DNP Project

Improving Postpartum Depression Screening Practices Among Latina Women in a Community Women's Health Clinic: A Quality Improvement Project

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Abstract

Postpartum depression (PPD) is a mental health illness that can affect any childbearing woman, resulting in adverse effects on maternal functioning and effects on infant development. The incidence of PPD is known to affect 10-20% of the general population, however it is estimated that Latina women have three to four times greater risk of developing PPD. There is a general consensus that recommends assessment of PPD through routine screening with a validated tool such as the Edinburgh Postnatal Depression Scale (EPDS) and Generalized Anxiety Disorder-7 (GAD-7). The purpose of this quality improvement project was to improve PPD screening practices at a community women's health care clinic serving Latina women. The plan-do-study-act model was used as a framework model to measure and implement practice change towards routine screening. Interventions included an educational in-service presented to identified key stakeholders, standardization of a workflow, and adoption of a checklist. Measurements included pre- and post-intervention screening rates from audit data retrieved from all postpartum encounters. Postpartum screening rates improved for both the GAD-7 (47% increase) and EPDS (23% increase) at the 2-week postpartum visits. Screening rates at 6-week postpartum visits decreased for both the GAD-7 (2% decrease) and EPDS (28% decrease). To promote early recognition and treatment of PPD among Latina women, adoption and utilization of PPD screening tools is warranted.

DNP Project

Problem Description

Latina women have a three to four times greater risk of developing postpartum depression (PPD), compared to their non-Latina counterparts (Callister, Beckstrand & Corbett, 2011; Gress-Smith, Luecken, Lemery-Chalfant & Howe, 2012; Lara-Cinisomo, Girdler, Grewen & Meltzer-Brody, 2016). If left untreated, PPD poses multiple health risks for not only mothers but also for infants; adverse effects include significant negative impact on maternal functional status and maternal and infant interaction, as well as long-term effects on the infants emotional, social, and cognitive development (Hanostte, Payne & Babich, 2017; Howell et al., 2012)**.** This manuscript describes a quality improvement project that was undertaken because a community clinic identified inconsistencies in their screening practices among providers and a lack of a standard workflow.

Available Knowledge

All women are at risk of developing PPD after childbirth; this debilitating mental health disorder is known to affect 10-20% of mothers in Western countries (Hansotte, Payne, Babich, 2017; Lara-Cinisomo, Wisner, Meltzer-Brody, 2015). When considering differences in race and ethnicity, is noted that Latinas have a higher incidence of PPD in Western countries (Lara-Cinisomo, Girdler, Grewen & Meltzer-Brody, 2016; Callister, Beckstrand & Corbett, 2011; Gress-Smith, Luecken, Lemery-Chalfant & Howe, 212). This is of importance considering the growing rate of this population within the United States. Latinas are the largest and fastest growing minority group in the United States, accounting for more than 15% of the overall population and 24% of all births from all ethnic and racial groups (Lara-Cinisomo, Girdler, Grewen &

Meltzer-Brody, 2016; Callister, Beckstrand & Corbett, 2011). Despite the growth of this population, Latinas continue to be understudied, and the knowledge gap of improving screening and access to PPD treatment remains (Lara-Cinisomo, Girdler, Grewen & Meltzer-Brody, 2016).

PPD symptoms can occur within the first year after childbirth but PPD is most often diagnosed in the first 6 to 12 weeks (Centers for Disease Control and Prevention, 2008). Postpartum mood disorders range as a mild form known as postpartum blues, to a rare and acute psychiatric episode known as postpartum psychosis. Common symptoms of PPD include fatigue, emotional instability, guilt, confusion, and PPD can lead to suicidal ideation which is the leading cause of death in the postpartum period (Pope, Xie, Sharma & Campbell, 2013). There is a general consensus that recommends assessment of mood and emotional well-being (ACNM, 2013; ACOG, 2018; O'Connor, Rossom, Henninger, Groom & Burda, 2016). However, a survey conducted of 400 members of ACOG, found that 50.6% never used a validated screening tool to assess for maternal depression (Leddy, Haaha, Gray, & Schulkin, 2011). The U.S. Preventative Services Task Force endorses routine depression screening in the general adult population, to include pregnant and postpartum women (O'Connor, Rossom, Henninger, Groom & Burda, 2016). The American College of Nurse-Midwives (2013) issued a position statement to include universal depression screening and the American College of Obstetricians and Gynecologists (ACOG) recommend screening once in the perinatal period with a validated instrument (2018).

Cultural conceptualizations. In a descriptive quality study by Sampsom, Torres, Duron and Davidson, a total of 19 participants from Mexico and Central America, but now residing in the United States, participated in focused groups that inquired about cultural beliefs regarding

PPD (2018). The findings were organized into three categories (views of PPD, shared cultural beliefs/practices that prevent seeking treatment and mothers' suggestions to promote treatment seeking). Various themes were identified including: women with PPD are considered useless, PPD is an American problem, PPD will pass, mothers are expected to suffer, acknowledging symptoms leads to shame and stigma, spouses and families should be supportive resources, and women need to overcome the fear of seeking services.

Biological contributors. Dysregulation of the hypothalamic-adrenal-pituitary (HPA) axis is known to be a marker for depression in both men and women (Lara-Cinisomo, Girdler, Grewen & Meltzer-Brody, 2016). A well-regulated cortisol stress response is critical for adaptive emotional, cognitive, and behavioral responses to stress; under conditions of chronic stress, cortisol levels may increase resulting in a higher risk for poor maternal postpartum adjustment (Jewell, Luechen, Gress-Smith, Crnic & Gonzales, 2015). A randomized control study assessed the interactive influence of economic stress and postpartum family support on cortisol response in low-income Mexican American women (Jewell et al., 2015). A sample of 322 women were included in this study and data were collected at three points, prenatal gestation (26-38 weeks), six weeks postpartum, and 12 weeks postpartum. Economic stress was measured using a 20-item Economic Hardship Scale (EHA), family support was assessed using a postpartum version of the family support subscale of the Prenatal Expectations Scale for Mexican Americans (PES-MA), and depressive symptoms were assessed using the 10-item Edinburgh Postnatal Depression Scale (EPDS). Maternal cortisol sampling (AUCg) occurred during a mildly challenging mother-infant interaction task at 12 weeks postpartum, controlling for 6-week maternal cortisol and depressive symptoms.

The interaction of effects (economic stress, family support and 12-week postpartum cortisol levels) were graphically displayed and the simple slopes for family support were analyzed. The simple slope for low family support was found to be statistically significant ($p = 0.021$) and the simple slope for high family support was not statistically significant ($p = 0.48$). The results supported the researcher's hypothesis that mothers who had high economic stress, and low family support had higher cortisol output at 12 weeks postpartum. Thus, this suggests that family support can be a salient factor offering a protective resource.

Racial and ethnic disparities. The burden of postpartum depressive symptoms is most apparent in low-income black and Latina women (Abrams, Dornig & Curran, 2009; Gress-Smith, Luecken, Lemery-Chalfant & Howe, 2012; Geier, Hill, Gonzales, Tum & Finley, 2015; Howell et al., 2012). In a retrospective cohort study, data from New Jersey's Medicaid program were retrieved from women who delivered between July 2004 and October 2007 (Kozhimannil, Trinacty, Busch, Huskamp & Adams, 2011). The population of this study included a total of 29,601 women (13,001 white, 13,416 black, and 3,184 Latina). Results indicated that a higher percentage of white women (9%) initiated outpatient mental health services or antidepressant treatment in the 6 months following delivery compared to Latinas (5%) and black women (4%). Of those that did initiate treatment, the follow up of initial antidepressant use was particularly troubling among black women (23%) and Latinas (27%) compared to white women (44%). These findings suggest that there are significant racial-ethnic disparities in PPD health care, further implying a need for policies and programs to address the barriers that low-income black and Latina women face.

Screening practices. Brief screening tools like the 10-item Edinburgh Postnatal Depression Scale (EPDS) and Generalized Anxiety Disorder-7 (GAD-7) are used during pregnancy and in the postpartum period. Both of these tools have been shown to be reliable and validated in low-income and Spanish- speaking individuals (ACOG, 2018; Garcia-Esteve, Ascaso, Ojuel & Navarro, 2003; Merz, Malcarne, Roesch, Riley & Sadler, 2011; Zhong et al., 2015). There is little evidence regarding the optimal screening time and interval. However, data has shown that for women who are diagnosed with PPD, 27% enter pregnancy with a mental health disorder, 33% have an onset in pregnancy, and 40% have postpartum onset (Wisner, Sit, McShea, Rizzo, Zoretich, Hughes, … & Confer, 2013). Therefore, it is recommended to screen during pregnancy and in the postpartum period (Kendig, Keats, Hoffman, Kay, Miller, Simas, … & Semenuk, 2017).

Rationale

The Knowledge-to-Action (KTA) framework was used to guide this quality improvement project. The KTA model is a model of integration from knowledge creation to knowledge application (White & Dudley-Brown, 2012). Visually, it is illustrated as a funnel where new knowledge moves through the various stages until it is adopted. The seven phases include:

1) Identifying the problem; select knowledge/research relevant to the problem
2) Adapt the knowledge to use in a local context
3) Assess barriers to knowledge use
4) Select, tailor, and implement interventions
5) Monitor knowledge use
6) Evaluate outcomes
7) Sustain knowledge use

In addition, the Plan, Do, Study, Act (PDSA) tool was used to supplement the KTA framework. The PDSA tool provides a systematic process for improving a process and documenting a test of change (Institute for Healthcare Improvement, 2019). It contains similar aspects to the KTA framework, however the PDSA tool provides the ability to have a continuous cycle and plan for continual learning and improvement.

Specific Aims

By March 31, 2020, 80% of Latina women between the ages of 15 and 45 will be screened for depression using the 10-item Edinburgh Postnatal Depression Scale (EPDS) and General Anxiety Disorder- 7 (GAD-7), at the 2 & 6-week post-partum visit at Virginia Garcia Memorial Health Center Women's Clinic, in Hillsboro, Oregon.

Methods

Context

This quality improvement project took place at a community women's health clinic in Oregon that serves a large Hispanic/Latinx population. This women's clinic is part of a larger macrosystem known as Virginia Garcia Memorial Health Center. This organization has a total of 18 locations across Washington and Yamhill counties. They provide medical, dental, vision, pharmacy, mental and behavioral health as well as wellness programs. Prior to becoming the Virginia Garcia Women's Clinic in 2016, women's health care services were primarily accessed at Virginia Garcia primary care clinics. Currently, the women's clinic is the only site that sees patients for antepartum care and primary care clinics occasionally see patients for postpartum follow up if patients elect to go there.

Patients. The women's clinic sees female patients for full scope pregnancy care, general women's health, specialist gynecological care, family planning services, and complete postpartum support. This clinic primarily provides care to minority groups, with a majority identifying as Hispanic/Latina. The clinic performs 25-30 initial antenatal visits monthly and these patients receive care through their antepartum, intrapartum, and postpartum period. On average, there are 14 births per month over the course of this project.

Professionals. There is a wide range of professionals at this clinic such as: receptionist, medical assistants, nurses, providers, and social workers. However, the primary stakeholders for this improvement project were the medical assistants and healthcare providers that provide direct care to the patients during the postpartum visits. There are two certified nurse-midwives who see patients in the clinic and a total of 11 family doctors who rotate through the clinic. On a given day, there are at least two providers available.

Current state. This improvement project was identified by the OB lead clinician of the clinic who is a certified nurse-midwife. It was noted that there is great variability in current screening practices among providers and a lack of a standard workflow, likely contributing to inconsistent PPD screening practices. The variation among providers initially reported included inconsistent use of the EPDS and GAD-7 at the 2 and 6-week postpartum visits. The current expectation with screening is to screen patients at both the 2 and 6-week postpartum visits with the EPDS. The inclusion of the GAD-7 is something that has been recently recommended by the lead clinician, however, has not been widely adopted. An identified global goal for this site was to increase compliance and decrease variability of PPD screening practices among providers through the implementation of an educational in-service, development of a standard

workflow, and checklist that included routine PPD screening with a combination of EPDS and GAD-7 tools, both of which are validated for Spanish-speakers.

Intervention/Study of the Interventions

Process data were collected throughout the project. An initial audit was completed to gain a sense of the current state of screening and the process flow for postpartum depression screening. The current workflow was examined, and an Ishikawa diagram was developed. Findings were discussed with the organization's lead clinician and key stakeholders and a plan for system change was made. A plan was made to include three PDSA cycles to document and plan system changes. Each cycle was projected to run for a total of four weeks starting in December.

The first PDSA cycle was developed based on the findings from the initial audit. This included outlining and assigning roles/responsibilities in screening practices, process mapping, and standardizing a workflow. Improvement was determined by creating a checklist and having a medical assistant champion keep track of the total number of two- and six-week postpartum visits seen, number of EPDS and GAD-7 screening completed, and notes related to barriers encountered for incomplete screenings. The checklist were reviewed weekly and an official EPIC report was retrieved at the end of each cycle for analysis and comparison. Subsequent cycles were adjusted for any problems to improve process.

Measures

Main outcome measures determined whether screening tools were completed at 2 and 6 week visits. Improvement of health outcomes was not assessed in this improvement project. Audit data were collected through the use of reports that were obtained from the organization.

Reports did not include patient identifiers or PHI, only a list of postpartum encounters were included indicating whether PPD screening was completed. Additionally, it identified the location of where postpartum visits were conducted, if at the women's health clinic or back at their respective primary care sites.

Pre-project implementation data were collected by running a report through the EPIC electronic health record of all postpartum encounters over a 3-month period prior to beginning the first PDSA cycle. The report included if the EPDS and GAD-7 screening tools were completed or not. Post-project implementation data were collected by running a report through EPIC electronic health record of all postpartum encounters over a 3-month period, beginning with the first PDSA cycle. The report included if the EPDS and GAD-7 screening tools were completed or not. The difference between pre and post implementation values was compared to determine if there was an improvement in postpartum depressing screening rates. Data were displayed on a run chart with intent to show a positive change in screening rates

Ethical Considerations

A request for determination was submitted to Oregon Health & Science University IRB department and it was determined that this proposed quality improvement project was not research involving human subjects. The project collected health information but did not access or record any patient identifiers or private health information. In addition, no conflicts of interests were identified, and no funding sources were received.

Implementation of Project

Project Evolution

Initial Audit. A meeting with the OB lead clinician and medical assistants was conducted in November and served as an initial audit. At this meeting, a sense of the current state and process of PPD screening was identified. Various barriers were identified by the lead clinician and the medical assistants as outlined in the Ishikawa diagram (see Appendix, Figure 1). Most significant, was the lack of standardization in the workflow and lack of consensus among providers for which screening tools should be administered at postpartum visits. This had resulted in a variation of PPD screening tools used and variance on timing of administration.

PDSA cycle #1. The plan-do-study-act (PDSA) model for improvement was applied as a framework to assist in planning and promoting effectiveness of this project. Initial interventions included standardizing the workflow (see Appendix, Figure 2) and meeting with stakeholders for an educational in-service to review the proposed workflow, project goals and timeline (see Appendix, Figure 3). Two separate meetings were conducted in early December with the medical assistant group and all of the providers. The educational in-service presentation was given to both groups which included an overview of the significance of PPD in Latina women, the consequences of undiagnosed and untreated PPD among women and their children, recommended PPD screening practices, and proposal to implement both GAD7 and EPDS screening tools at every 2 and 6-week postpartum visit. To identify additional barriers, a checklist was created (see Appendix, Figure 4) for medical assistants to document postpartum visits and record whether screening was performed. Most importantly, the checklists were used to identify barriers that resulted in incomplete screening. The first PDSA cycle did not begin in December as anticipated in the initial planning phase due to challenges faced in communicating plans with key stakeholders.

The first cycle was pushed back and began in January, running for a total of four weeks. After completion of the first cycle, the process was studied as noted in Appendix, Figure 5. The data and checklists were reviewed for completion; medical staff were additionally interviewed for suggestions for improvement in subsequent cycles. The challenge of the first cycle included incomplete completion of the checklist. Further interviewing revealed that the medical assistants forgot to keep track of the checklist. In preparing for the subsequent PDSA cycle, a plan was made to identify a medical assistant champion to track patients on the checklist and include more frequent check-ins by the OB lead clinician and investigator.

PDSA cycle #2. The second cycle ran for four weeks through the second half of February into March. More frequent check-ins revealed the checklist was still not being completed by the medical assistant team. A plan was made to identify and assign a champion who would enforce checklist completion and report weekly with the investigator. The champion identified was the medical assistant supervisor who suggested placing the checklist on the huddle board as a daily reminder to complete the screening. There was a challenge in communication with the medical assistant supervisor/champion midway through the cycle. Various calls and emails were not responded to and subsequent communication with the OB team lead clinician revealed the assigned champion had gone on a medical leave. Further brainstorming and planning resulted in assigning this role to the OB team lead clinician who agreed to do routine check-ins and provide updates on the checklist. A total of two weeks were captured on the checklist, highlighting additional barriers that included time constraints and patients leaving without completing the screening. At the end of the second PDSA cycle, the process was studied as noted on Appendix, Figure 5 and a report was received with all postpartum encounters.

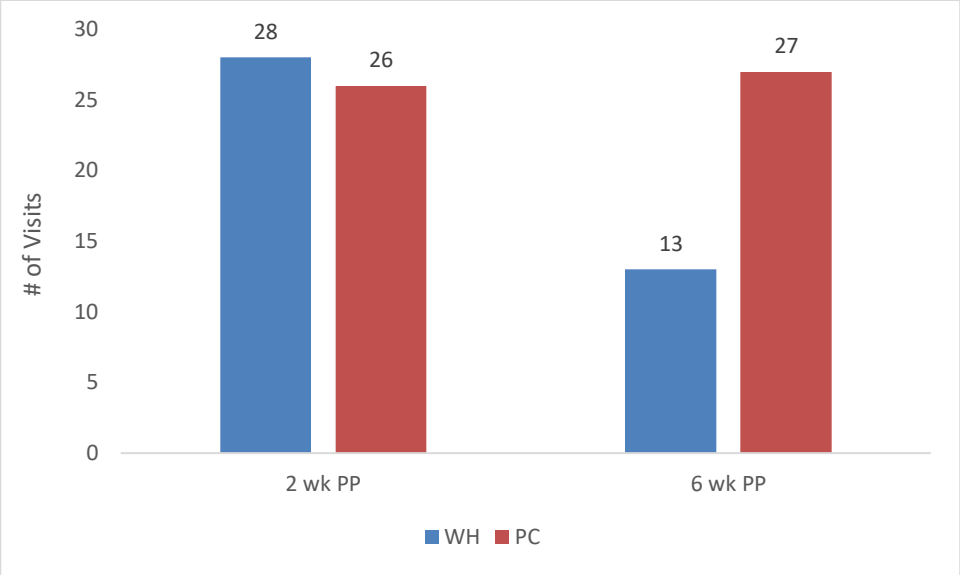
PDSA cycle #3. A third PDSA was planned to run for four weeks through the second half of March into April. The primary intended goal for this final cycle was to address and improve the identified barriers on the checklist. However, with the physical distancing restrictions due to the Covid-19 pandemic, dramatic changes in-person outpatient visits and clinic workflow prevented completion of the third PDSA cycle of this quality improvement project. Data reports were obtained for all postpartum encounters during the two PDSA cycles. Data were analyzed and compared to predictions and identified goals.

Results

Over the course of this quality improvement project, data were obtained from an Epic analyst who provided reports for every postpartum encounter including date of service, visit type, weeks since delivery, department name and documented screenings (GAD7, EPDS). Reports received from all postpartum encounters revealed that a significant number of patients who received antepartum care at the women's health clinic were lost to care at that site during the postpartum period. Figure 6 illustrates the number of postpartum visits that were conducted at the women's health center and patients who had their postpartum follow up in primary care.

Figure 6

Location of Postpartum Visits



Note. WH = Women's Health; PC = Primary Care; wk= weeks; PP = Postpartum.

At two weeks postpartum, 48% of the postpartum encounters were conducted with primary care. The amount was considerably higher at six weeks postpartum with 67% of the postpartum visits conducted with primary care.

Pre-implementation data were collected for 3-months (October-November) prior to initiating the first PDSA cycle. Table 1 outlines the total number of postpartum visits that were conducted and the number of completed screenings at the 2 and 6-week postpartum visits. Figure 7 illustrates the percentage of PPD screenings performed prior to any interventions and subsequently after each PDSA cycle.

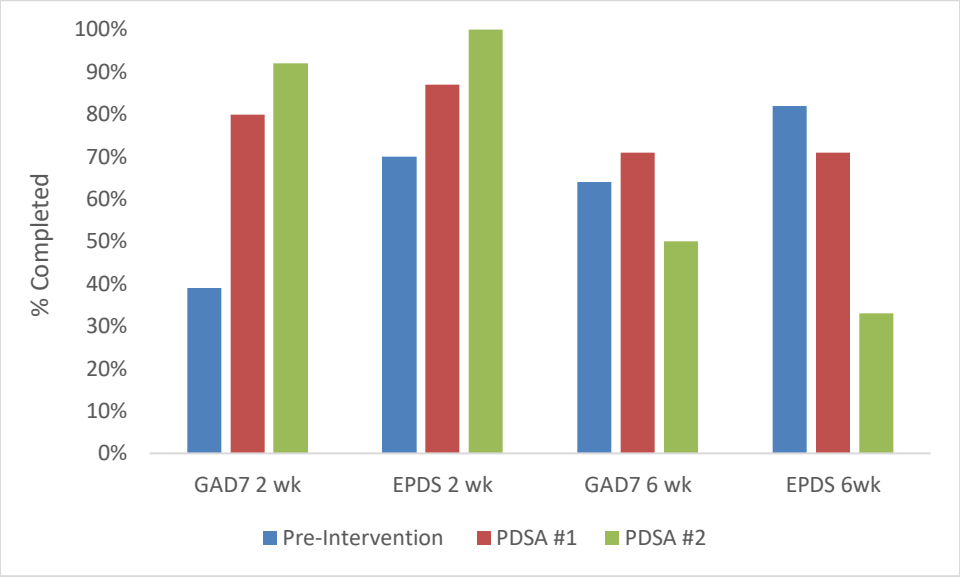
Table 1.

Postpartum Visits and Completed Screening

	Total Visits		Completed Screening			
	2wk PP	6 wk PP	GAD7 2 wk	EPDS 2 wk	GAD7 6wk	EPDS 6wk
Pre-Intervention	44	11	17	31	7	9
PDSA Cycle #1	15	7	12	13	5	5
PDSA Cycle #2	13	6	12	13	3	2

Figure 7

PPD Screening Rates Before and During Project Implementation



Note. GAD7 = Generalized Anxiety Disorder-7; EPDS = Edinburgh Postnatal Depression Scale; PDSA= Plan-Do-Study-Act; wk = weeks.

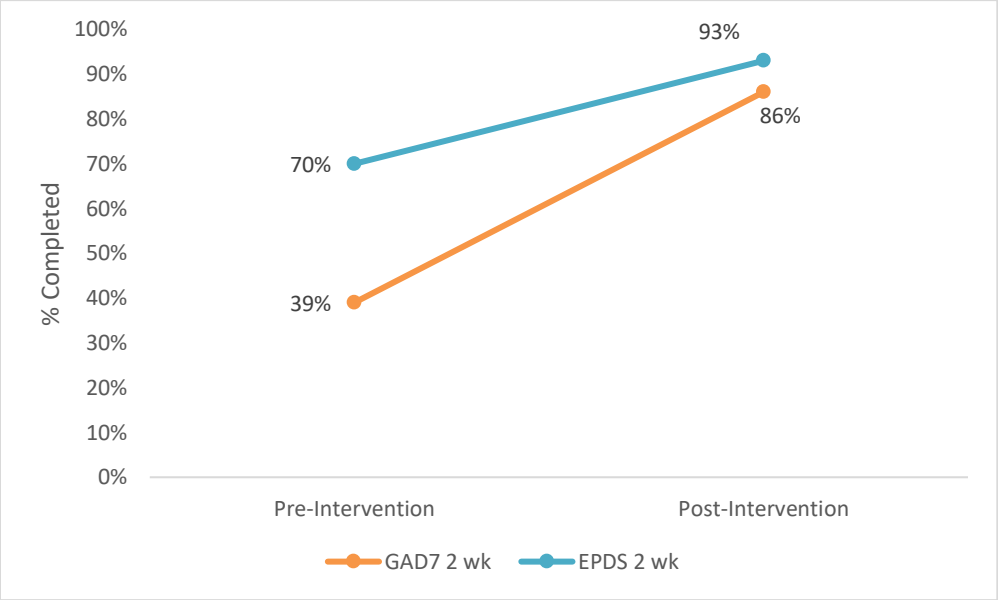
Over a three month period prior to project implementation, the women's health center at Virginia Garcia Memorial Health had a 2-week postpartum GAD-7 completion rate of 39% (17 completed screenings out of 44 2-week postpartum visits) and an EPDS completion rate of 70% (31 completed screenings out of 44 2-week postpartum visits). The completion rates at 6-week postpartum were 64% (7 completed screenings out of 11 6-week postpartum visits) for the GAD-7 screening and 82% (9 completed screenings out of 11 6-week postpartum visits) for the EPDS. The identified specific goal was to increase PPD screening rates to 80% for both GAD-7 and EPDS screening at 2 and 6-weeks postpartum. This was achieved after completion of each PDSA cycle, at the 2-week postpartum visits (PDSA #1: GAD7= 12/15 80%, EPDS= 13/15 87%; PDSA #2: GAD7= 12/13 92%, EPDS= 13/13 100%), but not the 6-week postpartum visits (PDSA #1: GAD7= 5/7 71%, EPDS= 5/7 71%; PDSA #2: GAD7= 3/6 50%, EPDS= 2/6 33%). Although it is

important to note that the 6-week postpartum screening rates are out of a much smaller number of postpartum visits.

In terms of quality improvement efforts, post-implementation screening rates including data from both PDSA cycles, reflect an overall improvement in PPD screening for both GAD7 (47% increase) and EPDS (23% increase) screenings at 2-weeks postpartum (see Figure 8). In contrast, the post-implementation 6-week postpartum screening rates saw reductions of 2% for GAD7 and 28% for EPDS compared to pre-implementation data (see Figure 9).

Figure 8.

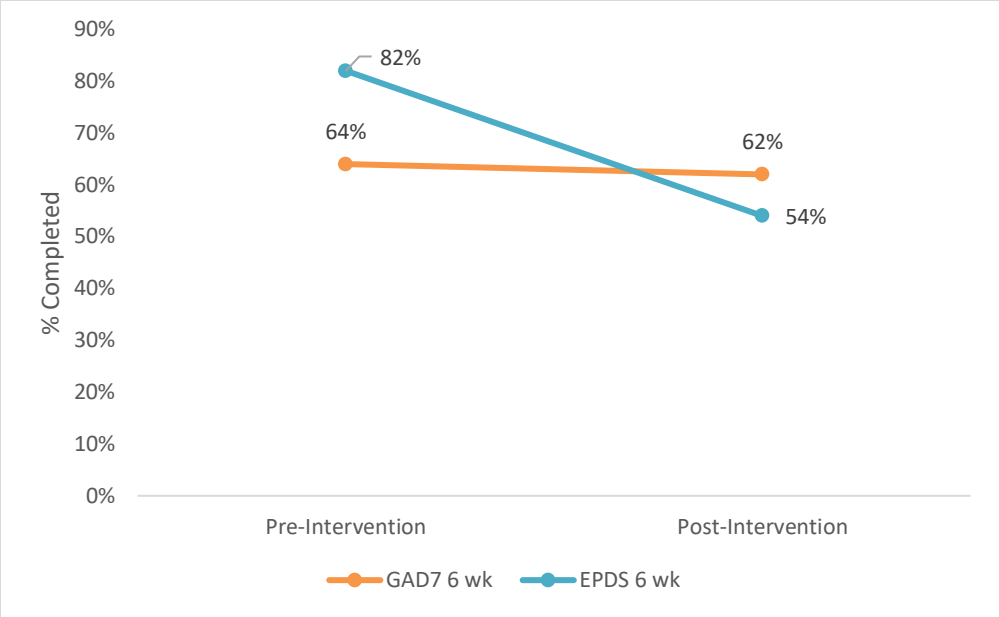
2-Week PPD Screening Rates Before and After Project Implementation



Note. GAD7 = Generalized Anxiety Disorder-7; EPDS = Edinburgh Postnatal Depression Scale

Figure 9.

6-Week PPD Screening Rates Before and After Project Implementation



Note. GAD7 = Generalized Anxiety Disorder-7; EPDS = Edinburgh Postnatal Depression Scale

Unintended consequences

Communication. Various unintended consequences resulted throughout the course of this quality improvement project. An ongoing challenge was the paucity of communication with key stakeholders. The success of this project relied heavily on the communication of project progress and barriers identified by the key stakeholders, most importantly, the medical assistant team who administer and document the PPD screenings. The addition of a checklist was initially implemented as a way of identifying barriers and communicating findings. However, it resulted in little use and added an additional step to the already demanding rooming process for medical assistants. This could have perhaps been mitigated early on if a champion was assigned from the beginning to promote ongoing communication.

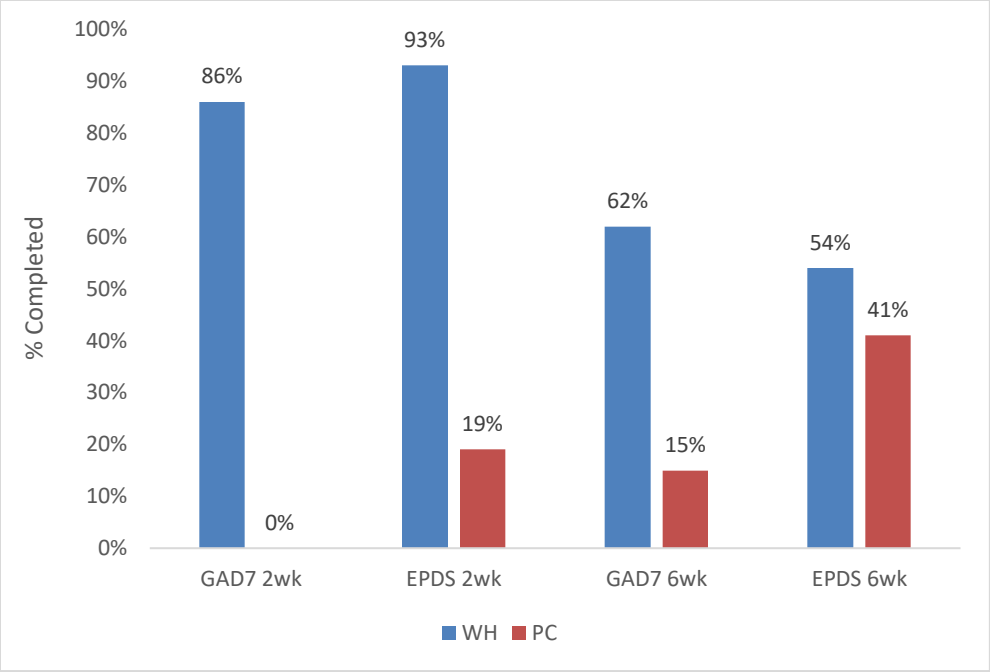
Relevance of the GAD-7. The acceptance of GAD-7 as a screening tool in the postpartum period was questioned by various health care providers who showed preference to the EPDS.

However, anecdotal evidence from a handful of providers recognized that in this specific patient population, symptoms of anxiety often masked those of depression, highlighting the potential relevance of including the GAD-7 as a postpartum screening tool in conjunction with the EPDS.

Primary care involvement. A large portion of patients were lost to primary care in the postpartum period. Further discussion with the OB lead clinician revealed that transfer of postpartum care to primary care was likely due to the initiation of newborn care at primary care sites. Coupling postpartum visits with newborn exams provides patients with access to care, while removing barriers such as transportation. Additional review of primary care data revealed that PPD screening rates at the primary care settings were much lower than at the women's health center (see Figure 10). Postpartum depression rates were well below 50% for both screening tools at both the 2 and 6-week postpartum visits. However, it is unclear if other screening tools were administered in place of the EPDS and GAD-7.

Figure 10.

Differences in PPD Screening Rates at WH and PC



Note. GAD7 = Generalized Anxiety Disorder-7; EPDS = Edinburgh Postnatal Depression Scale; wk = week; WH = Women's Health; PC = Primary Care.

Discussion

Summary

The project outcomes of this improvement project identified an overall increase in postpartum depression screening rates for both the GAD-7 and EPDS at the 2-week postpartum visit. The data analysis showed an improvement in PPD screening rates from 39% to 86% in GAD7, and 70% to 93% in EPDS screening at 2-week postpartum visits (see Figure 8). These results met the expected outcomes of the project initiative which were to increase PPD screening rates to 80%. An unexpected result was the overall decrease in PPD screening rates at the 6-week postpartum visits. The data analysis showed a decrease in PPD screening rates from 64% to 62% in GAD7, and 82% to 54% in EPDS screening rates (see Figure 9). Although these results are based out of a much smaller data set due to patients transferring care.

This improvement project served as an opportunity to increase health care providers' awareness of the significant racial-ethnic disparities Latina women face in PPD and encourage the need to provide effective PPD screening with a standardized and validated screening tool. There is a general consensus that recommends assessment of mood and emotional well-being in the perinatal period by the American College of Nurse-Midwives (2013), the American College of Obstetricians and Gynecologists (2018), and the U.S. Preventative Services Task Force (O'Connor, Rossom, Henninger, Groom & Burda, 2016). Despite these recommendations, there continues to be a gap with PPD screening as a standard of care, as evidenced by the low 6-week PPD screening practices at this practice. However, the overall use of this project was deemed fruitful by the OB lead clinician who acknowledged the positive results in increasing the PPD screening rates at 2-week postpartum visits, while highlighting areas that still need improvement.

Interpretation

Analysis of the project outcomes note an improvement in PPD screening practices at the 2-week postpartum visits but a reduction at 6-week postpartum visits. Even though PPD screening is considered to be a standard of care, this project revealed inconsistent screening practices, perhaps resulting in missed opportunities to appropriately identify Latina women at risk for PPD. When comparing both screening tools, there was an overall better adoption of the EPDS screening tool at both the women's health center and in the primary care settings during the study timeframe. Anecdotal evidence cited by a handful of health care providers within this organization note the relevance of including the GAD-7 screening tool in conjunction with the EPDS for this patient population. Limitations of the EPDS include its inability to distinguish

anxiety disorders from depression in postpartum mothers, perhaps supporting the idea of including postpartum anxiety screening through the adoption of GAD-7 tool (Rowe, Fisher & Loh, 2008). Although there is much less evidence supporting screening for postpartum anxiety in comparison to PPD, screening for postpartum anxiety is still recommended and considered useful (Matthey, 2004; Mauri et al., 2010 & Simpson, Glazer, Michalski, Steiner & Frey, 2014), and has shown to be a predictor for depression (Ross, Evans, Sellers & Romach, 2003).

An unexpected project outcome was the change in care settings at the 6-week postpartum visit. A large portion of the women who received antepartum care at the women's clinic had postpartum follow up care at their respective primary care settings (see Figure 6). This was not anticipated as it had not been identified in the planning phase prior to initiating the PDSA cycles. The low rates of PPD screening in the primary care settings pose a significant threat to Latina women who are already at an increased risk of experiencing PPD (Lara-Cinisomo, Girdler, Grewen & Meltzer-Brody, 2016; Callister, Beckstrand & Corbett, 2011; Gress-Smith, Luecken, Lemery-Chalfant & Howe, 212). This further highlights the importance of incorporating routine PPD screening in primary care settings, however it is unclear from this project if other depression screening tools were administered in place of the EPDS and Gad-7.

A consequence of the Covid-19 pandemic raises potential negative implications for postpartum mental health. As described by the OB lead clinician, the pandemic resulted in more than 50% of visits being conducted via telemedicine. This significantly impacted PPD screening practices since a workflow was not in place for medical assistants to administer the PPD screening tool directly to patients.

The checklist was initially created as a tool to identify barriers to completion of the screening tools in real time. The challenges with acceptance and adoption of the checklist primarily came from the medical assistant team who viewed the checklist as an additional step to an already demanding workflow. However, basic formatting of the checklist and placement in a centralized location assisted with completion in the second half of the second PDSA cycle. This identified additional barriers including time constraints and patients leaving without completing the screening. Intent to address these barriers was planned for the third PDSA cycle which could not be completed due to COVID-19. Continued use of the checklist has potential to provide additional information should the clinic continue its work towards improving PPD screening.

The communication challenges experienced throughout this improvement project were potentially influenced by the role of the student in the clinic. Perhaps communication would be improved if the student was based in the clinic at the time of the project. By being embedded in the clinic, the student could have had a stronger presence to push the project forward. Additionally, the medical assistant team could have been more receptive to change and completing the checklist if it was coming from someone invested in the clinic.

Limitations

A significant limitation to this quality improvement project was the inability to make important adjustments in the third PDSA cycle due to the unexpected circumstances of COVID-19. A final PDSA cycle was not conducted, potentially masking further relevant changes and findings.

Future Directions

Recommendations for best practice include continued surveillance of PPD screening rates within this organization. This may be more relevant during the COVID-19 pandemic as it may provide useful information for alternative methods of screening and/or practice implications related to emergency preparedness and availability of mental health services. Future efforts should work on improving PPD screening rates at the 6-week visits in both the women's clinic and primary care settings of this organization. Additionally, further investigation on why patients should up for postpartum care at different settings and what patients get lost to care all together. Future quality improvement projects can extend educational PPD in-service to primary care settings and conduct similar PDSA cycles.

Greater adoption of the GAD-7 screening tool may result if there is data that support its use in the postpartum period. Future work may include capturing results of both screening tools and comparing the scores among this specific population. A greater number of positive GAD-7 screenings may support the notion that anxiety symptoms mask depression symptoms in the Latina population. Furthermore, additional work in investigating health outcomes may be beneficial to this organization in highlighting the use of comprehensive mental health services by this population.

Conclusion

There is a striking prevalence of PPD in Latina women compared to their non-Latina counterparts. Addressing the racial and ethnic disparities of Latina women is imperative in early recognition of PPD and increasing access to treatment. This quality improvement project aimed to increase compliance and decrease variability of PPD screening practices among providers through the implementation of an educational in-service on PPD, standard workflow, and

checklist that encourages routine PPD screening with a combination of EPDS and GAD-7 tools, both of which are validated for Spanish-speakers. More specifically, the specific aim was to increase the overall PPD screening rates to 80% at the 2 and 6-week postpartum visits. The findings indicate an increase in PPD screening rates for both screening tools at the 2-week postpartum visit but not at the 6-week visit. Additional findings highlight the low rates of PPD screening in primary care, despite the higher number of encounters conducted there. This quality improvement project identified actionable approaches that can continue to improve standardization of PPD screening practices and promote early recognition and prompt treatment of PDD among Latina women.

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Appendix

Figure 1.

Ishikawa diagram for PPD Screening

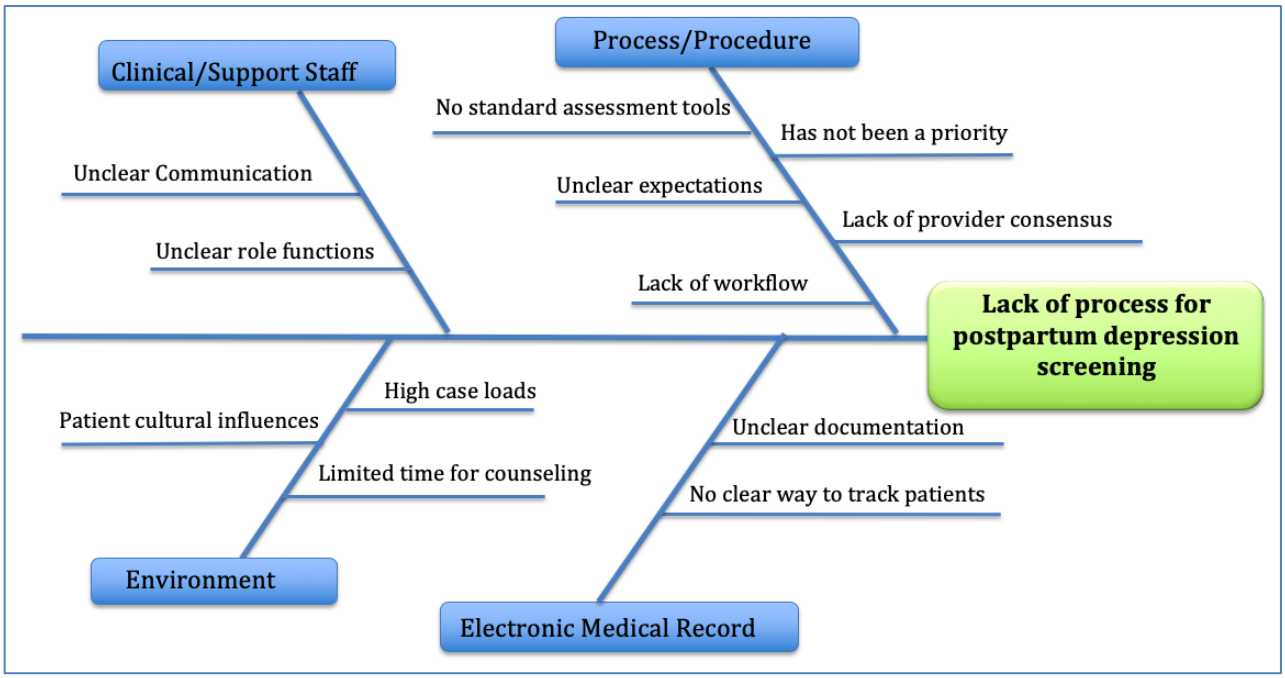

Figure 2.

PPD Screening Workflow

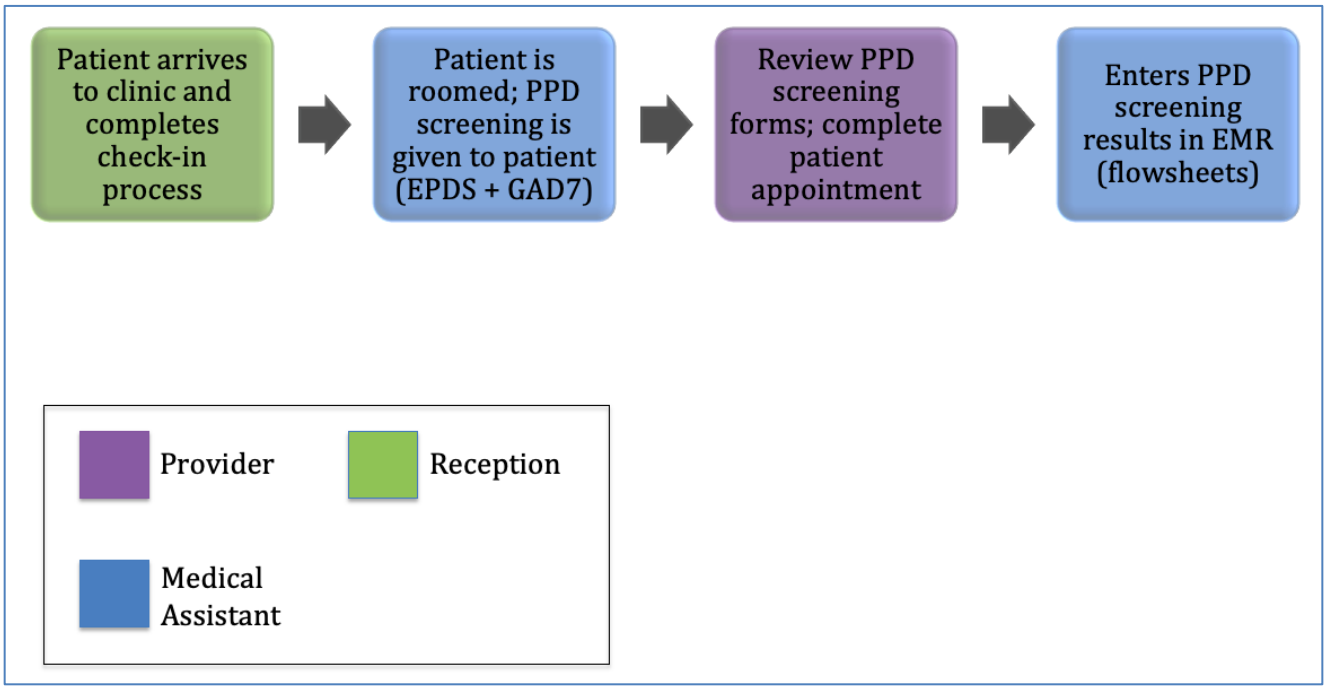

Figure 3.

Proposed vs. Actual Project Timeline

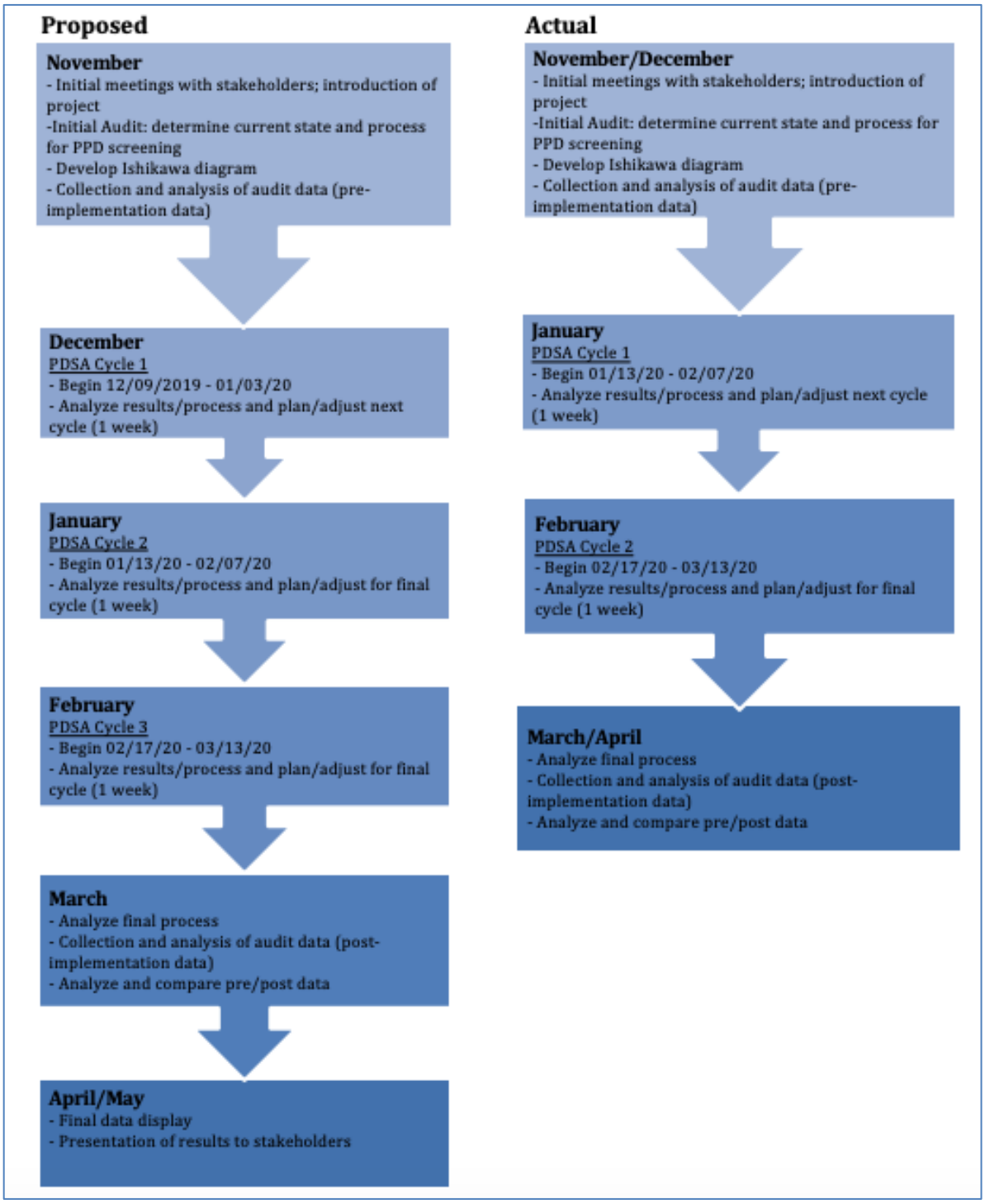

Figure 4.

Checklist for Postpartum Visits

Date	2 wk PP	6 wk PP	EPDS	GAD-7	Not completed- note barriers

Figure 5.

PDSA Cycles