POSTPARTUM DEPRESSION: STANDARDIZATION OF THE REFERRAL AND SCREENING PROCESS

by

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DEDICATION

This dedication is for my mother who has always inspired me to be a nurse and my husband's continuous encouragement and support in advancing my education.

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I would like to express my gratitude to all who have been involved with my project, especially my committee members. This project would not be possible without the guidance of my chair. A special thanks to Dr. Linday Benes and Dr. Stacy Stellflug.

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ABSTRACT

Approximately 6.5% to 20% of women will experience postpartum depression (PPD), which can have lasting negative effects on both mother and newborn. Universal screening of women for PPD is recommended; however, less than 20% of women undergo guidelines-consistent screening during pregnancy or postpartum. Early identification of PPD through consistent screening, follow-up, and referral can improve maternal outcomes. This project aimed to standardize each part of the process to improve PPD outcomes in a women's health and newborns unit in Western Montana providing comprehensive obstetrics/gynecology, maternal-fetal medicine focusing on high-risk pregnancy and births. The standardized process required RNs to screen all patients with the EPDS (Edinburgh Postnatal Depression Scale), with scores 13 or greater generating an automatic referral to social work. After receiving the referral, social workers follow up with the patient, addressing concerns, providing education to the patient, and referring to additional resources. Following the implementation of the standardized process, the unit saw an increase in EPDS screening rates from 78% to 92%. Seventy-one percent of patients (5 out of 7) who screened positive on the EPDS received a follow-up by the social worker. Postpartum awareness and education materials identifying signs and symptoms of PPD were provided for all patients and families. Having a plan in place for a positive EPDS screen facilitates effective referral and follow-up treatment for women suffering from postpartum depression allowing for the appropriate intervention.

CHAPTER ONE

INTRODUCTION

Postpartum Depression

Postpartum depression (PPD) is a disorder that occurs during the childbirth period. According to the Diagnostic and Statistical Manual of Mental Disorders (DSM-V), PPD is not recognized as a single entity but rather a disorder of the peripartum with an onset within four weeks after delivery (Knights et al., 2016). Approximately 6.5% to 20% of women will experience PPD (Mughal et al., 2022).

Postpartum depression has become one of the most common disorders in the perinatal period. Symptoms include lack of energy, tiredness, lack of interest and self-esteem, sleep disturbances, decreased appetite, hostility towards the infant, and self-blame, to name a few. PPD is usually seen within the first four weeks after birth and can occur up to one year postpartum. PPD risk factors may include a history of depression in pregnancy, gestational diabetes mellitus, birth of a male gender, and labor epidural anesthesia (Liu et al., 2021).

PPD can have devastating mental health effects on mothers and their children. The pathogenesis of PPD is not currently known; however, genetics, hormones, psychological, and social factors may play a role in the occurrence of PPD. Following birth, rapid changes in hormones, including estradiol and progesterone, may contribute to an increased risk of PPD (Mughal et al., 2022). By actively screening mothers, having an action plan in place for referral or treatment, and helping family members and support people recognize the signs and symptoms

of PPD, mothers may acknowledge their support systems and seek help in a timely manner (Kendig et al., 2017).

Postpartum Screening

There is an urgent need for a standardized approach and system for screening for PPD (Bhat et al., 2020). Screening alone does not improve outcomes, and protocols must be in place to ensure screening is consistent with appropriate tools and interventions, along with monitoring for women who have been identified with PPD. Without consistent and validated screening processes, perinatal mood disorders can go unrecognized by healthcare providers, patients, and their families (Kendig et al., 2017).

The American College of Obstetricians and Gynecology (ACOG), the American College of Midwives (ACM), and the U.S. Preventive Service Task Force (USPSTF) all recommend universal screening of women for PPD. However, less than 20% of women undergo guidelines-consistent screening for PPD during pregnancy or postpartum (NQQA, 2022). Although screening is recommended, nearly 6 out of 10 women who have a positive screen have not discussed their concerns with a healthcare provider (Rafferty et al., 2019).

Closing maternal mental healthcare screening gaps can help improve maternal outcomes and give new mothers the necessary care. Studies show maternal outcomes improve when collaboration exists through a primary care provider, case manager, and mental health practitioner when screening for depression and providing treatment and necessary referrals (Britt & Burkhard, 2022). The Agency for Healthcare, Research, and Quality (AHRQ) reports that mothers who receive PPD screening show improved outcomes, including recognizing the signs and symptoms of PPD in addition to having a plan in place. The effectiveness of the screening

process correlates with the availability of the systems used to ensure adequate follow-up and referral with positive screens (AHRQ,2018).

Methods

A review of current literature aimed to identify best practices for PPD screening, referral and treatment for positive screens, and education and awareness for moms and their support systems using the PRISMA guidelines (Preferred Reporting Items for Systematic Reviews and Meta-Analysis). This literature review aimed to examine the existing literature and identify key concepts, recognize current gaps in the literature, and identify sources to support a standardized algorithm of care for women with positive PPD screens.

Search Criteria

The literature search used multiple databases, including the Cumulative Index of Nursing and Allied Health Literature (CINAHL), The Cochrane Library, PubMed, ScienceDirect, and Google Scholar. The following phrases and keywords were used in the search process: postpartum depression, Edinburgh Postnatal Depression Screening (EPDS), screening recommendations postpartum depression, postpartum risk factors, and healthcare providers.

Eligibility Inclusion and Exclusion

Inclusion criteria included publications in the last 10 years, adult only, and postpartum screening done in the hospital. Exclusion criteria included publications greater than 10 years ago. In addition, articles related to generalized depression, not PPD, were excluded.

Results

The initial search included 186 titles, 32 of which were full text and met inclusion criteria. Articles were included if they involved a screening process for PPD in addition to referral and follow-up depending on EPDS scores. Studies were included in and outside the United States, along with articles providing support and resources to develop an algorithm for a positive screen. Of the 32 articles, 17 were excluded due to observation studies, case reviews, and professional journals. Articles included were systematic reviews, retrospective cohort studies, peer-reviewed journals, prospective cohort studies, and current recommendations from expert committee reports.

Screening Tools

ACOG recommends screening all pregnant women for perinatal mental disorders at least once during the perinatal period using a standardized, validated screening tool (Obstetrics & Gynecology, 2018). The Edinburgh Postnatal Depression Scale (EPDS) is a reliable and valid screening tool for PPD and is the most used tool in the postpartum period. The EPDS is a questionnaire consisting of 10 symptoms that are assessed over a week-long period before the assessment. Each question on the EPDS is scored from 0 to 3 based on the symptoms, mild depression (7–13), moderate depression (14–19), and severe depression (20–30). Unlike the PHQ-9, the EPDS assesses behavioral symptoms of PPD and tends to identify anxiety during the postpartum periods (Srarapanont et al., 2023). Table 1 lists various screening tools, the number of questions, the time to complete, and the sensitivity and specificity of the tools.

Table 1. Depression Screening Tools

Depression Screening Tools				
Screening Tool	**No. of Items**	**Time to Complete (min)**	**Sensitivity and Specificity**	**Spanish Available**
Edinburgh Postnatal Depression Scale	10	Less than 5	Sensitivity 59–100%	Yes
			Specificity 49–100%	
Postpartum Depression Screening Scale	35	5–10	Sensitivity 91–94%	Yes
			Specificity 72–98%	
Patient Health Questionnaire 9	9	Less than 5	Sensitivity 75%	Yes
			Specificity 90%	
Beck Depression Inventory	21	5–10	Sensitivity 47.6–82%	Yes
			Specificity 85.9–89%	

Table 1. Depression Screening Tools Continued

Screening Tool	**No. of Items**	**Time to Complete (min)**	**Sensitivity and Specificity**	**Spanish Available**
Beck Depression Inventory-II	21	5–10	Sensitivity 56–57%	Yes
			Specificity 97–100%	
Center for Epidemiologic Studies Depression Scale	20	5–10	Sensitivity 60%	Yes
			Specificity 92%	
Zung Self-rating Depression Scale	20	5–10	Sensitivity 45–89%	No
			Specificity 77–88%	

Reprinted with permission from screening for perinatal depression. Committee Opinion No. 630. American College of Obstetricians and Gynecologists. Obstet Gynecol 2015; 125:1268–71.

Use of Screening Tools and Response Algorithm

Positive screening results are vital to identify PPD symptoms and aid in referrals. Healthcare providers should have adequate training in conducting the screening along with facilitating referrals and follow-up. Screening and referrals should be consistent and effective,

thereby providing appropriate interventions for positive PPD screens. Systems should be established to ensure consistency and effective completion of PPD screening. Healthcare providers should be educated on performing the screening, when to screen, and how to facilitate referrals.

Proper screening requires practical and sustainable platforms. The Massachusetts Child Psychiatry Access Project for Moms (MCPAP) is an evidence-based model, supported by the AHRQ, offering population-based psychiatric care. MCPAP supports obstetric, primary care, psychiatric, and pediatric care providers by providing a guide for integrating mental health into obstetrical care. In addition, this toolkit provides actionable information, clinical pearls, and algorithms that guide providers and practices to become successful when addressing perinatal mental health conditions (Byatt et al., 2016).

ACOG supports guides and toolkits for integration of mental health care into obstetrical care. The Lifeline for Moms Guide for Integrating Health Care into obstetrics provides a step-by-step process for implementing a maternal screening process into healthcare. This guide provides strategies for operationalizing mental health screening, assessment, referral, and follow-up (AGOG, 2023).

Additional algorithms and toolkits are available through the Consensus Bundle on Maternal Health: Perinatal Depression and Anxiety. The Maternal Health bundle is modeled after the Council on Patient Safety in Women's Health Care. It provides information and direction for incorporating perinatal screening, intervention, referral, and follow-up into healthcare settings, standardizing maternal mental health screening (Kendig et al., 2017).

Education Awareness

Women's lack of knowledge on symptoms of PPD, treatment, and resources is a barrier to receiving mental health care. Barriers to women's engagement in mental health treatment include lack of patient education about PPD and how to seek care. Pregnant and postpartum women desire guidance on how to identify, screen, and treat PPD (Farr et al., 2016).

According to Kendig et al. (2017), early identification of PPD has shown better outcomes. Providing education during pregnancy and after postpartum allows the patient, family members, and support persons to better understand PPD. It helps identify the signs and symptoms of PPD, as it is common for PPD to go unrecognized and undiagnosed. Stigma has long been well-documented surrounding mental health issues. Stigma with PPD is compounded with the guilt and doubt of motherhood. Providing education during the peripartum period allows women to become familiar with and identify the early warning signs of PPD, encouraging women and their families to seek help and reduce the stigma surrounding maternal mental health.

Providing PPD education and resources gives women the information to be proactive in the early identification and treatment of PPD. In addition, providing resources on accessing mental health support and services encourages patients to reach out and feel confident in their care. Education regarding early warning signs, online resources, prevalence of PPD and anxiety, and how to seek help empowers women and their families and helps them become proactive in identifying signs, symptoms, and risk factors. Information regarding "red flags" is needed to differentiate between the baby blues and PPD. In addition, providing specific resources and links to access services encourages women and their families to reach out for care and feel confident in their care (Kendig et al., 2017).

ACOG, in collaboration with the Consensus Bundle on Maternal Mental Health, has compiled a list of resources for healthcare providers and their patients to access education and support for maternal mental health. See table 2 below.

Table 2. Maternal Mental Health Resources

Resource	**Description**	**Available At**
Depression During and After Pregnancy: A Resource for Women, Their Families, and Friends	Provides a comprehensive booklet designed for women with perinatal depression and their families. Provides answers to common patient questions and offers linkages to additional supportive resources	https://mchb.hrsa.gov/sites/default/files/mchb/MaternalChildHealthTopics/maternal-womens-health/Depression_During_and_After_Pregnancy_ENGLISH.pdf
Depression in Mothers: More Than the Blues: A Toolkit for Family Service Providers	Designed for community-based health care providers, the toolkit delivers background information about depression and offers ideas that health care providers can use daily when helping mothers who may be suffering from depression and their families	http://store.samhsa.gov/shin/content/SMA14-4878/SMA14-4878.pdf

Table 2. Maternal Mental Health Resources Continued

Resource	**Description**	**Available At**
Massachusetts Child Psychiatry Access Project for Moms (MCPAP for Moms) Toolkit	Offers resources to assist front-line perinatal care providers in the prevention, identification, and treatment of depression and other mental health concerns in pregnant and postpartum women	https://www.mcpapformoms.org/Toolkits/Toolkit.aspx
Massachusetts General Hospital Center for Women's Mental Health	Offers a range of current information, including discussion of new research findings in women's mental health and how such investigations inform day-to-day clinical practice	https://womensmentalhealth.org
Moms' Mental Health Matters	Offers education to consumers and health care providers about who is at risk for depression and anxiety during and after pregnancy, the signs of these problems, and how to get help	https://www.nichd.nih.gov/ncmhep/MMHM/Pages/index.aspx

Table 2. Maternal Mental Health Resources Continued

Resource	**Description**	**Available At**
MotherToBaby	Provides expert information about medication and depression risks during pregnancy and lactation. Available to mothers, healthcare professionals, and the general public	http://mothertobaby.org/about-us/
Postpartum Support International	Provides many resources to help families, healthcare providers, and communities learn about the emotional and mental health of families. Offers a toll-free Warmline that anyone can call to get basic information, support, and linkage with local resources	http://www.postpartum.net/
Collaboration in Practice: Implementing Team-Based Care	Identifies and discusses six principles as core components guiding team-based care	http://www.acog.org/Resources-And-Publications/Task-Force-and-Work-Group-Reports/Collaboration-in-Practice-Implementing-Team-Based-Care
Patient, Family, and Staff Support	Provides resources on conducting debriefs with the provider team after a severe maternal event	http://safehealthcareforeverywoman.org/patient-safety-bundles/support-after-a-severe-maternal-event-supported-by-aim/

Mental Health Resources

Barriers to mental health treatment for women with perinatal mood disorders include stigma, lack of awareness surrounding PPD, socioeconomic factors, and a lack of mental health resources. Currently, there is a lack of mental health care providers in rural areas of the USA. Up to 65% of nonmetropolitan regions do not have psychiatrists. Over 60% of Americans live in these designated areas of shortage, and rural residents experience significant mental health disparities due to a lack of resources (Morales et al., 2020). In addition, studies have shown that low-income women have lower rates of being screened for PPD and treatment due to economic barriers, stigma, and knowledge deficits (Hansotte et al., 2017).

Online resources, counseling, educational blogs, and mental health crisis hotlines are more readily available. An increased number of meta-analyses have supported using intranet-based therapist-supported cognitive therapy (iCBT). Using iCBT can significantly improve stress, anxiety, and depressive symptoms among women with PPD (Lau et al., 2017). Online support for maternal mental health crises has been limited in the past. In 2022, the Health Resources and Services Administration (HRSA) made the National Maternal Health Hotline available—a 24/7, accessible, confidential hotline for pregnant and new moms—available in both English and Spanish. In addition, Postpartum Support International (PSI) is an online resource and hotline for maternal mental health. PSI provides resources for pregnant and new moms and a hotline to support those in need.

Postpartum depression threatens the health of women and their infants. Although screening processes are in place, non-uptake referral to mental health care related to screening scores reduces the use of resources. Positive screening rates vary among postpartum women, and more research is needed to improve uptake rates. Research lacks information on how to increase

uptake rates; however, for screening to work, positive screening results need to be followed up by interventions and referrals (Xue et al., 2020). Having an algorithm to respond to a positive screen for PPD is essential, along with stage-based management plans to help improve maternal outcomes.

Discussion

According to Kendig et al. (2017), PPD can be a very traumatic and preventable cause of maternal and infant mortality. Perinatal mood disorders and PPD can be recognized through standardized screening processes using validated tools. By actively screening mothers, having an action plan in place for referral or treatment, and helping family members and support people recognize the signs and symptoms of postpartum depression, mothers may acknowledge their symptoms and seek help in a timely manner. Healthcare providers, patients, family members, and support systems must collaborate to remove the stigma surrounding mental health disorders (Kendig et al., 2017). The USPSTF recommends screening for depression in pregnant and postpartum women. When screening for PPD, appropriate systems should be implemented to ensure accurate diagnosis, treatment, and follow-up (Sui et al., 2016).

Limitations

Bhar and colleagues (2020) reported a significant need for systematic research examining screening tools, frequency of screening, and referrals-completed based on screening results. Unfortunately, high-quality meta-analyses are limited, limiting our evidence base for screening and intervention for PPD (Liu et al., 2022). Screening alone does not improve outcomes, and

systems need to be in place to ensure screening is consistent with appropriate tools and interventions, along with monitoring for women who have been identified with PPD. Due to a lack of perinatal depression, anxiety, and uniformity, future studies are needed to compare screening in and out of hospital-based settings.

PPD has become one of the most common disorders in pregnancy and the postpartum period and can have serious physical and mental effects on the mother and her child (Liu et al., 2021). Identifying women at risk for PPD through postpartum screening allows for appropriate treatment and referral. Having a screening process and protocol in place for PPD ensures consistency and closes maternal healthcare gaps by improving maternal outcomes and gives new mothers necessary care. Additionally, providing education to mothers and their family members aids in the identification and support of PPD signs, symptoms, and treatment.

CHAPTER TWO

METHODS AND METHODOLOGY

PROJECT PROPSAL

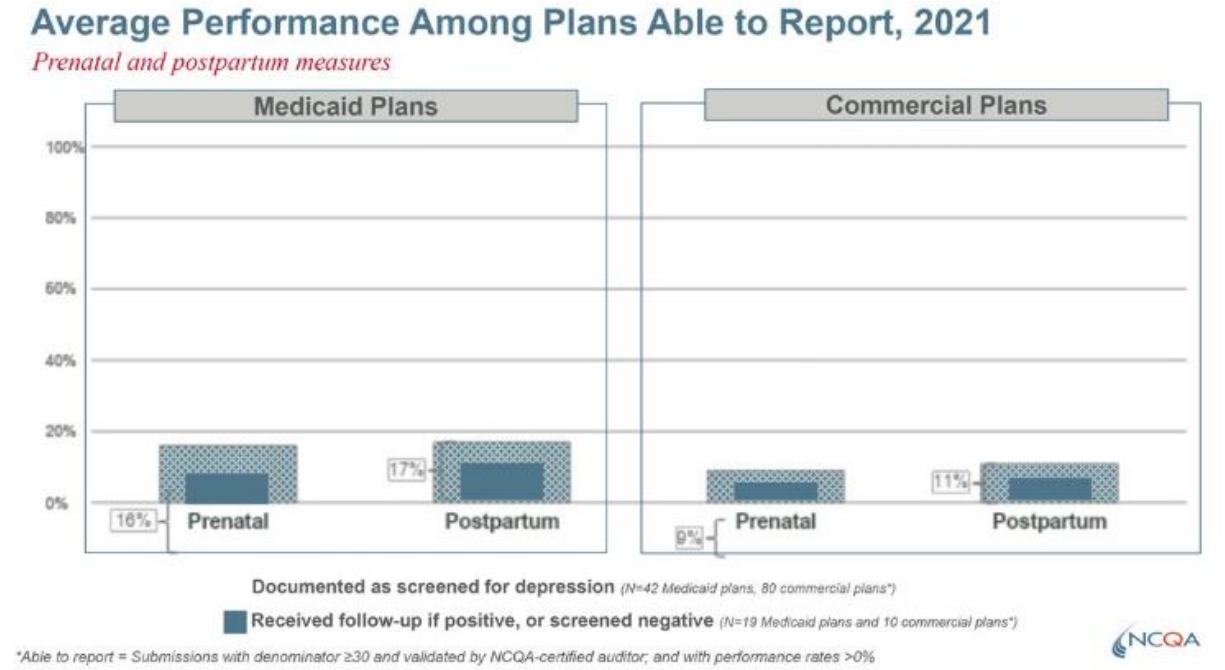
Introduction

Postpartum depression (PPD) has become one of the most common complications during the perinatal and postpartum period. Symptoms of PPD, including fatigue, lack of interest, loss of self-esteem, tiredness, loss of appetite, sadness, and sleep disturbances, are often overlooked. PPD symptoms can have devastating long-term effects on the mother and her newborn, including chronic depression and suicide. Early recognition of PPD through perinatal and postpartum depression screening can identify early warning signs. Determining the prevalence of PPD and clearly identifying risk factors are of great social significance for prevention and treatment of PPD (Liu et al., 2012).

Identification and treatment of PPD have been shown to enhance physiological and psychological wellbeing for mothers and babies. Unrecognized and untreated PPD costs in the United States in 2017 were estimated at $14 billion due to preterm births, reduced economic productivity, and maternal health expenditures (Kiore et al., 2023).

ACOG, ACM, and the USPSTF all recommend universal screening of women for PPD. However, less than 20% of women undergo guidelines-consistent screening for PPD during pregnancy or postpartum. Additionally, maternal data depression rates from HEDIS reported only half of the patients who screened positive received follow-up (NCQA, 2022). See Figure 1.

Figure 1. Average Performance Among Plans Able to Report, 2021



The light blue bar represents patients who were screened. The dark blue bars represent the percentage of mothers who received some type of positive screening and also received some type of follow-up care OR had screened negative. This means that the dark bar represents mothers who presumably received appropriate follow-up care based on their screening.

As reported by Healthy Mothers, Healthy babies, The Montana Coalition (HMHB) 2023, out of 11,000 births in Montana, 3,500 are impacted by mental health conditions. Early recognition of perinatal mental health is essential for the wellbeing of pregnant women, infants, and their families.

In 2022, HMHB collaborated with state- and local-level partners to discuss strategies to improve perinatal mental health in Montana. Over 100 individuals were interviewed around the state who are invested in maternal mental health. The results of these interviews were presented in a report, "A Qualitative Understanding of The Perinatal Mental Health Landscape in Montana, 2022–2023*"* (HMHB, 2022). Themes identified in this report share similar barriers nationally regarding maternal mental health.

A theme identified through interviews was a need for a high-functioning system to link patients with appropriate resources and care in a timely manner. For this to occur, healthcare providers need to have access to resources including counselors and local programs in the community.

> It is not enough for screeners to consistently screen women, but providers and those administering screeners must appropriately follow through with referrals to appropriate levels and types of care and support, based on assessment results…Outcomes for children are better when women in the perinatal period have routine screenings, access to high quality treatment, and access to medication to manage their mental illness. Yet, many Montana medical providers do not utilize best practices to inform their screening protocols, treatment, and medication decisions. (HMHB, 2022).

Additional, reoccurring themes included reducing the stigma around perinatal mental health. While prenatal mental health awareness is growing, many stakeholders are calling for normalization of perinatal mental health and wished women could feel more comfortable and have freedom to discuss their emotions and feeling towards PPD. One mother expressed her wish to talk freely among other mothers and discuss her feelings towards PPD.

Problem Statement

Approximately 6.5% to 20% of women will experience PPD. Universal screening of women for PPD is recommended; however, less than 20% of women undergo guidelines-consistent screening for PPD during pregnancy or postpartum. Additionally, only half of the patients who screened positive received follow-up.

Early identification of PPD through consistent screening processes and follow-up, in addition to referrals, can reduce maternal healthcare screening gaps and help improve maternal outcomes. Perinatal mood disorders and PPD can be recognized through standardized screening

processes using validated tools. By actively screening mothers, having an action plan in place for referral or treatment, and helping family members and support people recognize the signs and symptoms of postpartum depression, mothers may acknowledge their symptoms and seek help in a timely manner (Kendig et al., 2017).

Organizational Microsystems Assessment

Purpose

The purpose of this quality improvement project is to develop a standardized approach and referral system for screening for PPD. Protocols must be in place to ensure evidence-based screening, monitoring, and treatment for women with PPD. In addition, the project aims to provide perinatal depression and anxiety awareness education reducing stigma around perinatal mental health, allowing for early recognition of symptoms and treatment.

Place/Professionals

This quality improvement project will take place in a women's health and newborns unit in Western Montana. The organization provides comprehensive obstetrics/gynecology, maternal-fetal medicine focusing on high-risk pregnancies and births. The 26-bed postpartum women's health and newborn center is staffed primarily with mother/baby registered nurses (RNs). Stakeholders include a team of mother/baby RNs, seven obstetricians, three maternal-fetal medicine physicians, multiple family practice physicians, four midwives, and two social workers. On average, postpartum patients' census can range from 110 to 130 per month.

Process

The facility screens most postpartum patients with EPDS, yet there is not a standardized process for education or positive screens. The initial EPDS screening is completed by the mother/baby RN, then the score is entered into the EMR. The mother/baby RN provides education for new mothers including PPD education and resources. Resources can be accessed through the organization' s website, which includes a 3.5-minute-long video covering PPD. Additional PPD education is included in a postpartum and newborn guide. The current process at this facility consists of the nurse entering the EPDS score into the EMR. Ideally, a score of 13 or higher should constitute a referral to social work and the provider should be notified.

Patterns

A review of chart audits on the M/B postpartum unit revealed most patients had an EPDS screen done while in postpartum. However positive screens were not being referred to social work and the provider was not consistently notified. The current process refers to the policy and procedure for the unit. In this policy, it states all patients will be provided with postpartum depression screening. The score will then be transcribed into the EMR, scores <13 continue to monitor, greater than or equal to 13 require social work consult. Although a clear and concise policy is in place, referrals are not being made to social work, resulting in a lack of follow-up. When an EPDS screen is positive, management will vary according to the current need and concerns, including demystification, support resources, and referrals.

Plan-Do-Study-Act Quality Improvement Framework

Quality improvement (QI) methods in healthcare practices are necessary to deliver high-quality patient care and improve outcomes. The Plan-Do-Study-Act (PDSA) model is a central tool for QI, focusing on the center of change. PDSA provides a structured, experimental approach to learning and testing changes. The focus or goal of the PDSA is to identify and learn as quickly as possible if a new intervention is working and, if not, what changes can be made based on the findings. PDSA allows for adjustments, increasing the chances of delivering and sustaining the desired QI. PDSA cycles guide healthcare providers by delivering new changes or improvements in patient care through a structured, experimental, advanced approach to learning and test of change. The PDSA approach focuses on individual and team organizational learning, making it an essential QI tool for hospital environments (Reed et al., 2016).

This DNP QI project will be developed through the guidance of the PDSA model to help identify current gaps in referral rates for positive EPDS screens along with adherence to providing educational resources to mothers and their families.

Project Aims

The purpose of this QI project is to develop a standardized approach and referral system for screening for PPD. Facilitation of this project will include the nurse educator of the unit providing education to the M/B staff members along with the social worker/case manager on completion, scoring, documentation, and referral for EPDS. The M/B RNs will screen patients using the EPDS and document the score in Cerner. EPDS scores 13 or greater will automatically trigger a referral to the M/B social worker/case manager. The social worker or case manager will

meet with patients and their families. Additional education and referral material will be provided to the patient and their family.

Specifically, the goals of this QI project are: (1) All postpartum patients will be screened using the EPDS tool, (2) 80% of postpartum EPDS screens are entered into Cerner, (3) 80% of EPDS scores of 13 or greater are referred to M/B social worker/case management, and (4) 100% of postpartum patients will receive perinatal and postpartum education and resources to enhance awareness of PPD.

Methods

Implementation Summary

The M/B RNs administering the EPDS screening tool to postpartum women had a practice gap that included inconsistent follow-up with positive EPDS screens (13 or higher). During a 1-month period prior to the initiation of this project, data were collected including the number of deliveries, EPDS screening and scores, and of those scores 13 or higher, whether social work was notified. Data received from January 1 through 28 showed 53 out of 68 postpartum patients were screened using the EPDS screening tool. Of the 53 screenings, one score of 14 met the criteria of a positive screen. In reviewing the chart documentation, no referral was sent to social work and no documentation existed for the plan of care, patient education, or referrals.

Additionally, women who had a positive screen did not receive additional education or resources for referrals. This project aimed to close the gap by changing the process of a positive score and a referral to a social worker/case worker.

The development of a screening referral process will standardize the current screening process. The M/B RNs will screen all postpartum patients using the EPDS. Once screening is completed the total score will be entered into the EMR by the RN. Scores 13 or greater will automatically generate a referral to social work. Social work will follow up with the patient, address concerns, provide education to the patient and refer to additional resources. In addition, the RN will notify the provider of the EPDS score.

Intervention and Implementation

The proposed practice change after completion of this DNP project will consist of all postpartum women being screened for PPD while in the hospital setting using the EPDS screening tool. Values will be entered in the EMR (Cerner) by the M/B RN. All EPDS scores 13 or greater will refer to a social worker/case worker. The patient will be seen by a social worker prior to discharge. In addition, the patient will be provided with perinatal mood disorder education and referral resources.

Through collaboration with IT and the mother and newborn's unit, an automatic referral process will be added to the current EMR depression screening score section. This automatic notification section will standardize the process for all patients reducing inconsistent follow-up and referrals for positive EPDS scores.

Implementation of this project will consist of notifying the RNs, social workers, and providers through the unit's weekly newsletter. Additional communication will occur through work emails for updates and modifications of the project. A step-by-step protocol will be provided to the RNs and social workers referencing the steps of the EPDS screening and referral process, allowing for standardization of the screening and referral process.

Perinatal mood disorder education, awareness, and referral resources from multiple organizations, including Postpartum Support International (IPI), Maternal Mental Health Safety Bundle, World Health Organization (WHO), and The Montana Coalition, HBHM, will be used to develop PPD education for mothers and their families. Informational handouts, magnets, and posters will be available and provided to RNs, social work, and providers through The National Maternal Mental Health Hotline Partner Toolkit. In addition, a list of weblink resources for healthcare providers and their patients to access education and support for maternal mental health will be provided. See Table 3.

Table 3. SMART Goals

SMART Goal #1		
Description of strategies to be utilized to accomplish goals including any needed resources.		
Data to be collected	Method of Collection and who is responsible	Planned data analysis
#1-Number of postpartum patients screened for EPDS, along with referral to social work for scores 13 and greater.	Collection method will include retrospective chart review prior to the start of the proposed project and referral system and upon completion of the project. Department/unit director will collaborate with IT to retrieve data from EMR records.	Compare number of EPDS screening referral rates before and after the initiation of the referral process.

Table 3. SMART Goals Continued

#2 Number of positive EPDS screening 13 and greater.	EPDS score recorded in EMR, automatic referral populated for scores 13 and greater. Department/unit director will collaborate with IT to retrieve data from EMR records.	What this patient seen by social work?
#3 Increase in awareness of PPD and perinatal mental health	PPD education and resources will be available for staff and providers. M/B educator will provide handouts, web link resources, and posters to staff, providers, and social work.	Increase in referrals to social services for educational resources and guidance.

Evaluation and Analysis

This project will be developed and evaluated using the IHI PDSA model for improvement. Through collaboration with stakeholders including staff RNs, the M/B educator, M/B RNs, the social worker/case manager, and practitioners, the process of an automatic referral for EPDS scores 13 or higher will be evaluated through retrospective chart reviews 2 months prior to the start and upon completion of the project. Initial goals will include positive EPDS

scores populating a referral in Cerner. An increase in referrals to social work/case managers will validate the EMR automatic referral system. Process improvements will be based on results and data that will be collected over this time frame.

Expected barriers include initiation of an automatic referral in the EMR. IT will need to approve this change in the EMR, which in turn will need approval from Billings Clinic, and this may be a timely process. Additionally, M/B RNs will need to be diligent in placing EPDS scores in Cerner to initiate the referral process. Outcomes will be measured through monthly PDSA cycles, acknowledging barriers and searching for solutions.

Safety and Confidentiality

CITI training was completed prior to the initiation of the QI project, and a site representative approval was obtained from the director of the unit. The IRB process was followed through Montana State University Office of Research Compliance and the Topaz Protocol Research Compliance System. Data collected from secondary sources (EMR) will be accessed through the clinical site and will not leave the facility. EPDS screening results will be accessed through the EMR, patient information will be de-identified. There will be no direct patient contact during this project.

CHAPTER THREE

POSTPARTUM DEPREESSION: STANDARDIZATION OF THE REFERRAL AND SCREEENING PROCESS

Contribution of Authors and Co-Authors

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Abstract

Approximately 6.5% to 20% of women will experience postpartum depression (PPD), which can have lasting negative effects on both mother and newborn. Universal screening of women for PPD is recommended; however, less than 20% of women undergo guidelines-consistent screening during pregnancy or postpartum. Early identification of PPD through consistent screening, follow-up, and referral can improve maternal outcomes. This project aimed to standardize each part of the process to improve PPD outcomes in a women's health and newborns unit in Western Montana providing comprehensive obstetrics/gynecology, maternal-fetal medicine focusing on high-risk pregnancies and births. The standardized process required RNs to screen all patients with the EPDS (Edinburgh Postnatal Depression Scale) with scores 13 or greater generating an automatic referral to social work. After receiving the referral, social workers follow up with the patient, addressing concerns, providing education to the patient, and referring to additional resources. Following the implementation of the standardized process, the unit saw an increase in EPDS screening rates from 78% to 92%. Seventy-one percent of patients (5 out of 7) who screened positive on the EPDS received a follow-up by the social worker. Postpartum awareness and education materials identifying signs and symptoms of PPD were provided for all patients and families. Having a plan in place for a positive EPDS screen facilitates effective referral and follow-up treatment for women suffering from postpartum depression, allowing for the appropriate intervention.

Clinical Problem

Postpartum depression (PPD) has become one of the most common complications during the perinatal and postpartum period (Kendig et al., 2017). Symptoms of PPD, including fatigue, lack of interest, low self-esteem, tiredness, loss of appetite, sadness, and sleep disturbances, are often overlooked. PPD symptoms can have devastating long-term effects on the mother and her newborn, including chronic depression and suicide (Liu et al., 2012).

The pathogenesis of PPD is not currently known. However, genetics, hormones, psychological, and social factors may play a role in the occurrence of PPD (Mughal et al., 2022). Following birth, rapid changes in hormones, including estradiol and progesterone, may contribute to an increased risk of PPD.

Approximately 6.5% to 20% of women will experience PPD (Mughal et al., 2022). The American College of Obstetricians and Gynecology (ACOG), the American College of Midwives (ACM), and the U.S. Preventive Service Task Force (USPSTF) all recommend universal screening of women for PPD. However, less than 20% of women undergo guidelines-consistent screening for PPD during pregnancy or postpartum (NQQA, 2020). In addition to the gap in screening, nearly 6 out of 10 women with a positive screen have not discussed their concerns with a healthcare provider (Rafferty et al., 2019).

As reported by Healthy Mothers, Healthy Babies, The Montana Coalition (HMHB, 2022), 3,500 out of 11,000 births in Montana are impacted by mental health conditions. Early recognition of perinatal mental health is essential for the wellbeing of pregnant women, infants, and their families. HMHB, (2022) reported:

> Outcomes for children are better when women in the perinatal period have routine screenings, access to high-quality treatment, and access to medication to manage

> their mental illness. Yet, many Montana medical providers do not utilize best practices to inform their screening protocols, treatment, and medication decisions. It is not enough for screeners to consistently screen women, but providers and those administering screeners must appropriately follow through with referrals to appropriate levels and types of care and support, based on assessment results.

Identification and treatment of PPD have been shown to enhance the physiological and psychological wellbeing of mothers and babies. In 2017, unrecognized and untreated PPD costs in the United States were estimated at $14 billion due to preterm births, reduced economic productivity, and maternal health expenditures (Luca et al., 2020).

The project hospital screens most postpartum patients with the EPDS; yet, there is no standardized process for positive screens, referrals, or education despite the existence of a clear policy. A review of charts on the M/B postpartum unit revealed most patients had an EPDS screen done while in postpartum. However, positive screens were not consistently referred to social work and the provider was not consistently notified. The current process showed variability in referral, provider notification, and resources given to postpartum patients. This project aimed to standardize each part of this process to improve PPD outcomes.

There is an urgent need for a standardized approach and system for screening for PPD (Bhat et al., 2020). Screening alone does not improve outcomes, and protocols must be in place to ensure screening is consistent with appropriate tools and interventions, along with monitoring for women who have been identified with PPD. Without consistent and validated screening processes, perinatal mood disorders can go unrecognized by healthcare providers, patients, and their families (Kendig et al., 2017).

Review of Literature

PPD can be a very traumatic and preventable cause of maternal and infant mortality (Kendig et al., 2017). However, perinatal mood disorders and PPD can be recognized through standardized screening processes using validated tools. By actively screening mothers, having an action plan in place for referral or treatment, and helping family members and support people recognize the signs and symptoms of postpartum depression, mothers may acknowledge their symptoms and seek help promptly. Healthcare providers, patients, family members, and support systems must collaborate to remove the stigma surrounding mental health disorders.

Screening is recommended by multiple organizations with evidence of improved outcomes. The USPSTF, The Agency for Healthcare, Research, and Quality (AHRQ), and ACOG recommend screening during pregnancy and postpartum using a validated screening tool. When screening for PPD, appropriate systems should be implemented to ensure accurate diagnosis, treatment, and follow-up (Sui et al., 2016). Mothers who receive PPD screening show improved outcomes, including recognizing the signs and symptoms of PPD, in addition to having a plan in place (Kendig et al., 2017). The effectiveness of the screening process correlates with the availability of the systems used to ensure adequate follow-up and referral with positive screens (AHRQ, 2018).

The Edinburgh Postnatal Depression Scale (EPDS) is a reliable and valid screening tool for PPD and the most used tool in the postpartum period (Obstetrics & Gynecology, 2018). The EPDS assesses 10 symptoms over a week-long period. Each symptom is scored from 0 to 3 with total scores indicating mild depression (7–13), moderate depression (14–19), and severe

depression (19–30). Unlike the PHQ-9, the EPDS assesses behavioral symptoms of PPD and tends to identify anxiety during the postpartum periods (Srarapanont et al., 2023).

Stigma has long been well-documented surrounding mental health issues. Education for nurses, providers, and patients is necessary to improve awareness and decrease stigma. Stigma with PPD is compounded with the guilt and doubt of motherhood. Providing education during the peripartum period allows women to become familiar with and identify the early warning signs of PPD, encouraging women and their families to seek help and reduce the stigma surrounding maternal mental health. Closing maternal mental health care screening gaps can help improve maternal outcomes and give new mothers the necessary care. Studies show maternal outcomes improve when collaboration exists through a primary care provider, case manager, and mental health practitioner when screening for depression and providing treatment and necessary referrals (Britt & Burkhard, 2022).

Early identification of PPD through a consistent screening process, follow-up, and referrals can reduce maternal healthcare screening gaps and help improve maternal outcomes. Perinatal mood disorders and PPD can be recognized through standardized screening processes using validated tools. By actively screening mothers, having an action plan in place for referral or treatment, and helping family members and support people recognize the signs and symptoms of postpartum depression, mothers may acknowledge their symptoms and seek help in a timely manner (Kendig et al., 2017).

Conceptual Framework

This DNP QI project was developed with the guidance of the PDSA model to help identify current gaps in referral rates for positive EPDS screens along with adherence to

providing educational resources to mothers and their families. The PDSA cycle allowed for earlier identification of new interventions and necessary adjustments aiding in timely changes based on findings.

The “plan” phase of the PDSA model occurred through collaboration with stakeholders including staff RNs, M/B educators, M/B RNs, social workers/case managers, and practitioners. Based on that collaborative work, the team created the workflows, materials, and communication process that occurred during the “do” phase. PDSA cycles included identifying the current problem, educating staff regarding the process, and evaluating the improvement for change.

The “study” phase occurred through retrospective chart reviews 2 months before the start and upon completion of the project to assess screening and referral rates. Initial aims included all EPDS screens 13 or greater being referred to a social/case worker. Process improvements were based on analysis over the project period.

Aims

The purpose of this QI project was to develop a standardized approach to postpartum depression screening, referral, and education. In addition, the project aimed to increase postpartum depression awareness among staff, patients, and their families by providing perinatal depression and anxiety education reducing stigma around perinatal depression.

Specifically, the goals for this QI project were: (1) All postpartum patients are screened using the EPDS tool, (2) 80% of postpartum EPDS screens are entered into Cerner, (3) 80% of EPDS scores of 13 or greater are referred to M/B social worker/case management, (4) 100% of postpartum patients receive perinatal and postpartum education and resources to enhance awareness of PPD.

Methods

The project was reviewed by Montana State University's Institutional Review Board (IRB). Given the project's focus on implementing an evidence-based practice improvement to enhance clinical quality, it was deemed not human subject research.

Context

This quality improvement project took place in a women's health and newborn unit in Western Montana. The organization provides comprehensive obstetrics/gynecology, and maternal-fetal medicine focusing on high-risk pregnancies and births. The 26-bed postpartum women's health and newborn center is staffed primarily with M/B RNs. Stakeholders included a team of M/B RNs, seven obstetricians, three maternal-fetal medicine physicians, multiple family practice physicians, four midwives, and two social workers. On average, the postpartum patients' census can range from 110 to 130 per month.

Intervention/Practice Change

The project standardized the current screening process. The nurse educator informed M/B staff, social workers, and case managers on the EPDS completion, scoring, documentation, and the referral process through email and the unit's weekly newsletter.

Through collaboration with IT, an automatic referral process was integrated into the EMS. All postpartum patients were screened using the EPDS with results entered in the EMS by the RN. All scores 13 or greater automatically populated a referral to the social worker in addition to the RN notifying the provider. The process, education materials provided, and the plan of care were then documented in the patient's EMR.

Through collaboration with the M/B RNs and social workers, perinatal mood disorder education awareness and referral resources from multiple organizations, including Postpartum Support International (IPI), Maternal Mental Health Safety Bundle, World Health Organization (WHO), and The Montana Coalition, HBHM, were used to develop PPD education for mothers and their families. On admission, all patients were provided with PPD education, awareness, and resources. Educational materials, including early warning signs of PPD, national suicide hotline resource numbers, and pamphlets, are now available and dispersed in the postpartum unit. All postpartum rooms are in the process of having posters displayed referencing the warning signs for PPD. In addition, patients with a positive score will receive a PPD folder including additional education and resources. Informational handouts, magnets, and posters are available and provided to RNs, social workers, and providers through The National Maternal Mental Health Hotline Partner Toolkit. In addition, a list of weblink resources for healthcare providers and their patients to access education and support for maternal mental health is available.

Methods of Intervention

M/B RNs were educated on the new process through email and a monthly skills station in their unit. The skills station reinforced the current screening policy, automatic referral for positive screens to social work, and documenting the plan of care in the patient's EMR. In addition, all M/B RNs were provided with resources on how to discuss mental health with postpartum patients, and the integration of using open-ended questions to gather the necessary information from patients who may be suffering from PPD.

Additional PPD materials providing awareness education to women, family members, and support persons were automatically added to preadmission folders through the process of the

hospital's forms store. This automatic process eliminated the need for the unit secretary to copy and fill preadmissions charts monthly and ensured all preadmission packets had the appropriate PPD material.

A PPD resource binder was developed and provided to the postpartum unit that included education resources, treatment algorithms, a list of local counselors and resources, and information for families and partners.

Analysis

The collected quantitative data included the total number of postpartum deliveries in the project hospital, the number of postpartum patients screened using the EPDS tool and, of those screened, how many screens were positive. Retrospective quantitative data were collected before the initiation of the project and compared with the final data to determine success related to initial smart goals and objectives.

Results

The month prior to the project implementation, 53 out of 68 postpartum patients were screened using the EPDS screening tool. Of the 53 screens, one score of 14 met the criteria of a positive screen. In reviewing the chart documentation, no referral was sent to social work, no documentation existed for the plan of care, and no patient education was provided.

EPDS screening data and referral rates were collected after 5 weeks of the automatic referral process in the EMR. Out of 131 postpartum patients, 121 were screened using the EPDS screening tool. Of the 121, seven met the criteria for a positive screen. Chart audits verified, of the seven positive screens, 100% were automatically referred to social work in the EMR, and

five of the seven were seen by social work and provided with additional postpartum education and resources. One hundred percent of preadmission packets contained postpartum educational materials for patients and families identifying signs and symptoms and resources for perinatal mental health.

Over 4 weeks, PDSA cycles were utilized to gather an understanding of the transition of the new process. Anecdotal feedback was collected from the M/B staff to gain suggestions for improvements.

The initial PDSA cycle noted an inconsistency in the way social workers were notified in addition to documentation. A selected number of RNs would call social work, in addition to the automatic referral in Cerner, with a positive EPDS score, while other RNs may or may not call or document their intervention plans for a positive EPDS score. Clarification for this process was reinforced through the monthly PPD skills station.

During the second PDSA cycle, the process of adding additional PPD education information in the admissions process was adjusted. While reviewing the process of adding PPD education to all admission packets, recommendations from M/B RNs suggested a separate folder be provided to all patients with a positive EPDS score. This folder contained additional PPD resources for patients with positive EPDS scores, including an action plan for the patient.

The final PDSA cycle was utilized to evaluate the new process of positive EPDS screens, postpartum education, and increased awareness for patients and their families. Random chart audits completed by the M/B educator confirmed the placement of additional postpartum education and resources. Chart audits verified an increase in referrals to social work through the automatic referral process in the EMR, in addition to the RN documenting the process of

notifying the physician and plan of care in the EMR. In addition, increased postpartum depression awareness posters were in the process of being placed in the postpartum unit.

Discussion

The aims of this project reinforced the importance of increasing PPD awareness through staff education, standardized EPDS screening and automatic referral processes, and patient awareness through the implementation of adding additional education resources.

The project outcomes demonstrated an increase in positive EPDS screening rates for social work through the automatic referral process in the EMR. Data collected prior to the initiation of an automatic referral system in the EMR were analyzed after the completion of this project. Data showed an increase in positive EPDS screening referrals to social work. In addition, chart audits confirmed the placement of additional PPD education and resources in all admission packets.

Limitations

The delayed timing of the automatic referral process did not allow for an extended time to access and evaluate many positive screens. A request to IT was placed in December for an automatic referral to social work and was not made accessible until February. The initial evaluation of positive screens consisted of one positive score, which did not have a referral or documentation supporting the plan of care.

Implications

The results of this project support the need for additional standardization of the referral and treatment process of women with positive EPDS scores. Screening programs for perinatal

mental health and resources have been shown to improve outcomes. The successful steps of facilitating screening require referral networks in place before the initiation of screening. In addition, developing and maintaining referral resources in the community can enhance mental health services and support for women who suffer from postpartum depression. Future implications include educating and informing staff and physicians on treatment, monitoring, and best practice follow-up. In addition, continuing the development of referral resources and communication pathways between providers and community organizations to address the mental and physical health of postpartum women is encouraged.

Conclusion

Perinatal mood and anxiety disorder can be a preventable cause of maternal and infant mortality. Without consistent and validated screening, postpartum depression can go unrecognized. Postpartum depression and its sequelae can be addressed by actively screening patients, having a plan in place for positive EPDS screens, and actively engaging patients and their families in recognizing the signs and symptoms of postpartum depression (Kendig et al., 2017).

The development of perinatal screening in obstetrics is a multifactorial process. As demonstrated in this project, initial steps include introducing and developing a workflow to address positive EPDS screens and referrals. Identifying tasks and roles aids in the development of successful referrals based on positive EPDS screens, RNs, social workers, and providers.

Proper training and adequate resources for staff, patients, and their families facilitated changes based on goals and workflow set forth by the unit and evidence-based protocols. Goals, changes, and workflow were evaluated and implemented through PDSA cycles. The ongoing

process of sustaining goals and adapting to changes allows for future improvements in the recognition and awareness of perinatal health, improving healthcare outcomes for mothers and their infants.

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CHAPTER FOUR

DNP ESSENTIALS AND EDUCATION JOURNEY REFLECTION

Systems-based Practice Descriptor

Throughout my education journey, I have been presented with the opportunity to respond and lead within the complex systems of healthcare, specifically in coordination of resources providing safe, quality, and equitable care to diverse populations.

Apply Knowledge of Systems to Work Effectively Across the Continuum of Care

During my DNP studies, I have applied a variety of knowledge of systems to work effectively across the continuum of care, which I have gained during my clinical rotations. Specially, I have had the opportunity to expand and participate in organizational strategic planning while developing my DNP project. During this time, I have worked with a system-wide quality improvement project that aims to improve care to postpartum patients who may suffer from postpartum depression.

I have had the opportunity to analyze system-wide processes to improve outcomes for postpartum patients through the development of screening processes and referral systems in response to positive EPDS screens. By recognizing a gap in the current screening process, I was able to identify sources to improve outcomes, provide education to reduce stigma to patients and their families, and recognize and offer referrals for patients prior to discharge, which, in turn, may reduce readmission costs.

Optimize System Effectiveness Through Application of Innovation and Evidence-based Practice

Throughout the development of my quality improvement project, I have had the opportunity to present up-to-date and evidence-based practices that guide and support postpartum depression screening. By utilizing evidence-based algorithms supported by The American College of Gynecologist and Obstetricians (ACOG), practice changes have been presented and the necessary changing have taken place, improving outcomes for postpartum patients with postpartum depression.

Stigma has long been well-documented surrounding mental health issues. Stigma with PPD is compounded with the guilt and doubt of motherhood. Providing education during the peripartum period allows women to become familiar with and identify the early warning signs of PPD, encouraging women and their families to seek help and reduce the stigma surrounding maternal mental health. Increasing PPD awareness can decrease the stigma associated with this illness and provide strategies that address internal and external system processes and structures that perpetuate structural racism and other forms of discrimination in healthcare systems.

Describe the Various Information and Communication Technology Tools Used in the Care of Patients, Communities, and Populations

Throughout the development of my quality improvement project, I have had the opportunity to engage in various information and communication technology tools used for the care of patients, communities, and populations.

Evaluate the Unintended Consequences of Information and Communication Technologies on Care Processes, Communications, and Information Flow Across Care Settings

During the development of my project, I was able to work with IT to develop an automatic referral system based on EPDS scores in a patient's EMR. By working with the advancement of technology and IT, a referral system, which once relied on firsthand communication, now would possibly be replaced with and updated with automatic technology. By using advancements in technology, healthcare processes can be streamlined and unnecessary tasks eliminated. In addition, an automatic referral system assures all positive EPDS scores are referred to social work, eliminating bias and stigma associated with PPD.

Identify the Impact of Information and Communication Technologies on Workflow Processes and Healthcare Outcomes

Multiple online databases and educational resources were used to support my project and the advancement of developing and supporting a standardized algorithm to screen and treat postpartum depression. Several information and communication technology resources, including standardized PPD treatment algorithms, are available for all healthcare providers. Utilizing information and communication technologies aids in more standardized workflow processes and better healthcare outcomes. The communication throughout multiple endorsed educational sites eliminates bias and allows for identification and treatment of depression in pregnant and postpartum women, streamlining care across facilities.

Professionalism Descriptor

Beginning with my nursing career and throughout my continued education, I have had exposure and guidance in regard to the formation and cultivation of a sustainable professional identity, including accountability, perspective, collaborative disposition, and comportment, all reflecting my nursing characteristics and values.

Advocate for Nursing's Professional Responsibility for Ensuring Optimal Care Outcomes

The foundation of nursing is built upon trust, respect, honesty, and accountability. I can vividly remember my first week of undergraduate nursing school, learning the foundation of nursing and the values of Florence Nightingale. It was that moment I vowed to provide care in guidance to the nursing pledge and uphold the Hippocratic oath, to do no harm, practice discretion, and be dedicated to the field of nursing. This foundation has paved the platform for the care I provide as nurse and future advanced practitioner.

As a future advanced nurse practitioner and a current student, I have had the opportunity over the past 4 years to expand my advocacy for nursing and grow my professional nursing responsibility through caring for a variety of patients and their healthcare needs. I have had the opportunity to understand and distinguish between healthcare needs and outcomes, gaining a more robust understanding based on patient needs and demographics, most of which I owe to advanced assessment skills and exposure to more diverse populations of patients.

Demonstrate Accountability to the Individual, Society, and the Profession

As I continue to advance my knowledge through my studies, my advocacy for nursing and my professional responsibility expands and builds, ensuring optimal care for patients. When presented with a situation that may require myself or a collogue to advocate for a patient and their needs, I know I have a strong foundation to lean on and can provide the care or knowledge to provide the best support, reflecting responsibility and demonstrating leadership skills.

Quality and Safety Descriptor: Employment of Established and Emerging Principles of Safety and Improvement Science

Providing quality and safety as a core value of nursing practice is not a new endeavor, but one that has been built upon and grown over my nursing career. By providing high quality care to patients, I can enhance the quality of care I provide along with minimizing risk and harm through effective and individual performance.

Contribute to a Culture of Provider and Work Environment Safety

Leadership styles may vary from hospitals to clinics and can be carried out in many different forms; however, a well-led team is encompassed by their leader. A strong leader has a good understanding of the needs of the unit, aims to gain trust among staff, and is willing to adapt to meet the needs of their team. A culture of safety is values and beliefs and the foundation for a well-led unit, which, in turn, leads to effective patient care and satisfaction.

Through years of caring for patients, I have gained an appreciation for resiliency. As I become closer to becoming a practitioner, I realize how important resilience is and the effects it

can have on patient outcomes and care. Resiliency in healthcare allows for changes, and for individuals and team members to adapt to changes and challenges in healthcare, which, in turn, result in high quality healthcare outcomes for patients. Creating an environment that supports resiliency is built upon hard work, dedication, and self-gratitude.

As a nurse practitioner student, I have had the opportunity throughout my didactic coursework and clinical rotations to build my leadership skills and prepare for my upcoming role as an independent provider. As my time as a nurse practitioner student ends, I will continue my pursuit to provide honest, diverse, and evidence-based care to my future patients, which I have built from my education through Montana State University-Bozeman, College of Nursing.

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APPENDICES

APPENDIX A

EDINBURGH POSTNATAL DEPRESSION SCALE

Figure A1. Edinburgh Postnatal Depression Scale

Edinburgh Postnatal Depression Scale (EPDS)

Date:_____ Clinic Name/Number:_____

Your Age:_____ Weeks of Pregnancy/Age of Baby:_____

Since you are either pregnant or have recently had a baby, we want to know how you feel. Please place a **CHECK MARK** (✔) on the blank by the answer that comes closest to how you have felt **IN THE PAST 7 DAYS**—*not just how you feel today.* Complete all 10 items and find your score by adding each number that appears in parentheses (#) by your checked answer. This is a screening test; not a medical diagnosis. If something doesn't seem right, *call your health care provider regardless of your score.*

Below is an example already completed.

I have felt happy:
Yes, all of the time ____ (0)
Yes, most of the time ✔ (1)
No, not very often ____ (2)
No, not at all ____ (3)

This would mean: "I have felt happy most of the time" in the past week. Please complete the other questions in the same way.

1. I have been able to laugh and see the funny side of things:
   As much as I always could ____ (0)
   Not quite so much now ____ (1)
   Definitely not so much now ____ (2)
   Not at all ____ (3)

2. I have looked forward with enjoyment to things:
   As much as I ever did ____ (0)
   Rather less than I used to ____ (1)
   Definitely less than I used to ____ (2)
   Hardly at all ____ (3)

3. I have blamed myself unnecessarily when things went wrong:
   Yes, most of the time ____ (3)
   Yes, some of the time ____ (2)
   Not very often ____ (1)
   No, never ____ (0)

4. I have been anxious or worried for no good reason:
   No, not at all ____ (0)
   Hardly ever ____ (1)
   Yes, sometimes ____ (2)
   Yes, very often ____ (3)

5. I have felt scared or panicky for no good reason:
   Yes, quite a lot ____ (3)
   Yes, sometimes ____ (2)
   No, not much ____ (1)
   No, not at all ____ (0)

6. Things have been getting to me:
   Yes, most of the time I haven't been able to cope at all ____ (3)
   Yes, sometimes I haven't been coping as well as usual ____ (2)
   No, most of the time I have coped quite well ____ (1)
   No, I have been coping as well as ever ____ (0)

7. I have been so unhappy that I have had difficulty sleeping:
   Yes, most of the time ____ (3)
   Yes, sometimes ____ (2)
   No, not very often ____ (1)
   No, not at all ____ (0)

8. I have felt sad or miserable:
   Yes, most of the time ____ (3)
   Yes, quite often ____ (2)
   Not very often ____ (1)
   No, not at all ____ (0)

9. I have been so unhappy that I have been crying:
   Yes, most of the time ____ (3)
   Yes, quite often ____ (2)
   Only occasionally ____ (1)
   No, never ____ (0)

10. The thought of harming myself has occurred to me:*
    Yes, quite often ____ (3)
    Sometimes ____ (2)
    Hardly ever ____ (1)
    Never ____ (0)

TOTAL YOUR SCORE HERE ▶ ____

* **If you scored a 1, 2 or 3 on question 10, PLEASE CALL YOUR HEALTH CARE PROVIDER (OB/Gyn, family doctor or nurse-midwife) OR GO TO THE EMERGENCY ROOM NOW** to ensure your own safety and that of your baby.

If your total score is 11 or more, you could be experiencing postpartum depression (PPD) or anxiety. **PLEASE CALL YOUR HEALTH CARE PROVIDER (OB/Gyn, family doctor or nurse-midwife) now** to keep you and your baby safe.

If your total score is 9-10, we suggest you **repeat this test in one week or call your health care provider** (OB/Gyn, family doctor or nurse-midwife).

If your total score is 1-8, new mothers often have mood swings that make them cry or get angry easily. Your feelings may be normal. However, if they worsen or continue for more than a week or two, call your health care provider (OB/Gyn, family doctor or nurse-midwife). Being a mother can be a new and stressful experience. Take care of yourself by:

- ▶ Getting sleep—nap when the baby naps.
- ▶ Asking friends and family for help.
- ▶ Drinking plenty of fluids.
- ▶ Eating a good diet.
- ▶ Getting exercise, even if it's just walking outside.

Regardless of your score, if you have concerns about depression or anxiety, please contact your health care provider.

Please note: The Edinburgh Postnatal Depression Scale (EPDS) is a screening tool that does not diagnose postpartum depression (PPD) or anxiety.

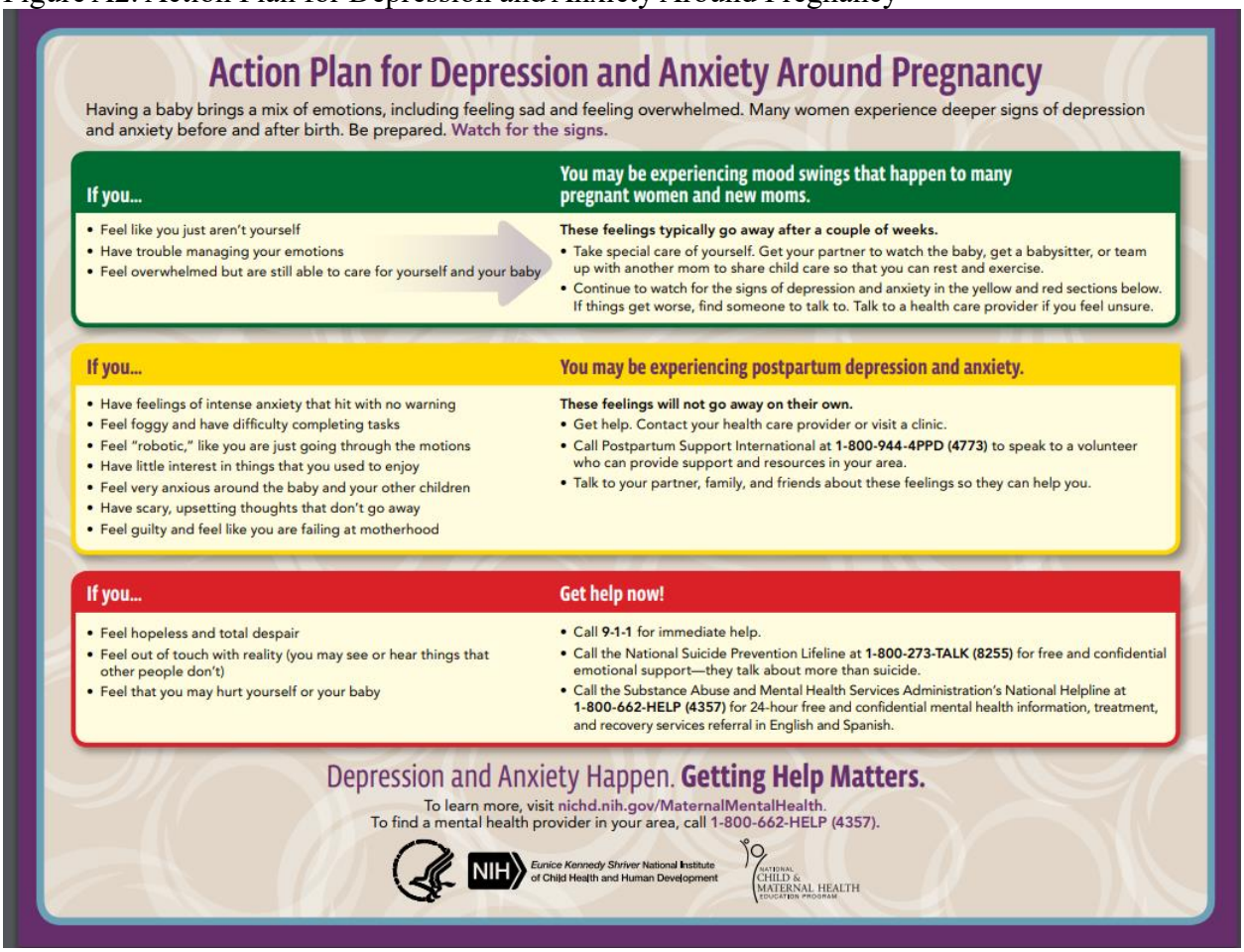
See more information on reverse. ▶

Edinburgh Postnatal Depression Scale (EPDS). Adapted from the *British Journal of Psychiatry*, June, 1987, vol. 150 by J.L. Cox, J.M. Holden, R. Segovsky.

APPENDIX B

ACTION PLAN FOR DEPRESSION AND ANXIETY AROUND PREGNANCY

Figure A2. Action Plan for Depression and Anxiety Around Pregnancy



NICHDInformationResourceCenter@mail.nih.gov

APPENDIX C

WHAT IF THE "HAPPIEST TIME OF YOUR LIFE" DOESN'T FEEL SO HAPPY?

Figure A3. What if the “Happiest Time of Your Life” Doesn’t Feel so Happy?

NICHDInformationResourceCenter@mail.nih.gov

APPENDIX D

YOU'RE PREPARED FOR ALMOST ANYTHING

Figure A4. You're Prepared for Almost Anything

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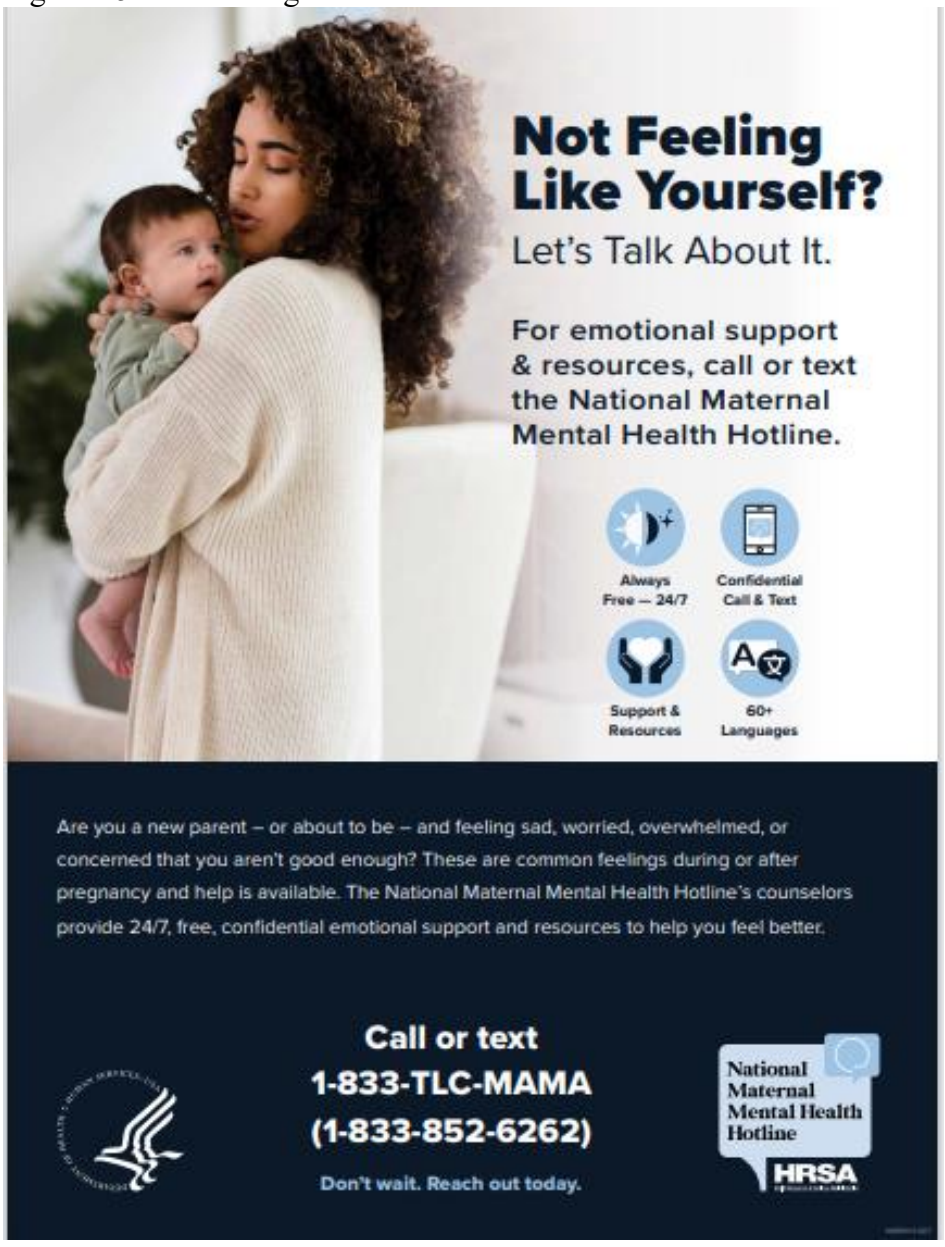
APPENDIX E

NOT FEELING LIKE YOURSELF?

Figure A5. Not Feeling Like Yourself?



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APPENDIX F

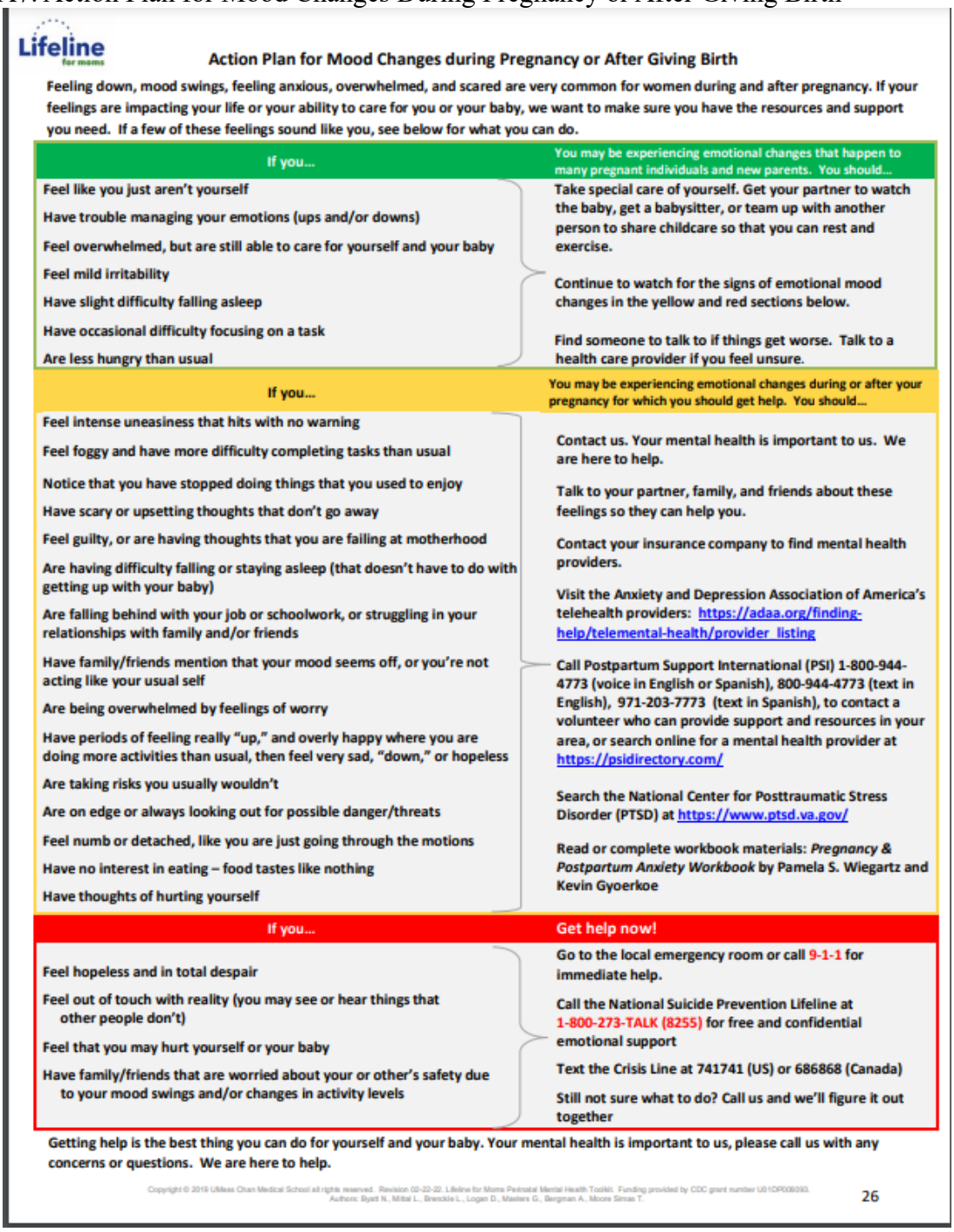
MATERNAL MENTAL HEALTH DISORDERS ARE TREATABLE

Figure A6. Maternal Mental Health Disorders are Treatable

APPENDIX G

ACTION PLAN FOR MOOD CHANGES DURING PREGNANCY OR AFTER GIVING BIRTH

Figure A7. Action Plan for Mood Changes During Pregnancy or After Giving Birth



Lifeline for moms

Action Plan for Mood Changes during Pregnancy or After Giving Birth

Feeling down, mood swings, feeling anxious, overwhelmed, and scared are very common for women during and after pregnancy. If your feelings are impacting your life or your ability to care for you or your baby, we want to make sure you have the resources and support you need. If a few of these feelings sound like you, see below for what you can do.

If you…	You may be experiencing emotional changes that happen to many pregnant individuals and new parents. You should…
Feel like you just aren't yourself Have trouble managing your emotions (ups and/or downs) Feel overwhelmed, but are still able to care for yourself and your baby Feel mild irritability Have slight difficulty falling asleep Have occasional difficulty focusing on a task Are less hungry than usual	Take special care of yourself. Get your partner to watch the baby, get a babysitter, or team up with another person to share childcare so that you can rest and exercise. Continue to watch for the signs of emotional mood changes in the yellow and red sections below. Find someone to talk to if things get worse. Talk to a health care provider if you feel unsure.

If you…	You may be experiencing emotional changes during or after your pregnancy for which you should get help. You should…
Feel intense uneasiness that hits with no warning Feel foggy and have more difficulty completing tasks than usual Notice that you have stopped doing things that you used to enjoy Have scary or upsetting thoughts that don't go away Feel guilty, or are having thoughts that you are failing at motherhood Are having difficulty falling or staying asleep (that doesn't have to do with getting up with your baby) Are falling behind with your job or schoolwork, or struggling in your relationships with family and/or friends Have family/friends mention that your mood seems off, or you're not acting like your usual self Are being overwhelmed by feelings of worry Have periods of feeling really "up," and overly happy where you are doing more activities than usual, then feel very sad, "down," or hopeless Are taking risks you usually wouldn't Are on edge or always looking out for possible danger/threats Feel numb or detached, like you are just going through the motions Have no interest in eating – food tastes like nothing Have thoughts of hurting yourself	Contact us. Your mental health is important to us. We are here to help. Talk to your partner, family, and friends about these feelings so they can help you. Contact your insurance company to find mental health providers. Visit the Anxiety and Depression Association of America's telehealth providers: https://adaa.org/finding-help/telemental-health/provider_listing Call Postpartum Support International (PSI) 1-800-944-4773 (voice in English or Spanish), 800-944-4773 (text in English), 971-203-7773 (text in Spanish), to contact a volunteer who can provide support and resources in your area, or search online for a mental health provider at https://psidirectory.com/ Search the National Center for Posttraumatic Stress Disorder (PTSD) at https://www.ptsd.va.gov/ Read or complete workbook materials: *Pregnancy & Postpartum Anxiety Workbook* by Pamela S. Wiegartz and Kevin Gyoerkoe

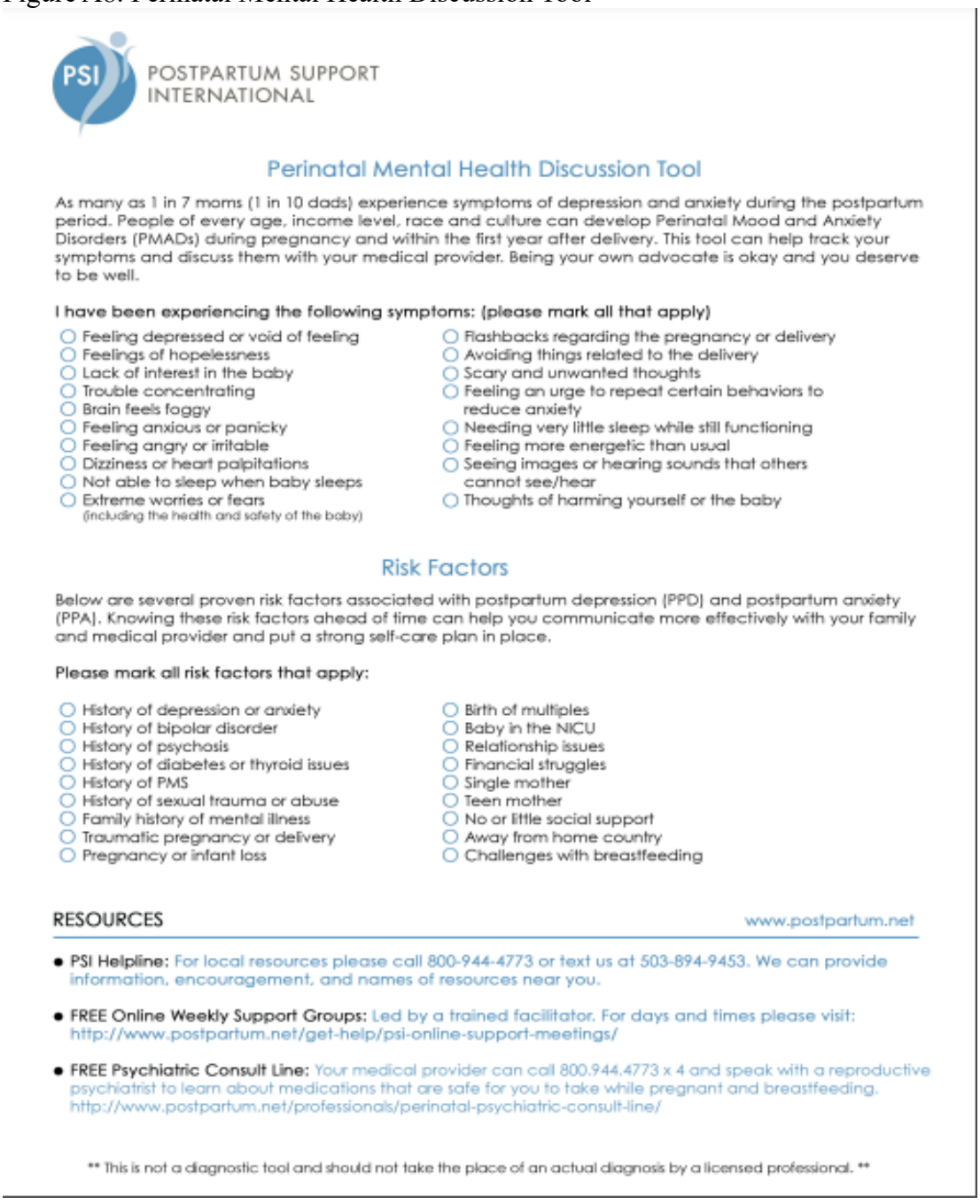
If you…	Get help now!
Feel hopeless and in total despair Feel out of touch with reality (you may see or hear things that other people don't) Feel that you may hurt yourself or your baby Have family/friends that are worried about your or other's safety due to your mood swings and/or changes in activity levels	Go to the local emergency room or call 9-1-1 for immediate help. Call the National Suicide Prevention Lifeline at 1-800-273-TALK (8255) for free and confidential emotional support Text the Crisis Line at 741741 (US) or 686868 (Canada) Still not sure what to do? Call us and we'll figure it out together

Getting help is the best thing you can do for yourself and your baby. Your mental health is important to us, please call us with any concerns or questions. We are here to help.

APPENDIX H

PERINATAL MENTAL HEALTH DISCUSSION TOOL

Figure A8. Perinatal Mental Health Discussion Tool



POSTPARTUM SUPPORT INTERNATIONAL

Perinatal Mental Health Discussion Tool

As many as 1 in 7 moms (1 in 10 dads) experience symptoms of depression and anxiety during the postpartum period. People of every age, income level, race and culture can develop Perinatal Mood and Anxiety Disorders (PMADs) during pregnancy and within the first year after delivery. This tool can help track your symptoms and discuss them with your medical provider. Being your own advocate is okay and you deserve to be well.

I have been experiencing the following symptoms: (please mark all that apply)

- ○ Feeling depressed or void of feeling
- ○ Feelings of hopelessness
- ○ Lack of interest in the baby
- ○ Trouble concentrating
- ○ Brain feels foggy
- ○ Feeling anxious or panicky
- ○ Feeling angry or irritable
- ○ Dizziness or heart palpitations
- ○ Not able to sleep when baby sleeps
- ○ Extreme worries or fears (including the health and safety of the baby)
- ○ Flashbacks regarding the pregnancy or delivery
- ○ Avoiding things related to the delivery
- ○ Scary and unwanted thoughts
- ○ Feeling an urge to repeat certain behaviors to reduce anxiety
- ○ Needing very little sleep while still functioning
- ○ Feeling more energetic than usual
- ○ Seeing images or hearing sounds that others cannot see/hear
- ○ Thoughts of harming yourself or the baby

Risk Factors

Below are several proven risk factors associated with postpartum depression (PPD) and postpartum anxiety (PPA). Knowing these risk factors ahead of time can help you communicate more effectively with your family and medical provider and put a strong self-care plan in place.

Please mark all risk factors that apply:

- ○ History of depression or anxiety
- ○ History of bipolar disorder
- ○ History of psychosis
- ○ History of diabetes or thyroid issues
- ○ History of PMS
- ○ History of sexual trauma or abuse
- ○ Family history of mental illness
- ○ Traumatic pregnancy or delivery
- ○ Pregnancy or infant loss
- ○ Birth of multiples
- ○ Baby in the NICU
- ○ Relationship issues
- ○ Financial struggles
- ○ Single mother
- ○ Teen mother
- ○ No or little social support
- ○ Away from home country
- ○ Challenges with breastfeeding

RESOURCES

www.postpartum.net

- **PSI Helpline:** For local resources please call 800-944-4773 or text us at 503-894-9453. We can provide information, encouragement, and names of resources near you.
- **FREE Online Weekly Support Groups:** Led by a trained facilitator. For days and times please visit: http://www.postpartum.net/get-help/psi-online-support-meetings/
- **FREE Psychiatric Consult Line:** Your medical provider can call 800.944.4773 x 4 and speak with a reproductive psychiatrist to learn about medications that are safe for you to take while pregnant and breastfeeding. http://www.postpartum.net/professionals/perinatal-psychiatric-consult-line/

** This is not a diagnostic tool and should not take the place of an actual diagnosis by a licensed professional. **

APPENDIX I

ONE IN 10 FATHERS EXPERIENCE DEPRESSION OR ANXIETY AFTER THE BIRTH OF A CHILD

Figure A9. One in 10 Fathers Experience Depression or Anxiety After the Birth of a Child

APPENDIX J

NEW MOM CHECKLIST FOR MATERNAL MENTAL HEALTH HELP

Figure A10. New Mom Checklist for Maternal Mental Health Help

Postpartum Progress
together, stronger.

New Mom Checklist for Maternal Mental Health Help

Name: _____ Mom's age: _____

I'd like to talk to you about the stress I've been having since I had my baby. Because I'm exhausted, overwhelmed & struggling, this is the best way for me to make sure you know what is going on with me, and that I might need your help. I think I might have (*Mom, check any that may apply*):

- ☐ Postpartum depression (PPD)
- ☐ Postpartum anxiety or OCD
- ☐ Postpartum psychosis
- ☐ Postpartum PTSD (post-traumatic stress)
- ☐ Bipolar disorder or mania
- ☐ Not sure; I just know something isn't right

Here are some of the recognized symptoms of perinatal mood and anxiety disorders that I have been having (*Mom, check any that apply to you*):

- ☐ I can't sleep, even when my baby is sleeping.
- ☐ I have lost my appetite.
- ☐ I feel sad. I have been crying a lot for no reason.
- ☐ I am feeling worried or anxious most of the time.
- ☐ I am having anger or rage that is not normal for me.
- ☐ I feel numb or disconnected from my life. I can't enjoy the things I used to.
- ☐ I don't feel like I'm bonding with my baby.
- ☐ I am having scary "*what if*" thoughts over & over about harm coming to me, my baby or others (also called intrusive thoughts, a sign of postpartum OCD).
- ☐ I feel a lot of guilt and shame.
- ☐ I'm worried that I'm not a good mother.
- ☐ I feel overwhelmed with all of the things in my life.
- ☐ I can't concentrate or stay focused on things.
- ☐ I feel like I'm losing it.
- ☐ I want to be alone all or most of the time.
- ☐ My thoughts are racing. I can't sit still.
- ☐ I feel like the only way to make myself feel better is by using alcohol, prescription drugs or other substances.
- ☐ Sometimes I wonder if my baby or my family would be better off without me.
- ☐ I've been having physical symptoms that are not normal for me (for example: migraines, back aches, stomach aches, shortness of breath, panic attacks)
- ☐ I have had serious thoughts of hurting myself.
- ☐ I have had thoughts that I should (not that I might or what if, but that *I should or need to*) hurt my baby or someone else.
- ☐ I am worried I'm seeing or hearing things that other people don't see or hear.
- ☐ I'm afraid to be alone with my baby.
- ☐ I feel very concerned or paranoid that other people might hurt me.

I have had these symptoms for more than _____ weeks. I am _____ weeks postpartum.

Here are some recognized risk factors for maternal mental illness that may help you understand my situation (*Mom, check any that apply to you*):

- ☐ I have had depression, anxiety/OCD or PPD before
- ☐ I have a history of bipolar disorder or psychosis
- ☐ My family has a history of mental illness
- ☐ I have a history of or am now going through trauma (for example: domestic violence, verbal abuse, sexual abuse, poverty, loss of a parent)
- ☐ I have had a stressful event in the last year (for example: house move, job loss, divorce or relationship problems, or the death of a loved one)
- ☐ I'm a single mom
- ☐ I don't have much help or support at home from my partner or family members
- ☐ I have a lot of financial stress
- ☐ I have had infertility treatment
- ☐ My baby has colic, reflux or other health problems
- ☐ I have had a previous miscarriage or stillbirth
- ☐ I have a history of diabetes, thyroid problems, or pre-menstrual dysphoric disorder (PMDD)
- ☐ I delivered multiples
- ☐ I'm away from my home country or culture
- ☐ I or my baby had problems in pregnancy or childbirth (for example: baby in NICU, unplanned C-section, bed rest)

This checklist is not intended to diagnose any mental illness. It is a discussion tool for moms to use with healthcare providers. It was created by Postpartum Progress, a national nonprofit supporting moms with maternal mental illness. For more free tools and support for perinatal mood & anxiety disorders, visit postpartumprogress.org.

APPENDIX K

SELF-CARE PLAN

Figure A11. Self-Care Plan

Lifeline for moms

Self-Care Plan

Your life may feel drastically changed during this time, and feeling overwhelmed, stressed, or sad are very common and understandable responses. It can be hard to cope with problems when you're feeling sad and have little energy. A self-care plan can be a useful tool to help you attend to your own wellness needs, and those of your baby.

1. **Make time for pleasurable activities.** Commit to scheduling some simple and enjoyable activity each day.
   Things I find pleasurable include: _____
   During the week I will spend at least_____ minutes doing (choose one or more of activity to try in the coming week) _____

2. **Stay physically active.** Make sure you make time to do some activity, even a few minutes of activity can be helpful.
   During the week, I will spend at least _____minutes doing (write in activities) _____
   _____.

3. **Ask for help.** Look to those in your life who you can ask for help - for example your husband or partner, your parents, other relatives, your friends.
   People I can ask to help me: _____
   During the week I will ask at least _____ person/people for help.

4. **Talk or spend time with people who can support you.** Explain to friends or loved ones how you feel. If you can't talk about it, that's OK – you can still ask them to be with you or join you for an activity.
   People I find supportive include _____. During the week, I will contact _____ (name/s) and try to talk with them _____times.

5. **Belly breathing** is about breathing in a specific way that triggers your body's natural calming response.
   - Begin by slowly bringing your breath to a steady, even pace.
   - Focus on breathing in from the very bottom of your belly, almost as if from your hips/pelvis.
   - See if you can breathe in a way that makes your belly stick out on the in-breath and deflate totally on the out-breath. Your chest and shoulders should stay quite still, it's all about breathing with your belly!
   - Any amount of time you can find to do this can help. Aim to practice 10-15 minutes at least twice daily.

6. **Mindful breathing** helps bring awareness into the present moment using our body's natural rhythm of breath. Bring your attention to your own natural rhythm of breath.
   - Notice physical sensations with breathing, such as the textures of clothing or movement of body.
   - When your mind offers a distraction, notice this, and bring your attention back to the physical sensation of natural breath. Try and notice temperature of the in-breath and out-breath or notice the precise moment in the rhythm where an in-breath becomes an out-breath.
   - Practice this when you feel like you could use some present moment grounding.

7. **Sleep is a very important part of self-care.** Here are some helpful strategies to try to help you sleep better at night.
   - Watch how much caffeine you take in. Caffeine stays in the body for 10-12 hours. Consider limiting coffee, tea, soda, chocolate, and energy drinks, and setting a cut-off point during the day (such as lunchtime) to stop drinking or eating caffeine.
   - Set a routine. Set regular times for going to bed and waking up, even if you slept poorly the night before. Set up a relaxing routine 1-2 hours before bed where you do something calming and limit your exposure to electronics and light. Getting into a routine will train your body to prepare for sleep near bedtime.
   - Keep the bedroom mellow. Only use your bed for sleep and sexual activity. This helps your body link the bed with sleep, rather than other things that keep you awake. Keep your bedroom dark and cool and move your clock to prevent you from constantly checking it through the night.

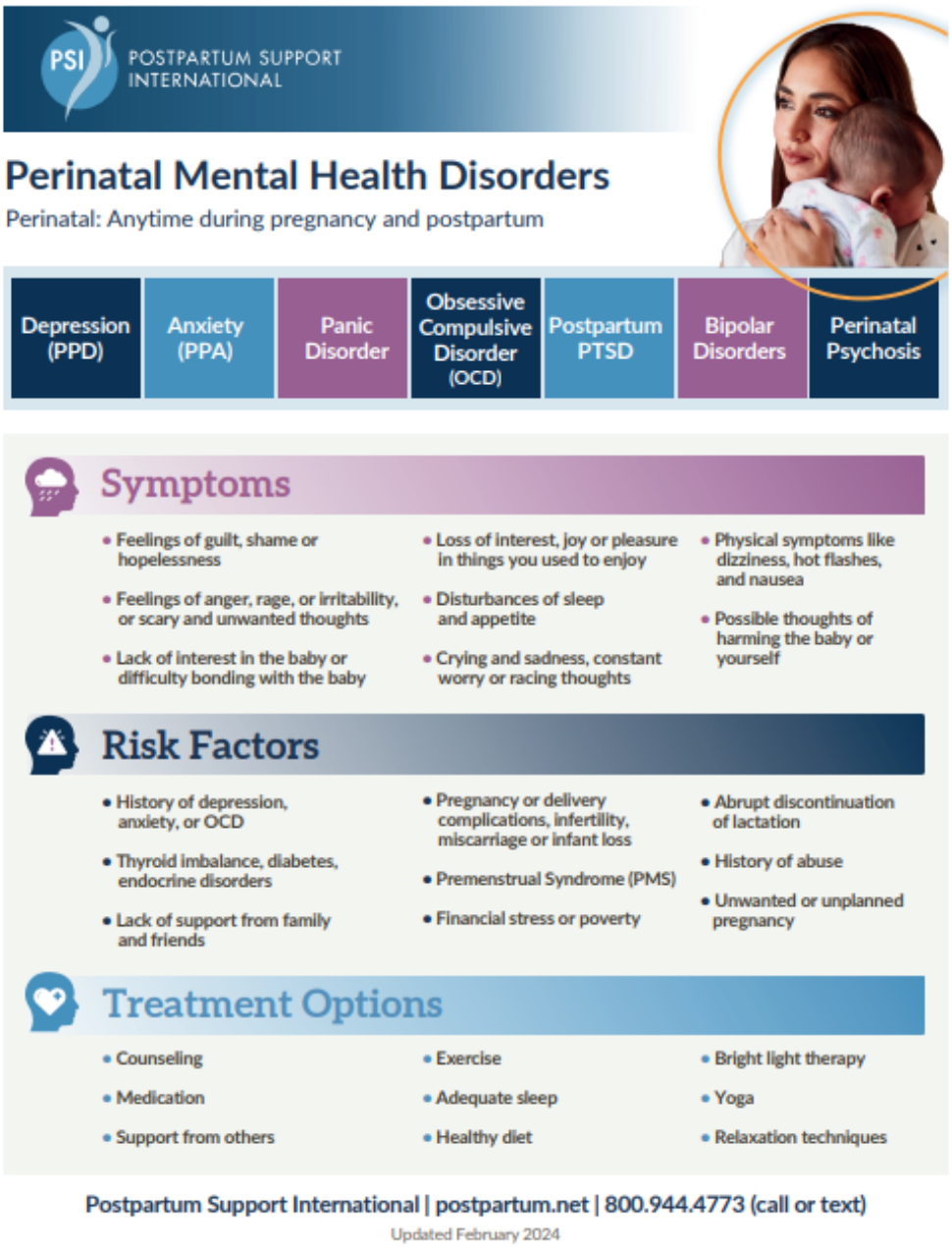
8. **Simple goals and small steps.** Break goals down into small steps and give yourself credit for each step you finish.

Copyright © 2019 UMass Chan Medical School all rights reserved. Revision 02-22-22. Lifeline for Moms Perinatal Mental Health Toolkit. Funding provided by CDC grant number U01DP006093. Authors: Byatt N., Mittal L., Brenckle L., Logan D., Masters G., Bergman A., Moore Simas T.

APPENDIX L

PERINATAL MENTAL HEALTH DISORDERS

Figure A12. Perinatal Mental Health Disorders



APPENDIX M

EDUCATIONAL RESOURCES FOR PATIENTS AND FAMILIES

Figure A13. Educational Resources for Patients and Families

Lifeline for moms

Educational Resources for Patients and Families

Resources from the National Institutes of Health: Moms' Mental Health Matters

Order FREE copies or download a PDF of these materials at https://www.nichd.nih.gov/ncmhep/initiatives/moms-mental-health-matters/pages/materials.aspx. All materials are FREE and available in English and Spanish.

Posters:

- What if the "happiest time of your life" doesn't feel so happy?
- You're Prepared for ALMOST Anything…

Tear Pad: The **Action Plan for Depression and Anxiety Around Pregnancy Tear Pad** is designed for patients to understand the signs of depression and anxiety and take steps to feel better.

Postcard: The **Conversation Starter Postcard** is for partners and family members who are concerned about a loved one. It offers ways to provide support.

Resources from Postpartum Support International (PSI)

Download and print materials for free or order copies (charges apply). All materials are available in English and Spanish.

DVD: http://www.postpartum.net/resources/psi-educational-dvd/
Healthy Mom, Happy Family: Understanding Pregnancy and Postpartum Mood and Anxiety Disorders: Four women who have suffered and recovered from perinatal mood disorders share their experiences and help reassure and educate new mothers, their family members and friends, and health care professionals. Their poignant stories are complemented by up-to-date information from experts in the field. Movie length: 13 minutes.

Brochure: http://www.postpartum.net/resources/psi-brochure/
A resource about perinatal mood and anxiety disorders for families, groups, clinics, and hospitals.

Posters: http://www.postpartum.net/resources/psi-awareness-poster/
Raise awareness of pregnancy and postpartum mental health and provide messages of help and hope.

Resources for Fathers: http://www.postpartum.net/get-help/resources-for-fathers/

Resources from the American College of Obstetricians and Gynecologists

Frequently Asked Questions (FAQs): Print the PDF for free.

- Postpartum Depression: https://www.acog.org/Patients/FAQs/Postpartum-Depression
- Depression: https://www.acog.org/Patients/FAQs/Depression

Brochures: Order copies (charges apply).

- **Postpartum Depression**: This brochure explains the difference between postpartum blues and postpartum depression; reasons for postpartum depression; signs and symptoms; and treatment and prevention. https://sales.acog.org/Postpartum-Depression-P124.aspx
- **Depression**: This brochure explains the definition of depression, symptoms, causes, diagnosis and treatment, and concerns during pregnancy. https://sales.acog.org/Depression-P184.aspx