental health treatment for adults, youth, and children. It also meets the regional health system's overall mission to improve the health of our communities. According to Kendig (2017), when postpartum depression is left untreated, it can have profound effects on the women and their children. The effects range from extreme sadness, poor adherence to medical care, exacerbations of medical conditions, social isolation, suicide, and infanticide. With the clinic physicians, nurses, and office staff improving their knowledge of postpartum depression, an ambulatory postpartum screening guideline, and purpose of screening, they will have an opportunity to provide support and treatment for mothers undergoing postpartum depression in their local environment (Breedlove & Fryzelka, 2011).

Strengths and Weaknesses

The community needs assessment, mission, and strategic goals of the regional health system are strengths that support the organization's capability to address the current problem statement in this SP.

The 2019 local health care community needs assessment stated the organization aims to improve access to mental health treatment for adults, youth, and children. Strategy 2020 for the regional health system focuses on population health and transforming work processes to improve outcomes and lower cost.

Breedlove et al. (2011) indicated that when postpartum depression is identified and diagnosed within the first three months post-birth, healthcare costs can be reduced, and adverse effects can be minimized for the mother, infant, and the family. These are goals and aims of this project. Support for the project has been provided by regional health system's representatives from the Clinical Informatics department, and ambulatory leadership including the chief nursing officer, perinatal medical director, the Women's and Children's Service Line administrator, and leadership within the Nursing and Patient Care Center of Excellence.

Current weaknesses to the local setting involve the impact of COVID-19 structurally and financially. Due to implementation of Covid-19 infection prevention policies clinics decreased in-person staff meetings, trainings, and patients were not allowed to have a support person with them at their appointments between March 2020 and June 2020. The regional health system adapted other methods of operations during these times using virtual visits via, telehealth and telephone, and re-opened with extra visitors following careful guidelines.

The regional health system is re-evaluating its strategic initiatives moving towards 2025 since the COVID-19 pandemic. The strategic initiative review has impacted the governance and political environment of the regional health system. The Office of Strategic Results has reorganized after the health systems initial response to COVID-19 to the Office of Clinical Integration Excellence to support the identification and delivery of the highest priority initiatives across the organization aligned to the mission, vision, and strategic objectives within the health system. The reorganization effort was not a potential threat for continuing the SP moving forward as mental health care is a top priority for the

State of Idaho as well as the regional health system, though it did change the process in assigning data and informatic resources for the SP.

In conclusion, the organizational assessment identified multiple strengths. The regional health system's mission, values, and strategic plan align with the scholarly project's vision to promote the health and well-being of postpartum patients in our community. There is currently leadership support, data analytics, and informatic resources assigned to help move the project beyond the initial project plan into the future and throughout the regional health system in the northwestern United States. Finally, the physicians in the SP specialty OB clinic are historically early adopters, engaged, and committed to best practice evidence-based initiatives.

Memorandum of Understanding

A memorandum of understanding was completed in January 2021, outlining the terms, and understanding between the university and the regional health system prior to beginning any project implementation work (see Appendix D).

Interventions

Logic Model

The systematic Kellogg logic model framework provided a visual mapping of project deliverables that links process outcome (PO) and change outcomes (CO) to specific, measurable, actionable, realistic, and timely short-term, intermediate, and long-term goals. (W.K. Kellogg Foundation, 2004). Furthermore, the Kellogg logic model framework detailed the relationship between the scholarly project's resources, activities, outputs, and outcomes to identify anticipatory needs such as budget, data, and resources needed to achieve success (W.K. Kellogg Foundation, 2004).

The resources and inputs that were needed for the project are similar. Human resources included identified stakeholders such as an ambulatory clinical learning services representative, an ambulatory clinical informatics and technology representative, data analytics representative, clinic lead

nurse, lead physician, office manager, Women's and Children's Service Line project managers,

behavioral health clinical nurse specialist, supervisor of the Postpartum Discharge Program, ambulatory

nurse manager, director of case management. Financial resources included funds for meetings, training,

and survey time. The equipment and supplies utilized for the SP were computers, iPads, printers, paper,

and pens.

The SP had fourteen outcomes in total, six short-term, five intermediate, and three long-term

(see Appendix E).

The short- term outcomes evaluated for the SP are:

1. By April 30, 2021, evidence-based education for postpartum depression screening, guideline

and process in the ambulatory setting is developed and approved for implementation (PO).

2. By June 18, 2021, 80% of the SP clinic physicians, nurses, and office staff, will complete

training for the evidence-based postpartum screening tool (EPDS) and process as indicated by

electronic attendance rosters (PO).

3. By June 18, 2021, 80% of SP clinic physicians, nurses, and office staff increase their perceived

understanding of the validated evidenced-based screening tool (EPDS) by 25% (CO).

4. By June 18, 2021, 80% of the SP physicians, nurses, and office staff demonstrate knowledge

and understanding of the (newly developed) evidenced-based Ambulatory Postpartum

Depression Screening Guideline as indicated by a score of 80% or better on the module post-test

(CO).

5. By July 26, 2021, 80% of postpartum women are screened for postpartum depression with a

validated screening tool at their comprehensive post-birth appointment (6-8 weeks postpartum)

as indicated by electronic health record audit (PO).

6. By July 26, 2021, 75% of the SP physicians, nurses, and office staff, who completed the

evidence- based education for postpartum depression screening, guideline and process will

participate in quality improvement feedback to improve SP elements for future sessions (PO).

The intermediate outcomes for the SP are:

7. By February 2022, 100% of staff (physicians and nurses) who perform screening have

completed the post-knowledge survey for postpartum depression and Edinburgh Postnatal

Depression Scale (EPDS) (PO).

8. By March 2022, 95% of the SP physicians and nurses adhere to the utilization of the Edinberg

Postpartum Depression Scale (EPDS) for recognizing postpartum depression and anxiety in their

patient population (CO).

9. By February 2022, 80% of the SP physicians and nurses adhere to the guideline for

Postpartum Depression and Anxiety Screening in the Ambulatory Setting (CO).

10. By February 28, 2022, the Edinburgh Postnatal Depression Scale (EPDS) education module

will be implemented and deployed to all new hires and transfers to the ambulatory patient

access specialist (registration staff), RNs, and physicians throughout the regional health system.

11. By August 31, 2024, 100% of the eligible postpartum women are screened with the

postpartum depression scale by the clinical staff at the SP site (PO).

The three long-term outcomes for the SP are:

12. Improved screening and documentation of postpartum depression in the regional health

system in the northwestern United States.

 13. Improved mental health/resilience of postpartum mothers in the regional health system in

the northwestern United States.

14. Improved postpartum depression treatment for post-birth mothers in the regional health

system in the northwestern United States.

There were supportive interventional activities for the short-term outcomes. For Outcome 1, a process outcome, the interventional activity includes developing the education module for PPD local statistics, maternal and newborn consequences, and the EPDS for review and approval from key stakeholders and the SP advisory council. Outcomes 2 and 4 are process outcomes, and Outcome 3 is a change outcome. The interventional activities for these outcomes include developing and deploying education and guideline to support the evidence-based screening tool in the ambulatory setting. Interventions for Outcome 5, a process outcome, included enhancing the electronic health record with the EPDS and a retrospective chart audit. The purpose was to improve the screening for the postpartum population with a validated tool. For Outcome 6, the interventional activities included eliciting feedback from SP participants for the purpose of improvement for future deployments. This intervention aims also helped identify whether the participants found the training professionally valuable to their jobs, what additional support may be needed to apply what they learned and to what degree they acquired the intended attitude and confidence in the EPDS screening of postpartum patients.

Correlation of Interventions with the Theoretical Model Elements/Phases

The SQUIRE 2.0 Guidelines state in the Quality Improvement Reporting Excellence standards that interventions are activities and tools introduced into the healthcare system to change the performance for the better (Ogrinc et al., 2016). The EPDS was introduced into the SP OB specialty clinics with that specific aim in mind. Lewin's change theory enhanced with the influencer model were key theoretical models in developing the SP interventions.

The EPDS is a set of ten screening questions that can indicate whether a postpartum patient has symptoms common to women with depression and anxiety during pregnancy and within the year following birth (*Edinburgh Postnatal Depression Scale (EPDS*, 2021). The EPDS education was rolled out with Lewin's unfreezing-change-refreeze model while leveraging Grenny et al. (2013) vital behaviors and engaging in sources of influence to drive the SP participants towards success. The physicians, nurses,

and office staff had to realize what needed to change and unfreeze from their previous ambulatory

intake questions and routine when checking-in patients and adapt to adding in the EPDS tool with the

population of interest. Creating the need for change was provided through sharing of local and national

data and discussion of personal stories within the team. There is strong leadership within the SP sites

that drives the need for change and encouraging others to embrace the screening as sacred work for

wellness of the patients.

The change management process was accomplished by connecting vital behaviors to intrinsic

motives and building personal ability to do each behavior through deliberate practice (Grenny et al.,

2013). The SP participants completed training to enhance their personal ability. Leadership from within

their team were chosen as champions to provide encouragement and coaching during crucial moments

providing the social motivation. Another vital step to the change management process was converting

their Postpartum Depression Screening Tool to the validated evidenced-based EPDS in the electronic

health record in support of the structural ability of the change. This strategy helped break down the

status quo and guide the team to a successful deployment of the EPDS in the identified SP ambulatory

setting.

<p align="center">**Timeline**</p>

A chronological 2.75-year timeline scholarly project management tool outlines phases and

progress for the planning, implementation, data collection, data analysis, dissemination, and

presentation for final report (see Appendix F). The critical elements in planning include completing a

memorandum of understanding within the health system, identifying stakeholders, budget planning,

identifying knowledge survey options, completing a university institutional review board (IRB)

application, obtaining a research determination from the healthcare organization, and receiving

university IRB approval of the SP proposal. The primary implementation phases involved assessing

knowledge, updating guideline, educating the SP clinic team about the EPDS postpartum screening tool

guideline and process, and re-evaluation of knowledge. The SP implementation began May of 2021.

Data collection and analysis occurs during the implementation phase and was shared in the spring

semester of 2022. Final report and dissemination of data analysis occurred by formal presentation at the

end of the spring semester to the Boise State Faculty and the DNP SP Stakeholders.

Measures

Specific measures were utilized to evaluate the effectiveness and success of the quality

improvement SP outcomes (Moran et al., 2014). The measurement tools utilized for the SP are outlined

in detail in Appendix G and examples of the tools are displayed in Appendix H-K.

For Outcome 1, the Clinical Learning Evaluation Tool provided by the organization's Clinical

Learning department was used for approval of the SP education and was measured with a nominal

yes/no data scale. The education was developed and "yes" indicated the outcome was met. Quantitative

measures were used to assess Outcome 2. In Outcome 2, nominal attendance data were collected and

assessed for the EPDS, guideline, and process training. Quantitative measurements were also used for

Outcome 3, with the SP developed Postpartum Depression Knowledge Questionnaire. This 5-point Likert

scale questionnaire was used before and after the educational course. It provided predictions about

learning outcomes and the transfer of learning to the SP physicians, nurses, and patient access specialist

(registration staff). The quantitative pre- and post-test descriptive statistics in Outcome 3 were essential

in evaluating the SP participants' perceived knowledge and understanding of the consequences of

postpartum depression, local postpartum depression statistics, the purpose of postpartum screening,

and the EPDS. Quantitative nominal level post- test measures were used to assess knowledge of the SP

participants to the postpartum depression screening guideline with the multiple-choice, SP developed,

Ambulatory EPDS Guideline Training Assessment for Outcome 4. Additional quantitative data collection

measures included chart audits to quantify the number of patients who were and who were not

screened with the EPDS at the DNP SP site for Outcome 5. Dichotomous items, yes/no answers for the chart audits, provided nominal level data.

An essential component of measurement to the SP was identifying opportunities to improve the quality improvement project for future deployment to other ambulatory clinics within the regional health system. This qualitative measurement was conducted by developing and using The Ambulatory EPDS Project Evaluation Tool, in Outcome 6, which was adapted from Kirkpatrick's Training Evaluation Model (Kirkpatrick & Kirkpatrick, 2008). Four open-ended questions were asked to elicit comments for the quality improvement evaluation. There were also two quantitative Likert scale questions presented to identify opportunities for improvement to the SP for future deployment. The tool also helped identify whether the scholarly participants found the training professionally valuable to their jobs, what additional support may be needed to apply what they learned and to what degree they acquired the intended attitude and confidence in the EPDS screening of postpartum patients.

Analysis

Data collected in quality improvement initiatives require rigorous evaluation to determine if practice based on evidence has improved (Sylvia & Terhaar, 2014). A nominal level yes/no approval approach was developed for Outcome 1 with the Clinical Learning Evaluation Tool. Quantitative and qualitative methods were used to assess the effectiveness and success of the program implementation for Outcomes 2-6. Outcome 2, the percentage of SP participants who completed the training was measured through the electronic attendance roster. The attendance data collection provided nominal level data on the scholarly project participants attending the training on the EPDS, process, and guideline. The analysis for Outcome 3, measured by the Postpartum Knowledge Questionnaire, provided quantitative descriptive statistics for each test item before and after the education module is presented. Outcome 4, demonstration of knowledge for the Ambulatory Postpartum Depression Screening Guideline, was analyzed with descriptive quantitative data-analytics indicating the knowledge gained

through the training provided. Outcome 5, the retrospective electronic health record audit, provided

meaningful descriptive statistics about the SP variables to be measured, including the percentage of

postpartum patients who had the EPDS documented at their six-week follow-up appointment. The

quantitative data helped to determine if further interventions were needed to increase screening rates

for the population of interest for the SP and future rollouts of the quality improvement initiative.

Outcome 6 measured both nominal quantitative and qualitative data. The quantitative

descriptive statistics described mean aggregate responses for each item on the Likert scale, after the

project evaluation was presented to the SP physicians, nurses, and patient access specialist (registration

staff). Content analysis of the qualitative data, using explanatory and holistic techniques, enabled the SP

manager to identify the influences on completion rates for the EPDS tool. The questions that were asked

were specific elements of the SP design to gain insight into what worked, what did not work, what was

effective, and what suggestions the participant team had for change for subsequent implementations

(see Appendix K). This valuable gained information provided insight into improvements for the project's

future phases and helped guide sustainability.

<div align="center">**Ethical Considerations**</div>

Protection of human subjects training was completed via the Collaborative Institutional Training

Initiative (CITI) modules on July 5, 2020. The clinical research director within the healthcare

organization's research department reviewed and determined the project did not meet criteria for

human subject's research. It is deemed an evidence-based quality improvement project. An official

letter of determination was provided to Boise State University.

Ethical considerations and protection of participants

The SP is intended and designed to be a quality improvement project and deemed to be an

evidence- based performance improvement project from the healthcare organization's research

determination team, rather than a research study. The SP followed the Health and Human Services

Office of Human Research Protections ethical considerations and protection of participants guidelines.

Names and any identifiable demographic data of physicians, nurses, and patient access specialist

(registration staff) were de-identified for privacy protection. Participants were informed that

participating in the SP was voluntary and there would not or could not be any operational repercussions

for opting out of the SP.

The postpartum patients, the primary population of interest, were also provided with privacy

protection during the SP. Chart audits were conducted to assess whether screening was performed. The

data were accessed by a member of the data and analytics team via the digitally stored electronic health

record which is unique to the patient. No patient information was recorded or printed for discovery. De-

identified data were transmitted to the SP project manager; thus, patient's confidentiality and privacy

were maintained. Information was reviewed in authorized SP and regional health system settings to

minimize risk.

Respect of autonomy was ensured for the EPDS education, guideline and process, pre- and post-

knowledge survey, and SP evaluation by giving the SP participants detailed material to make an

informed decision about the project before participation.

Conflicts of Interest

Conflict of Interest (COI) related to the SP was evaluated. No COI was identified. No members of

the stakeholder team, advisory council, population of interest, or project participants received any

payment, had financial relationships or affiliations with any interventions, theoretical models, data

design, or tools chosen for the SP.

Biases

Upon review of the research, bias of unsubstantiated favor toward screening tests and

population of interest was evaluated (Moran, 2014). The physicians and nurses were educated to

universally screen all eligible postpartum patients for postpartum depression between six and eight

weeks with the evidence-based validated tool. The SP clinic physicians were familiar with the EPDS and PHQ-9 screening tools as a validated, evidenced-based tools that were identified within the literature review. They did not display explicit bias toward one tool over the other and reviewed the data from the SP openly to determine the EPDS was the correct tool for their setting.

Threats to Quality

The SP is a quality improvement initiative to improve postpartum women's health and wellness through postpartum screening. Threats to the SP included in-person training capability related to infection prevention, financial support for meetings, and turn-over of office staff. The threat associated with in person training was minimized by pre-arranging virtual training and meetings that include face-to-face time through technology. Communication with the SP manager was also managed through Volte and Office 365 Teams tools.

Financial support to have multiple meetings with the SP nurses and office staff who are employed on hourly salaries was limited. This threat to quality was minimized by the SP manager by attending pre-scheduled operational team meetings and huddles. Topics reviewed during those times included: introduction of the project, marketing the SP, timeline, providing updates and review of the logic model project plan, and outcome.

Office staff turn-over was anticipated during the SP implementation. To mitigate quality risk to the SP, all office staff were encouraged to participate regardless of seniority or position. The trained office staff became mentors and coaches to the new hire(s) during the implementation phase supporting the project without delay.

IRB Application and Project Determination

Because the SP was determined to be evidence-based performance improvement and not human subjects research, review and approval by the organization's IRB was not needed as they only review/approve human subjects' research. An official letter of research determination was issued for

the project on April 9, 2021, and provided to Boise State University. Boise State University accepted the research determination in lieu of their own IRB review and approval.

Results

Steps of the intervention were completed in August 2021. The results were successful in achieving valuable set outcomes.

Steps of the Intervention

The initial project preparation for the evidence-based education for postpartum depression screening, guideline, and process in the ambulatory setting was completed by April 30, 2021. The Scholarly Project Advisory Council was formed and approved the plan for education, evaluation tools, and an ambulatory guideline during the spring semester of 2021. On April 9, 2021, the Research Department at the scholarly project site determined the project to be an evidence-based performance improvement (PI) project. On April 25, 2021, Boise State University's DNP program accepted the scholarly project proposal, and permission was granted to move forward into the implementation phase.

After receiving approval from the stakeholders, the scholarly project site, and the university to proceed with the plan, a curriculum was developed following the aims of the project, the scholarly participants' needs, and in accordance with copyright and best-practice evidence. Before presenting the curriculum to the scholarly project participants at the initial session on May 10, 2021, it was reviewed and approved by two clinical learning specialists, a behavioral health clinical nurse specialist, a clinical director of social services, the medical director, and RN lead of the Scholarly Project Advisory Council. The initial education session was presented virtually via Office 365 Teams due to the Covid-19 infection prevention policies and as a preferred preference of the scholarly project participants at the two demographic locations. An electronic attendance roster was completed and de-identified. The session was recorded for reference for those who could not attend due to patient care, vacation, or out on

extended family and/or medical leave. On June 2, June 8, and June 13, 2021, the recorded training session, pre-and post-knowledge questionnaire, and guideline assessment were distributed to those unable to attend the initial May 10, 2021, session. The SP manager was available via in-person rounding, email, Office 365 Teams, text, and cell phone to answer any questions and provide theoretical support for project implementation. Outcome goal dates were adjusted based on official approvals, updates to the EPDS copyright within the health system electronic health record and paper forms, and completion of the initial education session to ensure three total months of data were collected.

Evaluation tools were designed to measure knowledge, efficacy of the intervention, and compliance to the evidence-based recommendations. There was a total of sixteen participants who elected to participate in the SP: five physicians, seven registered nurses, and four patient access specialists.

Process Measures and Outcomes

The six short-term outcomes were evaluated using methods outlined in the Logic Model, see Appendix E.

Outcome 1-met. The outcome was met regarding education for postpartum depression screening, guideline, and process in the ambulatory setting. The education was developed and approved for implementation by the scholarly project advisory council, stakeholders, and SP manager by April 30, 2021.

Outcome 2-met. Outcome 2 was met with 100% (*N*=16) of the SP participants completing the training for the evidence-based postpartum screening tool (EPDS) and process as indicated by the electronic attendance rosters. Ten of the SP participants attended the initial training session that was presented virtually via Teams on May 10, 2021, with an interactive question and answer session; the other SP participants completed virtual and recorded training from the SP manager by June 18, 2021.

Outcome 3-partially met at 11.4% increasing self-knowledge. The goal for this outcome was 25%. The SP manager underestimated the pre-test knowledge of the EPDS by the SP participants. There was increased perceived self-knowledge in all five questionnaire categories with the greatest area of improved gain in knowledge of local statistics at 22%, see Appendix H, Q, and R.

Outcome 4-met. The SP participants (*N*=16) scored 100% on the ambulatory EPDS guideline training assessment (see Appendix I and P). Results of this assessment indicates that they are aware that the patients should answer all 10 of the questions on the EPDS, that the patient should answer the response closest to how they felt in the last 7 days, that a score of 13 or higher is a flag for further follow-up for depressive symptoms, and what score indicates a suicide risk on the EPDS.

Outcome 5-met. This outcome was met with a date change necessitated by the implementation process for final approval. By August 11, 2021, all postpartum patients (36/36) were screened with the EPDS, the validated, evidence-based screening tool. This was a 37% increase from initiation of the quality improvement project (24/38) that officially began the data collection on May 11, 2021, after the initial education session (see Appendix S).

Outcome 6-met. The ambulatory EPDS project evaluation was distributed to the SP participants prior to the closing date of August 11, 2021. Twelve of the 16 participants completed the evaluation achieving the goal of 75% participation in quality improvement feedback to improve project elements for future sessions (see Appendix T). Through the SP evaluation, the participants shared the following valuable feedback: postpartum depression was more prevalent than they realized; nurses should never take the patient's emotional state for granted; and a standardized screening tool is needed.

Contextual Elements that Interacted with the Interventions and Outcomes

Contextual elements interacted with the SP in several ways. The first was the COVID-19 pandemic. Policies limited extra personnel in the clinical setting as an infection prevention measure to decrease exposure to the SP participants, and patients. The teaching was provided in virtual and

recording formats, and the evaluation tools were sent to the SP participants online via Office 365 Teams. The SP manager was able to round at both sites by June 20, 2021. The second contextual element was the locations of the scholarly project participants. The participants were at two clinical sites twenty miles apart. Efforts to round simultaneously in-person in a group setting were not feasible and were best achieved via Office 365 Teams SP check- in meetings and multiple rounding times. A third contextual element included The Joint Commission Survey's (TJC) at the two SP sites during the implementation phase. During this time, an opportunity was identified to align the Ambulatory EPDS guideline with the system-wide suicide screen, specifically in the area where patients have thoughts of harming themselves (see Appendix P).

The providers participating in this SP were highly specialized and demonstrated a solid knowledge of evidence-based practice, as well as awareness of the ACOG recommendations that providers complete a full assessment of mood and emotional well-being (including screening for postpartum anxiety and depression) with a standardized, validated tool during the comprehensive postpartum visit for each patient (ACOG, 2018a). They are committed to best practices for perinatal patients as a top priority. Initiating the SP to general practitioners who also care for obstetrical patients' future state would be beneficial, especially with the advisory members of this team as champions. Another contextual element that may have interacted with the results of the intervention is that the education and evaluation tools were delivered by me, a past colleague in the service line and a known Director of Nursing Practice within the current health system, potentially affecting measures and results of project success.

Missing Data

The evaluation tools were evaluated for missing data. The paired pre- and post-tests were collected electronically and tabulated for the Postpartum Depression Knowledge Questionnaire. The postpartum depression knowledge data revealed one pretest not completed, thus eliminating the post-

test responses from that participant. Upon analysis of the ambulatory EPDS project evaluation, there were four SP participants who did not contribute feedback to achieve a 100% participation rate, however, the goal of 75% was met.

When initiating the SP within the sites, the electronic health record data indicated that the RNs who were screening were not consistently charting the EPDS results in the same location. In May-June it was found that there was missing data on the electronic health record flowsheet. Seven patients did not have their scores recorded in the flowsheet. The RN clinic lead, ambulatory nurse informaticist, and SP manager reinforced documentation expectations to chart in the EPDS postpartum screening flowsheet and notes for providers to review. The June-July patients who were not screened were found to be the patients who came in only one week apart from other visits and the nurses did not think they qualified for screening. The providers indicated that due to the high-risk nature of this clinic, that screening would be appropriate and beneficial.

Actual Project Revenues and Expenses

Actual project revenue and project expenses varied slightly from the original projections. The original expense projection for Year 1 was $11,218.00; the actual cost of the project was $10,269. There was one RN less than anticipated, materials and supplies were decreased with the use of the Office 365 Teams format, consultant fees were eliminated, and there was no cost for conference rooms. No revenue other than the in-kind donations was planned for the project and this did not change during the implementation. Much of the budget was in line with initial budgeted projections. A full financial analysis of the original projections and the 3 to 5-year budget plan can be found in the appendices (L, M, and O).

<div align="center">Summary of Key Findings and Interpretation</div>

Comparison of Results with Previous Findings

Evidence suggest clinicians are hesitant to screen for postpartum depression because of lack of confidence with screening tools, lack of mental health resources for referral for patients, and time constraints (Bina et al., 2019; Bobo & Yawn, 2014; Breedlove & Fryzelka, 2011; Clevesy et al., 2019; Sit & Wisner, 2009; Sorg et al., 2019). Qualitative findings while rounding with the SP participants were conclusive with those hesitancies. Development of the education and guideline were aimed at alleviating those barriers and increasing confidence and information regarding referral practices and resources.

There was a significant unanticipated finding discovered during the SP while rounding with the nurses at SP sites. Nurses shared that periodically patients state that they are reluctant to complete the EPDS honestly or at all for fear of being separated from their newborn (s)/ family while undergoing a recommended treatment plan. Patients have also expressed being fearful of having their newborn taken out of their custody because of being labeled and deemed "unfit." Nurses state they focus on building trust and bonding, and reassuring importance of maternal and newborn health outcomes to support all patients and especially with those who exhibit such hesitancy. The nurse's strategy to build trust is in alignment with an Evidence-Based Practice Center Systematic Review Protocol from the Agency for Healthcare Research and Quality and Effective Health Care program. The protocol reviews factors affecting the performance of screening for postpartum depression, such as the willingness of a woman to admit to symptoms of depression might vary depending on her comfort level and familiarity with a provider/nurse or her concerns about being judged as a parent (AHRQ & EHC, 2012). The SP participants highly recommend having mental health practitioners and social services within their setting to help address concerns regarding screening and for immediate referral for patients who have thoughts of harming themselves, are who are positive for postpartum depression and anxiety based on screening. There is a potential opportunity for research in this area to improve patient compliance and trust for the purpose of treatment to improve health outcomes for themselves, the newborn, and families.

Impact of Project on People and Systems

There was a minor impact of this project on people and systems. The health system had previously built a postpartum depression screening tool called the Postpartum Depression Screen (PPDS) to meet the ACOG recommendation in the electronic health record. The PPDS resembled the copyright version of the EPDS, but included items that were not part of the evidence based validated EPDS. The SP manager worked with a nursing informaticist to change EHR flowsheet to meet copyright requirements for the standardized, validated tool. The paper form was updated at the SP sites as well to meet EPDS source copyright. The EHR iPad flowsheet was built to the EPDS source copyright. Education was provided regarding copyright protected material and the purpose of a standardized, validated postnatal depression scale. The iPads will be deployed at a date to be determined after the data collection and analytics is completed for the scholarly project.

The SP participants' efforts at the project sites made an impact on their patient population, as evidenced by identifying 28 patients with scores higher than 10, which according to the EPDS tool, indicates depression, and three patients who indicated they had thoughts of harming themselves. The nurses noted a confidential plan of care in each patient's electronic health record with scores greater than 10, and thoughts of self-harm, consistent with the *EPDS Guideline for the Ambulatory Setting* (see Appendix P). Though this SP did not measure increased rates of postpartum diagnosis within the setting coinciding with improved screening rates, that could be taken into consideration as a future performance improvement project measure.

Reasons for Differences Between Observed and Anticipated Outcomes

There were two areas identified between anticipated and observed outcomes during the scholarly project. The EPDS electronic health record training for the scholarly project participants was anticipated. It was observed and identified within the first month of the quality improvement project that the EPDS charting expectations in the flowsheet needed to be reinforced throughout the project by

the SP manager, lead RN of the project sites, and provider champions to maintain consistent electronic health record documentation standards and data analytics. Another area that was anticipated was to have multiple education sessions to accommodate the schedules of the SP participants. It was observed that more sessions were required than initially anticipated. During the planning stages of the SP, recording the sessions for the participants was not anticipated, but was a valuable addition for timely completion of the training for the participants with the patient scheduling challenges and for those out on medical leave.

Costs and Strategic Trade-Offs

Cost and time considerations were key in the project design. It was important that all meetings and communications related to the project were efficient and cost effective to improve engagement, leadership approvals, and participation. The one-hour education was designed specifically for clinicians who were known to be on-call and with limited time availability, and a PowerPoint with recording was provided for reference as needed. An Office 365 Teams site was set up for SP advisory council communications and guideline review to alleviate the formal meeting structure initially designed to be weekly and revised to "as needed." Communications and meetings were arranged during office huddles, lunch hours, or regular work hours to alleviate overtime dollars or extra shifts.

The EPDS is highly recommended because of the efficiencies of administering it in the office setting. It has ten evidence-based, validated questions that are easy for patients to interpret and for clinicians to score. The guideline was developed to assist with referrals and reinforce the EPDS source tool instructions. The cost of the time to perform the screening was minimal compared to the health benefits of improving maternal mental health, improving maternal-newborn emotional and physical attachment, and decreasing other detrimental effects of postpartum depression (Clevesy et al., 2019).

Policy Implications

The complexities of today's healthcare environment demand nurses and nurse leaders transform services and care utilizing policy acumen at the local, state, and national levels (Loversidge & Zurmehly, 2019; Zaccagnini & Pechacek, 2021). For the scholarly project, it was essential to develop an organizational policy, the EPDS Guideline for the Ambulatory Setting, to support the evidence and recommendations to screen patients for postpartum depression in the ambulatory setting. Other local, state, and national policies impacted this project's design and clinical relevance momentum.

U.S. national healthcare professional organizations, such as the American College of Obstetricians and Gynecologists, American College of Nurse-Midwives, Association of Women's Health Obstetric and Neonatal Nurses, and the National Association of Pediatric Nurse Practitioners, recommended that depression screening be conducted on perinatal women (Rhodes & Segree, 2013). Idaho currently does not have a state law requiring mandatory screening for postpartum depression.

The first state law requiring mandatory screening for postpartum depression was passed in 2006 by New Jersey, and multiple states (12) are following suit. The law, introduced as *An Act Concerning Postpartum Depression*, requires postpartum depression screening and education, and requires that providers ask pregnant women about their history of depression. In addition, new mothers must be screened for depression, and new parents must receive information about postpartum depression. The law is now codified under the title: *Findings, Declarations Relative to Postpartum Depression* (Rhodes & Segre, 2013)*.* The twelve states' initiatives are at various stages of the legislative process. They were driven to move forward by a host of social and political factors, including tragic critical incidents of suicide and filicide by mothers with postpartum psychosis and awareness-raising efforts of influential people who experienced postpartum depression. Another notable law, influencing the scholarly project is HB 1764 in Illinois, which recognizes postpartum illnesses in criminal cases (S. Resolution 1764, 207). It

makes postpartum depression and postpartum psychosis a mitigating factor in sentencing. Idaho

currently does not have this provision.

The significant area of impact in policy and clinical relevance is within the Affordable Care Act

legislation. The Affordable Care Act (ACA) has a provision, Section 2952c: Support, Education, and

Research for Postpartum Depression, which appropriates money to study the benefits of postpartum

depression screening and requires a report to Congress on the study results (Rhodes & Segre, 2013). The

provision in the ACA aims to also provide clinical services for women and families struggling with this

illness, research related to treatment needs among racial and ethnic groups, and the need to develop

culturally competent evidence-based treatment approaches (Keefe et al., 2015).

Evidence, policy initiatives, and legislation continue to influence postpartum depression policy

and reform at the local, state, national, and international levels. Patients and public health outcomes

will continue to improve with the involvement of DNP leaders and nurses in policy and supportive

research to increase screening and subsequent treatment for postpartum depression and maternal

mental health.

Limitations

There were minor limitations associated with the project. Use of the iPads was not implemented

during the SP because the EPDS interface with the electronic health record was not completed until the

second month into the SP. The Scholarly Project Advisory Council and SP manager decided it was best to

keep the screening and data analytic processes consistent and on paper for the patients. The screener

could continue to enter the information manually into the EHR for the duration of the project to aid in

consistent outcome measurement. A second limitation was limited ability to round in-person as the SP

manager until the last month and a half at the project site due to COVID-19. This was overcome by

setting up virtual meetings, education sessions, and surveys to accommodate the health

recommendations and safety precautions. There was a benefit of the SP implementation occurring in

the summer of 2020, as the team had developed resiliency and flexibility since March of 2019 due to organizational mandates for patient and staff infection prevention during the COVID-19 pandemic.

Conclusions

The scholarly project met the primary aim of developing a standardized process to increase effective, evidence-based screening and interventions for postpartum depression and anxiety, as well as the secondary aim to develop an evidence-based education program to improve clinical staff knowledge for the EPDS postpartum depression screening, an EPDS guideline, and a process for implementation in the ambulatory setting. The results demonstrated a positive impact on the SP participants' perceived knowledge, skills, and confidence screening with the EPDS. Qualitative data indicated the participants' knowledge gain included: postpartum depression is more prevalent than realized, it is important to screen, to never take a patient's post-delivery emotional state for granted, and there is need for a standardized postpartum depression tool system wide (see Appendix T). The SP participants consistently recommended more support and access to mental healthcare providers and evidence suggests this aligns with the top recommendation internationally (Bina et al., 2019; Bobo & Yawn, 2014; Breedlove & Fryzelka, 2011; Clevesy et al., 2019; Kendig et al., 2017; Mollard et al., 2015; Sit & Wisner, 2009; Sorg et al., 2019). The screening rates improved from an initial 63.10% to screening 100% of patients by the end of the SP implementation period (see Appendix S). As the SP manager, it was important to monitor progress and to refer to Lewin's change theory and the influencer model to evaluate strategy for effectiveness as a leader, motivator, and guide. The overall success came from the SP participants' innate need to provide the best care possible for their patient population.

Usefulness of the Work and Sustainability

The SP is an important project in the usefulness and aim to improve postpartum women's post-birth mental health in the ambulatory setting at a health system in the northwestern United States. The quality improvement SP will expand to other relevant ambulatory settings at their post-birth

comprehensive visit with their provider, to acute care upon postpartum discharge, and with the health system's postpartum follow-up calls. The SP is useful in increasing recognition of postpartum depression that is a potentially life-threatening condition with a substantial impact on quality of life (AHRQ & EHC, 2012).

The SP sustainability plan includes a supportive operational budget through the SP clinic sites and identified physician and nurse project champions. The guideline will be reviewed yearly for evidence-based references and best practice updates with key stakeholders in the organization. The SP manager will collaborate with the Women's Service Line administrator as a subject matter consultant for the continued planning and roll-out of this maternal mental health initiative throughout relevant ambulatory clinics.

Potential for Spread to Other Contexts, Implications for Practice, and Dissemination

The project is replicable for other ambulatory clinics within the health system and to other organizations who care for obstetric patients. Next steps include sharing of this information with stakeholders, the organization, and university. Dissemination of this quality improvement pilot project could be shared at national conferences as a podium or poster presentation. The findings could also be published in a nursing publication or perinatal journal. Research on this topic could be supported and completed through the organization's nursing research fellowship program or through independent investigator-initiated studies. This program could expand to include data on potential increases in postpartum depression diagnoses associated with increased screening rates, and hesitancy of patients to complete the screening to improve maternal mental health treatment options for postpartum depression.

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Appendix A: Literature Summary Table

TITLE OF ARTICLE	AUTHORS	RESEARCH QUESTION OR AIM OF THE ARTICLE	TYPE OF STUDY (DESIGN)	LEVEL / QUALITY OF EVIDENCE	Description Of Sample (if applicable)	OUTCOME MEASURES	RESULTS/KEY FINDINGS
PICO & timing of postpartum depression screening							
American College of Obstetricians and Gynecologists Committee Opinion no. 736	American College of Obstetricians and Gynecologists	Committee Opinion 736 was developed by the American College of Obstetricians and Gynecologists' Presidential Task Force on Redefining the Postpartum Visit and the Committee on Obstetric Practice The comprehensive postpartum visit no later than 12 weeks post-birth should include a full assessment of physical, social, and	Expert Opinion	Level IV Quality A	N/A	N/A	To optimize the health of women and infants, postpartum care should become an ongoing process, rather than a single encounter, with services and support tailored to each woman's individual needs. Postpartum women should ideally have contact with a maternal care provider within the first 3 weeks postpartum. This initial assessment should be followed up with ongoing care as needed, concluding with a comprehensive postpartum visit no

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		psychological well-being.					later than 12 weeks after birth.
American College of Obstetricians and Gynecologists committee opinion no. 757 summary	American College of Obstetricians and Gynecologists	Committee Opinion 757 is an update in language and supporting evidence regarding prevalence, benefits of postpartum depression (PPD) screening, and screening tools Screen at least once in the prenatal period using a standardized, validated tool Screen additionally with a validated tool at the comprehensive post- birth	Expert Opinion	Level IV Quality A	N/A	N/A	American College of Obstetricians and Gynecologist (ACOG) recommends OB/GYNs and other obstetric care providers screen patients at least once during the prenatal period for depression and anxiety using a standardized, validated tool. American College of Obstetricians and Gynecologist (ACOG) recommends OB/GYNs, and other obstetric care providers complete a full assessment of mood and emotional well-being (including screening for PPD

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		(postpartum) visit					with a validated instrument). Systems should be in place to ensure follow-up diagnosis and treatment.
		Reinforcing the American Academy of Pediatrician Guideline Statement on recognition and management of perinatal depression Recommend timeframe for postpartum depression screening at well-child checks are: The one-, two-, four-, and six-	Expert Opinion	Level IV Quality A	N/A	N/A	Key Practice Points Perinatal depression, which includes postpartum depression, is the most common obstetric complication and is associated with poor infant care and developmental issues. • Screening is recommended via the Edinburgh Postpartum

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		month well-child visits					Depression Scale or the Patient Heath Questionnaire at these visits.
Screening new parents for depression helps mother, child, and the whole family	Earls, M.	Review PPD impacts and recommendation for screening with Pediatricians AAP Recommends that screening be done at the 1, 2, 4, and 6-month infant visits Case-Study references Edinburgh Postnatal Depression Scale (EPDS)	Expert Opinion	Level IV Quality A	N/A	N/A	PPD adversely affect a child's critical early period of brain development. Perinatal depression can interfere with healthy parent-child attachment and lead to inappropriate medical treatment, family dysfunction. Maternal depression in infancy is predictive of increased cortisol levels in preschoolers, this in turn, is linked with anxiety, social wariness, and withdrawal.

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							Children of mothers with untreated postpartum depression often have poor self-control, poor peer relationships, school problems, and aggression.

Pediatricians can help with screening and prevent postpartum depression from leaving a lasting mark on the child. |
| Improving postpartum depression screening and referral in pediatric primary care | Russomagno, S., & Waldrop, J. | The Project standardized the PPD Screening schedule and developed a novel referral algorithm for primary care pediatric practice

Screen for postpartum | Quality Improvement | Level V Quality B | Total number of screening results by scheduled visit type (age): Newborns=72 2 Week=63 1 Month=69 2 Month=75 4 Month=74 6 Month=61 | PPD Screening Tool: Edinburgh Postnatal Depression Scale (EPDS)

Lewin's change theory (3-step model) for implementing and sustaining clinical practice change: | Clinics screening rate increased to 80%

Baseline data indicated that 66% of the mothers were appropriately referred before the project and increased to 79% after.

Process Notes: |

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		depression at the 1-, 2-, 4-, and 6-monthwell-child checks Project utilized the EPDS tool			Single Setting: Rural Primary Care Pediatric Practice that serves patients up to age 21	Unfreezing, moving, refreezing	Phase 1: Unfreezing where the PPD process referral and resource list was developed. Phase 2: Moving where change and collecting data occurred; new guideline implemented. Phase 3: Evaluation baseline data collected on screening rates and referrals.
Improving postpartum depression screening in pediatric primary care: a quality improvement project	Sorg, M., Coddington, J., Ahmed, S., & Richards, E.	Improve Standardized screening for postpartum depression in the pediatric primary care setting Recommended Screening at the 1, 2, and 6-	Quality Improvement	Level V Quality B	116 women Participated 72 mothers screened for PPD at the 1,2, or 6-month well-child check (WCC) during the 1/1/2017-12/31/2017 time frame	Edinburgh Postnatal Depression Scale (EPDS)	Pediatric health care providers can effectively screen for postpartum depression with a validated screening tool (used EPDS) at 1, 2 and 6-month well-child checks.

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		month well-child checks			44 mothers screened for PPD using the EPDS at any 1,2, and 6-month WCC during 1/1/2018-3/31/2018 Single Setting: Nurse Managed Primary Care Clinic		
PICO & Validated Screening Tools							
Concise review for physicians and other clinicians: Postpartum depression	Bobo, W. V. & Yawn, B. P.	Clinical update on the etiology, risk factors, diagnosis, and treatment of PPD Postpartum Depression (PPD) readily detectable by screening with Edinburgh Postnatal	Clinical Practice Guideline	Level IV Quality B	N/A	N/A	PPD screening improves case identification, improved rates of depression diagnosis and treatment, and can lead to better clinical outcomes. Treatment decisions will be driven by patient preferences, past responses to treatment, availability of local

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		Depression Scale (EPDS)					mental healthcare resources and patient decisions about breastfeeding.
Depression screening during pregnancy	Breedlove, G. & Fryzelka, D.	Purpose to aid providers and clinicians in early identification of depression to improve pregnancy outcomes EPDS and CES-D are recommended screening tools as they are the most widely studied in prenatal research	Systematic review (With Meta-analysis)	Level III Quality B	N=30 studies Meta-analysis combined results of 21 studies included 19,284 women	Evidence Review	Routine screening with in the antepartum and postpartum period Edinburgh Postnatal Depression Scale (EPDS) and Center for Epidemiological Studies Depression Scale (CES-D) provides high reliability and predictability for the risk for depression in pregnancy and postpartum. Early identify of depression reduces the risk of adverse effects for mother, infant, and family.

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							Undiagnosed clinical depression in pregnancy may contribute to adverse perinatal complications such as inadequate maternal weight gain, preterm birth, and low infant birth.
A project to improve postpartum depression screening practices among providers in a community women's healthcare clinic	Clevesy, M. A., Cheese, C., & Strebel, K.	Establish a standard of care that providers could consistently use to improve the PPD screening process to promote early recognition of women's PPD symptoms Edinburgh Postnatal Depression Scale (EPDS) recommended	Quality Improvement	Level V Quality B	Total 6 healthcare providers 3 OB/GYNs 3 APRNs (Single Setting-One Clinic)	Affordable Care Act (ACA) Preventative PPD Screening Clinical Practice Questionnaire	PPD Screening documentation rates increased from 56% to 92.7% with project. Research shows that PPD screening performed with the use of a standardized screening tool allows for early recognition and intervention. Development and implementation of the validated screening tool in the

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		as standardized screening tool to assess for PPD symptoms					EHR system and a simple educational in-service were associated with improved PPD screening and Documentation compliance.
Study guideline on criterion validation of Edinburgh Postnatal Depression Scale (EPDS), Patient Health Questionnaire (PHQ-9) and Centre for Epidemiological Studies-Depression (CES-D) screening tools among rural postnatal women; A cross-sectional study	January, J. & Chimbari, M. J.	Aim to determine criterion validity of EPDS, Patient Health Questionnaire (PHQ-9) and Center for Epidemiological Studies-Depression (CES-D)	Cross-Sectional Study	Level III Quality B	Postnatal Women, Age 16 and above, (n=462) in two rural hospitals Zimbabwe at 7 or 42 days	Assessment for depressive symptoms by using the EPDS, or PHQ-9, or CES-D And interview with by a clinical psychologist using DSM-5 criteria	Valid tools that are widely used for antepartum and postpartum depression are EPDS, Patient Health Questionnaire (PHQ-9) and Center for Epidemiological Studies-Depression (CES-D). Paucity of data (limited data) on the utility of the tools among the women in the rural setting of Zimbabwe.

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Consensus bundle on maternal mental health: Perinatal depression and anxiety	Kendig, S., Keats, J. P., Hoffman, C., Kay, L. B., Miller, E. S., Moore-Simas, T. A., Frieder, A., Hackley, B., Indman, P., Raines, C., Semenuk, K., Wisner, K. L., & Lemieux, L. A.	Focused perinatal mood and anxiety disorder bundle Validated tools in Perinatal Settings: Edinburgh Postnatal Depression Scale (EPDS), Patient Health Questionnaire 9 (PHQ-9) EPDS also includes anxiety-relevant questions Staged-based guideline for intervention	Consensus Bundle	Level IV Quality A	N/A	Council on Patient Safety in Women's Health Care convened an interdisciplinary work group to develop an evidenced-based patient safety bundle	**The EPDS and PHQ-9 are the two depressions screening instruments validated in the perinatal populations** Provides broad direction for incorporating perinatal mood and anxiety disorder screening intervention, referral, and follow up into maternity care practice across all the healthcare settings. Note: Staged-based guideline for intervention
An integrative review of postpartum depression in	Mollard, E., Brage Hudson, D.,	Synthesize and summarize the literature on postpartum	Integrative Review	Level V Quality B	11 articles 7 quantitative, 2 qualitative 1	Literature Review	The studies used validated screening tools and the most used is the

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rural U.S. communities	Ford, A., & Pullen, C.	depression (PPD) in U.S. rural Populations Edinburgh Postnatal Depression Scale (EPDS) the most widely used validated screening tool in rural settings			mixed-methods 1 non-experimental design	using Wittemore and Knafl's methodology	Edinburgh Postnatal Depression Scale (EPDS) in rural settings; easy to administer for rural providers and participants are receptive to tool. Nurses should lead the change for increase screening and interventions for postpartum depression in rural communities. Prevalence rates of PPD higher in rural women than non-rural women: Mothers in rural areas have limited availability to health care services and health care providers; especially those trained in mental health specialties.

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Interventions to prevent perinatal depression evidence report and systematic review for the US preventative services task force	O'Connor, E., Senger, C. A., Henninger, M. L., Coppola, E., & Gaynes, B	Review benefits and harms of primary care-relevant interventions to prevent a perinatal depression, a major or minor depressive episode during pregnancy or up to 1 year after childbirth, to inform the US Preventative Services Task Force

The most widely used tools in the studies were the EPDS and CES-D | Systematic Review | Level III Quality A | 50 studies

49 Randomized Clinical Trials and 1 Nonrandomized Clinical trial | US Preventative Services task Force (USPSTF) design-specific criteria

Strata version 15.1 (StrataCorp LP) was used for analysis | Counseling interventions were associated with lower likelihood of onset of perinatal depression; 1.3% greater reduction in the control group to 31.8% greater reduction in the intervention group.

A variety of other interventions are options but there is lack of robust evidence and a need for further research.

One study indicated EPDS to have an 82% sensitivity and 95% specificity and 43 % predictive value. |
| Perinatal depression: The role of maternal adverse childhood | Racine, N., Zumwalt, K., McDonald, S., Tough, S. & Madigan, S | Objectives 1)Determine whether adverse childhood events (ACEs) predict depressive | Mixed Methods | Level III Quality A/B | Women (n=1994)

Pregnant Women less than 25 weeks | ACES Questionnaire

Medical Outcomes Study | Screening for adverse childhood events in pregnancy and postpartum indicates that mothers are at |

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experiences and social support		symptomology in pregnancy and in the postpartum period 2)Test the relative contribution of ACEs on risk to depression, including social support 3)Examine the association between ACEs and depression across the perinatal period EPDS was the tool for used for postpartum depression screening			gestation, at least 18 years of age and able to answer questions in English Patients did 3 parts: Aces, Social Support Survey and EPDS	Social Support Survey Edinburgh Postnatal Depression Scale (EPDS)	higher risk (increased likelihood) for postpartum depression. Lack of Social Support increases risk for PPD. "Maternal depression and its sequalae, including suicide, are one of the leading causes of maternal mortality in the perinatal period" (Racine et al., 2020).
Identification of postpartum depression	Sit, D. K. & Wisner, K. L.	Review of depression screening tools, diagnostic		Level IV Quality B	N/A	N/A	Predictors of PPD include depression screening: Universal depression screening

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		criteria for postpartum depressive disorders and clinical risk factors Most common measure for screening is the Edinburgh Postnatal Depression Scale (EPDS)					improves detection rates compared to routine care (35.4% and 6.3%) respectively. Universal screening maximizes the likelihood of prompt identification of PPD. Reinforced US Preventative Health Task Force, 2002; American College of Obstetricians and Gynecologists (ACOG) advocating for routine screening to improve identification of depressed perinatal patients. Depression care manager, who provides education, telephone support, and coordinates referrals is feasible

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							and may improve depression outcomes.

Evidenced-based treatments focus on psychotherapy and antidepressant medications. |
| Postpartum depression screening: Are we doing a competent job | Sudhanthar, S., Sheikh, Z., & Thakur, K. | Project aimed to improve PPD Screening using a validated tool to 75% in a primary care inner-city clinic

Validated screening tool used: EPDS | Quality Improvement | Level V Quality B | 40 charts audits of 2-month-old and 4-month-old well-child visits | Chart audits

5-question online survey re: survey practices | By the end of cycle 3, 82% had EPDS documentation 33/40 = 82%.

EPDS identified patients at risk for PPD and helped them make connections with community resources.

Variability in administration of a validated depression scale increases missing the diagnosis and delivery of services to many |

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							mothers and newborn children.\n\nChose a physician champion; core team met every 2-3 months; PDSA cycle; 5 question survey regarding survey practices; introduced EPDS; didactic training sessions.\n\nClear clinic flow guidelines may help implementation.
Postpartum depression screening tools	Ukatu, N., Clare, C. A., & Brulja, M	Analyze the accuracy of screening tools in detecting postpartum depression (PPD)\n\nClinicians chose a validated screening tool that fits their clinical practice setting such as the EPDS	Literature Review	Level V Quality B	68 articles were reviewed and 36 further analyzed\n\nBreakdown: 16 validated studies; 12 review articles (2 retrospective reviews), 10 were systematic reviews; 6	Literature Review	Accuracy of screening tools depends on several factors; there is not one tool to be deemed best at accurately detecting PPD based on sensitivity and specificity.\n\nClinicians can choose a validated screening tool that best fits

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		(Edinburgh Postnatal Depression Scale or PHQ-9 because they take less time in outpatient clinic setting			articles used surveys without psychiatric interviews; 2 articles were randomized control trials		into their scope of practice.
Post-up study: Postpartum depression screening in well-childcare and maternal outcomes	Van Der Zee-Van Den Berg, A. I., Boere-Boonekamp, M. M., Groothuis-Oudshoorn, C. M., Haasnoot-Smallegange, R. E., & Reijneveld, S. A.	Aim is to assess the effectiveness of screening for postpartum depression in well-child clinics compared with care as usual on the outcomes of mothers and children Implementing a structured assessment with a screening tool such as EPDS can improve early detection of Postpartum Depression (PPD)	Quasi-Experimental Comparative Design	Level II Quality B	Mothers (N=3089) Mothers visiting for well-child checks= 1843 and those that visited as Care as Usual= 1246 Total of 42 centers	Short-form: Health Survey 12-item Short-form: Spielberger State-Trait Anxiety Inventory 6-item Questionnaire: Maternal Self-Efficacy in the Nurturing Role PPD Screening Tool: Edinburgh Postnatal Depression Scale	EPDS statistically will identify 79% of the women with postpartum depression with a 95% confidence interval. Total who had scores $\geq$ 9 at 1, 3, 6 months was 12% those with a score of $\geq$13 was 4%. Screening for postpartum depression at well-child checks has a positive effect on maternal mental health (reinforces

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		which can promote fast recovery					screening for depression in adults by the U.S. Preventative Services Task Force). Timing: 2 week postpartum and Well-child check 1,3,6-month checks).
PICO & Training							
Nurses perceived preparedness to screen, intervene, and refer women with suspected postpartum depression	Bina, R., Glasser, S., Honovich, M., Levinson, D., & Ferber, Y.	Aim: Examine the perceived preparedness of public health nurses to screen postpartum women for postpartum symptoms, conduct an initial intervention and refer women, as well as perceived factors associated with perceived preparedness	Cross-Sectional Study	Level III Quality B	Public Health Nurses (N=219) ages 26-64 with average age being 45.5	4-Point Likert scales with Customized survey adapted from literature. Perceived Preparedness to screen, intervene, refer and attitudes (4-Point Likert scale) Perceived knowledge	Ongoing training with a focus on enhancing knowledge, positive attitudes and competence should be provided to public health nurses to prepare them to screen, intervene and refer women with postpartum depression. Perceived preparedness for nursing to conduct

TITLE OF ARTICLE	AUTHORS	RESEARCH QUESTION OR AIM OF THE ARTICLE	TYPE OF STUDY (DESIGN)	LEVEL / QUALITY OF EVIDENCE	Description Of Sample (if applicable)	OUTCOME MEASURES	RESULTS/KEY FINDINGS
						(Scale: 1- low, 2- average, 3- high)\n\nPerceived competence to screen, refer and provide supportive counseling (4-Point Likert scale)\n\nPrevious experience with PPD Screening was assessed by number of years participants used EPDS scale	interventions of findings of postpartum depression screening tools is important to the success of a screening program.\n\nTraining, attitudes, knowledge, comfort with referral are key factors in preparedness to conduct screening initiatives for postpartum depression.
Developing a hospital-based postpartum depression intervention for perinatal nurses	Lewis, N. L.	Aim is to describe the development and implementation of an education intervention that led to nurses' increased knowledge and provision of	Quality Improvement	Level V Quality B	26 Registered Nurses in a 150-bed regional hospital with 1,600 births\n\nThree Departments: Labor and Delivery (11.5%)	10 question PPD knowledge Pre-Test and Post-Test Survey Design\n\nPaired Sample t-test	Mean score on pretest was 68.88 and mean score on the posttest 94.14.\n\nUsed Bandura's Self-efficacy theory; perinatal nurses must receive appropriate education on PPD to

TITLE OF ARTICLE	AUTHORS	RESEARCH QUESTION OR AIM OF THE ARTICLE	TYPE OF STUDY (DESIGN)	LEVEL / QUALITY OF EVIDENCE	Description Of Sample (if applicable)	OUTCOME MEASURES	RESULTS/KEY FINDINGS
		postpartum depression education Perinatal nurses are in a vital position to provide education, promote communication, and screen regarding postpartum depression			Postpartum (42.3%) Nursery (46.2%)		increase their level of confidence in implementing PPD tools and interventions. Study found that nurses are more likely to educate on postpartum depression if they have knowledge on the condition.

Appendix B: Edinburgh Postnatal Depression Scale (EPDS); Cox et al. 1987

Edinburgh Postnatal Depression Scale[1] (EPDS)

Name: _____   Address: _____

Your Date of Birth: _____

Baby's Date of Birth: _____   Phone: _____

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

Here is an example, already completed.

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

In the past 7 days:

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

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

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

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

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

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

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

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

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

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

Administered/Reviewed by _____   Date _____

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

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

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Edinburgh Postnatal Depression Scale[1] (EPDS)

Postpartum depression is the most common complication of childbearing.[2] The 10-question Edinburgh Postnatal Depression Scale (EPDS) is a valuable and efficient way of identifying patients at risk for "perinatal" depression. The EPDS is easy to administer and has proven to be an effective screening tool.

Mothers who score above 13 are likely to be suffering from a depressive illness of varying severity. The EPDS score should not override clinical judgment. A careful clinical assessment should be carried out to confirm the diagnosis. The scale indicates how the mother has felt *during the previous week*. In doubtful cases it may be useful to repeat the tool after 2 weeks. The scale will not detect mothers with anxiety neuroses, phobias or personality disorders.

Women with postpartum depression need not feel alone. They may find useful information on the web sites of the National Women's Health Information Center <www.4women.gov> and from groups such as Postpartum Support International <www.chss.iup.edu/postpartum> and Depression after Delivery <www.depressionafterdelivery.com>.

SCORING

QUESTIONS 1, 2, & 4 (without an *)
Are scored 0, 1, 2 or 3 with top box scored as 0 and the bottom box scored as 3.

QUESTIONS 3, 5-10 (marked with an *)
Are reverse scored, with the top box scored as a 3 and the bottom box scored as 0.

Maximum score: 30
Possible Depression: 10 or greater
Always look at item 10 (suicidal thoughts)

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Instructions for using the Edinburgh Postnatal Depression Scale:

1. The mother is asked to check the response that comes closest to how she has been feeling in the previous 7 days.

2. All the items must be completed.

3. Care should be taken to avoid the possibility of the mother discussing her answers with others. (Answers come from the mother or pregnant woman.)

4. The mother should complete the scale herself, unless she has limited English or has difficulty with reading.

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

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

Appendix C: Theoretical Model

Lewin's Change Model: Lewin's Three Stage Change Process (Lewin, 1947; Shirley, 2013)
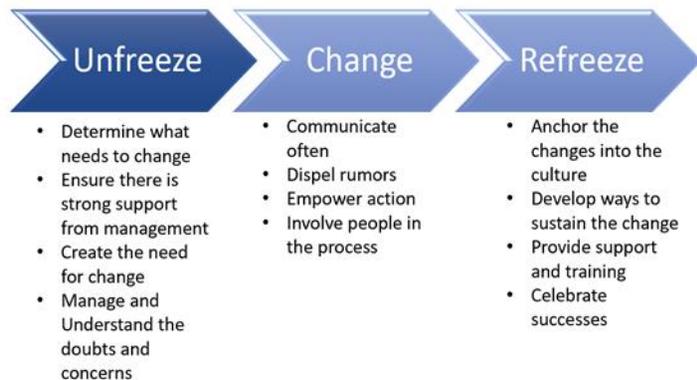
Influencer Model (Grenny et al., 2013)
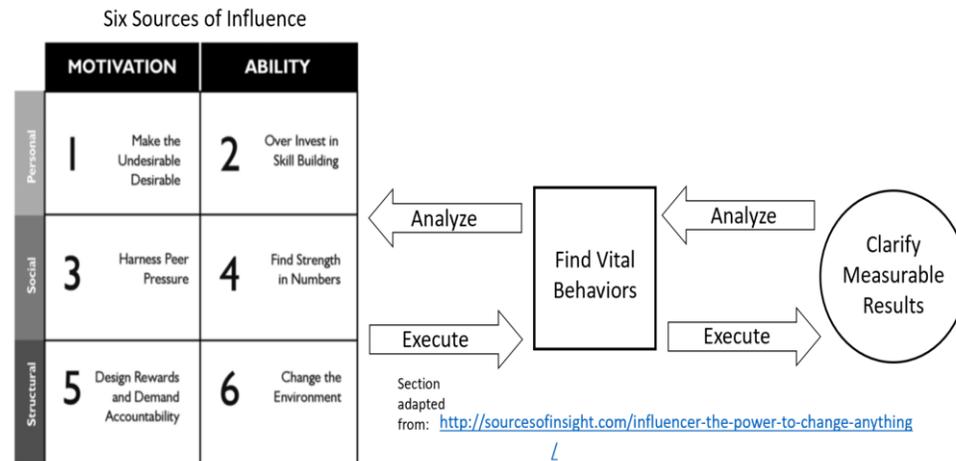
Appendix D: Memorandum of Understanding

The Memorandum of Understanding (MOU) is withheld from publication at the request of the healthcare system. The scholarly project Manager retained a

signed copy of the document.

Appendix E: Logic Model

Kellogg Logic Model Framework

Step 5	Step 3	Step 4		Step 2a	Step 2b	Step 1
Resources/Inputs	Activities	Outputs		Outcomes: Short term	Outcomes: Intermediate	Outcomes: Long term
Human Resources: Identified Stakeholders: Ambulatory Clinical Learning Services Representative, Ambulatory Clinical Informatics and Technology Representative (CIT), Data Analytics Representative, SP clinic lead nurse, SP clinic lead physician, Women's Service Line Project Manager, Behavioral Health CNS, Ambulatory OB Manager, Director of Case Management **Financial Resources:**	Review best practice evidence on education for the Edinburgh Postnatal Depression Scale (EPDS), process, and guideline, develop education module with stakeholder review and approval; Track changes, update as needed, survey feedback in Office 360 tools from stakeholders prior to implementation	Best practice, evidence-based education developed and implemented to the physicians, nurses, office-staff to increase awareness, knowledge, and confidence in providing mental health care assessments for post-birth patients The data collection tool will collect attendance of the scholarly project participants who attend training	Physicians, nurses, patient access specialist *NOTE: High-risk clinic does not have Social Work, CNA's, or MA's*	1) By April 30, 2021, evidence- based education for postpartum depression screening, guideline and process in the ambulatory setting is developed and approved for implementation (PO).	7) By February 2022, 100% of staff (physicians and nurses) who perform screening have completed the post-knowledge survey for postpartum depression and Edinburgh Postnatal Depression Scale (EPDS) (PO).	12) Improved screening and documentation of postpartum depression in the regional health system in the northwestern United States

Paid meeting time for salaried staff to review/ approve education **Organizational/Equipment: Computers, Office Space (e-mailing education for review with e-survey)** **Miscellaneous** Food at Training, Travel for Project Leader	Education with e-modules and staff huddles and meetings for at the elbow support with project leader					
Human Resources: Identified Stakeholders: Ambulatory Clinical Learning Services Representative, Ambulatory Clinical Informatics and Technology Representative (CIT), Data Analytics Representative, SP clinic lead nurse, SP clinic lead physician, Women's Service Line Project Manager, Behavioral Health CNS, Ambulatory OB Manager, Director of Case Management	Develop and deploy education to clinical staff regarding the Edinburgh Postnatal Depression Scale (EPDS) Build and activate the Edinburgh Postnatal Depression Scale (EPDS) in electronic health record in ambulatory setting	Provide education increasing knowledge and skill in using the Edinburgh Postnatal Depression Scale (EPDS) for the care of patients The Edinburgh Postnatal Depression Scale (EPDS) is in the Electronic Medical Record for electronic patient assessment, tracking data and archiving for continuum of care	Physicians, nurses, patient access specialist Prenatal and Postpartum Patients	2) By June 18, 2021, 80% of the scholarly project clinic physicians, nurses, and office staff, will complete training for the evidence-based postpartum screening tool (EPDS) and process as indicated by electronic attendance rosters (PO).	8) By March 2022, 95% of the SP physicians and nurses adhere to the utilization of the Edinberg Postpartum Depression Screening Tool (EPDS) for recognizing postpartum depression and anxiety in their patient population (CO).	13) Improved mental health/resilience of postpartum mothers in the regional health system in the northwestern United States

Prenatal and Postpartum Patients undergoing Screening **Financial Resources:** **Salaries for meeting time & training: Stakeholders, physicians, nurses,** patient access specialist **Equipment:** **Computers, Office Space, Printer** **Paper, Staples, Pens** **Miscellaneous** **Food at Training,** **Travel for Project Leader**	Pre- and Post-Knowledge survey on postpartum depression and postpartum screening tool Create a financial budget to support training, supplies, and meetings Create project plan Create and utilize attendance roster instrument: *Maternal Fetal Medicine Attendance*	Anticipate Financial Expenses/Salaries Project plan for process goals, achievements, next steps, risk Project plan developed to track goals, achievements, next steps, risk				

	Roster r/t Postpartum Depression and Screening Guideline					
Human Resources: Identified Stakeholders: Ambulatory Clinical Learning Services Representative, Ambulatory Clinical Informatics and Technology Representative (CIT), Data Analytics Representative, SP clinic lead nurse, SP clinic lead physician, Women's Service Line Project Manager, Behavioral Health CNS, Ambulatory OB Manager, Director of Case Management **Prenatal and Postpartum Patients undergoing Screening**	Develop and deploy education to clinical staff re: Edinburgh Postnatal Depression Scale (EPDS) Build and activate the Edinburgh Postnatal Depression Scale (EPDS) in electronic health record in ambulatory setting Create and utilize Pre- and Post-, Likert scale Postpartum Depression Knowledge	Provide education increasing knowledge and skill in using the Edinburgh Postnatal Depression Scale (EPDS) for the care of patients The Edinburgh Postnatal Depression Scale (EPDS) is in the Electronic Medical Record for electronic patient assessment, tracking data and archiving for continuum of care Administration of knowledge questionnaire gives predictions about learning outcomes and perceived knowledge/understanding of education	Physicians, nurses, patient access specialist Prenatal and Postpartum Patients	3) By June 18, 2021, 80% of SP clinic physicians, nurses, and office staff increase their perceived understanding of the validated evidenced-based screening tool (EPDS) by 25% (CO).	9) By February 2022, 80% of the scholarly project physicians and nurses adhere to the Guideline for *Postpartum Depression and Anxiety Screening in the Ambulatory Setting (CO).*	14) Improved postpartum depression treatment for post-birth mothers in the regional health system in the northwestern United States

Financial Resources: **Salaries for meeting time & training: Stakeholders, physicians, nurses,** patient access specialist Food at Training Travel for Project Leader **Organizational/Equipment:** **Computers, Office Space, Printer, Paper, Staples, Pens** **Miscellaneous** Food at Training, Travel for Project Leader	Questionnaire administered to the scholarly participants after the training session Create a financial budget to support training, supplies, and meetings Create project plan	Anticipate Financial Expenses/Salaries Project plan for process goals, achievements, next steps, risk Project plan developed to track goals, achievements, next steps, risk				
Human Resources: **Identified Stakeholders:** **Ambulatory Clinical Learning Services Representative, Ambulatory Clinical Informatics and Technology Representative (CIT), Data Analytics Representative, SP clinic lead nurse, SP clinic lead physician, Women's**	Develop and deploy education to clinical staff re: Edinburgh Postnatal Depression Scale (EPDS) Build and activate the Edinburgh Postnatal Depression Scale (EPDS)in	Provide Guideline education to increase knowledge on the principles that guide decisions to achieve rational outcomes based on patient data (score/assessment) Assess knowledge of the postpartum depression screening guideline	Physicians, nurses, patient access specialist, Ambulatory Educator(s) Prenatal and Postpartum Patients	4) By June 18, 2021, 80% of the SP physicians, nurses, and office staff demonstrate knowledge and understanding of the (newly developed) evidenced-based Ambulatory Postpartum	10) By February 28, 2022, the Edinburgh Postnatal Depression Scale (EPDS)education module will be implemented and deployed to all new hires and transfers to the ambulatory	

Service Line Project Manager, Behavioral Health CNS, Ambulatory OB Manager, Director of Case Management **Prenatal and Postpartum Patients undergoing Screening** **Financial Resources: Salaries for meeting time & training: Stakeholders, physicians, nurses,** patient access specialist **Equipment: Computers, Office Space, Printer** **Paper, Staples, Pens** Miscellaneous Food at Training, Travel for Project Leader	electronic health record in ambulatory setting Develop and deploy the multiple choice *Ambulatory EPDS Guideline Training Assessment* Create a financial budget to support training, supplies, and meetings Create project plan	Provide nominal-level data for scholarly project demonstration of knowledge and understanding Anticipate Financial Expenses/Salaries Project plan developed to track goals, achievements, next steps, risk		Depression Screening Guideline as indicated by a score of 80% or better on the module post-test (CO).	patient access specialist (registration staff), RNs, and physicians throughout the regional health system.	

Human Resources: Postpartum Women, their newborn(s), their families, **Identified Stakeholders: Identified Stakeholders: Ambulatory Clinical Learning Services Representative, Ambulatory Clinical Informatics and Technology Representative (CIT), Data Analytics Representative, SP clinic lead nurse, SP clinic lead physician, Women's Service Line Project Manager, Behavioral Health CNS, Ambulatory OB Manager, Director of Case Management** **State of Idaho Health and Welfare PRATS Program management survey staff and patients surveyed** **Financial Resources:**	Implement evidenced-based screening tool, the Edinburgh Postnatal Depression Scale (EPDS), in the electronic health record Develop and deploy electronic tip sheet reference regarding the Edinburgh Postnatal Depression Scale (EPDS) in the Electronic Health Record Create and *utilize Chart Audit Tool r/t Screening for Postpartum Depression Risk in the*	The Edinburgh Postnatal Depression Scale (EPDS) is in the Electronic Medical Record for electronic patient assessment, tracking data and archiving for continuum of care Electronic Edinburgh Postnatal Depression Scale (EPDS) Informatics tip sheet available to pilot clinical staff for knowledge and reference Quantify the number of patients screened with the EPDS at the scholarly project site Gain understanding of the percentage of patients who are informed about the EPDS at their comprehensive postpartum appointment Anticipate Financial Expenses/Salaries	Physicians & nurses Prenatal and Postpartum Patients	5) By July 26, 2021, 80% of postpartum women are screened for postpartum depression with a validated screening tool at their comprehensive post-birth appointment (6-8 weeks postpartum) as indicated by electronic health record audit (PO).	11) By August 31, 2024, 100% of the eligible postpartum women are screened with the postpartum depression screening tool by the clinical staff at the SP site (PO).	

Salaries for meeting time & training: Stakeholders, physicians, nurses, patient access specialist **Organizational/Equipment: Computers, Office Space, Printer, Paper, Staples, Pens, laminated tip sheet badge reference**	*Ambulatory Setting* Create a financial budget to support training, supplies, and meetings Create project plan	Project plan developed to track goals, achievements, next steps, risk				
Human Resources: Identified Stakeholders: Ambulatory Clinical Learning Services Representative, Ambulatory Clinical Informatics and Technology Representative (CIT), Data Analytics Representative, SP clinic lead nurse, SP clinic lead physician, Women's Service Line Project Manager, Behavioral Health CNS, Ambulatory OB Manager, Director of Case Management	Develop and deploy education to clinical staff re: the Edinburgh Postnatal Depression Scale (EPDS) Build and Activate the Edinburgh Postnatal Depression Scale (EPDS) in electronic health record in ambulatory setting	Provide education increasing knowledge and skill in using the Edinburgh Postnatal Depression Scale (EPDS) for the care of patients The Edinburgh Postnatal Depression Scale (EPDS) is in the Electronic Medical Record for electronic patient assessment, tracking data and archiving for continuum of care	Physicians, nurses, patient access specialist Prenatal and Postpartum Patients	6) By July 26, 2021, 75% of the SP physicians, nurses, and office staff, who completed the evidence- based education for postpartum depression screening, guideline and process will participate in quality improvement feedback to improve project		

	Develop and utilize the quantitative & qualitative *Ambulatory EPDS Project Evaluation Instrument*	Evaluate opportunities to improve the quality improvement project for future deployment Identify the degree that the scholarly participants acquire the intended attitude and knowledge and found the training favorable to their jobs Identify what additional support the team may need to apply what has been learned Project plan developed to track goals, achievements, next steps, risk		elements for future sessions (PO).		
Prenatal and Postpartum Patients undergoing Screening **Financial Resources:** **Salaries for meeting time & training: Stakeholders, providers, nurses,** patient access specialist **Organizational/Equipment:** **Computers, Office Space, Printer, Paper, Staples, Pens** **Miscellaneous** Food at Training, Travel for Project Leader						

Appedix F: Timeline

Final Proposal	Project: Deploying a Validated Postnatal Depression Scale & Staged Response Guideline for Postpartum Depression in Ambulatory Care																							
	Month/Year																							
ACTIVITY	Fall 2019	Spring 2020	Summer 2020	Fall Semester				Spring Semester					Summer 2021			Fall Semester				Spring Semester				
PLANNING	Fall 2019	Spring 2020	6-7/20	9/20	10/20	11/20	12/20	1/21	2/21	3/21	4/21	5/21	6/21	7/21	8/21	9/21	10/21	11/21	12/21	1/22	2/22	3/22	4/22	5/22
Literature Review	▪	▪	▪	▪	▪	▪	▪	▪	▪															
Synthesis of Evidence	▪																							
Develop Problem Statement	▪																							
Organizational Assessment		▪																						
SP Proposal Draft		▪	▪																					
CITI Training (start June 28)		▪																						
Mission, Vision, Problem Statement		▪	▪	▪	▪	▪																		
SP Toolbox: Competency Assessment for Practicum Design (p. 297- Moran)		▪	▪	▪	▪	▪	▪	▪	▪	▪														
Scholarly Project Timeline		▪	▪	▪	▪	▪	▪	▪	▪	▪														
Project Logic Model, Goals & Outcomes		▪	▪	▪	▪	▪																		
BUDGET-Cost Benefit Analysis-Financials				▪	▪	▪	▪																	

Task	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Identify & Verify Scholarly Project (SP) Clinic			X	X	X																	
Form Advisory Committee				X	X	X	X	X														
Complete Charter and Key Remits for Advisory Committee						X	X	X	X	X												
IRB project submission								X	X													
Present proposal for review and approval											X											
Outcomes Evaluation Plan				X	X	X	X				X											
Memorandum of Understanding with Organization					X																	
Enroll in myClinicalexchange					X																	
Review AIM Maternal Mental Health Bundle	X	X	X	X	X	X	X	X	X													
Review Community Action Guide by the Substance Abuse and Mental Health Services Administration (SAMHSA), U.S. Department of Health and Human Services (HHS)	X	X	X	X	X	X	X	X	X	X												
Research DNP knowledge survey options for population of interest	X	X	X	X	X	X	X															

Task	Fall 2019	Spring 2020	6-7/20	9/20	10/20	11/20	12/20	1/21	2/21	3/21	4/21	5/21	6/21	7/21	8/21	9/21	10/21	11/21	12/21	1/22	2/22	3/22	4/22	5/22
Join as Nurse SME for System Perinatal Mental Health Collaborative				■	■																			
EPDS Tool Development							■	■	■															
Communications Plan						■	■	■		■														
Stakeholder Advisory Charter & Meetings				■	■	■	■	■	■	■	■	■	■											
Develop Education Tools				■	■	■	■	■	■	■	■	■												
Guideline Development				■	■	■	■	■	■	■														
Promote/Market Project											■	■												
Implement Screening Tool in Ambulatory Electronic Health Record								■	■	■	■	■	■											
Develop Tip Sheet regarding Screening Tool in Electronic Health Record											■	■	■											
PLANNING	Fall 2019	Spring 2020	6-7/20	9/20	10/20	11/20	12/20	1/21	2/21	3/21	4/21	5/21	6/21	7/21	8/21	9/21	10/21	11/21	12/21	1/22	2/22	3/22	4/22	5/22
IMPLEMENTATION																								
Pre- Post- knowledge survey to clinicians & staff in SP Clinic												■	■											
Train Ambulatory Physician Lead and Lead Nurse												■												
Education to physicians, nurses,												■	■	■										

	Fall 2019	Spring 2020	6-7/20	9/20	10/20	11/20	12/20	1/21	2/21	3/21	4/21	5/21	6/21	7/21	8/21	9/21	10/21	11/21	12/21	1/22	2/22	3/22	4/22	5/22
front office staff in SP clinic													orange	orange	orange									
Electronic Evaluation Survey of the evidence-based education for postpartum depression screening, guideline, and process															orange	orange								
Project Milestones													orange	orange	orange	orange								
Issues Log													orange	orange	orange	orange								
PLANNING	Fall 2019	Spring 2020	6-7/20	9/20	10/20	11/20	12/20	1/21	2/21	3/21	4/21	5/21	6/21	7/21	8/21	9/21	10/21	11/21	12/21	1/22	2/22	3/22	4/22	5/22
DATA COLLECTION																								
mSL (Electronic Health Record) Data Collection of Depression Scale Screen by Clinicians to Patients													blue	blue	blue	blue	blue	blue						
DATA ANALYSIS																								
Knowledge Assessment Pre- and post-education												blue	blue											
mSL (Electronic Health Record) Data Analysis of use of screening tool															blue	blue	blue	blue						
Data Analysis of PPD Diagnosis																								
PLANNING	Fall 2019	Spring 2020	6-7/20	9/20	10/20	11/20	12/20	1/21	2/21	3/21	4/21	5/21	6/21	7/21	8/21	9/21	10/21	11/21	12/21	1/22	2/22	3/22	4/22	5/22
mSL (Electronic Health Record) Data Analysis																blue	blue	blue	blue					

	Fall 2019	Spring 2020	6-7/20	9/20	10/20	11/20	12/20	1/21	2/21	3/21	4/21	5/21	6/21	7/21	8/21	9/21	10/21	11/21	12/21	1/22	2/22	3/22	4/22	5/22
of PPD diagnosis in SP clinic																■	■	■	■					
PLANNING	Fall 2019	Spring 2020	6-7/20	9/20	10/20	11/20	12/20	1/21	2/21	3/21	4/21	5/21	6/21	7/21	8/21	9/21	10/21	11/21	12/21	1/22	2/22	3/22	4/22	5/22
DISSEMINATION																								
BSU																						■		
Regional Health System																							■	
AWHONN at National Conference																								■
Final Report																						■		

Appendix G: Outcomes Evaluation Table

Outcome	Data Collection Instrument / Data	Analysis Goal	Analytic Technique
Logic Model Outcome #2 **By June 18, 2021, 80% of the scholarly project clinic physicians, nurses, and office staff, will complete training for the evidence-based postpartum screening tool (EPDS) and process as indicated by electronic attendance rosters (PO).**	**Instrument:** **Maternal Fetal Medicine Attendance Roster r/t Postpartum Depression Screening and Guideline** **History:** Electronic Attendance Roster Data Collection Tool is a scholarly project tool developed by SP manager, organizational mentor, and clinical learning stakeholder The data collection tool will collect attendance of the scholarly project participants who attend training. The project participants include: -Clinic physicians -Nurses -Patient Access Specialist The primary data collection will include the scholarly project participants who are actively working and not on leave (i.e., Family Medical Leave Act, Personal Leave, or Sick Leave), representing the denominator If electronic training through TLC module with health system, the attendance roster will track automatically as the employee logs- in for training If electronic training is done with the PowerPoint option, then the SP manager will take virtual or in-person attendance depending on the learning environment we are able to perform at that time	**Goal/Purpose:** 1. Collect nominal attendance data for the training 2. Identify training opportunities for employees who missed initial training offerings	Attendance data collection will provide nominal level data on the scholarly project participants attending the training on the EPDS, process and guideline
Logic Model Outcome #3 **By June 18, 2021, 80% of SP clinic physicians, nurses, and office staff increase their perceived understanding of the**	**Instrument:** **The Postpartum Depression Knowledge Questionnaire** **History:** The *Postpartum Depression Knowledge Questionnaire* is adapted from the: Centers for Disease Control and Prevention	**Goal/ Purpose:** 1. CDC developed post-course evaluation toolkit for project leaders implementing course evaluations to **give better**	Quantitative Measure for assessment of knowledge and understanding of scholarly participants

| validated evidenced-based screening tool (EPDS) by 25% (CO). | Recommended Training and Effectiveness Questions for Post-Course Evaluations Users Guide

Tool is open sourced on the CDC.gov website

This anonymous tool is presented primarily electronically in an Office 365 format in July and in-person (or on paper as a secondary option)

Postpartum Depression Knowledge Questionnaire has five pre-and post- instruction 5-point Likert scale questions that will be given to the scholarly participants after the training session. The questions are:
1) Rate your knowledge of the maternal consequences associated with postpartum depression **before (and after)** the course.
2) Rate your knowledge of the newborn consequences associated with postpartum depression **before (and after)** the course.
3)Rate your knowledge of the local postpartum depression statistics **before (and after)** the course
4) Rate your knowledge of the best time frame to screen for postpartum depression post-birth **before (and after)** the course.
4) Rate your knowledge of postpartum depression screening **before (and after)** the course.
5) Rate your knowledge of the Edinburgh Postnatal Depression Scale (EPDS) **before (and after)** the course.

5-point Likert scale

    1) Not at all knowledgeable
    2) Slightly knowledgeable
    3) Moderately knowledgeable
    4) Very knowledgeable
    5) Extremely knowledgeable

Reliability/Validity:
These tools have been widely used in previous studies and have established reliability and validity. | **predictions about learning outcomes.**
2. The CDC users guide (2019) states that the questions focus on constructs that exhibit strong and consistent relationships **with learning and the transfer of learning with adult learners.**
3. This questionnaire will evaluate scholarly participants perceived knowledge/understanding of the consequences of postpartum depression, local postpartum depression statistics, postpartum screening, and the Edinburgh Postnatal Depression Scale (EPDS). | Quantitative descriptive statistics comparing mean aggregate scores for each test item before and after the education module is presented

Data will be displayed as the aggregated pre-test and post-test scores, for each item, with the percentage of participants 'change in pre-to post- test scores |
| **Logic Model Outcome #4**

By June 18, 2021, 80% of the SP physicians, nurses, and office | **Instrument:**
Ambulatory EPDS Guideline Training Assessment

History: | **Goal/Purpose:**
1. Assess knowledge of the postpartum depression screening guideline | Descriptive quantitative data-analytics indicating the knowledge gained with the training provided |

staff demonstrate knowledge and understanding of the (newly developed) evidenced-based Ambulatory Postpartum Depression Screening Guideline as indicated by a score of 80% or better on the module post-test (CO).	*The Ambulatory EPDS Guideline Training Assessment* was developed by SP manager and organizational mentor Tool presented primarily electronically in an Office 365 format in Forms (in-person/on paper as a secondary option) The assessment will be provided **after** the guideline training. *The Ambulatory EPDS Guideline Training Assessment* consists of four multiple choice questions for the participants to take assessing retained knowledge from the guideline training. Question topics are: 1. The patient should answer all 10 of the EPDS questions to identify patients at risk for postpartum depression and to support follow-up and treatment to reduce risk to mothers and children 2. The postpartum patient should check the response closest to how she has felt in the previous 7 days 3. A score of 12 or more indicates the patient is likely suffering from a depressive disorder and a careful clinical assessment should be completed by a qualified person 4. A "yes, quite often" or "sometimes" answer to question 10 requires immediate referral to their therapist or primary healthcare provider	2. Provide nominal-level data for scholarly project on demonstration of knowledge and understanding (Reavy, 2016)	
Logic Model Outcome # 5 By July 26, 2021, 80% of postpartum women are screened for postpartum depression with a validated screening tool at their comprehensive post-birth appointment (6-8 weeks postpartum) as indicated by electronic health record audit (PO).	**Instrument:** Chart Audit Tool r/t Screening for Postpartum Depression Risk in the Ambulatory Setting **History:** The Ambulatory Postpartum Depression Screening Chart Audit Tool is adapted from: The Agency for Healthcare Research and Quality (AHRQ) Chart Audit Tool, 2013 The Agency for Healthcare Research and Quality developed a toolkit for rapid cycle quality improvement in the office setting. Tool is open sourced on the AHRQ.gov website Retrospective dichotomous electronic health record chart audits	**Goal/Purpose:** 1. To quantify the number of patients who were screened with the EPDS at the scholarly project site. 2. To quantify the number of patients who were not screened with the EPDS at the scholarly project site. 3. To understand the percentage of patients who are informed about the EPDS at their	Retrospective electronic health record audit provides meaningful descriptive statistics about the project variables to be measured including the percentage of postpartum patients who had the EPDS documented at their six-week follow-up appointment. Provides rates to be used by the scholarly project manager to determine if

	Yes/No options, for the chart audits, will provide nominal level data -If the Edinberg Postnatal Depression Scale (EPDS) is documented at the postpartum follow-up appointment then the criteria will be counted as "yes," criteria met -If the EPDS is not documented at the postpartum follow-up appointment then it will be counted as "no," criteria not met **Details:** -Initials of Provider or Nurse Screening -Patient Initials -Screening Result: Y or N -Date of Screening -Weeks Postpartum **Data:** -Deidentified, HIPPA protected information -It is expected that all patients at their four or six-week postpartum (comprehensive post-birth) appointment will be screened with the Edinberg Postnatal Depression Scale (EPDS) after initiation of the scholarly project education **Reliability/Validity:** These tools have been widely used in previous studies and have established reliability and validity.	comprehensive postpartum appointment	interventions are needed to the increase screening rates with scholarly participants on the population of interest. For quantitative data, descriptive statistics will be used to measure the rates of compliance, including the mean and median.
Logic Model Outcome #6 By July 26, 2021, 75% of the SP physicians, nurses, and office staff, who completed the evidence- based education for postpartum depression screening, guideline and process will participate in quality improvement feedback	**Instrument:** **Ambulatory EPDS Project Evaluation** **History:** The Ambulatory EPDS Project Evaluation is adapted from: Kirkpatrick's Training Evaluation Model Tool is open sourced on https://www.kirkpatrickpartners.com/ Tool to be presented primarily electronically in an Office 365 format in Forms in July (in-person/on paper as a secondary option)	**Goal/Purpose:** 1. To identify opportunities to improve the performance improvement project for future deployment to other ambulatory clinics in the health system 2. Identify the degree to which scholarly project participants acquire the intended attitude	For qualitative data, utilizing explanatory and holistic techniques will enable the scholarly project manager the ability to identify influences of completion rates for EPDS Quantitative descriptive statistics comparing mean

| to improve project elements for future sessions (PO). | Two quantitative 5-point Likert scale questions will be presented to the scholarly project participants in the month of July

    1. Do you feel more confident in providing postpartum depression screening?
    2. Did you like the presentation style for the training?
1)Strongly Disagree
2) Disagree
3) Neutral
4) Agree
5)Strongly Agree

Four Qualitative open-ended questions will be used to elicit comments in a quality improvement evaluation of the scholarly project in the high-risk OB clinic at a health system in the northwestern United States:

    1. What support might you need to apply what you learned?
    2. From what you learned what do you plan to apply to your job?
    3. What are the three most important things that you learned from this training?
    4. How could this course be improved to make it a more effective learning experience?

Reliability/Validity:
These tools have been widely used in previous studies and have established reliability and validity. | and confidence in EPDS screening of postpartum patients

3. Identify the degree to which the scholarly project participants found the training favorable to their jobs.

4. Demonstrate transfer of learned behavior to subsequent organizational results

5. Identify what additional support the team may need to apply what they learned | aggregate scores for each item the project evaluation was presented. |

Appendix H: Evaluation Tools: Knowledge Questionnaire

    The Postpartum Depression Knowledge Questionnaire

The Postpartum Depression Knowledge Questionnaire

Pre and Post Course Questionnaire

* Required

* This form will record your name, please fill your name.

_____

1. Please enter today's date *

_____ 📅

Format: M/d/yyyy

2. Are you completeing this questionnaire before the education session or after the education session?

- Before
- After

3. Rate your knowledge of the maternal consequences associated with postpartum depression (PPD)

- Not at all knowledgeable
- Slightly knowledgable
- Moderately knowledgeable
- Very knowledgeable
- Extremely knowledgeable-precept/mentor

4. Rate your knowledge of newborn concequences associated with postpartum depression (PPD)

- Not at all knowledgeable
- Slightly knowledgeable
- Moderately knowledgable
- Very knowledgeable
- Extremely knowledgeable-precept/mentor

5. Rate your knowledge of the local postpartum depression (PPD) statistics

- Not at all knowledgeable
- Slightly knowledgeable
- Moderately knowledgable
- Very knowledgeable
- Extremely knowledgeable-precept/mentor

6. Rate your knowledge of when to screen for postpartum depression (PPD) post-birth in OB clinics (not including well-newborn checks)

- Not at all knowledgeable
- Slightly knowledgable
- Moderately knowledgeable
- Very knowledgeable
- Extremely knowledgeable-precept/mentor

7. Rate your knowledge of the Edinburgh Postnatal Depression Scale (EPDS)

- Not at all knowledgable
- Slightly knowledgeable
- Moderately knowledgeable
- Very knowledgeable
- Extremely knowledgable- precept/mentor

Appendix I: Evaluation Tools: Training Assessment

Ambulatory EPDS Guideline Training Assessment N=16 Scored 100%

Ambulatory EPDS Policy Training Assessment

The EPDS policy training assessment contains 4 multiple choice questions assessing retained knowledge from the policy training.

1.Please enter today's date

2.The patient should answer all 10 of the EPDS questions to identify risk for postpartum depression

  ○ Only the high -risk questions need to be answered

  ○ Most beneficial if all questions are completed

3.The postpartum patient should check the response closest to how she has felt in the previous 7 days

  ○ Yes

  ○ No

4.A total score of 13 or more is considered a flag for the need for follow up of possible depressive symptoms.

  ○ Yes

  ○ No

5. If mother scores greater than or equal to 1 on question 10 that indicates suicide risk

  ○ Yes

  ○ No

Appendix J: Evaluation Tools: Chart Audit

Chart Audit Tool

Chart Audit Tool: Screening for Postpartum Depression Risk in the Ambulatory Setting

Chart Number Confidential ID	Date of Screening	Screening Results Y/N	Weeks Postpartum	Screeners Initials

Appendix K: Evaluation Tools: Project Evaluation

Ambulatory EPDS Project Evaluation

Ambulatory EPDS Project Evaluation

This feedback will help identify opportunities to improve the project implementation for future sites and celebrate what went right for us as a team

1.Please enter today's date

2.Do you feel more confident in providing postpartum depression screening?

○ Yes
○ No
○ Maybe

3.Do you like the presentation style for the training?

○ Strongly Agree
○ Agree
○ Neutral
○ Disagree
○ Strongly Disagree

4.What support might you need to apply what you learned?

Enter your answer

5.From what you learned what do you plan to apply to your job?

Enter your answer

6.What are one to three most important things that you learned from this training

Enter your answer

7.How could this course be improved to make it a more effective learning experience?

Enter your answer

Appendix L: Scholarly Project Expense Report

					Grand Total	$11,218.00
Expense Category	**Expense Description**	**Explanation of Expense**	**Type of Cost (variable/fixed)**	**Volume**	**Cost per Unit**	**Total**
Material & Supplies	Paper/Printer Ink/ Staples	5 educational packets, 2 pre & post surveys (education and survey will be online but will print a minimum number for project manager and those who request a paper copy to review)	Fixed	1 ream of paper & Printer Ink & Staples	$20/ream with ink &Pens	$20
Material & Supplies	Pens	Pens as resource for staff	Fixed	1 pk	$12	$12
Material & Supplies	Laminated Badge Tips for Screening Tool	Badge tip sheet for EPDS Screening Tool	Fixed	25	$3 each	$75
Material & Supplies	Food for Meetings and Training	$200 for food for project implementation phase for meetings and training sessions	Fixed	5 meetings	$40	$200
Marketing/Advertising	Flyers	Printing for 10 flyers at MFM Clinic	Fixed	10 flyers	$15 each	$150
Stakeholder Meeting Wages						
Personnel	Project Leader	D. Ketchum Wage as Project Leader for 6 total hours of Stakeholder/CIT/ Clinical Learning Meetings and 4 hours of prep time	Variable	10 hrs.	$66/hr.	$660
Personnel	Lead RN for Stakeholder Meetings	Wage for Lead RN for 3 Stakeholder Meetings	Variable	3 hrs.	$40/hr.	$120
Personnel	Lead Provider for Stakeholder Meetings	Wage for Lead Provider for 2 hours total of stakeholder meetings	Variable	2 hrs.	$201/hr.	$201
Personnel	Lead Patient Access Specialist Stakeholder for Stakeholder Meetings	Wage for Lead PAS for 2 hours total Stakeholder Meetings	Variable	2 hrs.	$19/hr.	$38
Personnel	Clinical Learning representative for Stakeholder meetings	Wage for Lead Clinical Learning RN for 3 hour total Stakeholder Meetings and 3 Education Review Meetings	Variable	6 hrs.	$42/hr.	$252
Personnel	CIT RN for Stakeholder Meetings	Wage for Lead CIT for 3 hours total in Stakeholder Meetings and 3 hours total Epic (EHR) Build Meetings	Variable	5 hrs.	$42/hr.	$210
Personnel	Data and Analytics Representative in 6 Stakeholder Meetings	Wage for Data and Analytics Rep for 2 hours in Stakeholder Meetings and 4 hours for Project Data Focus Meetings	Variable	6 hrs.	$38/hr.	$228
Personnel	Case manager representative for Stakeholder Meetings	Wage for Lead Case Mgr for 3 hours total of Stakeholder Meetings	Variable	3 hrs.	$36/hr.	$108
Personnel	Women's Service Line Program Manager	Wage for Women's PM for 3 hours total of Stakeholder Meetings	Variable	3 hrs.	$32/hr.	$96
Personnel	Clinical Nurse Specialist for Stakeholder Meetings	Wage for CNS 3 hours worth of Stakeholder Meetings	Variable	3 hrs.	$49/hr.	$147
Training and Simulation Wages						
Personnel	Project Leader	D. Ketchum Project Leader training and simulation wages offering 4- 1 hour Screening Tool Sessions and 4 1 hour Simulation Sessions; prep and coaching time	Variable	60 hrs.	$66/hr.	$ 3,900.00
Personnel	Registered Nurses (RN) Maternal Fetal Medicine RN Wages	Maternal Fetal Medicine RNs participating in education program. Hourly rate is an average based on organizational HR data for RN's in the MFM Clinic : 1.5 hours of training of tool/process and 1 hour of simulation	Variable	2.5 hrs. X 7 RNs=17.5	$40/hr.	$ 700.00
Personnel	Patient Access Specialist (PAS)	Maternal Fetal Medicine PAS participating in education program. Hourly rate is an average based on organizational HR data for PAS's in the MFM Clinic : 1.5 hours of training of tool/process and 1 hour of simulation	Variable	2.5 hrs. x 5 PAS= 12.5	$19/hr.	$ 238.00
Personnel	Maternal Fetal Medicine Providers	Maternal Fetal Medicine Physicians participating in education program. Hourly rate is an average based on organizational baseline-midrange data for Physicians in the MFM Clinic : 1 hours of training of tool/process and .5 hour of simulation	Variable	1.5 hrs. x 5 Dr= 7.5	$201/hr.	$ 1,507.00
Equipment/Space						
Computers/Ipads/ IT	Computers for completing education modules and pre and post surveys Ipads for patients for EPDS	Use Ambulatory Equipment - no additional fees or expense required	Fixed	4 computers x $200=800 4 iPads X $200= 800	1600	$ 1,600.00
Conference Rooms for meetings	Conference rooms for meetings	Use Ambulatory and Hospital Conference Rooms- no additional rooms off campus with additional fees	Fixed	3 in person X $100	300	$ 300.00
Travel						
Travel	Project Leader Travel	D. Ketchum Travel Expense for Project Evidence/Research/ Meetings 25 miles alotted	Fixed	25 milesX 1 person	$0.575/mile in 2020	$ 14.00
Fees						
Stipend	Project Consultant	Project Consultatn/Editor Fee	Fixed	1 Fee	$250.00	$ 250.00
Survey Monkey	For pre and post survey	Survey Monkey will be used if Office 365 Teams Forms Survey not an option for Project in the Organization	Fixed	6 months	$32/month	$192

Appendix M: Scholarly Project 3-Year Budget Plan

Yearly Totals:	$ 11,218.00	$ 5,935.00	$ 5,354.90		
Expense Category	**Year 1**	**Year 2**	**Year 3**	**Rationale Year 2**	**Rationale Year 3**
Personnel	$ 8,405.00	$ 4,609.00	$ 4,120.00	Personnel includes salaries for: DNP project leader X 6 meetings + additional 40 project hours ($2990) Lead RN x 6 meetings per year ($240) Data and Analytics Representative ($114) and Clinical Informatics (CIT) RN ($126) Meeting with DNP project leader and Lead RN three of those six times Provider update allotted for all Maternal Fetal Medicine Providers : 5 X 1 ($1005) with an assumption of a 3% annual salary increase of all disciplines ($134.25) - *Rounded to nearest dollar*	Personnel includes salaries for: DNP project leader X 3 meetings + additional 40 project hours ($2795) Lead RN x 3 meetings per year ($120) Data and Analytics Representative ($38) and Clinical Informatics (CIT) RN ($42)Meeting with DNP project leader and Lead RN one of those three times Provider update allotted for all Maternal Fetal Medicine Providers : 5 X 1 ($1005) with an assumption of a 3% annual salary increase of all disciplines ($120)
Material & Supplies	$ 307.00	$ 316.00	$ 332.00	5% annual increase assumption; *Rounded to nearest dollar*	5% annual increase assumption; *Rounded to nearest dollar*
Space	$ 300.00	$ 100.00	$ 100.00	1 in person at $100	1 in person at $100
Ipads/IT	$ 1,600.00	$ 400.00	$ 400.00	Replacement of 2 ipads year 2 at $200 each	Replacement of 2 ipads year 3 at $200 each
Travel	$ 14.00	$ 14.00	$ 6.90	25 miles for DNP project leader allotted at $0.575/mile	12 miles for DNP project leader allotted at $0.575/mile
Marketing/Advertising	$ 150.00	$ 150.00	$ 150.00	allot for reprint/redesign of 10 flyers at $15 each	allot for reprint/redesign of 10 flyers at $15 each
Fees	$ 192.00	$ 96.00	$ 96.00	Survey Monkey Fee for 3 Months at $32/month	Survey Monkey Fee for 3 Months at $32/month
Incentives/Stipend	$ 250.00	$ 250.00	$ 150.00	Fixed amount for project consultant/editor fee	Stipend or incentive for editor fees

Appendix N: Scholarly Project Statement of Operations

Statement of Operations		
Operating Income		**$** -
	Revenue Total	**$ 11,218.00**
Source	**Description**	**Amount**
DNP Student	hourly wages estimated @ 70 hrs x $66	$ 4,560.00
St. Luke's Health System/ Individual Donor	Survey Monkey/ Office 365 Survey, In-kind conference facilities, Marketing/Advertising, Personnel Wages for Stakeholders and Scholarly Project Participants, Computers/IT/Travel/Materials & Supplies	$ 6,408.00
Grant/Individual Donor	Project Consultant/Editor Fee	$ 250.00
	Expenses Total	**$ 11,218.00**
Expenses	**Description**	**Amount**
DNP wages	Project Leader for Stakeholder Meetings and Training and Simulation 70 hours at $66	$ 4,560.00
Personnel	Stakeholder Wages, Maternal Fetal Medicine RNs, Patient Access Specialists and Provider training and Simulation Wages	$ 3,845.00
Material & Supplies	Paper, Ink, Staples, Laminated Badge Cards, Food for Meetings	$ 307.00
Space	Conference Room Space	$ 300.00
Computers/IT	Computers	$ 1,600.00
Travel	Travel allottment	$ 14.00
Marketing/Advertising	Flyers	$ 150.00
Fees	Survey Monkey (potential)	$ 192.00
Incentives/Stipend	Project Consultant/ Editor Fee	$ 250.00

Appendix O: Scholarly Project IRB Acceptance or Letter of Determination

**Project approved April 9. 2021 as Evidence-Based Performance Improvement Project**

Letter withheld from public posting for health system privacy protection

Appendix P: EPDS Guideline for Ambulatory Settings

TITLE	Edinburgh Postnatal Depression Scale (EPDS) Guideline for the Ambulatory Setting
PURPOSE	The Edinburgh Postnatal Depression Scale (EPDS) is the recommended validated, evidence-based screening tool for the xxxx Health System's ambulatory setting for postpartum depression screening. The Edinburgh Postnatal Depression Scale (EPDS) is a questionnaire developed to assist in identifying possible symptoms of depression in the postnatal period. It also has adequate sensitivity and specificity to identify depressive symptoms in the antenatal period and is useful in identifying symptoms of anxiety. The EPDS is not a diagnostic tool. It is a screening tool that aims to identify women who may benefit from follow-up care, such as mental health assessment, which may lead to a diagnosis based on accepted diagnostic criteria (DSM-5 or ICD-10). *Users may reproduce the scale without further permission providing they respect copyright by quoting the names of the authors, the title and the source of the paper in all reproduced copies.*
DEFINITIONS	**EPDS:** Edinburgh Postnatal Depression Scale **PPD:** Postpartum Depression **Perinatal:** The stage of time when you become pregnant and up to a year after giving birth **Antenatal/Prenatal:** The stage of time in pregnancy before birth **Postpartum:** The stage of time after birth **Behavioral Health Professional:** Appropriately licensed Marriage and Family Therapist, Professional Counselor, Psychiatrist, Psychologist, Social Worker.
APPENDICES AND/OR RELATED DOCUMENTS	Appendix to this Guideline__ Edinburgh Postnatal Depression Scale PE024 xxxx Care of Patient at Risk for Suicide and Self-Harm

I. **Edinburgh Postnatal Depression Scale (EPDS)**

   A. Instructions for users

      1. All pregnant patients should complete the EPDS at least once, preferably twice during:

         a. The antenatal period in the third trimester

         b. The postnatal period

            1) May complete at the two-week postpartum visit

            2) The EPDS is recommended ideally at the 6–12 weeks comprehensive postpartum visit

         c. The EPDS may be used at the one, two, four, and six-month well-child check appointments because postpartum depression can occur up to a year after birth.

      2. The scale consists of 10 short statements and all 10 items must be completed

3. The postpartum patient completing the EPDS is to check off one of four possible answers that is closest to how she has felt during the previous 7 days.

4. The patient should complete the scale by themselves unless there limited English or has difficulty with reading.

    a. The EPDS, a copywritten tool, has been translated and is available online, in 18 different languages

5. Responses are scored 0, 1, 2 and 3 based on the seriousness of the symptom.

6. The total score is found by adding together the scores for each of the 10 items.

    a. Maximum score for the EPDS is 30.

7. Possible depression is indicated with a score of 10 or greater.

8. Item/Question 10 is essential to review for indications of suicidal thoughts.

    a. If patient answers "yes" or "sometimes" to: "The thought of harming myself has occurred to me"

        1) Do not leave patient alone

        2) Alert the provider

        3) For clinics without a Provider and/ or Behavioral Health Professional, staff will coordinate a transfer to an Emergency Department or a higher level of care for assessment and disposition.

           a) If the patient does not consent to further assessment or threatens to leave, do not attempt to restrain, or prohibit the patient from leaving.

               1. The clinic will contact community emergency resources and security (as applicable to site) to request assistance.

               2. Staff will notify clinic leadership as soon as possible.

9. The EPDS score should not override clinical judgment

10. EPDS to be documented in the patient's electronic health record

  B. Referral/Rescreening

    1. Per EPDS

        a. Mothers who score above 13 are likely to be suffering from a depressive illness of varying severity.

           1) The EPDS score should not the override clinical judgment.

           2) A careful clinical assessment should be carried out to confirm the diagnosis.

    2. Item/Question 10 is essential to review for indications of suicidal thoughts.

        a. If patient answers "yes" or "sometimes" to: "The thought of harming myself has occurred to me"

           1) Do not leave patient alone

           2) Alert the provider

           3) For clinics without a Provider and/ or Behavioral Health Professional, staff will coordinate a transfer to an Emergency Department or a higher level of care for assessment and disposition.

              a) If the patient does not consent to further assessment or threatens to leave, do not attempt to restrain, or prohibit the patient from leaving.

                 1. The clinic will contact community emergency resources and security (as applicable to site) to request assistance.

                 2. Staff will notify clinic leadership as soon as possible.

Appendix Q: Self-Knowledge Ratings from the Postpartum Knowledge Questionnaire

Self-Knowledge Ratings from the Postpartum Knowledge Questionnaire
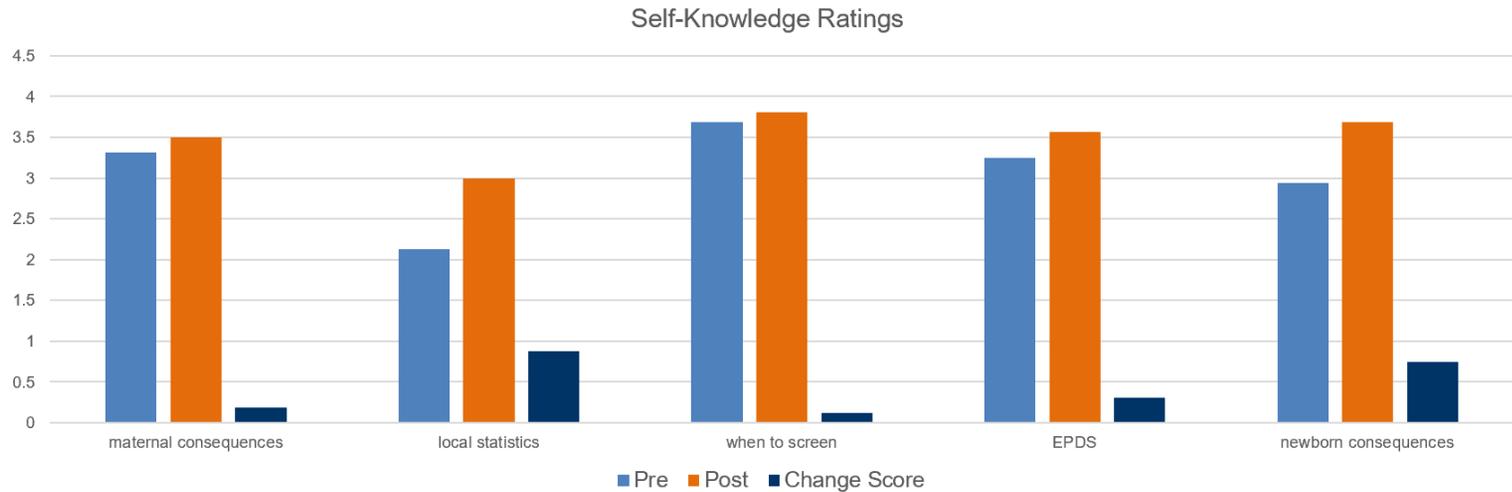
87.5% Qualified Participant Results/ 11.4% Increase in Knowledge

**Appendix R: Postpartum Knowledge Questionnaire Percentile Data**

Percent Knowledge Rating Change from the Postpartum Knowledge Questionnaire

%   Knowledge Rating Change

Category	Value
maternal consequences	5
local statistics	22
when to screen	3
EPDS	8
newborn consequences	19

22% Increase in Knowledge in Local Statistics and 19% Increase in Newborn Consequences

Appendix S: EPDS EHR Data and Analytics

Edinburgh Postnatal Depression Screening Data and Analytics

Postpartum Depression Screening (EPDS) Electronic Health Record Flowsheet Charting
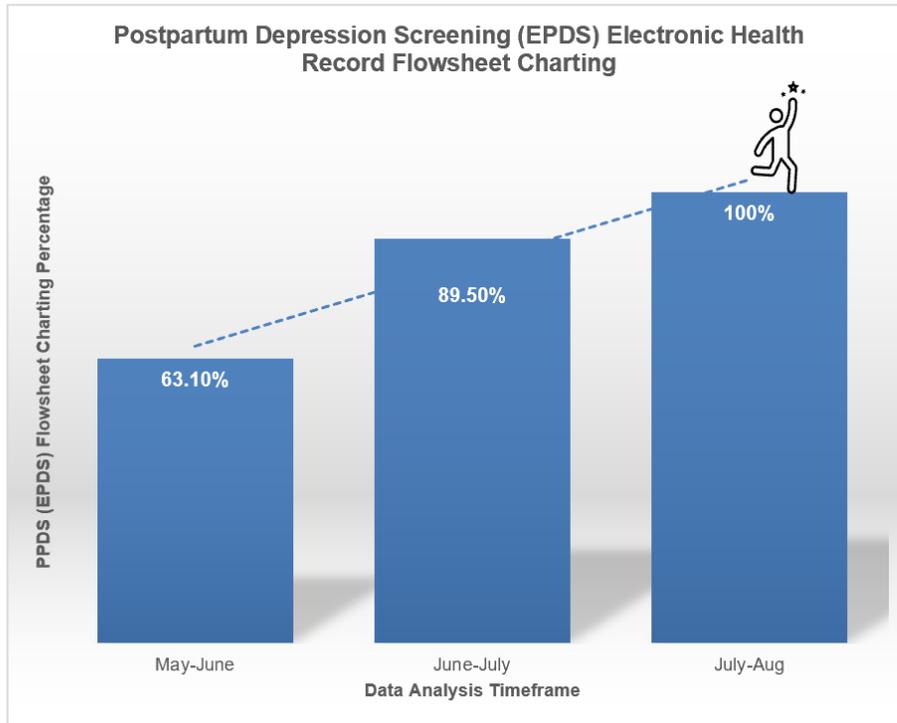
May 11, 2021- June 10, 2021		
Postpartum Visits	EPDS Charted in the EHR Flowsheet	Percent
38	24	63.10%
June 10, 2021-July 11, 2021		
Postpartum Visits	EPDS Charted in the EHR Flowsheet	Percent
48	43	89.50%
July 10, 2021-August 11, 2021		
Postpartum Visits	EPDS Charted in the EHR Flowsheet	Percent
36	36	100.00%

37% increase from first period to last period of data collection

Appendix T: Ambulatory EPDS Project Evaluation Data

Ambulatory EPDS Project Evaluation
Results

Among those who completed the project evaluation component:
- 100% stated the feel more confident in providing postpartum depression screening
- 100% of the respondents also indicated the presentation style of the education was appropriate for their needs

Additional support areas for future were identified:
- More mental health providers, especially regarding immediate access, and improved system-wide processes for scheduling/connecting with patients.

Most Important Learnings/ Themes from Training

Theme 1: PPD Prevalence	Theme 2: PPD Sensitivity	Theme 3: Screening Processes/Procedures
More prevalent than I realize Important to screen, very important to have places to refer patients to refer to Local statistics PPD is more prevalent in Idaho than I was aware Depression happens often	Never take a patient's emotional state for granted post-delivery On the outside patient may seem very happy, deep down she is struggling emotionally Be kind and have patience The importance of the PPD period	The plan for this screening is to tie into suicide policy/ guidelines Not all offices are routinely screening for PPD and anxiety Need for standardized screening tool, integration of tool into workflow, and need for referral system What to do if Q10 is anything but 0