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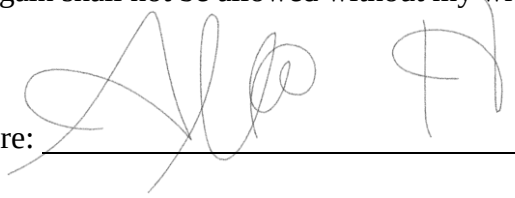
Signature: 

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UNIVERSAL SCREENING FOR POSTPARTUM DEPRESSION: CLOSING THE CLINICAL GAP

By

Allexa Hellman

A scholarly project submitted in partial

fulfillment of the requirements for the degree of

Doctor of Nursing Practice in the Department of Health Sciences

Colorado Mesa University

Grand Junction, Colorado

Spring, 2021

COMMITTEE APPROVAL

UNIVERSAL SCREENING FOR POSTPARTUM DEPRESSION: CLOSING THE CLINICAL GAP

Allexa Hellman

The final copy of this scholarly project has been examined by the signatories, and we find that both the content and form meet acceptable presentation standards of scholarly work in the Department of Health Sciences. It has, therefore, been approved as meeting the requirements for the degree of Doctor of Nursing Practice.

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ABSTRACT

UNIVERSAL SCREENING FOR POSTPARTUM DEPRESSION: CLOSING THE CLINICAL GAP

Postpartum depression (PPD) is a prevalent postpartum complication affecting approximately one in seven mothers following childbirth. The purpose of this project is to implement a process for universal PPD screening, treatment, and follow-up of all postpartum mothers within the first 12 months following delivery in a federally qualified health center (FQHC) integrated health system in Southern California. Neuman's Systems Model was the theoretical framework utilized for project implementation. Deming's plan-do-study-act (PDSA) cycles were applied for application of screening, treatment, and follow-up interventions. Project success was determined based on provider and clinic staff usage of the planned procedures compared to baseline. Project limitations and the project's relevance to the DNP essentials were discussed.

Keywords: postpartum depression, federally qualified health center, Neuman Systems Model, Deming's Plan-Do-Study-Act cycle

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CMU Federalwide Assurance Number: 00024298

TO: Allexa Hellman

FROM: Dr. Cheryl K. Green CKG
Director of Sponsored Programs; Research Integrity Officer

SUBJECT: IRB Determination of Human Subject Research

DATE: October 19, 2020

STUDY: **Protocol 21-11: Universal Screening for Postpartum Depression: Closing the Clinical Gap**

The Colorado Mesa University Institutional Review Board (IRB) also known as the Human Subjects Committee has reviewed your request for determination of human subject research and based on your answers, your project is deemed to not be research involving human subjects as defined by 45 CFR 46.102(e).

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Determination Date: October 19, 2020

If you have any questions, please feel free to contact me at irb@coloradomesa.edu.

Best wishes on your project.

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SECTION 1

UNIVERSAL SCREENING FOR POSTPARTUM DEPRESSION: CLOSING THE GAP

Postpartum depression (PPD) is a prevalent postpartum complication and can affect *any* woman after childbirth. One in seven mothers develop PPD within the first year following childbirth (Centers for Disease Control and Prevention [CDC], 2018), yet one in eight women reported not being screened for PPD during their or their infants' primary care visits following delivery (Earls et al., 2019). Many primary care clinics do not have systems in place for universal screening for PPD (Bauman et al., 2020; Lind et al., 2017). The purpose of this project is to implement a process for universal PPD screening, treatment, and follow-up of all postpartum mothers within the first 12 months following delivery in a federally qualified health center (FQHC) in Southern California.

Background of the Problem

Postpartum depression is a risk for *all* women after childbirth. Yet it is under-screened and under-treated (Bauman et al., 2020; Earls et al., 2019; Lind et al., 2017). Postpartum depression is defined as major or minor depression causing debilitating mood alterations leading to the inability to care for oneself or one's infant (CDC, 2018). Postpartum depression occurs along a continuum of mental health complications following childbirth, varying from mild symptoms (e.g. baby blues) to psychosis (Earls et

al., 2019). See Figure 1.1. Postpartum depression occurs partly due to elevated levels of estrogen and progesterone in pregnancy that drastically decline following delivery, in addition to the psychological stressors associated with childbirth (American College of Obstetrics and Gynecology [ACOG], 2018).

Figure 1.1
Postpartum Depression Spectrum

Notes. Adapted from Earls, M., Yogman, M., Mattson, G., & Rafferty, J. (2019). Incorporating recognition and management of perinatal depression into pediatric practice. *American Academy of Pediatrics, 143*(1). https://doi.org/10.1542/peds.2018-3259

Postpartum depression is the most common mental health complication associated with pregnancy, effecting approximately one in seven mother's following childbirth (CDC, 2018). Postpartum depression negatively impacts the wellbeing of mothers, their infants, their families, the healthcare system, and society. See Table 1.1. Early recognition and management of PPD has the potential to reduce negative outcomes (Waldrop et al., 2018).

Table 1.1
Impact of PPD

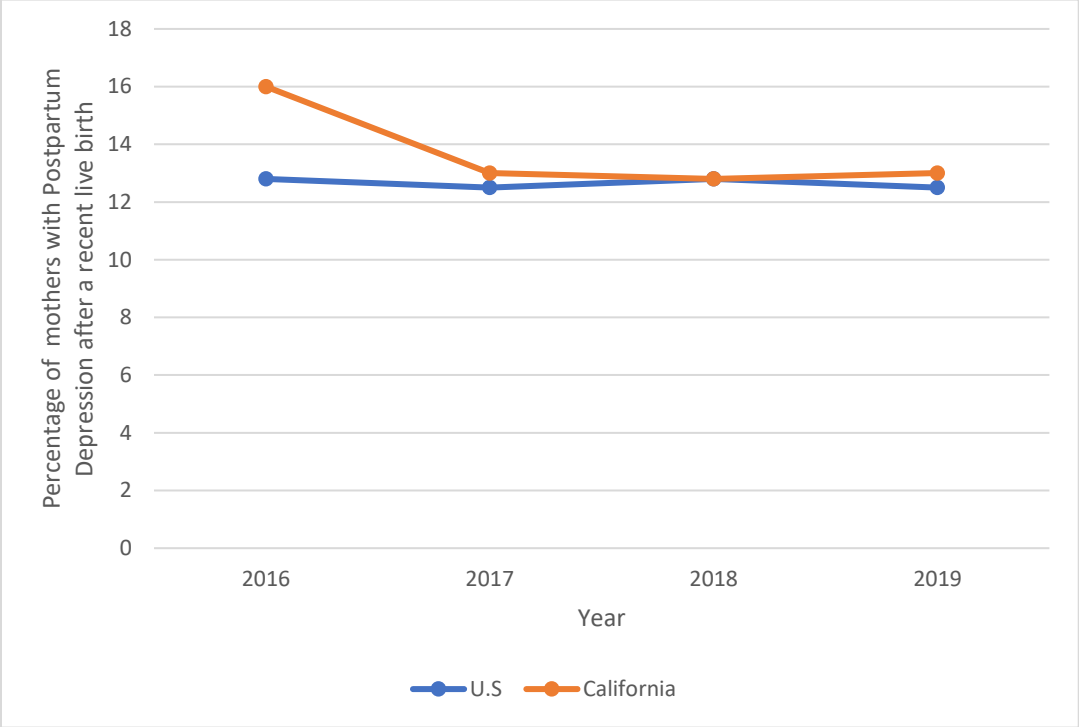
Subject	Effect
Mother	Poor health maintenance (Earls et al., 2019). Failure to implement safety anticipatory guidelines or preventive health measures for the infant (Sudhanthar et al., 2019).

Infant	ACEs risk factor due to poor maternal care (Centers for Disease Control and Prevention [CDC], 2020; Earls et al., 2019; Lind et al., 2017) - Cognitive delays, weight gain, reduced sleep, peer problems, mental health illnesses, chronic illnesses (Earls et al., 2019; Lind et al., 2017).
Family	Poor family engagement, insufficient care for other children, financial hardship (Lind et al., 2017; Waldrop, 2018).
Socioeconomic	Employer lost productivity due to absences equating to $44 billion per year (Earls et a., 2019). Increase consumption of public services (Earl et al., 2019).
Healthcare System	Inappropriate use of healthcare services (Earls et al., 2019). - California spent $2.4 billion per year, or $35,000 per mother (Bukhard, 2019; Luca et al., 2019). 90% increase in healthcare costs compared to non-PPD mothers (Bukhard, 2019; Luca et al., 2019).

Accurate PPD prevalence and incidence screening rates are unclear due to inadequate screening (Earls et al., 2019; Lind et al., 2017; Sudhanthar et al., 2019; Waldrop et al., 2018). Low prevalence and incidence rates are due to provider inadequacies to screen and socioeconomic risk factors effecting the mother and infants' ability to obtain adequate healthcare. Figure 1.2 displays the current trends of diagnosed PPD in the United States according to the CDC and the Pregnancy Risk Assessment Monitoring System (PRAMS). Figure 1.2 also displays PPD rates in California, where the scholarly project will take place.

Figure 1.2

PPD Trends



Note. This figure displays the trend of annual positive PPD after a live birth. N ranges from 30,000-40,000. Adapted from "Trend: Postpartum Depression, United States by America's Health Ranking, 2020, https://www.americashealthrankings.org/explore/health-of-women-and-children/measure/postpartum_depression/state/ALL

Risk factors associated with PPD are shown in Table 1.2. However, while some patients may have a higher risk of PPD than others, PPD screening should not be determined by targeting any specific group or by provider preference (Hagan et al., 2017; U.S. Preventive Services Task Force, 2018). Because PPD can occur in all mothers following childbirth, universal screening is recommended throughout the 12-month postpartum period.

Table 1.2
Risk Factors for PPD

Risk Factors	- History of depression or mental health disorder - Stressful life events - Complicated pregnancy - Insufficient partner or social support - Maternal/infant complications (ACOG, 2018; CDC, 2018; Earls et al., 2019).
High Risk Factors	- Maternal age < 19 years old - Racial and ethnic minorities - Language barrier with medical provider - Low income - Medicaid beneficiaries (Earls et al., 2019)

Current recommendations for PPD screening are outlined in Table 1.3. Universal screening for all postpartum mothers with an evidence-based screening tool has been shown to improve early detection, promote maternal recovery, and decrease the detrimental effects on child development (Lind et al., 2017; van de Zee-van de Berg, 2017). When mothers screen positive for PPD, it is necessary to have a system in place to provide treatment, including maternal medications, referrals to community support services and emergency resources and patient education (Rafferty et al., 2019).

Screening with an evidence-based tool is not diagnostic, rather suggestive. PPD is diagnosed with the DSM 5 criteria as major depressive disorder (MDD) occurring during pregnancy or four weeks following delivery (Postpartum Support International, 2020). PPD diagnosis consists of depressed mood or loss of pleasure or pleasure in nearly all activities as well as four of the following; changes in appetite or weight, sleep and

psychomotor activity, decreased energy, feelings or worthless or guilt, difficulty thinking, concentrating or making decisions, or recurrent thoughts of death or suicidal ideation, plans or attempts.

Table 1.3
Current Recommendations for Screening

Organization	**Recommendation**
American Academy of Pediatrics- Bright Futures	-Screening at one, two, four, and six-month intervals (Hagan et al., 2017). - Can be conducted at obstetric, primary care, or well-child exams (Hagan et al., 2017).
American College of Obstetrics and Gynecology	-Screening at least once during the postpartum period (12 months following delivery) with an evidence-based screening tool (American College of Obstetrics and Gynecology [ACOG], 2018).
U.S. Preventive Services Task Force	- Grade B recommendation - Screen all pregnant and postpartum mothers with an evidence-based screening tool at least once during the postpartum period (U.S. Preventive Services Task Force [USPSTF], 2020

Gap in Clinical Practice

Opportunities for universal PPD screening and follow-up care are present in both maternal and pediatric primary care visits. Yet, many maternal and pediatric clinical settings have poorly elucidated policies and procedures to standardize this screening and

follow-up care. Many providers report not screening at all (Avalos et al., 2016). Evidence suggests that a failure to screen in maternal and pediatric primary care settings is due to insufficient training of primary care staff on screening techniques, availability of validated instruments, knowledge about the treatment and referral process, and fear of maternal refusal (Avalos et al., 2016). System factors that influence a failed screening and treatment system include insufficient provider education regarding the correct process, insufficient time allotted to the provider to conduct screening, and an inadequate referral system in place for a positive screen.

Purpose & Project Overview

The purpose of the scholarly project is to implement a process for PPD screening, treatment, and follow-up for all mothers following childbirth. A doctoral student, in conjunction with clinic stakeholders and university faculty, will implement a screening, treatment, and referral process for evaluation of PPD in an urban primary care setting. A time-series design will be used to guide the implementation process with periodic evaluations to monitor the project's progress. Table 1.4 defines terms used throughout Section 1.

Table 1.4
Definition of Terms

Term	Definition
Follow-Up	Maintain contact with patient at one or more designated intervals following a diagnosis or treatment to further examine or monitor progress (Merriam-Webster, n.d.a). For the purpose of this project follow-up is defined as the subsequent visits or telecommunication to assess maternal progress.

Implement	To carry out or accomplish (Merriam-Webster, n.d.b). For the purpose of this project, implement is used to describe the application process of the project.
Process	A series of actions or steps taken in order to achieve a particular end (Merriam-Webster, n.d.c). For the purpose of this project process will be used to describe the project purpose.
Screening	Tests to detect disease as early as possible (MedlinePlus, 2020). For the purpose of this project screening is defined as the use of the EPDS to evaluate and diagnose a mother with PPD.
Treatment	Methods used to cure a person of an illness or injury (Cambridge Dictionary, n.d.). For the purpose of this project, treatment encompasses referral to a behavioral health specialist, licensed social worker, or prescribed medications.

SECTION 2

INTEGRATED LITERATURE REVIEW

The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines were adapted to guide an integrated literature review, as detailed in Figure 2.1. The Cumulative Index for Nursing Allied Health Literature (CINAHL), MEDLINE, PsychInfo, Cochrane, and Essential Evidence Plus databases were searched to find articles related to universal screening, treatment and/or referral, and follow-up for PPD in all postpartum mothers. Search terms included: (postpartum depression or postnatal depression or ppd or pnd or post-partum depression or post-natal depression) AND (screen* or assessment* or test* or diagnosis*) AND (treatment* or intervention* or therapy*) AND implement*.

Articles not peer reviewed, published prior to 2015, and published in languages other than English were excluded prior to the initial search. The initial search yielded 168 articles. After duplicates (n=20) and those not written in English (n=3) were removed, 145 articles' titles and abstracts were reviewed for inclusion and exclusion criteria. Inclusion and exclusion criteria are detailed in Table 2.1. After abstract and title review, 101 articles were excluded. After full text review, articles were excluded if they (a) were not written in English (n=3); (b) did not implement a process for screening and/or treatment of PPD (n= 9); (c) did not take place in a primary care or pediatric setting (n=19); (d) screened mothers who were not the biological mothers (n=1); (e) screened for

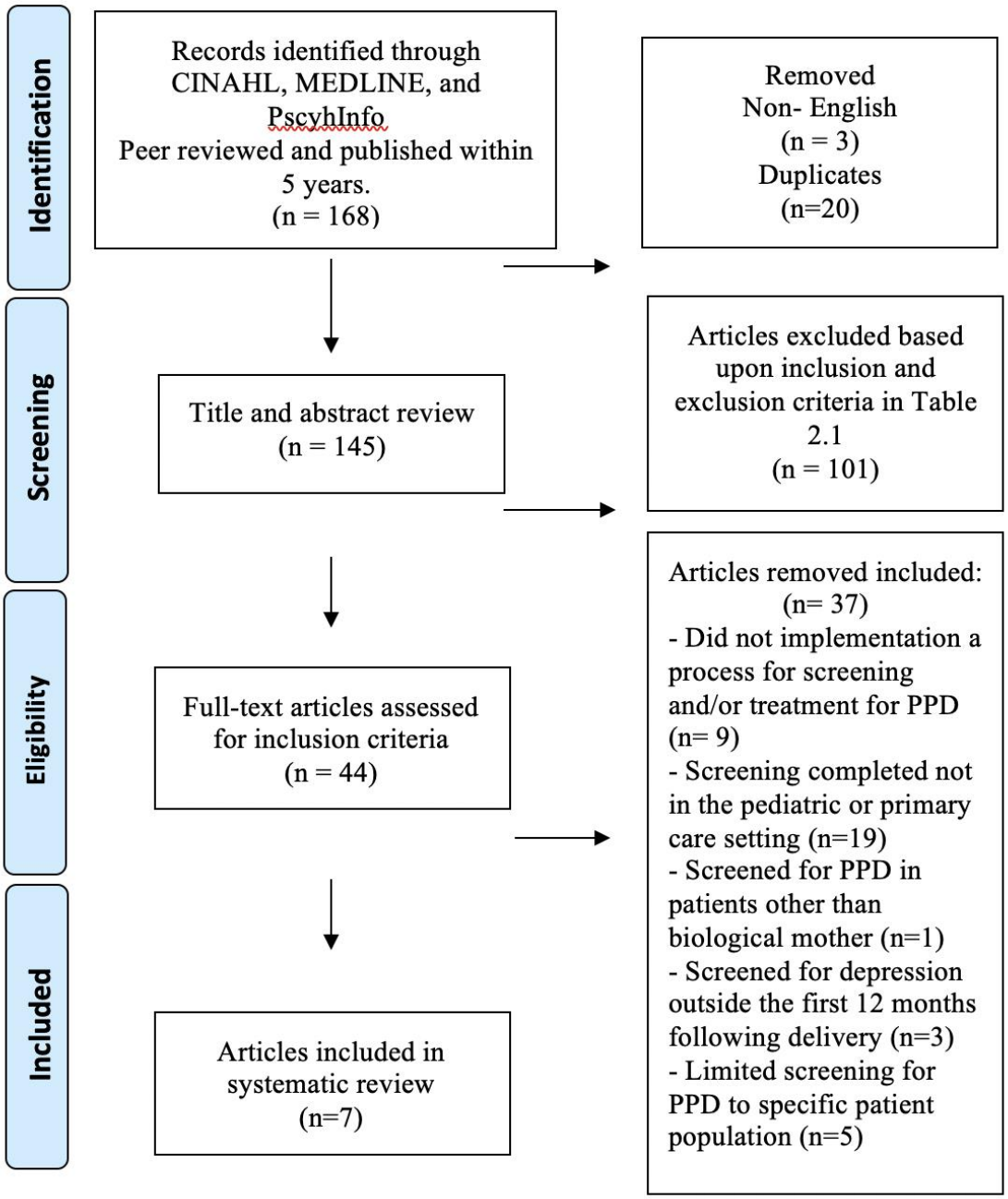
depression outside of the 12 months following childbirth (n=3); and, (f) limited their screening, treatment, or follow up of PPD to specific patient populations (n=5). A summary of the literature review, Table 2.2, details the seven articles included in the final analysis.

Table 2.1
Article Inclusion and Exclusion Criteria

Inclusion	Exclusion
Written in English	Not written in English
Implemented a process for screening and treatment of PPD.	Did not implement a process for screening and/or treatment of PPD.
Screened for PPD in the pediatric or primary care setting.	Screening completed not in the pediatric or primary care setting.
Screened for PPD in biological mothers.	Screened for PPD in patients other than biological mothers.
Screened for depression within the first 12 months following delivery.	Screened for depression outside the first 12 months following delivery.
Included screened for PPD in all postpartum mothers.	Limited screening for PPD to specific patient populations.

Figure 2.1

Article Review Process



Notes: Adapted from "Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement." by D. Moher, J. Tetzlaff, D.G. Altman, D. Altman, G. Antes, D. Atkins, V. Barbour, N. Barrowman, J.A. Berlin, J. Clark, M. Clarke, D. Cook, R. D-Amico, J.J. Deeks, P.J. Devereaux, K. Dickerson, M. Egger, E. Ernst, and P. Tugwell, 2009, *PLoS Medicine, 6*(7) (https://doi.org/10.1371/journal.pmed.1000097).

Table 2.2

Summary of Articles

Author(s)	Purpose	LOE & Design	Intervention(s)	Level(s) of Prevention	Implications for SP
Byatt et al., 2015	E of interventions associated with increased PPD T	I Systematic Review	S via validated tool; provider education on S, T, R, and FU. Patient engagement strategies pre-PPD S.	Primary Secondary Tertiary	1. Use of validated instrument recommended. 2. Recommended provider training. 3. Recommended patient education. 4. T & FU on-site preferred
Earls et al., 2019	Policy statement	Expert opinion	Patient education post-PPD S; recommended S schedule: 1, 2, 4, & 6 months; recommended instrument: EPDS.	Primary Secondary Tertiary	1. Guidelines exist for patient education, resources, R, FU. 2. S schedule & instrumentation established. 3. Demystifying PPD S important.
Kingston et al., 2017	E of web-based e-S compared to paper S.	II Randomized Control Trial	S via electronic vs. paper format; Patient education post-PPD S.	Secondary	1. Normalizing PPD increases S; 2. Electronic S preferred over paper format.
Lind et al., 2017	E of quality & quantity of postnatal PPD S program & initiation of PPD T in an integrated health system.	III Retrospective analysis of QI project	S with the EPDS at 1, 2, 4, & 6 months well child visits.	Secondary Tertiary	1. Provider & staff education on EPDS, S, R, & FU process. 2. Provider T guidelines algorithm.
Long et al., 2019	PPD intervention types & effectiveness to increase the # of women	I Systematic review	Provider education post-PPD S; EMR training; provider standardized educational exercises	Secondary	1. Provider education 2. Provider email reminder for policy & protocol.

	screened & referred for PP mood & anxiety disorders.				
Van Der Zee-Van Den Berg et al., 2017	Effectiveness of S for PPD in WCC vs CAU on outcomes at mother & child levels.	III Prospective quasi-experimental comparative design	S at 1, 3, & 6 months; EPDS S via email communication; CAU group received no S	Secondary Tertiary	1. Email S prior to visit. 2. Provider algorithm for T.
Puryear et al., 2019	Increase access to perinatal mental health services through universal S for PPD, facility R for evaluation & T.	QI	S with the EPDS at integrated care clinic. Obstetric PPD S during pregnancy & 6 weeks PP. Pediatric S at 2 weeks, 2, 4, & 6 months PP. Integrated clinic for ease of R.	Secondary Tertiary	1. S with the EPDS at 2 weeks, 2, 4, & 6 months. 2. Project "champion" within clinic to encourage others. 3. Behavioral health integration within clinic to limit R barrier associated with FU visits.

Note. LOE=level of evidence, based on EBM Pyramid & EBM Page Generator, copyright 2008 Trustees of Dartmouth College and Yale University. Produced by J. Glover, D. Izzo, K. Odato. & L. Wang All Rights Reserved; E=evaluation; PPD=postpartum depression; S=screening; T=treatment, R=referral; FU=follow up; EPDS=Edinburgh Postnatal Depression Screening; EMR=electronic medical record; PP=postpartum; QI=quality improvement; WCC=well child care; CAU=care as usual.

Summary of Findings

The analysis of articles revealed several important findings. First, screening, treatment, referral, and follow-up implementation strategies targeted both patients and providers and/or health systems. Interventions fell into three levels of prevention, primary, secondary, and tertiary.

Patient Interventions

Primary prevention strategies targeting patients included demystification of PPD and its associated screening so that mothers did not fear being screened (Byatt et al., 2015; Long et al., 2019). Patient engagement included anticipatory guidance about PPD, screening, and treatment options (Byatt et al., 2015; Long et al., 2019). Evidence suggests that these patient interventions done prior to, during, and following PPD screening decreased maternal fear and stigma (Byatt et al., 2015; Earls et al., 2019; Long et al., 2019). Patient engagement (Byatt et al., 2015; Earls et al., 2019; Lind et al., 2017), reassurance (Byatt et al., 2015), educational resources (Byatt et al., 2015; Earls et al., 2019; Lind et al., 2017; Long et al., 2019), and options for a plan of care (Kingston et al., 2017; Lind et al., 2017; Long et al., 2019) were all patient-focused strategies used to decrease barriers to PPD care.

Secondary prevention strategies included screening with the EPDS (Byatt et al., 2015; Earls et al., 2019; Kingston et al., 2017; Lind et al., 2017; Long et al., 2019; Van Der Zee-Van Den Berg et al., 2017; Puryear et al., 2019). While many instruments existed, the preferred instrument was the Edinburgh Postnatal Depression Screen (EPDS) (Earls, et al., 2019; Lind et al., 2017; Long et al., 2019; & Van Der Zee-Van Den Berg et al., 2017). The EPDS is endorsed by the American Academy of Pediatrics (Lind et al.,

2017) for PPD screening use in all of mothers (Earls et al., 2019), and is the most widely used PPD screening tool (Long et al., 2019). It is available in multiple languages. For a list of languages that the EPDS is available in, see http://www.perinatalservicesbc.ca/health-professionals/professional-resources/health-promo/edinburgh-postnatal-depression-scale-%28epds%29.

Screening instruments were delivered both in paper (Kingston et al., 2017; Puryear et al., 2019) and electronic formats (Kingston et al., 2017; Van Der Zee-Van Den Berg et al., 2017). Some studies did not discuss their screening process in detail (Byatt et al., 2015; Earls et al., 2019, Lind et al., 2017; Long et al., 2019). Based on Kingston et al. (2017), the electronic format was preferred. Screening intervals were recommended at the child's two-, four-, and six-month well child visits (Earls et al., 2019; Ling et al., 2017; Puryear et al., 2019). Screening was patient- or provider-administered and was completed prior to (Van Der Zee-Van Den Berg et al., 2017) or during the well child appointment at one-, two-, four-, six-month (Kingston et al., 2017; Lind et al., 2017; Puryear et al., 2019).

Tertiary prevention strategies included referral, treatment, and follow-up (Byatt et al., 2019; Earls et al., 2019; Lind et al., 2017; Van Der Zee-Van Den Berg et al., 2017; Puryear et al., 2019). Referral and/or treatment included on-site evaluation by behavioral health (Puryear et al., 2019), mental health professionals (Byatt et al., 2015; Earls et al., 2019; Puryear et al., 2019), or primary care providers (Earls et al., 2019). Regardless of the treatment, an influential part in the implementation process was follow-up (Earls et al., 2019; Lind et al., 2017; Van Der Zee-Van Den Berg et al., 2017) to ensure the mother

was receiving the care that she needed. Follow-up was found to be best completed via provider notification (Lind et al., 2019).

Provider & Health System Interventions

Primary prevention that targeted providers and/or health systems focused on provider and staff education on PPD, screening and referral guidelines (Long et al., 2019). Provider education included generalized patient situations to increase provider compliance with screening and to increase providers' screening and treatment self-efficacy (Earls et al., 2019; Long et al., 2019; Van Der Zee-Van Den Berg et al., 2017). Provider and staff education on the use of screening tools (Byatt et al., 2019; Earls et al., 2019; Kingston et al., 2017; Lind et al., 2017; Long et al., 2019; Van Der Zee-Van Den Berg et al., 2017; Puryear et al., 2019) and changes to the electronic health record (EHR) were provided (Long et al., 2019). An algorithm (Van Der Zee-Van Den Berg et al., 2017) was created to assist the providers in the decision-making process while screening, charting, and developing a plan of care for postpartum mothers. Staff education, prior to implementation of the new process, focused on symptoms of PPD, referral processes, documentation, and the management of emergencies (Puryear et al., 2019). Provider and clinic staff compliance was an important step in the process of universal PPD screening, treatment, and follow-up.

Tertiary prevention strategies targeting providers and health systems included implementation of treatment algorithms (Van Der Zee-Van Den Berg et al., 2017) and protocols for referral and follow-up processes (Byatt et al., 2019; Earls et al., 2019; Lind et al., 2017; Long et al., 2019; Van Der Zee-Van Den Berg et al., 2017; Puryear et al., 2019). Clinics integrated mental health providers on site for easy access to behavioral

health care (Puryear et al., 2019). Easier access to behavioral care increased patients' compliance with referral and treatment plans (Byatt et al., 2015; Lind et al., 2017; Long et al., 2019; Van Der Zee-Van Den Berg et al., 2017). Provider knowledge of community resources and mental health crisis services was associated with increased PPD screening and treatment rates (Earls et al., 2019). Two studies explained all positive screens were sent to an associated mental health provider for further evaluation (Lind et al., 2017; Van Der Zee-Van Den Berg et al., 2017). After the referral was completed, a systematic follow-up (Earls et al., 2019; Long et al., 2019) was recommended. Only one article described documentation for provider communications and notifications of positive EPDS screenings at follow-up visits (Long et al., 2019). Follow-up timeframes and the type of follow-up visits were not discussed in the literature (Earls et al., 2019). Systematic treatment and follow-up (Earls et al., 2019; Long et al., 2019) were associated with positive patient outcomes.

Conclusion

The implementation of PPD screening, treatment, referral, and follow up requires a multilevel process. Implementation of patient education and engagement before, during, and following PPD diagnosis is important. The preferred PPD screening tool is the EPDS and this tool should be used at the child's one-, two-, four-, and six-month well child exams. Implementation of provider and health system training includes the use of system-wide screening and treatment guidelines and algorithms, provider training on therapeutic communication, instrumentation, and resource availability, and ongoing monitoring to evaluate the newly implemented process.

SECTION 3

THEORETICAL FRAMEWORK

The purpose of the scholarly project (SP) is to implement a process for PPD screening, treatment, and follow-up for all mothers following childbirth. Theory-driven practice distinguishes a doctorly-prepared advanced practice nurse from other medical professions. Theories guide assessment of patient conditions, which assists in planning interventions (Zaccagnini & White, 2015). The Neuman Systems Model (NSM) is the theoretical framework for this SP. The planned interventions are further operationalized through Deming's Plan-Do-Study-Act (PDSA) model.

Neuman Systems Model

Neuman's system model addresses each patient and their unique responses to an actual or potential system stressor (the environment) (Neuman & Fawcett, 2011). According to Neuman and Fawcett (2011), NSM defines the patient as interacting open systems that are constantly changing in response to internal and external environmental forces or stressors. Childbirth is both an internal stressor (as is seen with hormonal changes) and an external stressor (as is seen in the life modifications required to care for oneself and one's newborn). Health is described as an individual's level of wellness. Wellness is the harmonious balance between the patient and the system. The postpartum period requires the patient to maintain or re-establish balance following childbirth. Environment is defined as all the factors affecting the patient. A patient's environment,

including both the clinic site where they access care and their home environment, impacts health maintenance or restoration of balance. Nursing is defined as using theories to drive evidence-based practice in the efforts to attain optimal patient wellness. Implementing clinical system changes to improve the care of women following childbirth is a nursing intervention that, hopefully, helps patients maintain or re-gain wellness.

Nursing interventions are categorized as primary, secondary, and tertiary prevention. Primary prevention occurs prior to a patient experiencing stressors. Primary prevention includes general knowledge and interventions applied to the patient to reduce stressors (Neuman & Fawcett, 2011). Secondary prevention occurs after the patient has experiences stressors and includes attempts to limit damage to the patient. Secondary prevention interventions are those that decrease stressors and reduce stressors' noxious effects. Tertiary prevention occurs after secondary prevention. It is an adjustive process to stressors to move the patient back towards primary prevention or optimal wellness.

A needs assessment completed by the PF, detailed in Appendix A, identified a gap in clinical practice that no current processes in place at the clinic for screening postpartum mothers for PPD (Medical Director, Clinic Operations Coordinator, personal communication, February 26, 2020). The needs assessment determined that the purpose of this project was to implement a universal policy for screening, treatment, and follow-up of PPD in all mothers at two-, four-, six- month well child exams. The PPD literature recommends providers and clinic staff incorporate patient pre-PPD screening demystification (primary prevention), PPD screening (secondary prevention), and community resources, post-PPD education, and facilitate access to mental healthcare (tertiary prevention), if needed (Byatt et al., 2015; Earls et al., 2019; Kingston et al.,

2017, Lind et al., 2017; Long et al., 2019). The NSM adapted to this project is displayed in Table 3.1. Figure 3.2 depicts NSM's concepts, their interrelationships, and their adaptations to this SP.

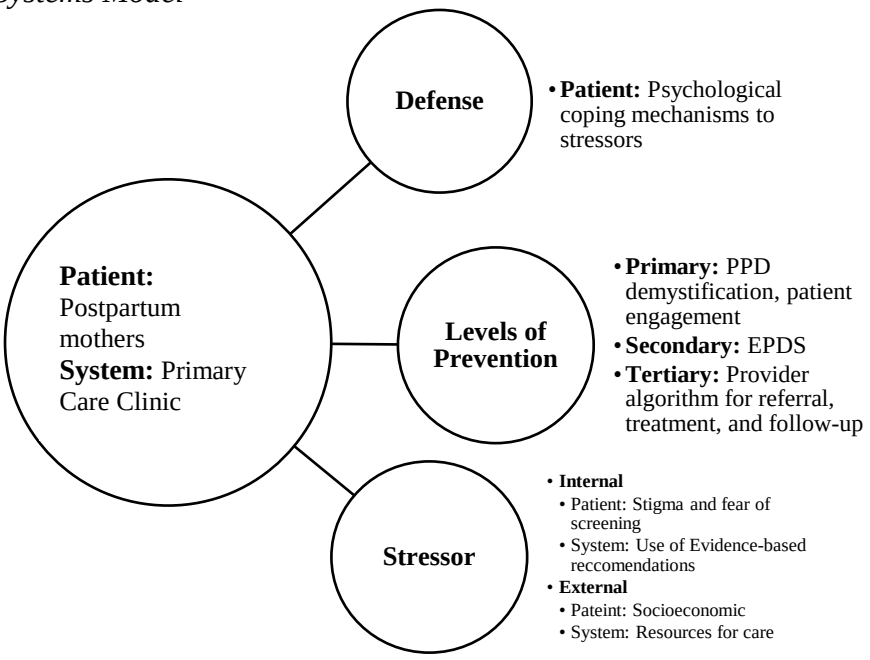
Table 3.1
Neuman Systems Model Nursing Interventions

NSM Intervention	**SP Intervention**
Primary	1. Public messaging campaign to demystify PPD. 2. Pre-screening patient education & engagement strategies
Secondary	1. Screening of all mothers with the EPDS.
Tertiary	1. Treatment options: on-site assessment by behavioral health, referral to mental health specialist, medication management, or decline 2. Patient PPD education and community resources 3. Systematic follow-up

Note. NSM=Neuman's System Model; SP= Scholarly Project; EPDS= Edinburgh Postnatal Depression Screen.

Adapted from Neuman, B., & Fawcett, J. (2011). *The Neuman Systems Model* (5th ed.). Pearson.

Figure 3.1
Neuman Systems Model



Note. EPDS= Edinburgh Postnatal Depression Scale; PPD= Postpartum Depression. Newman Systems Model adapted to the Scholarly Project.

Primary Prevention: PPD Demystification, Patient Education & Engagement

Neuman describes primary prevention as general knowledge that is applied to the patient to decrease stressors (Neuman & Fawcett, 2011). The PPD literature detailed two areas to implement patient-oriented primary prevention. PPD demystification encompasses anticipatory guidance, patient education and engagement in their healthcare plan. Maternal barriers, including fear of being screened, can be overcome with PPD demystification, pre-screening education, and parental anticipatory guidance.

PPD demystification is accomplished through public messaging posters to bring awareness to the commonality of PPD. Pre-PPD screening patient education and engagement increases awareness that any mother can develop PPD during the first 12

months following childbirth. Practical Resources for Effective Postpartum Parenting (PREPP) is an intervention put into practice by Massachusetts General Hospital's Center for Women's Mental Health (2015). This intervention includes anticipatory guidance for parents on expected newborn norms. The intervention is started during pregnancy and continues into the postpartum period (MGH Center for Women's Mental Health, 2015). PREPP includes but not limited to education on infants' feeding, sleeping routine, crying, and swaddling, and the importance of maternal social support.

Health system primary prevention is completed though provider and staff training with simulated patient exercises. Staff training includes EHR changes and the use of a PPD algorithm. Provider and clinic staff training is also essential for PREPP and the implementation processes associated with it. Prior literature suggests that through provider and staff training, provider and staff increase their efficacy related to PPD screening, treatment, referral, and follow-up (Earls et al., 2019; Long et al., 2019; Van Der Zee-Van Den Berg et al., 2017).

Secondary Prevention: Screening

For the purpose of this project, secondary prevention is implemented through universal screening of all mothers for PPD at one-, two-, four-, and six-month well child visits. Neuman describes secondary prevention as strategies to decrease stressors and treatment to reduce their noxious effects. To decrease stressors and implement treatment, screening must take place. PPD screening is necessary to ensure the system (clinic staff and providers) is working to meet the needs of the patient. Secondary prevention specific to the SP is the use of the EPDS.

Tertiary Prevention: Treatment, Referral, & Follow Up

Tertiary prevention uses interventions to overcome stressors and guide the patient back to primary prevention (Neuman & Fawcett, 2011). Tertiary prevention is conducted through the referral, treatment, and follow-up process. Providers are expected to utilize the PPD algorithm according to the EPDS results. The algorithm was adapted from Minnesota Department of Health (2015). The algorithm and the local treatment options are included in Appendix J. Treatment are determined based on EPDS scores.

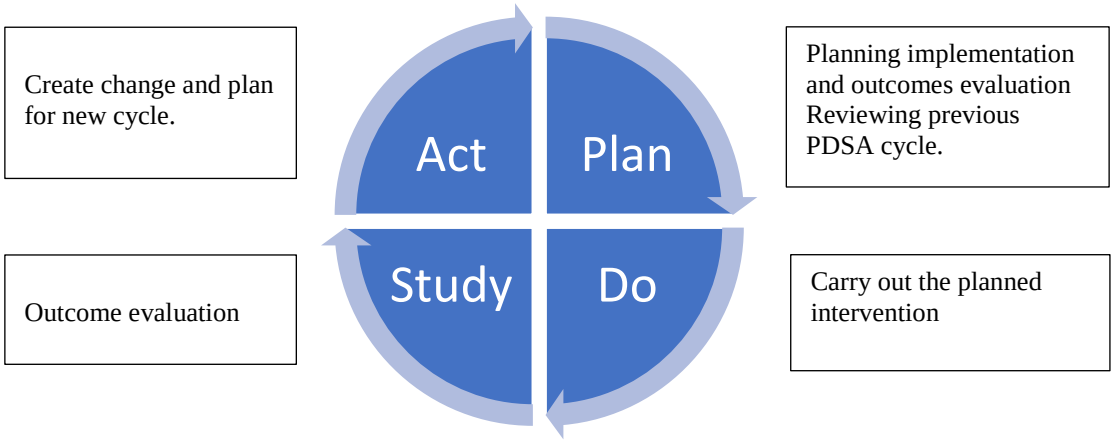
Tertiary prevention includes on-site behavioral health (BH) training and use of available BH services within the community. Evidence suggests that co-location of BH and primary care is preferable to BH not co-located with primary care (Byatt et al., 2015; Lind et al., 2017; Long et al., 2019; Van Der Zee-Van Den Berg et al., 2017). Systematic follow-up of patients following screening, treatment, and referral is necessary to ensure patients are receiving continued care. However, the integrated literature review did not detail what systematic follow-up encompassed. Provider notifications for follow-up visits are necessary to ensure referrals are completed, medications are assessed, and the patients' needs are being met (Earls et al., 2019; Kingston et al., 2017). Tertiary prevention also includes education and resources that are re-enforced during well child visits made during the child's first year (Byatt et al., 2015; Lind et al., 2017; Puryear et al., 2019).

Implementation Model: Deming's PDSA Cycles

Deming's PDSA cycle is utilized for the project implementation. Deming's PDSA cycles are processes used to create change (plan), carry out the change (do), observe the outcome (study), and improvise the process for future implementation based on the

outcomes (act) (Institute for Healthcare Improvement, n.d.). The PDSA model is used to guide implementation of primary, secondary, and tertiary prevention strategies planned for this SP. Figure 3.2 depicts Deming's PDSA cycle for the SP encompassing primary, secondary, and tertiary interventions revealed from the integrated literature review.

Figure 3.2
PDSA Cycle



Advanced Nursing Practice

This project has the potential to affect nursing practice and patient outcomes in several ways. First, although patient outcomes are not directly measured in this project, evidence suggests that by employing primary, secondary, and tertiary prevention strategies as outlined, patient outcomes related to PPD will improve. Second, a doctorally-prepared nurse practitioner developed this SP based on the Doctor of Nursing Practice Essentials (American Association of Colleges of Nursing, 2006), as detailed in Table 3.2. This project advances the practice of nursing by contributing to the continued implementation of theory into practice at the systems level. Nurse practitioners are theorists and researchers, using experience, education, and reflection to their guide

practice (Zaccagnin & White, 2015). The goal of the project is congruent with Neuman's goal of nursing, to promote patients' stability through assessing system stressors and assisting patients to achieve wellness.

Table 3.2
Doctor of Nursing Practice (DNP) Essentials

DNP Essential	**SP Achievement**
Scientific underpinning for practice	Create, design, and implement this project through use of Neuman Systems Model and Deming's PDSA cycles. Review incidence and prevalence for the current state of PPD.
Organizational and systems leadership for quality improvement and systems thinking.	Assessing the clinical gap in practice associated with lack of PPD screening in pediatric or primary care. Implementation of multi-level interventions for individual, system, and community partners. Create demystification campaign to decrease maternal fear and stigma. Implementation of screening and correct charting within the EHR to increase clinic reimbursement.
Clinical scholarship and analytical methods for evidence-based practice.	Completion of integrated literature review to translate research into practice with implementation of validated tool for universal screening for PPD.
Information systems/technology and patient care technology for the improvement and transformation of health care	The implementation of PPD screening, treatment, referral, and follow up requires a multilevel process. Implementation of provider and health system training includes the use of system-wide screening and treatment guidelines and algorithms, provider training on therapeutic communication, instrumentation, and resource availability, and ongoing monitoring to evaluate the newly implemented process.
Health care policy for advocacy in health care	Creation of evidence-based provider algorithm to become clinic policy for universal screening of PPD. Use of

	stakeholders and clinical staff to create active participation in policy change.
Interprofessional collaboration for improving patient and population health outcomes	Meetings with stakeholders, providers, and clinic staff to conduct needs assessment. Collaboration with in-house behavioral health and community resources as part of provider treatment algorithm.
Clinical prevention and population health for improving the nation's health	Publication of public PPD campaign. Analyzing current PPD epidemiology to rationalize the need for universal screening, treatment, and follow-up.
Advance nursing practice	Use of Neuman's System Model through primary, secondary, tertiary prevention to create change in the unique patient and system through evidence-based practice relieved in the literature review.

Note. DNP= Doctoral of Nursing Practice; SP= Scholarly Project; PPD= Postpartum Depression; EHR= Electronic Health Record; EPDS= Edinburgh postnatal depression screening. Adapted from the Essentials of Doctoral Education for Advanced Practice Nursing, 2006, by the American Association of Colleges of Nursing, (https://www.aacnnursing.org/DNP/DNP-Essentials)

SECTION 4

METHODS

The purpose of this project is to implement a process for universal PPD screening, treatment, and follow-up of *all* postpartum mothers within the first 12 months following delivery in an urban federally qualified health center (FQHC) in Southern California. This project has the potential to improve patient outcomes related to PPD screening, treatment, referral, and follow up. The SP has the potential to improve system outcomes related to improved utilization of PPD evidence-based guidelines and provider self-efficacy for the care of patients with PPD.

Setting and Sample

The setting of this project is an urban FQHC in Southern California. The FQHC includes a total of eight individual clinics, including medical, dental, and behavioral health (BH). All clinics function as an integrated care system with one EHR. Although it accepts a variety of insurance plans, the FQHC serves all patients regardless of their ability to pay. According to the medical director, approximately 22,000 patients are seen annually, equating to 10% of the community's population. Approximately 1,250 well child exams are performed for children under the age of 12 months (Medical Director, Clinic Operations Coordinator, Clinic Staff Manager, & Clinic Experts, personal communication, February 26, 2020). The patients are primarily Spanish- and English-speaking individuals.

The primary stakeholders for this project include a medical director and clinic operations coordinator. The secondary stakeholder is the project "champion", who is the clinic nurse educator. Other stakeholders include clinic staff (n=24), pediatric providers (n=4), primary care providers (n=16), behavioral health providers (n=4), and social workers (n=4). The project facilitator (PF) conducted a needs assessment with the stakeholders to identify their needs. The needs assessment followed a strength, weakness, opportunities, and threats (SWOT) analysis in the spring of 2020. See Appendix A. The PF and stakeholders identified a clinical gap in practice that no formal procedures were in place for universal PPD screening, treatment, referral, or follow-up (Medical Director, Clinic Operations Coordinator, Clinic Staff Manager, & Clinic Experts, personal communication, February 26, 2020). The PF proposed this SP to the stakeholders and the stakeholders agreed. See Appendix B.

Ethical Considerations

Prior to starting the SP, Institutional Review Board (IRB) training was completed through Collaborative Institutional Training Initiatives (CITI) modules, specific to social and behavioral research. An application for determination of human subject research was submitted. An approval letter from the IRB identifying this project as quality improvement and not involving human subject research was received. See Appendix C.

Procedures

The planned implementation, including four PDSA cycles, is shown in Table 4.1. PDSA cycles last approximately 2-3 weeks. PDSA cycles implement primary prevention (PPD demystification and health system training), secondary prevention (implementation of the EPDS instrument), and tertiary prevention (implementation of treatment, referral,

and follow up guidelines for patients with PPD). Each PDSA cycle is led by the PF. The PDSA cycles are projected to continue under the direction of the nurse educator upon the PF's completion of this SP.

Table 4.1

Timeline of Proposed Procedures

Cycle	PDSA Step	Time: Week	Intervention
C-1	Plan	1	Provide stakeholders with proposed anticipatory guidance, algorithm, post-screening patient education in English and Spanish, and PPD posters in English and Spanish for their approval. See the corresponding Appendix D, E, F, G, H, and I.
C-1	Do	1	1. The PF trains providers and clinic staff on PPDSTRFCP, including role responsibilities. Training includes role play opportunities for simulated patients with PPD. Training was completed at a regularly scheduled monthly staff meeting in-person, as outlined in Appendix J. 3. Post PPD demystification posters in clinic rooms.
C-1	Study	1	Request and review feedback from providers and clinic staff on PPDSTRFCP and PPD demystification posters. Provider questions are outlines in Appendix K. Answers will be gathers and tabulated in aggregate form based upon modification suggestions or no modifications needed.
C-1	Act	2	Modify PPDSTRFCP and PPD demystification posters, if necessary.
C-2	Plan	2	Plan implementation of PREPP anticipatory guidance.
C-2	Do	3	Implement PREPP anticipatory guidance with MA and/or provider at first newborn visit, 2 weeks, and 1 month well child visits. - MA prepares PREPP checklist and educational material for applicable visits. - MA completes the PREPP checklist with initials and date son corresponding topics.

			- MA reports to provider on completed topics and topics needing additional re-enforcement. - Provider goes over PREPP checklist if needed and provides mother with educational handouts.
C-2	Study	4	PF gather aggregate data from providers regarding completion rate of PREPP anticipatory guidance adoption process. Compare provider adoption data to opportunities of implementation.
C-2	Act	4	PF changes PREPP anticipatory guidance as needed, from provider and clinic staff verbal feedback if changes are suggested or not. See Appendix K for questions asked to clinic staff. Answers will be gathers and tabulated in aggregate form based upon modification suggestions or no modifications needed.
C-3	Plan	5	PF, providers, and staff plan for PPDSTRFCP “go-live” PF answers providers’ and clinic staffs’ questions.
C-3	Do	5-7	PPDSTRFCP “Go-live” - EPDS is given to mothers in the paper form in the privacy of the exam room. It will be given in English or Spanish at one-, two-, four-, six-month well-child exams. - The MA discusses the purpose of the screening and answers questions according to Postpartum Depression Talking Points. See Appendix L. - The mother is given the opportunity to complete the EPDS in private or refuse, if she desires.

			- The provider reviews the results with the mother and treats the mother according to the provider algorithm and in agreeance with mother. - EPDS results are charted in the EHR by the MA. - The need follow-up notification is placed on daily flowsheet based upon documented EPDS in EHR.
C-3	Study	7	The PF gathers aggregated data from providers regarding PPDSTRFCP adoption processes. Compare provider data to opportunities.
C-3	Act	7	The PF modifies PPDSTRFCP based on providers' and staff members' feedback.
C-4	Plan	8	The PF meets with clinic staff and providers to educate on PPDSTRFCP changes, if any.
C-4	Do	9	The PF, providers, and staff implement modified PPDSTRFCP, if changes occurred to original procedure.
C-4	Study	10	Gather aggregated data from provider evaluation on PPDSTRFCP adoption rates. Compare provider data to opportunities.
C-4	Act	10	Change PPDSTRFCP if needed. Provide clinic with project outcomes and recommendations for change and continuation of PDSA cycles.

Note. CITI= Collaborative Institutional Training Incentive; EHR= Electronic Health Record; IRB= Institutional Review Board; MA= Medical Assistant; PF= Project Faciliatory; PPDSTRFCP= Postpartum Depression screening treatment referral and follow-up care plan; PPD= Postpartum Depression.

Primary Prevention: PPD Demystification & Health System Training

Primary prevention was conducted for both patient and health system interventions. For patients, primary prevention included education and engagement with the use of Practical Resources for Effective Postpartum Parenting (PREPP), which was adapted from Massachusetts General Hospital (MGH) Center for Women's Mental Health (2015). Approval for adaptation is shown in Appendix M. The use of PREPP has shown efficacy to decrease depressive symptoms in postpartum women. PREPP materials adapted for the SP are shown in Appendix D.

The PREPP checklist was completed by the medical assistant (MA) and/or the provider throughout the infants' first-, two week-, and one month-well child visits. The MA prepared the PREPP checklist and educational material for applicable visits. The MA completed the PREPP checklist with confirmation initials and dates on corresponding topics. The MA reported to the provider which topics were completed topics and which topics needed re-enforcement. The provider reviewed the PREPP checklist and provided the mother with all educational handouts. The provider completed a daily tabulation on adoption rates of PPDSTRFCP processes to report back to PF at the end of each day. The PF compared the adoption of PPDSTRFCP processes to daily opportunities.

A PPD demystification campaign was completed to normalize the prevalence and seriousness of PPD. Demystification posters were posted throughout the clinic waiting room and exam rooms, in English and Spanish. See Appendix H and I. The posters are free for use from Postpartum Support International (Postpartum Support International, n.d.).

Primary PPDSTRFCP. Training was completed in 30 minutes at mandatory monthly all provider meeting. The training consisted of one-hour education session for general PPD information, PREPP anticipatory guidance, EHR training, proper use of the EPDS, and use of the PPD algorithm.

Clinic staff training was conducted at mandatory monthly all staff meeting. The PF-led training lasted 30 minutes. Clinic staff training consisted of general PPD information to allow accurate relay of information to mothers (Earls et al., 2019). Clinic staff was provided with PPD talking points to ensure universal relay of information to mothers. See Appendix L. Training for both clinic staff and providers was completed with assistance from the PPD provider training toolkit published by U.S. Department of Health and Human Services and Substance Abuse and Mental Health Services Administration (SAMHSA) (2014), which is free for public use without prior authorization.

Training also encompassed health literacy considerations. Strategies to improve patient understanding included focusing on the most critical information, using the teach-back methods, using demonstrations and drawings, and using clearly written educational material (Davis, 2020). Verification of patient understanding was based on return demonstrations (e.g. infant swaddling during PREPP) and teach back methods (e.g. mothers explaining how they increased their access to social support). See Appendix D.

Secondary Prevention: Screening & Instrumentation

The EPDS was the PPD screening tool utilized for the SP. The EPDS consists of 10 Likert scale (0,1,2,3) questions. The EPDS is not diagnostic, rather suggestive of depression. Scores suggesting PPD (scores >10) are referred to a BH specialist for

diagnosis based on the Diagnostic and Statistical Manual of Mental Disorder (DSM 5) criteria. Question 10 evaluates danger to the mother or the infant and necessities immediate evaluation by BH specialist. The EPDS is available in many languages. However, for the purpose of the SP, the EPDS was implemented in English and Spanish. See Appendix N and O.

The EPDS was given to mothers in the paper form in the privacy of their exam room. The EPDS was provided to the mother in their preferred language (e.g. Spanish, English, other) at one-, two-, four-, six-month well-child exams. The MA explained the purpose of the screening, answered the mother's questions, and allowed the mother the opportunity to refuse screening per the PPD talking points in Appendix L. The talking points encompassed key phrases on the important of screening and treatment and minimize patient survey fatigue (Karlberg, 2015). Survey fatigue is minimized through patient encouragement and motivation to respond with honestly and accuracy.

The mother completed the EPDS in private. To accommodate patients with visual impairment or patients who did not read, the MA read the items aloud and the mother indicated her score for each item. The provider reviewed the results with the mother and, when indicated, PPD treatment was planned. Treatments were based upon the algorithm. The provider completed daily tabulation on the utilization of the EPDS screening and algorithm process usage to report back to the PF after each day. The PF compared the PPDSTRFCP adoption processes to daily opportunities.

Health system screening used a provider questionnaire, shown in Appendix K. The PF created the baseline questionnaire to assess baseline PPDSTRFCP processes and the extent to which the PPDSTRFCP was adopted over each PDSA cycle. Questionnaire

responses were collected at the individual and reported to stakeholders in the aggregate form.

Tertiary Prevention: Treatment, Referral, & Follow-up

A provider algorithm was utilized to assist providers in evidence-based treatment of PPD, listed in Appendix E. The algorithm was created by Minnesota Department of Health. Consent for use was obtained by Minnesota Department of Health, although the information is free for public use. The algorithm was modified for specific clinic needs. Modifications consisted of steps to make the mother a patient at the clinic if postpartum treatment is necessary, how to implement the clinic safety plan, and the use of e-consult referral services as a treatment option. During the mandatory provider training session, providers practiced using the algorithm with simulated patients.

Providers supplied patients with general patient education handout, regardless of their EPDS score. See Appendices F and G. Providers also supplied mothers with resources local to the community. See Appendices P and Q. The reading level of the educational information was approximately sixth grade reading level.

The education handout was printed and prepared for the MAs at the beginning of each day and stored in a large labeled pile, “PPD Patient Education”. If the infant was less than 12 months old, the mother-infant dyad received the PPD Patient Education. Educational materials were provided at every visit, in the event that mothers were under stress and may forgot or lost the information or needed reinforcement. The MA prepared the PPD Patient Education for the provider when giving the provider report before providers saw the patient.

Providers supplied the materials to the mothers during the visit when her EPDS results were reviewed. If the mother was visually impaired, the provider explained the information with the mother and verified the mother's understanding via return demonstration and the teach back method (Davis, 2020). The educational information was printed at a sixth-grade reading level.

Follow-up for those with PPD was imperative. For the purpose of this SP, a "B" was placed on the daily schedule if that infant's mother needed an EPDS screen. The clinic staff reviewed the provider's daily schedule and had the EPDS prepared through the day for patients. A "B+" was placed on the daily schedule if the infant's mother ability to see the "B" or "B+" and determine if the patient needed follow-up. The provider completed daily tabulations on utilization of the PPDSTRFCP and reported aggregate data to the PF at the end of each day. The PF compared PPDSTRFCP utilization to opportunities to determine PPDSTRFCP adoption rates.

Data Collection and Planned Analysis

Data were collected and analyzed at baseline, after each PDSA cycle, and at project completion. Quantitative data were obtained through a provider questionnaire administered via Survey Monkey®. See Appendix K. Survey data were collected from survey and imported to an Excel spreadsheet by the PF. A double entry method was used to eliminate errors at the time of data entry. The Excel spreadsheet was maintained on the PF's personal computer and was password protected. Data was analyzed to determine PPDSTRFCP adoption. See Table 4.2. Adoption of primary, secondary, and tertiary interventions was assessed by tracking modifications made to the PPDSTRFCP during each PDSA cycle and adoption of the PPDSTFRCP upon the SP completion. The

utilization of Spanish and English material was differentiated to assess for language bias within the emerging PPDSTRFCP. Project success and clinical significance were measured by the increase in PPDSTRFCP adoption from baseline data.

Table 4.2
Planned Data Analysis

Datum	**Level of Measurement**	**Planned Analysis**
Baseline provider survey, after each PDSA cycle, and end of the SP - Current practices - Comfortability screening and treating mothers	Nominal	English: Frequency, Percentage Spanish: Frequency, Percentage
Usage of intervention compared to unique patient opportunities. 1. PREPP anticipatory guidance 2. EPDS screening 3. PPD provider algorithm	Ratio	English: Frequency, Percentage Spanish: Frequency, Percentage

Notes. EPDS= Edinburgh Postnatal Depression Scale; PDSA= Plan-Do-Study-Act; PPD= Postpartum Depression; PREPP= Practical Resources for Effective Postpartum Parenting

SECTION 5

RESULTS

The designed PDSA cycles created a seamless implementation process. The most significant change in the actual implementation compared to the planned intervention was the integration of negative provider feedback. Provider resistance led to limited setbacks in the implementation process. Project success was determined based on the completed PPDSTRFCP process compared to unique patient opportunities.

Process Evaluation

Provider feedback was evaluated using Survey Monkey® and verbal communication, after each PDSA cycle, detailed in Appendix K. Measurable outcomes were determined based on aggregated chart reviews by the RN manager. EHR reports were provided to the PF from the RN manager and inputted into Excel with a double entry technique. The applicable well child visits from one month to six months were tabulated into the Excel file. Visits that completed the PPDSTRFCP process were tabulated in comparison to opportunities. Table 5.1 compares planned intervention (PI) and actual intervention (AI).

Table 5.1

Timeline of Planned Intervention (PI) and Actual Intervention (AI)

Timeline of PI	PI	Timeline of AI	AI
Week 1	1. Provide stakeholders with proposed anticipatory guidance, algorithm, post-screening patient education, PPD posters for approval. 2. PF to train providers & clinic staff on PPDSTRFCP, role responsibilities. 3. Post PPD demystification posters in clinic rooms. 4. Request & review feedback from providers & clinic staff on PPDSTRFCP & PPD demystification posters.	Week 1	1. In-person training with pediatric providers & clinic administrators completed. 2. PPD demystification posters posted in clinic rooms. 3. Evaluation of feedback from providers & clinic administrators on PPDSTRFCP & PPD posters. See Appendix K.
Week 2	1. Modify PPDSTRFCP & PPD demystification posters, if necessary. 2. Plan implementation of PREPP anticipatory guidance.	Week 2	1. No modifications were made to the PPD posters. 2. Modifications were made to PPDSTRFCP process. The providers want to implement & educate mothers on PREPP anticipatory guidance. Approval to implement given.
Week 3	Implement PREPP anticipatory guidance with MA &/or provider at first newborn visit, 2 weeks, & 1 month well child visits.	Week 3	1. Prepared PREPP anticipatory guidance material. 2. Implemented PREPP anticipatory guidance.

Week 4-5	1. Gather aggregated data on completion rate of PREPP anticipatory guidance adoption process. Compare provider adoption rate to opportunities of implementation. 2. PF changed PREPP anticipatory guidance as needed, from provider & staff feedback (if necessary). 3. PF, providers, & staff plan PPDSTRFCP "go-live" PF answers providers' & staff questions.	Week 4 Week 5	1. Evaluation of feedback on PREPP anticipatory guidance implementation process. See Appendix K. 2. No modifications needed.
Week 5-7	PPDSTRFCP "Go-Live"	Week 6	PPDSTRFCP "Go-Live"
Week 7	1. The PF gathers aggregated data on PPDSTRFCP adoption processes. Compare provider data to opportunities. 2. The PF modifies PPDSTRFCP based on providers' & staff feedback.	Week 7	1. Gathered aggregate data on PPDSTRFCP process. (no modifications needed, see Appendix K) 2. Suggestion to laminate the EPDS screening tool instead of individual paper form. 3. The follow up notification (B and B+) was unable to be placed on the daily flowsheet due to EHR inadequacies.
Week 8	The PF meets with clinic staff & providers to educate on PPDSTRFCP changes, if any.	Week 8	Implementation of PPDSTRFCP changes - laminated EPDS tool.

Week 9	The PF, providers, & staff implement modified PPDSTRFCP, if changes occur to original procedure.	Week 9	1. Allowed implementation of PPDSTRFCP modifications. 2. Began data collection with RN manager.
Week 10	1. Gather aggregated data from provider evaluation on PPDSTRFCP adoption rates. Compare provider data to opportunities. 2. Change PPDSTRFCP if needed. Provide clinic with project outcomes & recommendations for change & continuation of PDSA cycles.	Week 10	1. Data from EHR provided to PF by RN manager. Outcomes of implementation compared to opportunities detailed (Appendix R) comparing implementation to opportunities over 3 weeks. 2. Aggregate feedback obtained from providers regarding process & suggestions for change. 3. Stakeholders trained to continue implementation & evaluation cycles every 3 weeks until no further changes are needed.

Note: AI= Actual Implementation; PDSA= plan do study act; PF= project facilitator; PPD= postpartum depression; PPDSTRFCP= Postpartum Depression screening treatment referral and follow-up care plan; PREPP= Practical Resources for Effective Postpartum Parenting.

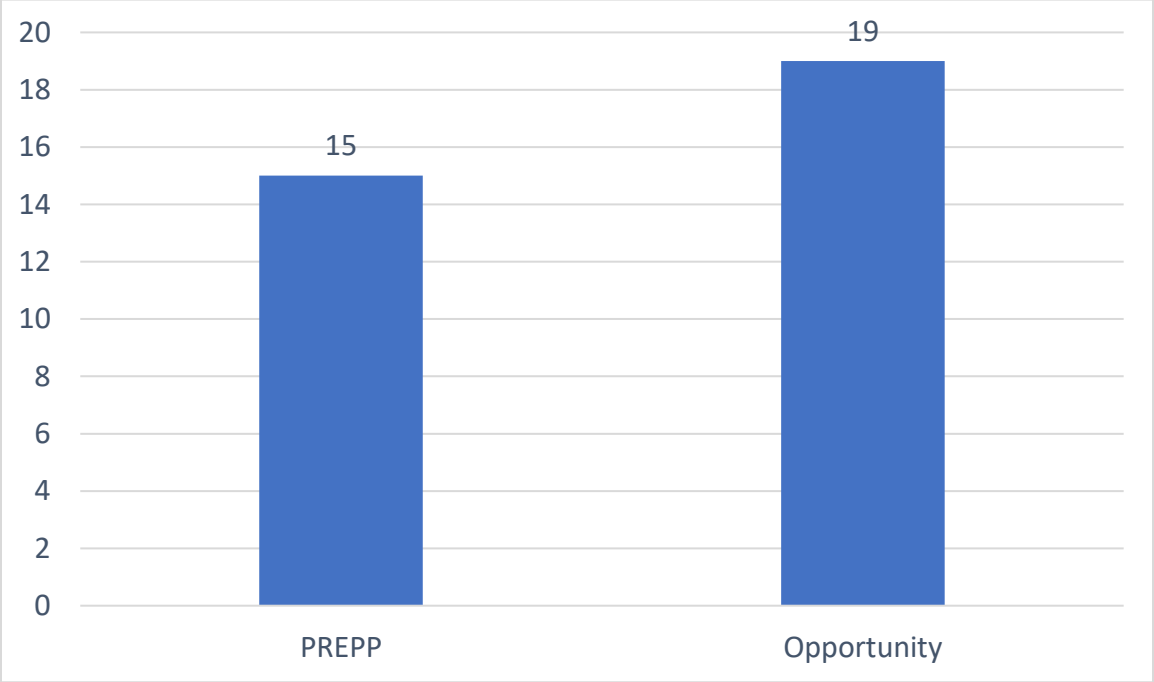
The planned intervention varied from the actual implementation in that provider resistance created barriers to implementation. Provider apprehension and personal practice views could have negatively impacted project implementation. Project implementation continued with the PF reaching out to resisting providers and staff and

inviting their increased participation. Follow-up notification (B or B+) information was unable to be gathered due to inadequacies within the EHR and daily huddle report implementation throughout the process. The follow-up process was unable to be completed throughout the four PDSA cycles.

After PDSA cycle one, providers and staff were evaluated on the training process. All providers (n=4) and staff (n=16) verbalized increased comfortability to screen and treat mothers after the training. No modifications to the planned interventions were made. All providers were amendable to the planned interventions.

PDSA cycle two encompassed the implementation of the PREPP anticipatory guidance. Providers (n=4) verbalized usage of the PREPP anticipatory guidance and increased comfortability discussing newborn care with mothers. No modifications were made to the planned PREPP anticipatory guidance. Outcomes from PDSA cycle two are detailed in Figure 5.1. Patient charts were evaluated by the RN manger to determine the number of opportunities versus completed PREPP anticipatory guidance usage. The clinic stakeholders chose to not reveal demographics (i.e., as languages spoken by patients). The aggregated data were inputted by the PF into a secure Excel file using double entry technique.

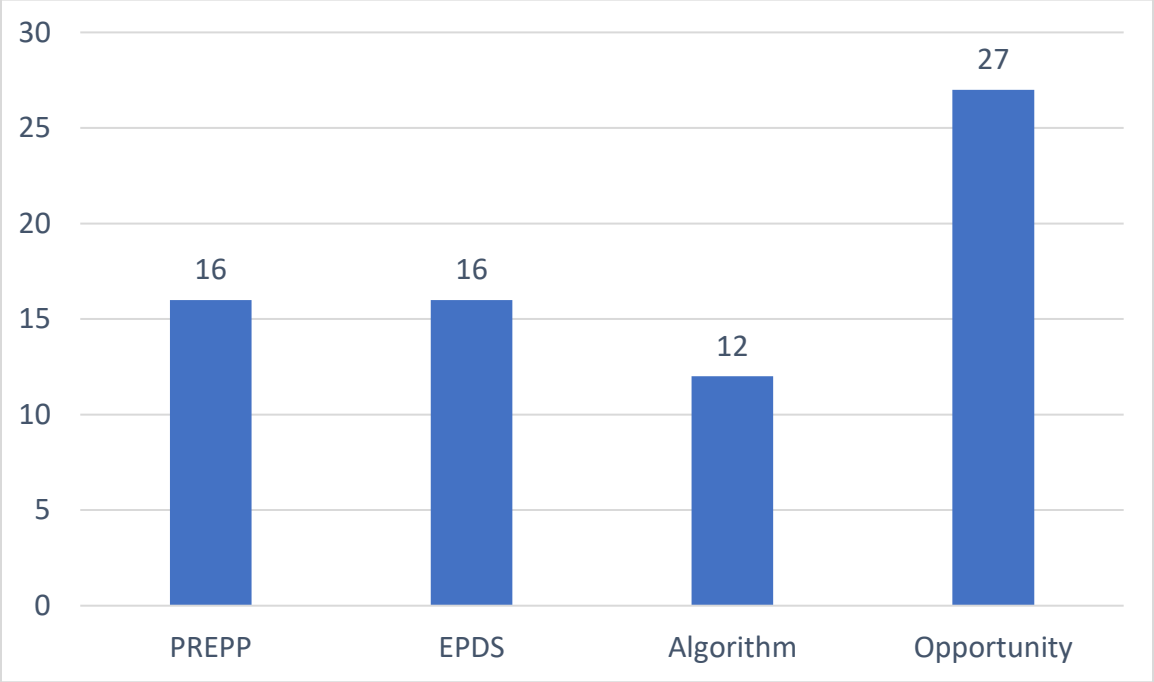
Figure 5.1
PDSA Cycle Two



Note. PREPP= Practical Recourses for Postpartum Parenting; Opportunity= Unique patient visit.

PDSA cycle three encompassed implementation of the PPDSTRFCP process. Providers (n=3) reported usage of the PPD algorithm and increased comfortability screening mothers with the use of the algorithm. A modification was made to laminate the EPDS tool. Aggregated data from the EHR were gathered by the RN manager and provided to the PF. Visits that included completed EPDS tools also included completed PREPP anticipatory guidance. The PPD algorithm was used at a lesser rate ~~when~~ compared to the EPDS and PREPP. Outcomes from PDSA cycle three are detailed in Figure 5.2.

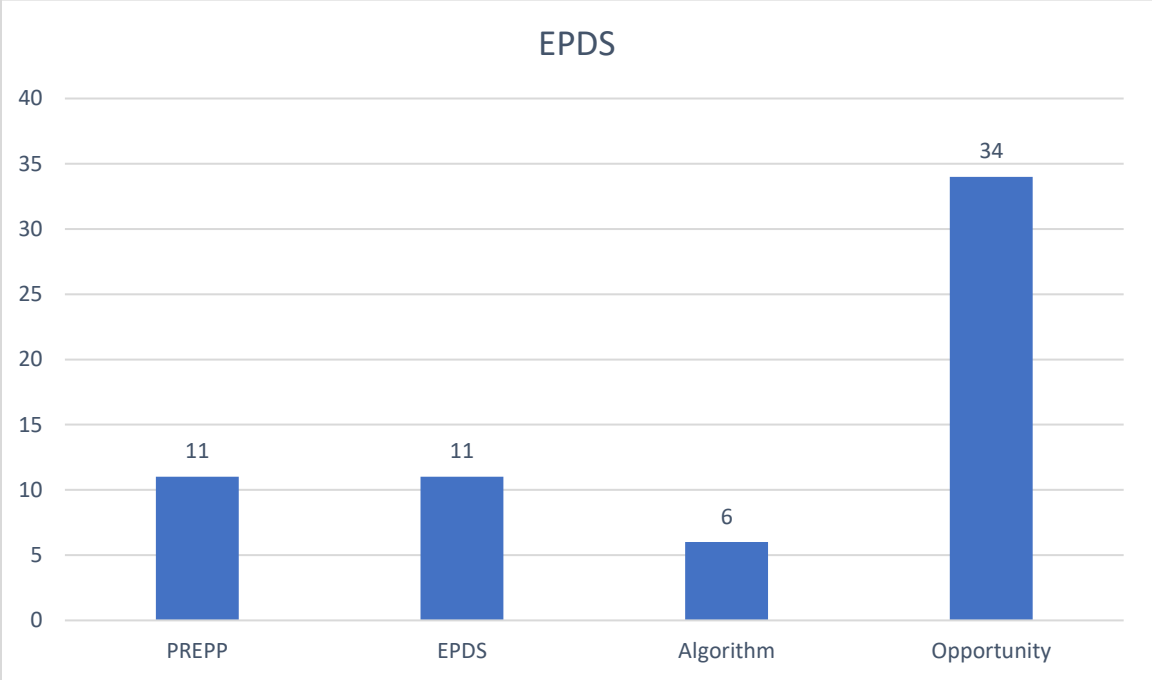
Figure 5.2
PDSA Cycle Three



Note. PREPP= P Practical Recourses for Postpartum Parenting; EPDS= Edinburgh Postnatal Depression Scale; Algorithm= Use of PPD provider algorithm; Opportunity= Unique patient visit.

PDSA cycle four consisted of completion of the PPDSTRFCP implementation with the use of laminated EPDS tools. The unique patient opportunities were obtained by the clinic RN manager and provided to the PF. Unique patient opportunities were defined as well child visits that the EPDS could be implemented. The PPD algorithm usage dropped from the previous PDSA. The decreased rate was due to increased comfortability and knowledge as reported via verbal communication from providers. The outcomes from PDSA cycle four are detailed in Figure 5.3. The scholarly project was successful. Provider dissent occurred throughout PDSA three and four, possibly negatively skewing the results. Despite provider and staff resistance, utilization of the PPDSTRFCP intervention increased from baseline over the project implementation period.

Figure 5.3
PDSA Cycle Four



Note. PREPP= P Practical Recourses for Postpartum Parenting; EPDS= Edinburgh Postnatal Depression Scale; Algorithm= Use of PPD provider algorithm; Opportunity= Unique patient visit.

PDSA cycle five is planned to be conducted by stakeholders. Planned PDSA five activities include implementation of follow-up notification on the daily huddle report for providers and continuation of all implemented steps. To overcome potential provider resistance, the PF, stakeholders, and providers collaborated on planning PDSA cycle five. A follow-up process was agreed upon to add a B+ or a B to the daily huddle report and will be facilitated by the RN manager, throughout PDSA cycle five. The B indicates screening is needed, and the B+ indicates a previous positive screen and the need for follow-up. It was planned that the social worker will meet with mothers via telehealth for positive EPDS screens and will provide mothers with additional instrumental and social support.

SECTION 6

DISCUSSION

The purpose of this project was to implement a process for universal PPD screening, treatment, and follow-up of *all* postpartum mothers within the first 12 months following delivery in an urban federally qualified health center (FQHC) in Southern California. This project had the potential to improve patient outcomes related to PPD screening, treatment, referral, and follow up. The SP improved system outcomes related to improved utilization of PPD evidence-based guidelines and provider self-efficacy for the care of patients with PPD.

When comparing the project outcomes to the literature, increased provider self-efficacy (Earls et al., 2019; Long et al., 2019; Van Der Zee-Van Den Berg et al., 2017) was displayed through the project training survey and implementation process. The main projected barrier to implementation from the literature was maternal fear and stigma (Byatt et al., 2015; Earls et al., 2019; Long et al., 2019). The maternal barrier was addressed with the PPD demystification posters and PREPP anticipatory guidance, as reported by the providers. Additionally, the literature reported positive patient outcomes with universal screening measures, patient education, and appropriate follow-up (Byatt et al., 2019; Earls et al., 2019; Lind et al., 2017; Long et al., 2019; Van Der Zee-Van Den Berg et al., 2017; Puryear et al., 2019). The project displayed increased EPDS usage with

the implementation of a universal process. Initial project outcomes were consistent with the literature findings when implementing the universal PPDSTFCP process.

The provider-associated barriers of implementation were not found in the literature. However, strategies to overcome provider and staff resistance to change should be incorporated into future implementation processes. In planning PDSA five, the PF, stakeholders, and providers (primary care, pediatric, and behavioral health) collaborated to develop a team approach. Neuman's system model guided the project implementation, in that all aspects must be in place when executing a screening tool in any population. Primary, secondary, and tertiary prevention must be in place in order to have the strongest change for client and/or clinic stability. The positive project outcomes are congruent with the literature in that all steps are necessary when implementing screening, treatment, and follow-up for PPD.

After implementation, limitations were noted. Provider resistance was addressed by inviting their input on the project. The provider resistance was noted in the initial SWOT analysis and should be taken into consideration when planning future projects. Another limitation was the use of the EPDS in the paper format. Prior research suggests that using the EPDS in an electronic format may increase utilization (Kingston et al., 2017). Provider feedback can be taken into consideration for future PDSA cycles the clinic wishes to complete. The provider feedback was a learned experience and will be greatly beneficial in the future project when taking this process into a new setting or when addressing a new problem. Future PPD screening, treatment, and referral projects should include a greater collaboration with behavioral health. Maternal barriers were not captured in the project evaluation, thus could be a future project.

Despite these limitations, the process was transferable to other patient populations, other health conditions, and other primary care settings All DNP Essentials, detailed in Table 3.2, were met throughout the completion of the scholarly project. All doctoral learning outcomes established by Colorado Mesa University were met through completion of this scholarly project.

Summary

Postpartum depression (PPD) is a prevalent postpartum complication affecting approximately one in seven mothers following childbirth. The purpose of this project was to implement a process for universal PPD screening, treatment, and follow-up of all postpartum mothers within the first 12 months following delivery in a federally qualified health center (FQHC) integrated health system in Southern California. The project was successful in PPDSTRFCP implementation. Providers indicated increased comfortability in screening and treating mothers for PPD. The PPDSTRFCP process was a successful demonstration of implementing a system change process in multiple primary care clinics. Therefore, the implementation process may be transferrable to other settings and other patient populations.

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Appendix A

SWOT Analysis

Strength	Weakness
EPDS accepted by system. E-consult capabilities in EHR. Strong stakeholder & provider interest. High risk patient population; low income, MediCal patients, non-English speaking patients, financial difficulty, lack of social support, & hardship during or after pregnancy.	Inconsistent provider screening, referral, & follow-up for positive EPDS. Clinic staff members & providers unaware of proper process for EPDS implementation.
Opportunities	**Threats**
Increased evidence-based quality of care, core measures, & reimbursement. Replicable process for multititle aspects of primary care.	Provider pushback regarding change in practice routine, charting, & referral process. Maternal refusal.

Note. Adapted from personal communication during meetings with the stakeholders, 2020.

Appendix **B**

Allexa,
Things are a bit crazy now with the adjustment to our new CoVid situation and the move to TeleHealth.
We would be happy to work with you though you just need to be aware our priorities are in making sure our established patients can be seen and cared for in a timely and safe fashion.
We think the project of training and ensuring completion and establishing referral patterns for + Edinborough screens for Post Partum Depression would be the best project for you and us to work on.
Would meeting sometime in May to plan and consider starting your study and integrating data collection in early summer sound ok?
Let us know when you are available for a meeting?
Wednesdays after 3 , Thursdays or Friday mornings are usually good.

Susan Lawton MD
Associate Medical Director / Santa Barbara Neighborhood Clinics /414 E.Cota St FL 1, SB CA 93101
Lead Physician / Westside Neighborhood Clinic / 628 West Micheltorena, Santa Barbara CA 93101 /
805-963-1546 phone / 805-962-4771 fax / susan.lawton@sbclinics.org
We provide high quality, comprehensive, affordable healthcare to all people, regardless of ability to pay, in an environment that fosters respect, compassion and dignity

Appendix C

COLORADO MESA UNIVERSITY

Sponsored Programs
1100 North Avenue • Grand Junction, CO 81501-3122
970.248.1424 (o) • 970.248.1812 (f) • 1.800.982.6372

INSTITUTIONAL REVIEW BOARD (IRB)
CMU Federalwide Assurance Number: 00024298

TO: Allexa Hellman

FROM: Dr. Cheryl K. Green CKG
Director of Sponsored Programs; Research Integrity Officer

SUBJECT: IRB Determination of Human Subject Research

DATE: October 19, 2020

STUDY: Protocol 21-11: Universal Screening for Postpartum Depression: Closing the Clinical Gap

The Colorado Mesa University Institutional Review Board (IRB) also known as the Human Subjects Committee has reviewed your request for determination of human subject research and based on your answers, your project is deemed to not be research involving human subjects as defined by 45 CFR 46.102(e).

No further IRB review is necessary unless modifications to your project meets the definition of research involving human subjects as defined by federal regulations. Should you wish to conduct this type of research on this project in the future, then please submit an applicable IRB protocol application (i.e., Exempt, Expedited/Full) for IRB review and approval.

IRB Number: 21-11. This number is your protocol number and should be used on all correspondence with the IRB regarding this study.

Determination Date: October 19, 2020

If you have any questions, please feel free to contact me at irb@coloradomesa.edu.

Best wishes on your project.

Appendix D

PREPP Checklist

(Practical Resources for Effective Postpartum Parenting)

(Adapted from MGH Center for Women's Mental Health, 2015)

(1) Feeding between 10 PM and midnight, even if the baby must be awakened ("a focal feed").

Completed (Initial) _____ (Date)_____

(2) Accentuating the difference between day and night by providing higher levels of stimulation during the day

Completed (Initial) _____ (Date)_____

(3) Lengthening the wait for feeding time in the middle of the night by engaging in other attentive activities such as walking with the baby and diapering in order to extinguishing the association between night-time waking and feeding

Completed (Initial) _____ (Date)_____

(4) Carrying infants for at least 3 hours a day in addition to the carrying that occurs in response to crying and feeding

Completed (Initial) _____ (Date)_____

(5) Learning to swaddle the baby.

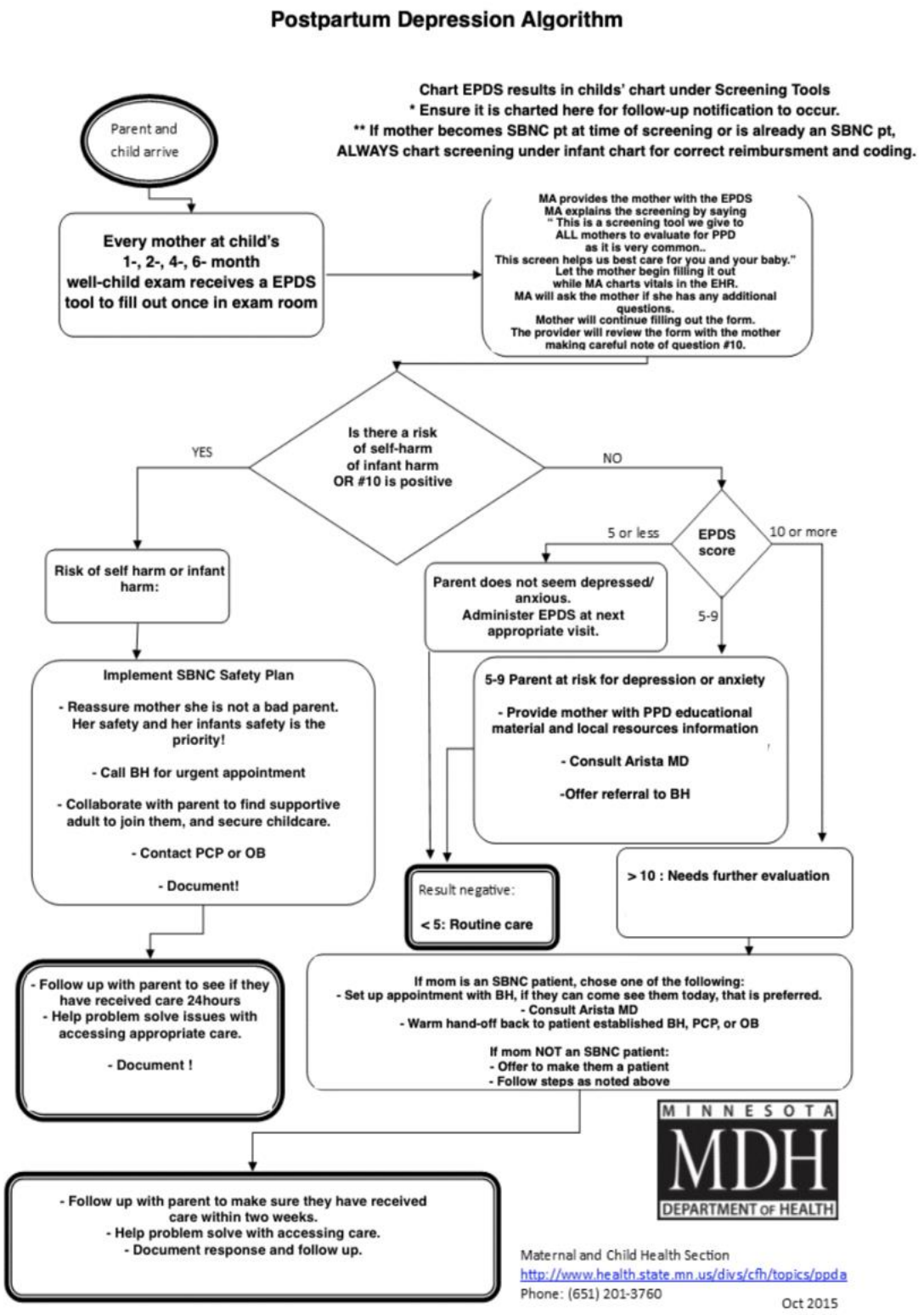
Completed (Initial) _____ (Date)_____

(6) Social support

Completed (Initial) _____ (Date)_____

- To be completed as soon as possible. Scan into chart when completed.

Appendix E



Note. Adapted from, with permission, from Minnesota Department of Health (n.d.).

Appendix F

What is postpartum depression?

It is a serious form of depression that comes after giving birth. As many as four out of five women have mood changes in the first 10 days after giving birth. This is often called "baby blues." If the symptoms are more severe and last for more than 10 days, it is called postpartum depression.

Some women feel better within a few weeks. Others may feel depressed for several months. Women who have more serious symptoms or who have had depression before may take longer to feel better.

What are the symptoms?

Symptoms may include sadness, anxiety, and crying. Some women may worry too much about their baby, or be afraid of making mistakes in caring for their baby. They also may find it hard to concentrate or fall asleep. Some women may lose interest in things they used to enjoy.

It is normal to worry a bit after having a baby. However, worrying too much can keep you from taking care of yourself and your family.

Some women with postpartum depression have pictures or thoughts pop into their mind about hurting their baby. These thoughts can be very upsetting, and do not mean that these women really want to hurt their baby. This is a common symptom of postpartum depression and will go away with treatment. Talk to your doctor if this happens to you.

Women with severe postpartum depression may think that life is not worth living, or that their baby or family would be better off without them. Call your doctor right away if you are having these thoughts.

What causes it?

The causes are unclear. Some women are very sensitive to the hormone changes in their body after childbirth, which may cause depression. Feeling this way does not mean that you are a bad person.

Who gets it?

Any woman can get it, but certain factors make it more likely. These include:

- Previous depression, especially during pregnancy or after childbirth
- Difficult or stressful personal relationships
- Few family members or friends to talk to

- Other stressful life events during pregnancy or after childbirth

How is it treated?

Your doctor may prescribe an antidepressant medicine. He or she may also recommend individual or group therapy.

Can I take medicine for postpartum depression if I am breastfeeding?

Yes. The amount of medicine that enters the breast milk is very small and not likely to harm your baby. Not treating your depression is more likely to harm your baby. Untreated depression can lead to poor mother-baby bonding, delays in growth and development, and an increased risk of depression for your child later in life.

What else can I do to feel better?

It is important to remember that many other women have these feelings. Talk with your doctor about making an action plan with specific ideas for things you can do to help you feel better.

Where can I get more information?

Your doctor

(American Family Physicians, 2010)

Appendix G

¿Qué es la depresión posparto?

Es una forma grave de depresión que viene después de dar a luz. Hasta cuatro de cada cinco mujeres tienen cambios de humor en los primeros 10 días después de dar a luz. Esto a menudo se llama “baby blues”. Si los síntomas son más graves y duran más de 10 días, se denomina depresión posparto.

Algunas mujeres se sienten mejor en unas pocas semanas. Otros pueden sentirse deprimidos durante varios meses. Las mujeres que tienen síntomas más graves o que han tenido depresión antes pueden tardar más en sentirse mejor.

¿Cuáles son los síntomas?

Los síntomas pueden incluir tristeza, ansiedad y llanto. Algunas mujeres pueden preocuparse demasiado por su bebé, o tener miedo de cometer errores en el cuidado de su bebé. También pueden encontrar difícil concentrarse o conciliar el sueño. Algunas mujeres pueden perder interés en las cosas que solían disfrutar.

Es normal preocuparse un poco después de tener un bebé. Sin embargo, preocuparse demasiado puede impedirle cuidar de ti mismo y de tu familia.

Algunas mujeres con depresión posparto tienen fotos o pensamientos aparecen en su mente acerca de lastimar a su bebé. Estos pensamientos pueden ser muy molestos, y no significan que estas mujeres realmente quieren lastimar a su bebé. Este es un síntoma común de la depresión posparto y desaparecerá con el tratamiento. Hable con su médico si esto le sucede a usted.

Las mujeres con depresión posparto grave pueden pensar que la vida no vale la pena vivir, o que su bebé o familia estaría mejor sin ellos. Llame a su médico de inmediato si está teniendo estos pensamientos.

¿Qué lo causa?

Las causas no están claras. Algunas mujeres son muy sensibles a los cambios hormonales en su cuerpo después del parto, que pueden causar depresión. Sentirse así no significa que seas una mala persona.

¿Quién lo consigue?

Cualquier mujer puede conseguirlo, pero ciertos factores lo hacen más probable. Estos incluyen:

- Depresión previa, especialmente durante el embarazo o después del parto
- Relaciones personales difíciles o estresantes
- Pocos familiares o amigos con los que hablar

- Otros eventos estresantes de la vida durante el embarazo o después del parto

¿Cómo se trata?

Su médico puede recetarle un medicamento antidepresivo. También puede recomendar terapia individual o grupal.

¿Puedo tomar medicamentos para la depresión posparto si estoy amamantando?

Sí. La cantidad de medicamento que entra en la leche materna es muy pequeña y no es probable que dañe a su bebé. No tratar la depresión es más probable que dañe a su bebé. La depresión no tratada puede conducir a una mala unión matern-infantil, retrasos en el crecimiento y desarrollo, y un mayor riesgo de depresión para su hijo más adelante en la vida.

¿Qué más puedo hacer para sentirme mejor?

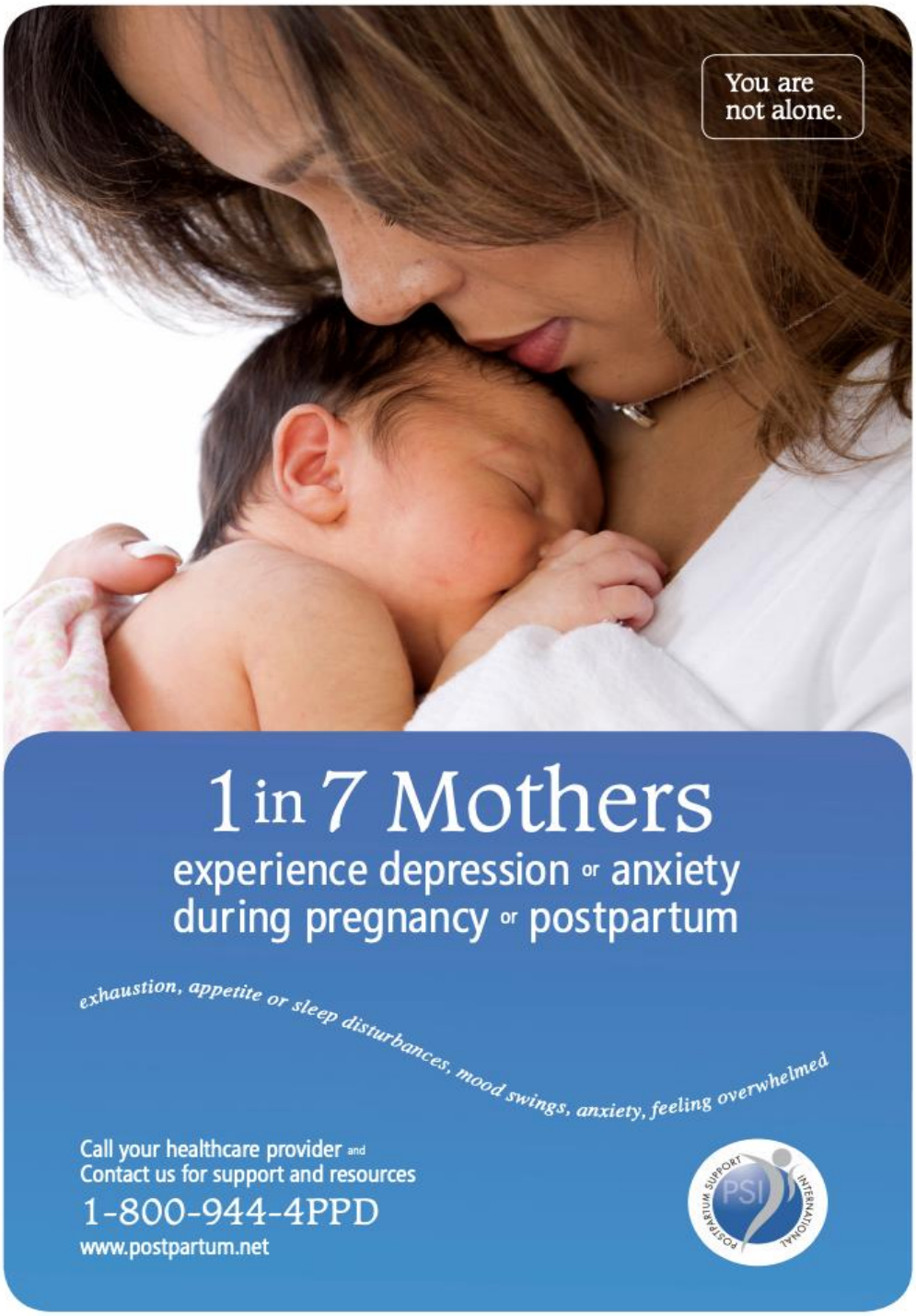
Es importante recordar que muchas otras mujeres tienen estos sentimientos. Habla con el médico acerca de hacer un plan de acción con ideas específicas sobre las cosas que puedes hacer para ayudarte a sentirte mejor.

¿Dónde puedo obtener más información?

Su médico

(American Family Physicians, 2010)

Appendix H



Note. Postpartum Support International. (2020). *PSI Awareness Poster*.

https://www.postpartum.net/resources/psi-awareness-poster/

Appendix I

Note. Postpartum Support International. (2020). *PSI Awareness Poster*.

https://www.postpartum.net/resources/psi-awareness-poster/

Appendix J

PPD Provider and Clinic Staff Training

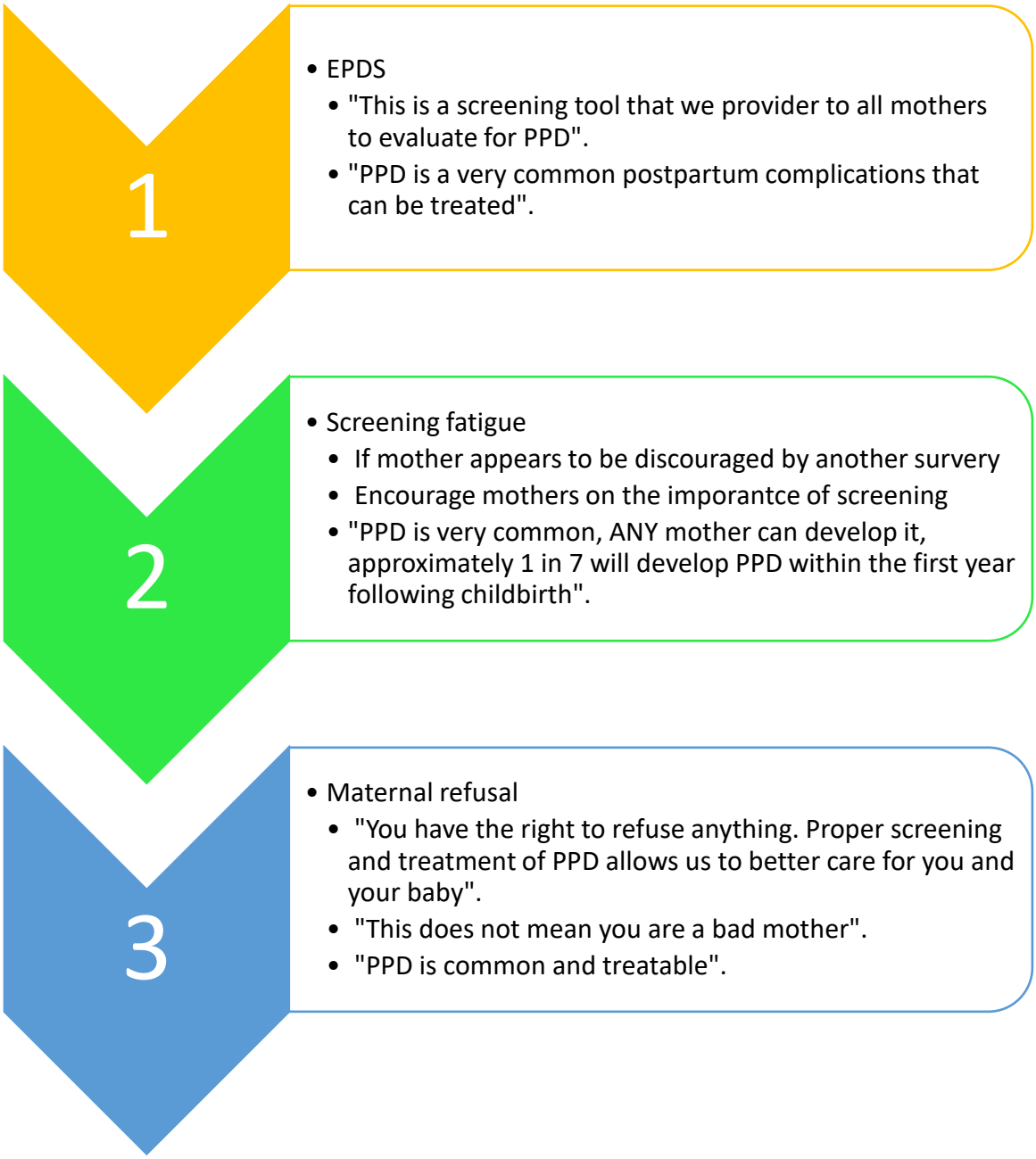
- Importance of PPD
- Background information
- Risk Factors
- Impact
- Practice Recommendations
- State of the evidence
- Primary prevention
    - PPD Demystification- Clinic room posters
    - PREPP Anticipatory guidance
- Secondary prevention
    - Provider Algorithm
    - EPDS
    - Charting process
    - MA talking points
    - Provider talking points
- Tertiary prevention
    - Referral process
    - Patient education
    - Follow-up process on daily flowsheet
- Evaluation
    - Data collection process
- Standardized practice patient scenarios
    - A mother completed the EPDS, her score is 11, she is not a patient at SBNC, what steps do you take next?
    - A mother completed the EPDS, her score is 9, she is an SBNC patient, she is refusing another office visit, what steps do you take next?
    - A mother completed the EPDS, her score is 13, she reports thoughts of harming herself, what steps do you take next?

Appendix K

1. Based upon the PPD posters, do you see the need for modifications?
2. Based upon the PREPP anticipatory guidance, do you see the need for modifications?
3. Based up the PPD Algorithm and “Go-Live” process, do you see the need for modifications?

Appendix L

Postpartum Depression Talking Points



(Substance Abuse and Mental Health Services Administration [SAMHSA], 2014)

Appendix M

Allexa Hellman November 10, 2020 at 9:45 AM

Perinatal Mental Health Information

To: health.mch@state.mn.us

To Whom It May Concern,

I am a nurse practitioner student. I am requesting approval to use the Perinatal Mental Health Information for use in my DNP scholarly project.
Thank you!

-Allexa Hellman

MN_MDH_MCH Yesterday at 8:09 AM

RE: Perinatal Mental Health Information

To: Allexa Hellman

Allexa, yes you can use the perinatal mental health info on the MDH website.

Lynn

-----Original Message-----
From: Allexa Hellman <hellman.allexa@gmail.com>
Sent: Tuesday, November 10, 2020 11:45 AM
To: MN_MDH_MCH <Health.MCH@state.mn.us>
Subject: Perinatal Mental Health Information

This message may be from an external email source.
Do not select links or open attachments unless verified. Report all suspicious emails to Minnesota IT Services Security Operations Center.

See More from Allexa Hellman

Appendix N

Edinburgh Postnatal Depression Scale[1] (EPDS)

Name: _____ Address: _____

Your Date of Birth: _____ _____

Baby's Date of Birth: _____ Phone: _____

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

Here is an example, already completed.

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

In the past 7 days:

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

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

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

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

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

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

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

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

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

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

Administered/Reviewed by _____ Date _____

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

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

Appendix O

Escala Edinburgh para la Depresión Postnatal (Spanish Version)

Nombre de participante:_____ Número de identificación de participante: _____

Fecha: _____

Como usted está embarazada o hace poco que tuvo un bebé, nos gustaría saber como se siente actualmente. Por favor MARQUE (√) la respuesta que más se acerca a como se ha sentido durante LOS ÚLTIMOS 7 DÍAS y no sólo como se ha sentido hoy.

A continuación se muestra un ejemplo completado:

Me he sentido feliz:

Sí, todo el tiempo	____ 0
Sí, la mayor parte del tiempo	___✔ 1
No, no muy a menudo	____ 2
No, en absoluto	____ 3

Esto significa: "Me he sentido feliz la mayor parte del tiempo" durante la última semana. Por favor complete las otras preguntas de la misma manera.

1. He podido reír y ver el lado bueno de las cosas:
   - Tanto como siempre he podido hacerlo ____ 0
   - No tanto ahora ____ 1
   - Sin duda, mucho menos ahora ____ 2
   - No, en absoluto ____ 3

2. He mirado al futuro con placer para hacer cosas:
   - Tanto como siempre ____ 0
   - Algo menos de lo que solía hacerlo ____ 1
   - Definitivamente menos de lo que solía hacerlo ____ 2
   - Prácticamente nunca ____ 3

3. Me he culpado sin necesidad cuando las cosas marchaban mal:
   - Sí, casi siempre ____ 3
   - Sí, algunas veces ____ 2
   - No muy a menudo ____ 1
   - No, nunca ____ 0

4. He estado ansiosa y preocupada sin motivo alguno:
   - No, en absoluto ____ 0
   - Casi nada ____ 1
   - Sí, a veces ____ 2
   - Sí, muy a menudo ____ 3

5. He sentido miedo o pánico sin motivo alguno:
   - Sí, bastante ____ 3
   - Sí, a veces ____ 2
   - No, no mucho ____ 1
   - No, en absoluto ____ 0

6. Las cosas me oprimen o agobian:
   - Sí, la mayor parte del tiempo no he podido sobrellevarlas ____ 3
   - Sí, a veces no he podido sobrellevarlas de la manera ____ 2
   - No, la mayoría de las veces he podido sobrellevarlas bastante bien ____ 1
   - No, he podido sobrellevarlas tan bien como lo hecho siempre ____ 0

7. Me he sentido tan infeliz, que he tenido dificultad para dormir:
   - Sí, casi siempre ____ 3
   - Sí, a veces ____ 2
   - No muy a menudo ____ 1
   - No, en absoluto ____ 0

8. Me he sentido triste y desgraciada:
   - Sí, casi siempre ____ 3
   - Sí, bastante a menudo ____ 2
   - No muy a menudo ____ 1
   - No, en absoluto ____ 0

9. Me he sentido tan infeliz que he estado llorando:
   - Sí, casi siempre ____ 3
   - Sí, bastante a menudo ____ 2
   - Ocasionalmente ____ 1
   - No, nunca ____ 0

10. He pensado en hacerme daño:
    - Sí, bastante a menudo ____ 3
    - A veces ____ 2
    - Casi nunca ____ 1
    - No, nunca ____ 0

Edinburgh Postnatal Depression Scale (EPDS). Texto adaptado del *British Journal of Psychiatry,* Junio, 1987, vol. 150 por J.L. Cox, J.M. Holden, R. Segovsky.

Appendix P

Santa Barbara Newborn Parent Resources

1) Postpartum Education for Parents

a. Confidential one-on-one support
b. Additional information available on the website.
c. Warmline: English (805) 564- 3888. Español (805) 852- 1595
d. Website: https://www.sbpep.org/el-folleto-de-pmad-servicios-educativos-posparto-santa-barbara
e. Facebook Group: https://www.facebook.com/SBPEP

2) First 5 Santa Barbara

a. Help categories including developmental milestones, postpartum depression, oral health, developmental concerns, choosing childcare, secondhand smoke, talk read sing, when kids get sick, nutrition, pregnancy, health care coverage, physical activity, breastfeeding, immunizations, safety.
b. Additional information available on the website.
c. Website: http://first5santabarbaracounty.org/parents/postpartum-depression/

3) Child Abuse Listening & Mediation (CALM)

a. Non-profit to prevent and treat childhood trauma. Available for free or payment sliding scales.
b. Additional information available on the website.
c. Contact: (805) 965- 2376
d. Website: https://calm4kids.org/our-work/

4) Welcome Every Baby Santa Barbara

a. Free, evidence-based home nurse visitation program for the first three months of life.
b. Online groups available.
c. Additional information available on the website.
d. Contact: (805) 964- 4711
e. Website: https://www.sbceo.org/domain/121

Your feelings are valid.

Appendix Q

Recursos para padres recién nacidos de Santa Bárbara

1) **Educación posparto para padres**
    a. Soporte confidencial uno a uno
    b. Información adicional disponible en el sitio web.
    c. Warmline: English (805) 564- 3888. Español (805) 852- 1595
    d. Sitio web: https://www.sbpep.org/el-folleto-de-pmad-servicios-educativos-posparto-santa-barbara
    e. Grupo de Facebook: https://www.facebook.com/SBPEP

2) **Primeros 5 Santa Bárbara**
    a. Ayudar a categorías que incluyen hitos del desarrollo, depresión posparto, salud bucal, preocupaciones de desarrollo, elegir cuidado infantil, humo de segunda mano, hablar cantar, cuando los niños se enferman, nutrición, embarazo, cobertura de atención médica, actividad física, lactancia materna, inmunizaciones, seguridad.
    b. Información adicional disponible en el sitio web.
    c. Sitio web: http://first5santabarbaracounty.org/parents/postpartum-depression/

3) **Escucha y mediación de abuso infantil (CALM)**
    a. Sin fines de lucro para prevenir y tratar el trauma infantil. Disponible de forma gratuita o de pago escalas deslizantes.
    b. Información adicional disponible en el sitio web.
    c. Contacto: (805) 965- 2376
    d. Sitio web: https://calm4kids.org/our-work/

4) **Bienvenidos a todos los bebés de Santa Bárbara**
    a. Programa gratuito de visitas de enfermeras en el hogar por los primeros tres meses de vida.
    b. Grupos en línea disponibles.
    c. Información adicional disponible en el sitio web.
    d. Contacto: (805) 964- 4711
    e. Sitio web: https://www.sbceo.org/domain/121

Tus sentimientos son válidos.