

University of Missouri, St. Louis

IRL @ UMSL

Dissertations

UMSL Graduate Works

7-9-2024

Implementation of Postnatal Depression Screening: A Pilot Study

Mollie Gulino

University of Missouri-St. Louis, mjg5dc@umsystem.edu

Follow this and additional works at: <https://irl.umsl.edu/dissertation>



Part of the [Maternal, Child Health and Neonatal Nursing Commons](#)

Recommended Citation

Gulino, Mollie, "Implementation of Postnatal Depression Screening: A Pilot Study" (2024). *Dissertations*. 1446.

<https://irl.umsl.edu/dissertation/1446>

This Dissertation is brought to you for free and open access by the UMSL Graduate Works at IRL @ UMSL. It has been accepted for inclusion in Dissertations by an authorized administrator of IRL @ UMSL. For more information, please contact marvinh@umsl.edu.

Implementation of Postnatal Depression Screening: A Pilot Study

Mollie J. Gulino

B.S. Nursing, Illinois Wesleyan University, 1997

A Dissertation Submitted to the Graduate School at the University of Missouri-St. Louis
in partial fulfillment of the requirements for the degree of Doctor of Nursing Practice
with an emphasis in Women's Health Nurse Practitioner

August 2024

Advisory Committee

Charity Galgani, DNP, APRN, WHNP-BC

Chairperson

Laurie Vining, DNP, WHNP-BC, RNC-MNN

Timothy Philpott, M.D

Abstract

Background: Postpartum depression (PPD) is a prevalent problem among women during their childbearing years, affecting approximately 1 in 7 women. Alarming, about 50% of PPD cases go undiagnosed and untreated, contributing to poor maternal outcomes, including suicide, which is a leading cause of maternal mortality in the United States.

Issue: Despite its prevalence and severe consequences, PPD often goes unrecognized due to inconsistent screening practices. Current guidelines vary by organization and lack consistent, evidence-based criteria.

Objective: This pilot program aimed to implement universal PPD screening with a validated tool at the six-week postpartum follow-up visit. The goal was to enhance PPD identification rates, enable early intervention, and improve maternal outcomes.

Methods: The observational, descriptive pilot program utilized the plan-do-study-act model as a framework. The primary investigator (PI) employed a train-the-trainer method to familiarize the provider, a women's health nurse practitioner (WHNP), with administering and scoring the Edinburgh Postnatal Depression Screen (EPDS), project protocols, mental health safety plan, and local/national resources. The WHNP provided an updated list of active women's mental health providers for referral purposes. Screening took place during six-week postpartum visits when the WHNP was onsite.

Results: During implementation, 100% of six-week postpartum visits were screened using the EPDS. One positive screen led to immediate treatment

and referral to a mental health provider. Clinic staff feedback was positive regarding access to updated resources. Participants voiced satisfaction with the opportunity to discuss PPD and learn about available resources.

Conclusion: Standardized screening with validated tools is imperative for early detection and intervention in PPD. This pilot facilitated the compilation of local and national health resources, enhancing the clinic's ability to individualize care. Future endeavors should include an onsite, comprehensive EPDS screening initiative to promote universal screening and optimize maternal outcomes.

Implementation of Postnatal Depression Screening: A Pilot Study

Postpartum depression (PPD) affects approximately one in seven women, establishing it as a prevalent concern for those experiencing childbirth (Mughal et al., 2022). PPD onset can manifest at any time following delivery, typically presenting within the first six weeks, though it's not rare for symptoms to arise for up to a year (Mughal et al., 2022). All pregnant women are at risk for PPD, but other risk factors include social issues, obstetric complications, lifestyle factors, and mental health aspects (Mughal et al., 2022). PPD disproportionately affects women of color and those affected by socioeconomic disparities (Gonzalez et al., 2022).

PPD is critically underreported, and an estimated 50% of cases are undiagnosed or untreated (Byatt et al., 2020; DiGregory et al., 2022). Social stigma, privacy concerns, fear of punishment or unwanted consequences, and lack of standardized screening practices contribute to the culture of silence associated with PPD (Mughal et al., 2022). Failure to identify PPD puts postpartum women at significant risk for adverse health outcomes, such as suicide. Consequently, suicide is a major contributor to maternal mortality in the United States, with postpartum deaths by suicide outpacing those attributed to postpartum hemorrhage and hypertensive events (Chin et al., 2022).

Universal, standardized screening for PPD is associated with increased identification, prompt intervention, and improved maternal outcomes (Gupta et al., 2024). Despite these findings, formal screening efforts for PPD in the United States remain inconsistent (Bauman et al., 2020). In a survey of 400 providers by the American College of Obstetricians and Gynecologists (ACOG), 50% reported they had used a validated

screening to to assess maternal depression (Clevesy et al., 2019). Recommendations for perinatal and postpartum maternal depression screenings have varied by organization and have lacked national, evidence-based guidelines, driving screening inconsistencies (New York State Department of Health, 2022). Suggested screening intervals, optimal screening tools, and diagnosis target omissions presented in vague guidelines perpetuate discordant screening practices (New York State Department of Health, 2022).

According to Liu et al. (2021), PPD prevalence and risk factors must be firmly established to provide early identification and appropriate intervention for PPD. Ideally, depression should be assessed by a skilled clinician administering a validated, structured clinical interview (Lyubanova et al., 2020). Unfortunately, comprehensive diagnostic interviews require resources and time that preclude research using large samples to accurately estimate PPD prevalence (Lyubanova et al., 2020). Therefore, self-report depression screening tools, such as the Edinburgh Postnatal Depression Scale (EPDS) are recommended to identify individuals at risk for depression and allow those who screen positive to be further evaluated (Lyubanova et al., 2020). The American Academy of Pediatrics (AAP) and ACOG recommend the EPDS to screen for depression in all postpartum women, making it the most utilized depression screening tool during the perinatal period (Levis et al., 2020; Lyubanova et al., 2020).

While early intervention is critical to the resolution and management of PPD, significant barriers to maternity and mental health care remain. The nationwide increase in the closure of maternity care services combined with critical shortages of obstetric care providers means approximately two million American women live in maternity care deserts, and over three million live in counties with limited maternity care access (March

of Dimes, 2023). Gaps in private and federally funded insurance plans, high deductibles, and limited in-network providers also delay timely care (Lee et al., 2024).

Moreover, there is a profound shortage and maldistribution of mental health providers in the United States. Only 28% of Americans live in an area with enough mental health professionals to meet the needs of the population, and rural areas are disproportionately affected (Modi et al, 2022). However, as with maternity care, geographic access does not guarantee mental health care. Limited insurance coverage, long wait lists, and high out-of-pocket costs prevent many Americans from receiving mental health care (Modi et al., 2022).

The scarcity of maternity and mental health care providers presents significant challenges in early identification and intervention for PPD, often leaving American women unable to access timely, culturally appropriate, affordable care (Gonzalez et al., 2022; March of Dimes, 2023). For patients affected by chronic stressors, such as poverty, systemic racism, and discrimination, receiving equitable, efficient care is even more challenging (Byatt et al., 2020).

Counseling interventions, such as cognitive-behavioral therapy (CBT), are recommended as first-line therapies for adults with mild depression by the United States Preventive Services Taskforce (USPSTF) (Singla et al., 2021). Pharmacologic intervention with SSRIs is considered a first-line treatment when maternal depression is classified as moderate to severe (APA, 2023). Because prompt intervention is imperative, frontline women's health providers are often expected to prescribe medication in lieu of timely evaluation by a mental health care provider or as a stopgap measure until the patient can be seen. Still, many frontline providers do not feel they have the proper

education and training, workflow, capital, or access to referral resources to adequately address PMH conditions (Byatt et al., 2020). For these reasons, alternative forms of crisis intervention and depression treatment modalities are being tested and employed, such as non-specialist-delivered and peer support interventions, telehealth, family treatment, and other web-based treatment alternatives (Battle et al., 2022; Byatt et al., 2016; Lyons et al., 2021; Singla et al., 2021). For example, Postpartum Support International (PSI) offers a nationwide, non-emergency helpline and a variety of online peer-conducted support groups for patients with symptoms of PMH conditions (2023).

In a private practice obstetrics and gynecology office, there is an opportunity to improve maternal outcomes by implementing a pilot program for PPD screening to promote early detection, referral, and management. The Institute for Healthcare Improvements Model for Change with a Plan Do Study Act (PDSA) cycle will serve as the framework for this quality improvement project (Institute for Healthcare Improvement, 2023). The purpose of this project is to implement PPD screening at the six-week postpartum follow-up visit in an OB/GYN office. The aim is to determine the rate of postpartum depression screenings following the implementation of a standardized tool in a soft launch three-week pilot program. The primary outcome measure will be the rate of completed EPDS screens at the six-week postpartum visit. The secondary outcome measure will be the rate of positive screens. The study question for this pilot project, which will introduce a standardized depression screening tool, will be:

In postpartum women ages 18-45 receiving care in an OB/GYN office,

1. What is the rate of EPDS screening?

2. When the EPDS indicates depression risk, what is the rate of treatment (medication/referral)?

Review of Literature

The literature search utilized PubMed, CINAHL, and the Cochrane Library. Key search terms and phrases included *postpartum depression*, *PPD*, *peripartum depression*, *postnatal depression*, *early identification*, *early recognition*, *detection*, *Edinburgh Postnatal Depression Scale*, *EPDS*, *screening*, *screening practices*, *risk factors*, *contributing factors*, *treatment*, *intervention*, *therapy*, with use of the Boolean operators AND and OR. The initial key search terms and phrases generated 3,376 publications. Inclusion criteria were full-text, English-language studies published from 2018 to 2023, including systematic reviews, randomized control trials, meta-analyses, and clinical trials. Literature reviews were excluded. Applying inclusion and exclusion criteria to key search terms and phrases generated 246 publications. Two additional studies were located via ancestry search. Ultimately, 14 publications were selected for the literature review.

Formal postpartum depression screening rates in the United States are inconsistent. A retrospective cohort study by Sidebottom et al. (2021) revealed that less than two-thirds of pregnant and postpartum women were formally screened for depression. Screening rates varied by provider type, race, socioeconomic status, and insurance type (Sidebottom et al., 2021). Sidebottom et al. (2021) reported that patients followed by family practice primary care providers (PCP) were screened at least 24% more often than those seen by OB/GYNs, nurse practitioners (NP), and certified midwives (CNM) (Sidebottom et al., 2021). The U.S. Preventive Service Task Force's (USPSTF) recommendation that PCPs screen all adults, ages 19 and older, for major

depressive disorder (MDD) annually has been recognized as the standard of care since 2016, increasing the likelihood that pregnant patients who see a PCP will be screened (Sidebottom et al., 2021). Moreover, African American, Asian, Native American, and multi-racial, low-income, and multiparous participants - those most at risk for depression and care access disparities - were also less likely to be screened for maternal depression (Sidebottom et al., 2021).

Sidebottom et al. (2021) found that patients who visited OB/GYNs were screened for PPD more frequently during the postpartum period than those who visited other provider types. Even so, a lack of confidence in diagnosing PPD, limited knowledge of or access to mental health resources, and absence of a standardized protocol in the event of a positive screen continue to present significant universal screening challenges for OB/GYNs (Bordeau et al., 2023). In a self-reported survey of acute and behavioral healthcare providers, 96% of respondents supported the need for further education on identifying and treating peripartum depression, which includes PPD (Valdes et al., 2023). Similarly, Clevesy et al. (2019) demonstrated higher rates of PPD screening were associated with provider education and integration of EPDS criteria into the electronic health record.

Further inconsistencies in the identification of postpartum depression are intensified by a lack of consensus on depression targets and their corresponding EPDS scores (New York State Department of Health, 2022). In a systematic review and meta-analysis by Lyubenova et al. (2020), EPDS scores greater than or equal to 14 correlated closest to Structured Clinical Interview for DSM Disorders (SCID) to identify major depression (Lyubenova et al., 2020). However, heterogeneity throughout the primary

studies make the use of this cutoff impracticable to determine prevalence estimates (Lyubanova et al., 2020). Conversely, frequently used EPDS cutoffs of greater than or equal to 10 and 13 overestimate depression prevalence, necessitating further individual evaluation using SCID to determine true prevalence rates (Lyubanova et al., 2020). These findings imply EPDS cutoffs should be used solely as a screening tool to identify women with depressive symptoms who are experiencing impairment and need further evaluation, but not to determine PPD prevalence (Lyubanova et al., 2020).

Levis et al. (2020) reported maximum EPDS sensitivity and specificity with a cutoff value of 11 or higher to detect depression symptomatology, and 13 or higher to identify more severe cases. Contrarily, lower EPDS cutoff values will still detect the majority of patients who satisfy PPD diagnostic requirements while avoiding false negatives (Levis et al., 2020). As with any screening tool, the information gleaned from EPDS screening should be used within the context of the patient's clinical presentation and related non-medical factors to promote a patient-centered conversation which aims to determine next steps and most appropriate course of action. Furthermore, EPDS targets can be tailored to each practice, according to their diagnostic priorities (Levis et al., 2020).

Substantial barriers to care also affect maternal health outcomes for PPD. The COVID-19 pandemic necessitated increased use of telehealth care, which opened the door to other emerging treatment modalities and alternatives to traditional care, such as family treatment and non-specialist or peer-delivered interventions. For example, a small sample pilot trial examined the feasibility and acceptability of family based PPD and found both mothers and fathers showed improvements in depressive symptoms (Battle et

al., 2022). In addition, couples reported improvements across multiple relational domains, demonstrating that family intervention may be an effective treatment option for PPD (Battle et al., 2022). However, family-based treatment is dependent upon the family dynamic and would not be appropriate in situations where IPV or significant family discord is present (Battle et al., 2022). This study was limited by its lack of sample of diversity by including only heterosexual couples, which limits its generalizability (Battle et al., 2022).

Non-specialist and peer support interventions have also been studied as treatment options to relieve the substantial burden of PPD. In a systematic review and meta-analysis, non-specialist providers (NSP) included a variety of people not formally trained in counseling strategies (Singla et al., 2021). While heterogeneity was significant across studies, lower depressive symptoms were associated with NSP-delivered treatment and preventive interventions (Singla et al., 2021). However, effect sizes demonstrated evidence-based treatments, such as CBT, are superior to supportive counseling (Singla et al., 2021). Consistent with these findings, CBT delivered by public health nurses in Canada showed statistically significant reductions in PPD symptoms, worry, and mother-infant relationships (Van Lieshout et al., 2022).

Evidence supporting peer support interventions is limited and necessitates higher quality evidence in future studies (Lyons et al., 2021). However, Lyons et al. (2021) found that peer support interventions might offer modest improvement to overall rehabilitation. Similarly, a qualitative study of Australian mothers reinforces the relevance of peer-based interventions, reporting participants felt that peer support groups were a valuable asset and desired to receive information from other mothers, sometimes

more so than from midwives or general practitioners (Hong Law et al., 2018).

Unfortunately, this study was limited by a small, homogenous sample (Hong Law et al., 2018).

Van Horne et al. (2021) trialed a five-session home visit program for a racially diverse group of perinatal women who screened positive for mild to moderate depression and reported the intervention was just as effective as standard treatment with a psychiatrist. However, participants in the home visit group were offered services free of charge, while their counterparts in the psychiatry intervention were required to pay a fee (Van Horne et al., 2021). New patient appointments were substantially limited in this randomized control trial (RCT), which may have impacted results (Van Horne et al., 2021). Conversely, this provider shortage is consistent with real world issues, further reinforcing that short-term home visitation programs may be an effective alternative to psychiatric care (Van Horne et al., 2021).

Gaps in research on perinatal and postpartum depression are significant. More accurate prevalence estimates are imperative to understanding the extent of perinatal depression, which requires national standards for screening (Liu et al., 2021). Additionally, research efforts should focus on strategies to increase universal PPD screening, including provider PPD education, integration of behavioral health strategies into OB/GYN practices, and the addition of EPDS criteria into charting software (Bordeau et al., 2023; Clevesy et al., 2019). Continued efforts should be made to identify local and national mental health resources for utilization by women's health providers to improve continuity of care for women at high risk for PPD. Systemic racism, cultural discrimination, and socioeconomic disparities continue to confound perinatal mental

health (PMH) studies, necessitating intensive focus on effective strategies to alleviate these inequities in care (Sidebottom et al., 2021). Furthermore, future research should recognize the cultural shift away from heteronormative structures and aim for evidence that is wholly inclusive of the heterogeneity that exists in today's families (Battle et al., 2022).

Within the past decade, a state level psychiatry access program which aims to offset the adverse health outcomes associated with untreated PMH has paved the way for a national model (Byatt et al., 2018). The Massachusetts Child Psychiatry Access Project for Moms (MCPAP) has employed a population-based strategy to address maternal psychiatric care in an integrated fashion in response to disproportionate numbers of perinatal depression and the ongoing mental health provider shortage (Byatt et al., 2018). Further examination of the effectiveness of state-sponsored scalable models, like MCPAP for Moms, can increase understanding of treatment modalities created to offset the burden of perinatal depression and prevalent barriers to care experienced by mothers with mood disorders (Byatt et al., 2018). Moreover, psychiatry access programs can normalize PMH conditions, increase patient-provider trust, and promote integrated, continuous care (Byatt et al., 2018). Finally, future research should examine NSP and peer-delivered interventions as possible strategies to bridge the current gap in PMH care (Lyons et al., 2021; Singla et al., 2021).

In summary, postpartum depression is a public health concern with global ramifications. However, early identification through screening, patient and provider education, and increased access to care can aid in prevention and minimize adverse maternal, fetal, and population health outcomes. Almost half of women with peripartum

depression go undiagnosed and untreated, and a staggering number are dying by suicide, which signifies a critical need for universal screening and comprehensive education. Insufficient supply of providers and treatment modalities demand creative solutions and multidisciplinary cooperation.

Methods

Design

This descriptive, observational quality improvement (QI) project implemented and evaluated a “soft launch” PPD screening protocol in a local obstetrics and gynecology office. The project aimed to standardize PPD screening to improve PPD identification and promote prompt intervention. A retrospective chart review was used to obtain and collate the data. In addition, any treatment, including referrals, in pregnant, female, adult patients seeking care in the clinic was collected between April 19 and May 10, 2024.

Setting

The project setting was a private obstetrics and gynecology office in the Midwest. The practice has seven providers, consisting of four physicians and three nurse practitioners, and is located in a community where the population is predominantly White, formally educated, and insured, with a median annual household income of \$72,562 (Think Health St. Louis, 2023; United States Census Bureau, 2022). This office serves 12,455 patients and averages 550 deliveries annually.

Sample

One provider, a Women’s Health Nurse Practitioner (WHNP), utilized a convenience sample of clients presenting for their six-week postpartum appointment. The

inclusion criteria were female adult patients ages 18-45, presenting for six-week postpartum appointments. Exclusion criteria included clients outside the specified age range and those who were not presenting for a six-week postpartum follow-up visit.

Data Collection/Analysis

The provider of record collected data during screening and via a retrospective chart review. The provider collected and de-identified the following demographic data for each participant: gender, age, race, payor status, gravida, and parity. In addition, composite EPDS scores from hospital discharge and the six-week postpartum visit were collected, as well as any associated treatment and referral information. The provider input the de-identified data into an Excel spreadsheet she shared with the primary investigator. The primary investigator used descriptive statistics to describe the sample population.

Approval Processes/Ethical Considerations

Approvals were obtained from the doctoral committee, the university's Institutional Review Board (IRB), and the organization. To ensure autonomy, the provider informed the participants that screening participation was voluntary, and quality of care would not be affected if they chose to decline. The EPDS is not a diagnostic tool; therefore, scores were considered within the context of clinical assessment to avoid false positives and missed diagnoses. Confidentiality was protected by having the provider collect and de-identify the data before passing it on to the primary investigator.

Procedures

This project utilized a Plan-Do-Study-Act (PDSA) cycle (Institute for Healthcare Improvement, 2023). During the "plan" phase of the PDSA cycle, a site-specific needs

assessment determined the need for a formal PPD screening protocol to guide identification and intervention. Background information was obtained, and evidence-based best practices were evaluated and identified through the literature review process. This “soft launch” pilot EPDS screening protocol included universal screening for each participant presenting for a six-week postpartum visit. The EPDS is a ten-item validated self-report scale used to identify clients at risk of developing depression (Medscape, 2023). Each item is scored from zero to three, dependent upon the client’s chosen answer. Individual item scores are compiled to determine the total score and the client’s risk of PPD. A positive screen was defined as a composite score of ≥ 12 or any score greater than zero on item ten.

Prior to implementation, the primary investigator used a “train the trainer” method to prepare the provider for implementation. The training consisted of EPDS administration, scoring, and project protocol. Through conversation with the provider, it was determined that the site would also benefit from adding local and national mental health resources to assist providers with appropriate intervention. Additionally, the primary investigator supplied the provider with the EPDS tool, a mental health safety plan, and a list of national and local resources, including crisis hotlines and local support group options for mothers. The provider compiled and provided a list of local mental health practitioners who specialize in pregnancy-related mental health issues and confirmed they were currently accepting new patients.

The “do” portion of the cycle focused on screening protocol implementation. A paper version of the EPDS instrument was distributed to clients upon check-in for their six-week postpartum visit. Completed screens were given to the provider for review and

scoring during their visit with the client. The provider transferred the individual EPDS item answers and composite scores into each participant's electronic health record (EHR). Once the provider input these items into the EHR, she placed the paper screens into the onsite shredding receptacle. If a client answered affirmatively to item ten, the provider was prepared to follow the mental health safety protocol, which included staying with the participant, notifying the appropriate staff, and initiating a direct transfer to the hospital system emergency department (ED), including a warm handoff to the ED provider. When the participant screened positive or displayed an identified risk, the provider included details of their clinical assessment and associated interventions and referrals in the EHR. Regardless of composite score, the provider performed a clinical interview with each participant to further assess for signs of PPD and provide education regarding PPD and available treatment and resources. Each participant was offered an EPDS/PPD information sheet and resource information.

The provider performed EHR chart audits onsite to collect demographic information and screening compliance rates for all six-week postpartum clients seen during the intervention period. Additionally, EPDS composite scores from the day of hospital discharge, detailed EPDS scores from the six-week postpartum visit, and intervention information were collected. The provider de-identified the data and entered it into an Excel spreadsheet, which was shared with the primary investigator. The spreadsheet was stored on the primary investigator's locked, password-protected computer. Each week, the provider and primary investigator discussed the project protocol and evaluated the screening process as part of the "study" phase. No changes were deemed necessary; therefore, no adjustments were made as part of the "act" phase.

Results

The total number of participants was seven ($n = 7$). The average age was 34.86 ($SD = 4.63$). All participants were female ($n = 7, 100\%$), and White was the most frequently observed race ($n = 6, 85.71\%$). Multiparas ($n = 5$) comprised 71.43% of the sample, and the most frequently observed delivery route was cesarean section ($n = 4, 57.14\%$). All participants were privately insured ($n = 7, 100\%$). See Appendix A.

The EPDS screening rate was 100% ($n = 7$). Of the seven participants who were screened for depression, one had a positive EPDS ($n = 1, 14.29\%$). The treatment rate for positive screens was 100% ($n = 1$) and consisted of pharmacological intervention and a referral to a mental health provider. All participants who screened negative were given written information about PPD ($n = 2, 28.57\%$) or a PPD handout and referral information ($n = 4, 57.14\%$).

Discussion

This QI project focused on standardizing PPD screening at six-week postpartum checks using a validated tool to improve early PPD identification and promote prompt intervention. Operational delays caused by a merger with a local health system and a charting software transition during the originally planned implementation period necessitated significant adjustments to the pilot program. As part of the protocol changes, one women's health nurse practitioner agreed to participate in a soft launch of the originally planned pilot program during an abbreviated implementation period. During the implementation period, when the provider was onsite, each client attending a six-week postpartum check was screened for PPD with the EPDS, achieving a 100% screening rate ($n = 7$). Of the seven participants, one screened positive with a composite score of 13 ($n =$

1, 14.29%) and received treatment ($n = 1$, 100%), which included SSRI initiation and a referral to a mental health care provider. These results are consistent with the evidence that standardized PPD screening allows for early identification and prompt intervention (Gupta et al., 2024).

Updated resources created during this project expanded the provider's knowledge of available resources and improved their ability to offer the client more robust options for support and intervention. This concurs with evidence that provider education is integral to treating and managing PPD (Bordeau et al., 2023; Clevesy et al., 2019; Valdes et al., 2023). Participants voiced satisfaction with the opportunity to discuss PPD and learn about the available resources, which included local mental health professionals who specialize in counseling interventions for those with pregnancy-related concerns, local in-person MOMs support groups, peer-supported call centers, online support groups, and nationwide crisis hotlines. Combining traditional and alternative options for care increases the client's access to care and allows for individualized treatment (Hong Law et al., 2018; Lyons et al., 2021; Singla et al., 2021).

Limitations of this QI project included a small, largely homogenous sample of mostly White, privately insured, suburban women. The clinic merger with a large health system and the transition to new charting software during the previously scheduled implementation period caused significant upheaval for providers and staff. These onsite changes led to a substantial reduction in the scale of the pilot program.

Recommendations for future practice include revisiting clinic-wide implementation of the EPDS screening tool after the merger is complete and providers and staff are settled into their new routine. Implementing the Epic charting system, which includes a dedicated

EPDS screening tool and criteria, can minimize workflow disruptions and facilitate the transition to standardized screening practices. The insights gained from this novel effort could inform future PDSA cycles and guide how providers and staff at this site wish to integrate this screening into their daily practice.

Conclusion

Standardized screening with a validated tool is imperative to early PPD detection and prompt intervention. This QI project benefitted from strong support from the clinic's principal physician and the WHNP, who actively endorsed the pilot program to enhance consistency in PPD screening. Furthermore, the project facilitated the compilation of local and national mental health resource options, expanding the clinic's capacity to provide both traditional and alternative treatment choices and tailor care to individual needs. The list of active mental health care providers has been regularly used across clinic staff, who have reported positive results from access to this updated referral list.

Practice implications involve integrating standardized EPDS screening into established postpartum care protocols, aligning with recommendations from ACOG, the USPSTF, and the American Medical Association (AMA). Research has shown that universal PPD screening, when used in conjunction with diagnostic assessment and prompt treatment initiation, effectively improves clinical outcomes (Sidebottom et al., 2021). Future endeavors should include an onsite, comprehensive EPDS screening initiative to ensure universal screening and achieve optimal maternal outcomes.

References

- The American College of Obstetricians and Gynecologists. (2018). ACOG Committee Opinion No. 757: Screening for Perinatal Depression. *Obstetrics & Gynecology*, 132(5), pp. e208-e212. <https://doi.org/10.1097/AOG.0000000000002927>
- The American College of Obstetricians and Gynecologists. (2023). *Implementing perinatal mental health screening*. Retrieved from October 23, 2023 from <https://www.acog.org/programs/perinatal-mental-health/implementing-perinatal-mental-health-screening>
- American Psychiatric Association. (2023). *Stigma, prejudice and discrimination against people with mental illness*. Retrieved on October 1, 2023 from <https://www.psychiatry.org/patients-families/stigma-and-discrimination>
- Battle, C. L., Cardemil, E. V., Rossi, R., O'Hara, M. W., & Miller, I.W. (2023). Family treatment for postpartum depression: acceptability, feasibility, and preliminary clinical outcomes. *Archives of Women's Mental Health*, 2023(26), pp. 127-134. <https://doi.org/10.1007/s00737-022-01282-0>
- Bauman, B. L., Ko, J. Y., Cox, S., D'Angelo, D. V., Warner, L., Folger, S., Tevendale, H. D., Coy, K. C., Harrison, L., & Barfield, W. D. (2020, May 15). *Morbidity and mortality weekly report (MMWR)*, 69(19), pp. 575-581. Retrieved on September 29, 2023 from https://www.cdc.gov/mmwr/volumes/69/wr/mm6919a2.htm?s_cid=mm6919a2_w
- Biaggi, A., Conroy, S., Pawlby, S., & Pariante, C. M. (2016). Identifying the women at risk of antenatal anxiety and depression: A systematic review. *Journal of Affective Disorders*, 2016(191), pp. 62-77. <https://doi.org/10.1016/j.jad.2015.11.014>

- Bordeau, A. I., Harley, K. G., & Nguyen, A-M. (2023, July 12). Association between maternity care practitioner type and postpartum depression screening. *Birth*, 2023(00), pp. 1-12. <https://doi.org/10.1111/birt.12735>
- Byatt, N., Bergman, A., Maslin, M. C. T., Forkey, H., Griffin, J. L., & Moore Simas, T. A. (2020). Promoting the health of parents & children: Addressing perinatal mental health by building medical provider capacity through perinatal psychiatry access programs. University of Massachusetts Medical School. https://repository.escholarship.umassmed.edu/bitstream/handle/20.500.14038/44276/Lifeline4Moms_White_Paper__PMH.pdf
- Byatt, N., Straus, J., Stopa, A., Biebel, K., Mittal, L., Allison, J., & Moore Simas, T. A. (2018). Massachusetts Child Psychiatry Access Program for Moms: Utilization and assessment. *Obstetrics & Gynecology*, 133(2), pp. 345-353. <https://doi.org/10.1097/AOG.0000000000002688>
- Chin, K., Wendt, A., Bennett, I. M., & Bhat, A. (2022). Suicide and maternal mortality. *Current Psychiatry Reports*, 24(4), pp. 239-275. <https://doi.org/10.1007/s11920-022-01334-3>
- Clevesy, M. A., Gatlin, T. K., Cheese, C., & Strebelle, K. (2019). A project to improve postpartum depression screening practices among providers in a community women's health care clinic. *Nursing for Women's Health*, 23(1), pp. 21-30. <https://doi.org/10.1016/j.nwh.2018.11.005>
- DiGregory, S., Githere, N., Crites, K., Rouse, C., & Shanks, A. (2022, August 9). The impact of COVID-19 on postpartum depression and the responsibility of the healthcare system. *Cureus*, 14(8), p. e27805. <https://doi.org/10.7759/cureus.27805>

- Docherty, A., Najjar, R., Combs, S., Woolley, R., & Stoyles, S. (2020). Postpartum depression screening in the first year: A cross-sectional provider analysis in Oregon. *Journal of the American Association of Nurse Practitioners*, 32(4), pp. 308-315. <https://doi.org/10.1097/JXX.0000000000000250>
- Gonzalez, C., Ramirez, M., Mata-Greve, F., Diaz, A., Duran, M. C., Johnson, M., Grote, N., & Areán, P. A. (2022). Acceptability of virtual therapy for postpartum women during COVID-19: A national mixed methods study. *Frontiers in Psychiatry*, 13(893073). <https://doi.org/10.3389/fpsy.2022.893073>
- Gupta, A., Pajai, S., Gupta, A., Singh Thakur, A., Muneeba, S., Batra, N., & Patel, D. J. (2024). In the Shadows of Motherhood: A Comprehensive Review of Postpartum Depression Screening and Intervention Practices. *Cureus*, 16(2), e54245. <https://doi-org/10.7759/cureus.54245>
- Hong Law, K., Jackson, B., Guelfi, K., Ngyugen, T., & Dimmock, J. A. (2018). Understanding and alleviating maternal postpartum distress: Perspectives from first-time mothers in Australia. *Social Science & Medicine*, 204, pp. 59-66. <https://doi.org/10.1016/j.socscimed.2018.03.022>
- Institute for Healthcare Improvement. (2023). *How to improve*. Retrieved on October 22, 2023 from <https://www.ihl.org/resources/Pages/HowtoImprove/ScienceofImprovementHowtoImprove.aspx>
- Intellectus Statistics [Online computer software]. (2023). Intellectus Statistics. <https://statistics.intellectus360.com>

- Lee, J., Howard, K. J., Leong, C., Grigsby, T. J., & Howard, J. T. (2024). Delayed care during pregnancy and postpartum linked to poor maternal mental health: evidence in the United States. *Journal of Reproductive and Infant Psychology*, 1–13. <https://doi.org/10.1080/02646838.2024.2353091>
- Levis, B., Negeri, Z., Sun, Y., Benedetti, A., & Thombs, B. D. (2020). Accuracy of the Edinburgh Postnatal Depression Scale (EPDS) for screening to detect major depression among pregnant and postpartum women: Systematic review and meta-analysis of individual participant data. *BMJ*, 2020(371), p. m4022. <https://doi.org/10.1136/bmj.m4022>
- Liu, X., Wang, S., & Wang, G. (2021). Prevalence and risk factors of postpartum depression in women: A systematic review and meta-analysis. *Journal of Clinical Nursing*, 2022(31), pp. 2665-2677. <https://doi.org/10.1111/jocn.16121>
- Lyons, N., Cooper, C., & Lloyd-Evans, B. (2021). A systematic review and meta-analysis of group peer support interventions for people experiencing mental health conditions. *BMC Psychiatry*, 21(315), pp. 1-17. <https://doi.org/10.1186/s12888-021-03321-z>
- Lyubenova, A., Neupane, D., Levis, B., Wu, Y., Sun, Y., He, C., Krishnan, A., Bhandari, P. M., Negeri, Z., Imran, M., Rice, D. B., Azar, M., Chiovitti, M. J., Saadat, N., Riehm, K. E., Boruff, J. T., Ioannidis, J. P. A., Cuijpers, P., Gilbody, S... Thombs, B. D. (2020). Depression prevalence based on the Edinburgh Postnatal Depression Scale compared to structured clinical interview for DSM Disorders classification: Systematic review and individual participant data meta-analysis.

International Journal of Methods in Psychiatric Research, 2021(30), e1860.

<https://doi.org/10.1002/mpr.1860>

March of Dimes (2023, December). *Maternity Care Desert*. Retrieved on June 8, 2024

from <https://www.marchofdimes.org/peristats/data?top=23>

Medscape. (2024). *Edinburgh Postnatal Depression Scale (EPDS)*. Retrieved on April

24, 2024 from <https://reference.medscape.com/calculator/494/edinburgh-postnatal-depression-scale-epds>

Modi, H., Orgera, K., & Grover, A. (2022, October 10). *Exploring barriers to mental*

health care in the United States. AAMC. Retrieved on July 7, 2024 from

<https://www.aamcresearchinstitute.org/our-work/issue-brief/exploring-barriers-mental-health-care-us>

Mughal, S., Azhar, Y., & Siddiqui, W. (2022, October 7). Postpartum depression. In

StatPearls. StatPearls Publishing. Retrieved on October 1, 2023 from

<https://www.ncbi.nlm.nih.gov/books/NBK519070>

New York State Department of Health. (2022). *Screening for maternal depression*.

Retrieved on October 1, 2023 from

https://www.health.ny.gov/community/pregnancy/health_care/perinatal/maternal_depression/providers/screening.htm

Postpartum Support International. (2023). *Depression during pregnancy & postpartum*.

Retrieved on October 1, 2023 from [https://www.postpartum.net/learn-](https://www.postpartum.net/learn-more/depression/)

[more/depression/](https://www.postpartum.net/learn-more/depression/)

Singla, D. R., Lawson, A., Kohrt, B. A., Jung, J. W., Meng, Z., Ratjen, C., Zahedi, N.,

Dennis, C-L., & Patel, V. (2021). Implementation and effectiveness of

nonspecialist-delivered interventions for perinatal mental health in high-income countries: A systematic review and meta-analysis. *JAMA Psychiatry*, 78(5), pp. 498-509. <https://doi.org/10.1001/jamapsychiatry.2020.4556>

Sidebottom, A., Vacquier, M., LaRusso, E., Erickson, D., & Hardeman, R. (2021).

Perinatal depression screening practices in a large health system: Identifying current state and assessing opportunities to provide more equitable care. *Archives of Women's Mental Health*, 24(1), pp. 133-144. <https://doi.org/10.1007/s00737-020-01035-x>

Think Health St. Louis. (2023). *2023 Demographics*. Retrieved on October 23, 2023 from <https://www.thinkhealthstl.org/demographicdata>

United States Census Bureau. (2022). *Quick facts: St. Louis county, Missouri*. Retrieved on October 23, 2023 from <https://www.census.gov/quickfacts/fact/table/stlouiscountymissouri/PST045222>

U.S. Preventive Services Task Force. (2023, June 20). *Final recommendation statement: Depression and suicide risk in adults: Screening*. <https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/screening-depression-suicide-risk-adults>

Valdes, E. G., Sparkman, L., Amar, R., Steiner, L., Gorman, J. M., Ittel, V., Bethea, J. J., & Reist, C. (2023). Improving maternal mental health: Assessing the extent of screening and training about peripartum depression. *The Journal of Maternal-Fetal & Neonatal Medicine*, 36(1), 2155042. <https://doi.org/10.1080/14767058.2022.2155042>

- Van Horne, B. S., Nong, Y. H., Cain, C. M., Sampson, M., Greeley, C. S., & Puryear, L. (2021). A promising new model of care for postpartum depression: A randomized control trial of a brief home visitation program conducted in Houston, Texas, USA. *Health and Social Care in the Community*, 2022(30e), pp. e2203-e2213. <https://doi.org/10.1111/hsc.13658>
- Van Lieshout, R. J., Layton, H., Savoy, C. D., Haber, E., Feller, A., Biscaro, A., Bieling, P. J., & Ferro, M. A. (2022). Public health nurse-delivered group cognitive behavioral therapy for postpartum depression: A randomized controlled trial. *The Canadian Journal of Psychiatry*, 67(6), pp. 432-440. <https://doi.org/10.1177/07067437221074426>
- Westfall, P. H., & Henning, K. S. S. (2013). *Texts in statistical science: Understanding advanced statistical methods*. Taylor & Francis.

Appendix A

Table 1

Frequency Table for Nominal Variables

Variable	<i>n</i>	%
Route		
Vaginal	3	42.86
C-section	4	57.14
Missing	0	0.00
Payor		
United	3	42.86
Cigna	2	28.57
BCBS	1	14.29
Philadelphia International	1	14.29
Missing	0	0.00
Intervention		
PPD handout given	2	28.57
PPD handout and referral list given	4	57.14
Lexapro rx and therapy referral	1	14.29
Missing	0	0.00
Gender		
Female	7	100.00
Missing	0	0.00
G_P		
Primipara	2	28.57
Multipara	5	71.43
Missing	0	0.00
Positive_screen		
Yes	1	14.29
No	6	85.71
Missing	0	0.00
Race		
White	6	85.71
Asian	1	14.29
Missing	0	0.00
Treatment		
Yes	1	14.29
No	6	85.71

Missing	0	0.00
---------	---	------

Note. Due to rounding errors, percentages may not equal 100%.

Table 2*Summary Statistics Table for Interval and Ratio Variables*

Variable	<i>M</i>	<i>SD</i>	<i>n</i>	<i>SE_M</i>	Min	Max	Skewness	Kurtosis
Age	34.86	4.63	7	1.75	27.00	39.00	-0.66	-1.00

Note. '-' indicates the statistic is undefined due to constant data or an insufficient sample size.