

**Improving Perinatal Depression Screening in African American Women of Low  
Socioeconomic Status**

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March 14, 2023

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## **Abstract**

### **Introduction**

Perinatal depression (PND) has remained a prevalent disorder that affects women worldwide, while disproportionately affecting African American (AA) women due to racial disparities. This project's purpose was to educate healthcare providers on the importance of screening AA women at the initial prenatal visit, to include cultural competency on this population of women in order to improve attitudes and acceptability of perinatal depression screening, and to determine rationale for continued post-partum screening only.

### **Methods**

Providers were surveyed with the 9-question PND Attitudes and Screening Acceptability Questionnaire (PASAQ). Following the survey, participants viewed an educational presentation via PowerPoint that included cultural competency and the importance of initiating the screening tool at the initial prenatal visit. Providers then collected and recorded data daily for 4 weeks on an Excel spreadsheet in several categories including patient demographics and depression screening practices. Healthcare providers completed the PASAQ again after the 4 weeks of data collection.

### **Results**

The findings indicated that by educating providers, there was a greater level of understanding of how perinatal depression affects AA women. Pre-intervention, 50% of participants reported screening patients for depression at the first prenatal visit. Postintervention, 100% of participants reported screening patients for depression at the first prenatal visit. Although not statistically significant ( $p=0.276$ ), these findings were clinically significant.

### **Discussion**

Providing cultural education before screening is helpful to clinicians to improve attitudes and acceptability of perinatal depression screening in African American women of low socioeconomic status. Initiating screening tools at the initial prenatal visit drastically reduces the time for women to receive treatment for PND and improves outcomes for maternal, fetal, and infant patients.

**Keywords:** Perinatal depression, African American women, low socioeconomic status, health care disparities, cultural competency

## **Improving Perinatal Depression Screening in African American Women of Low Socioeconomic Status**

Due to health and racial disparities, African American women typically do not receive adequate health care, including mental health services (Matthews et al., 2021). This project sought to understand the needs of African American women of low socioeconomic status and address racial disparities in perinatal depression (PND) while emphasizing the need for depression screening at the initial prenatal visit. Providing a framework to help healthcare providers assess depression within this population with cultural competence promotes the overall health of these underserved patients (Hernandez et al., 2022).

### **Background**

Depression during pregnancy or the first twelve months after childbirth is known as PND. One in seven women suffers from this form of depression within the first year of motherhood (The American College of Obstetrics and Gynecology [ACOG], 2018). Worldwide, 10% of pregnant women and 13% of women who have just given birth experience depression (World Health Organization [WHO], 2021). The estimated rates of PND are between 10-25% depending on the socioeconomic status (Grimbergen et al., 2017). Specifically, PND has a significantly higher risk in new mothers of color (Bauman et al., 2020). Prenatal depressive symptoms are elevated in up to 28% of African American (AA) women of low socioeconomic status, relative to the national average of 20% (Lara-Cinisomo et al., 2018). Because of this disparity, factors contributing to depression must be understood and addressed. The National Institute of Mental Health (NIMH [2020]) describes PND as feelings of sadness, anxiety, and fatigue.

The significance of this clinical problem highlights the issues of mental health, particularly PND, in the group of pregnant AAs. By addressing this topic, adverse maternal,

fetal, and infant outcomes such as miscarriage, preterm delivery, preeclampsia, low birth weight, psychological disorders, and suicide, may be decreased (Niel & Payne, 2020). The current standard of practice to assess for PND uses the Edinburgh Postnatal Depression Scale (EPDS). As a self-reporting 10-item questionnaire, the EPDS is used to measure depressive symptoms in perinatal patients (Levis et al., 2020).

Although PND is a common disorder in pregnancy, this condition often goes undertreated and undetected within this vulnerable population (Legere et al., 2017). Recent findings show that AA women are less likely to be screened than white women (Sidebottom et al., 2020). There is a lack of knowledge of what PND is within this community; therefore, AA women are less likely to report signs and symptoms of depression (US Department of Human and Health Services Office of Minority Health [OMH], 2019). There are also many barriers including stigma, historical mistrust of the healthcare system, lack of competent multicultural providers, and use of public insurance versus private insurance or not having insurance at all (American Psychological Association [APA], 2017).

### **Problem Statement**

AA women are screened less for PND compared to other race groups and are not receiving appropriate treatment/services promptly (Sidebottom et al., 2020). There is limited information in the current research that discusses the effects of PND in AA women within a lower socioeconomic status including rates, patient outcomes, and impact. AA women are less likely to receive evidence-based treatment and are often not included in research samples (APA, 2017). By examining the racial and ethnic disparities, identifying risk factors, and initiating early screening for PND, more women within this population can potentially be diagnosed and treated earlier.

## **Organizational "Gap" Analysis of Project Site**

The project was implemented at a large academic medical center in the obstetrics/gynecology (OB/GYN) clinics. This clinic was chosen due to the lack of PND screening at the initial prenatal visit. Screening is only initiated in these clinics if the mother has a history of PND or other mental health disorders such as pre-pregnancy depression, bipolar disorder, or anxiety and if the patient is currently taking medication for any of these. Identifiers do not populate in the medical record to remind providers to assess or continue to monitor patients that are at risk after the initial screening.

Most of the patients at the clinic are African American (AA) and Hispanic women of low socioeconomic status and are on public insurance, such as Medicaid or Children's Health Insurance Program (CHIP). According to The American College of Obstetrics and Gynecology [ACOG, 2018], universal guidelines state to screen all women during the pregnancy and postpartum period. However, they do not explicitly give a specific time frame to complete the screening.

There is an increased need for cultural competency guidelines navigating how to assess AA women appropriately related to PND (Matthews et al., 2021). Clinicians can gain cultural competency by reviewing culturally responsive models of treatment which dissect systemic barriers, stressors that AA women face when seeking professional help, and how to empower this population through relationship building and cultural humility (Nelson et al., 2021). As stated by Stubbe (2020), some subjects to focus on as part of being culturally responsive are "bias, stereotyping, prejudice, and clinical uncertainty." (p. 49).

PND cultural competency courses should be provided within OB healthcare provider training so that the patients are managed to the full extent of the ACOG guidelines. A bridge of

continuum care between psychiatry and OB should be maintained to provide safe, accessible services so that patients will have prompt follow-up care (Iturralde et al., 2021). Lastly, placing identifiers to appear in the electronic medical record system (EMR) on perinatal patients is necessary for providers to be aware of the risk.

### **Review of the Literature**

The literature search encompassed a date range between 2017 to 2023 and included two databases, PubMed and Cinahl. The journal articles comprised of cross-observational studies and randomized control trials. When previously searching on this topic, the amount of literature seemed to wane at different times. Predating 2016, a vast amount of literature examined the importance of assessing and treating this population and how the information was still limited, but many articles contributed to the research. Post-2016 until 2020, research seemed to dwindle with explicit information on AA women and PND. Also, PND was not a significant topic, and the main topic of interest that had multiple findings was postpartum depression. As the databases were searched for each subsequent year up to 2023, there has been increasingly more information discovered, but still very limited when comparing how PND affects different cultures, particularly the AA culture.

The search was formulated around the PICOT question involving AA women within the perinatal population. A search also included AA or Black women and cultural competency with mental health services. The primary intervention was screening for PND at the initial prenatal visit compared to screenings later in pregnancy or the postpartum period, with the outcome being a risk reduction of PND. In relation to cultural competency, the relationship between AA women and help-seeking attitudes while dealing with mental health disorders was reviewed.

The electronic search consisted of Medical Subject Headings (MeSH) terms "African American," "perinatal depression," "depression screening," and "cultural competency." The literature search results were reviewed and screened based on the relevance of PND and help-seeking attitudes among AA women by reading the abstract. After reading and reviewing the abstract, if there was sufficient information found based on the eligibility criteria, the full text was then analyzed. The criteria considered were: 1) demographics that included AA women compared with other populations based on race; 2) if there was a screening tool used to assess for PND; 3) having low income as a risk factor for depression; 4) discussion of cultural mistrust or reasons why AA women preferred not to seek help for mental health disorders and 5) was published in English.

Data extraction for each study included sample size, age, race, clinical setting, instruments used to assess for PND, if the participants' economic status caused an increased risk for PND, the possible risk factors that could lead to PND, and how clinicians could support this population in management. The data extraction process was manual, with data points pulled from each article read. Data is grouped within each article to maintain the integrity of each study. The assumption in the data set for patients with low socioeconomic status included an annual income of less than \$20,000 a year and that the patient was on Medicaid during the study. The assumption of the clinical setting was that the patients were only seen in an OB/GYN clinic.

The studies did not utilize specific tools to assess the risk of bias. To account for possible bias in the studies, if the patients were discovered to have had a data or classification error during the study, that patient was removed from the sample population during the data analysis phase. Regarding the risk of bias, most of the studies relied on self-reporting from patients included in the sample size, resulting in explicit or implicit bias. Some articles suggested analyzing patient

medical records and comparing their history to their surveys to verify data analysis consistency in the outcome levels to consider the possible risk of bias from self-reporting.

The data analysis strategy was to analyze each data set based on the information of the original article/study to ensure the strongest correlations to support the conclusions. If the two articles' outcomes were similar or identical, the two articles' data sets were compared to understand better the effect of race and socioeconomic status on the incidence of PND and how cultural competency could reflect positive management in treatment for this group of pregnant women.

There was an exclusion of other systematic reviews and meta-analyses and level five or below evidence articles. There was an inclusion of randomized controlled trials, cross observational studies, and other level two to four evidence articles. The excluded articles were of limited relevance, incorrect clinical setting, narrow population demographics, and lower evidence levels.

A total of 55 articles were identified through the literature search. After removing duplicates, a total of 52 articles were then screened. There were 39 studies excluded from the review due to not having full text with abstracts. Thirteen articles were found to have full text. Five of these studies were excluded and a total of eight studies met the eligibility criteria to be included in this review.

A total of 8,780 women were included in these eight studies, with a median sample size of 302 (range, 67-7548). Three studies included pregnant women only, and five studies included both pregnant and postpartum women. The samples consisted of women who either had a history of depression and did not have a current episode, were currently being treated for PND, or actively taking antidepressants to prevent depressive symptoms. The settings were based in

obstetrics and gynecology clinics and psychiatric clinics. All studies were conducted in the United States, and the ages ranged from 18-45.

### **Prevalence of Perinatal Depression**

Hernandez et al. (2022) examined the prevalence of perinatal depressive symptoms among AA women residing in an urban community. When compared to white women, AA women are more likely to develop perinatal mood and anxiety disorders. A higher prevalence has been discovered in communities of younger, single AA women who are publicly insured (Hernandez et al., 2022). There is substantial evidence that mothers of other minority groups are at greater risk than white mothers for PND, yet it is unknown how much of this difference is explained by socioeconomic factors (Kinser et al., 2018).

Sidebottom et al. (2019) reviewed factors associated with timing, prevalence of perinatal screening in pregnancy and the postpartum period. The article notes that there is limited information on the prevalence of antenatal screening for depression due to providers self-reporting on surveys. The information may be inaccurate due to self-reporting. Sidebottom et al., (2019) also noted that the site of screening determined the prevalence of screening, in which an obstetrics clinic was the most likely place that screening for PND occurred, especially if the clinic identified screening as a high priority.

### **Predictors of Perinatal Depression**

Powers et al. (2020) states that AA women who live in a low socioeconomic area are shown to have increased depression symptoms due to life stressors and trauma history. Two articles included African American women explicitly showing how a history of trauma in childhood or pre-pregnancy could contribute to PND symptoms (Hernandez et al., 2022 and Powers et al., 2020). Hernandez et al. (2022) found that women who had a history of adverse

childhood experiences also expressed low self-esteem linked to symptoms of PND. Powers et al. (2020) reported that persons living in lower socioeconomic areas are at an increased risk for traumatic events, which can result in mood and anxiety disorders, including depression. There was also a strong association between those with PND who had less education and income (Powers et al., 2020).

### **Tools to Identify Perinatal Depression**

There is a need to assess PND earlier in pregnancy using culturally sensitive instruments for the target population (Hernandez et al., 2022). The Patient Health Questionnaire (PHQ-9) and Edinburgh Postnatal Depression Screening (EPDS) were used as instruments to assess women for PND in three of the studies (Jesse et al., 2017; Siddebottom et al., 2020; Stevens et al., 2018). Alternatively, Kinser et al. (2018) assessed for depression using Composite International Diagnostic Interview – Short Form (CIDI-SF), which consists of two questions inquiring about PND over two weeks, as well as the Symptom Checklist-27 (SCL-27) which uses a 5-point Likert scale to assess for symptoms of depression. The reliability of the SCL-27 is questionable due to there not being a standard cutoff score. In this study, the cutoff was 11, and the specificity was 85%, but without a known score, it is unknown if this number is too high or too low. Stevens et al. (2018) and Powers et al. (2020) additionally used the Beck depression inventory-II (BDI-II), which is a 21-item questionnaire assessing depression symptom severity. The study reported that the instrument has high test reliability but does not state for the actual study.

There is limited information on specific tools that are culturally sensitive for certain populations. Price & Handrick (2009) designed a screening instrument based on community informed items to screen for specific psychological properties of AA women. The Center for Epidemiologic Studies Depression Scale (CES-D) with population-specific tag-on questions was

identified as a potential instrument with high validity. Culturally informed screening tools should be developed and used to provide specific psychological information relevant to specific populations.

The EPDS has been a longstanding tool that has been used to assess postpartum depression symptoms but can be used antenatally. Knowing that the PHQ-9 can offer the same structured exam and yield the same results could be an alternative to the EPDS. More research would have to be completed to assess the validity of the other tools mentioned.

### **Barriers to Screening for Perinatal Depression**

While there were no significant disparities in screening prevalence in the antenatal period, AA women on Medicaid or Medicare were less likely to be screened than privately insured white women (Siddebottom et al., 2020). Stevens et al. (2018) noted that while there may be barriers to screening and treatment because of being socioeconomically disadvantaged, AA women in their study were more engaged in perinatal depression treatment. Contrary to this finding, Powers et al. (2020) discussed that mental health treatment, whether counseling or medication, was not highly sought due to barriers. Examples of consequential barriers of being screened and receiving treatment for PND include mistrust in the healthcare system, including the healthcare provider, the stigma of seeking help, and implicit and explicit biases (Hernandez et al., 2022 and Powers et al., 2020). Other risk factors include social, familial, or economic concerns, mental health and trauma history, and other challenges that would prevent access to care or prevent this population from seeking care (Powers et al., 2020 and Stevens et al., 2018).

### **Education on Cultural Competency**

Due to the lack of education and professional development, PND often goes undetected (Legere et al., 2017). Educating healthcare providers to be equipped with the tools to screen and

manage perinatal depression in AA women would address the challenges of mistrust of clinicians (Matthews et al., 2021). Many AA women are uncomfortable speaking about their mental health to their providers due to difficulty relating to the patient or interpreting their feelings as anger or frustration. By educating providers on the emotions of AA women and understanding how PND affects this population, providers will be able to screen and treat for PND more effectively.

### **Evidence-based Practice: Verification of Chosen Option**

The evidence-based practice option chosen for implementation was to shift perinatal screening from the postpartum period to the initial prenatal visit by providing culturally sensitive education to healthcare providers related to AA patients. ACOG (2018) recommends universal screening for depression for all women during pregnancy and the postpartum period. The American College of Nurse Midwives (ACNM, 2020) states that all perinatal women should be evaluated for depression at least twice during pregnancy and at regular intervals in the postpartum period with specific, explicit measures to consider the woman's medical and family history, trauma history, substance abuse history, and domestic violence history.

The PICOT question was: Would providing education to providers on cultural competency related to African American patients improve perinatal depression screening rates at the initial prenatal visit and attitudes and acceptability of perinatal depression screening compared to preintervention rates, attitudes, and acceptability over a four-week period?

### **Theoretical Framework or Evidence-based Practice Model**

The middle-range theory selected for this topic was Afaf Meleis's middle-range Transitions Theory. This theory focuses on "the human experiences, responses, and the consequences of transitions on the well-being of people" (Meleis, as cited in Fawcett, 2017, p. 347). The central concepts of the Transitions Theory are the types and patterns of transitions,

properties of the transition experience, the conditions of the transition (facilitators and inhibitors), the transition's process, the transition's outcome, and the nursing implications (Im, 2021). The different transitions are developmental transitions, health and illness transitions, situational transitions, and organizational transitions. Another aspect of this theory to consider was the impact of the change, whether personal, community-wide, or societal. To complete a smooth transition, the possibility of how the population could be impacted must be considered.

For healthcare providers, this was an organizational transition of changing the traditional protocol of screening for PND at the end of pregnancy or in the postpartum period to screening at the initial prenatal visit. This theory helped navigate how to educate healthcare providers while introducing the new protocol. To initiate change, one must first assess the population's readiness to participate in the practice. Most providers in the clinic setting were trained to assess depression in the third trimester and three weeks after delivery.

To determine who would benefit from this change, stakeholders were identified. The stakeholders, in this case, were AA pregnant women and healthcare providers. Knowing this information helped understand how to implement the change and evaluate the outcome.

Meleis (2010) discusses how by understanding the attitudes and beliefs of a person, one can understand how to approach the person or group when beginning the transition. Healthcare providers can come from different walks of personal life, but the goal is to provide the utmost care for patients. Understanding one's personal beliefs and attitudes helps guide how to train others. By asking questions and interviewing, one can assess everyone's learning curve and provide more education in the areas where there is a gap.

The next property Meleis (2010) mentions to facilitate change is to be aware of possible inhibitors. This can include barriers to learning, possible fear of change, lack of consistency, and

individual resistance to change. Some barriers to learning could be based on past experiences or having a different learning style. The learner or the educator could show a lack of consistency. The learner must attend all training sessions, and the instructor must provide accurate information in a timely manner. Change resistance stems from apprehension about the effects of what would be new (Meleis, 2010). Many people have security in tradition and asking someone to change a behavior can make someone feel like their autonomy is at risk. Allowing the learner to be involved in change activities and providing skills to support the process can stimulate a positive attitude towards the outcome.

Meleis (2010) labels the next stage of the Transition Theory as a critical event that could also be considered an intervention. The intervention for the health care providers changing protocol is education and training. Meleis (2010) states that clarifying roles and competencies during the intervention and identifying milestones of each training module is necessary. The education provided to the healthcare providers encompasses the background of the vulnerable group and why the change is necessary, how the change will occur, the time of monitoring the change, and how to determine if the outcome has been mastered.

The time of transition depends on how long it takes to assess the needs of the providers. Valuing the strengths and addressing the providers' weaknesses during the training is significant to the learning process, and this could range anywhere from two weeks to a month. Inquiring how long the providers believe it would take them to transition is also important during the training process to stay involved during the process.

During the critical event, the problem is clarified, and the goals and objectives are established. Learning objectives, assessment instruments, and exercises are also identified. This

phase should be systematic and specific. Overall, the curriculum, learning outcomes, mode of delivery, and testing procedures are implemented during this time.

The outcome is evaluated through a formative and summative phase. The summative evaluation consists of tests designed to be referenced and an opportunity for feedback from the learner. To evaluate the outcome, it is necessary to review the response patterns (Meleis, 2010). To do this, one must decide if the outcome is mastered and resourceful. The outcome is mastered if healthcare providers increase rates of screening at the initial prenatal appointment and if there is an improved acceptability of screening African American patients at the initial visit. Other responses to consider are a healthy interaction between stakeholders and if the new protocol is perceived as therapeutic.

### **Goals, Objectives, and Expected Outcomes**

#### **Objectives**

- The healthcare providers would use the information provided in the educational presentation to screen for PND at the initial prenatal visit in this population over one month.
- This knowledge would increase how many AA perinatal women of lower socioeconomic status are screened at the initial prenatal visit.
- This knowledge would also increase the rate of providers screening for PND at the initial prenatal visit within one month of beginning the project.
- Healthcare providers who continued to screen only at the postpartum visit would provide the rationale for this practice.

#### **Goal**

The goal was to increase screening attitudes and acceptability in low socioeconomic AA women at the initial prenatal visit with cultural determinants considered while determining the rationale for continued post-partum initial screening.

### **Expected Outcomes**

Expected outcomes were an improvement in PND screening rates at the initial prenatal visit and an improvement in provider attitudes and acceptability of PND screening.

### **Setting Facilitators and Barriers**

Setting facilitators included that all clinicians were familiar with PND, cared for AA women, prescribed medications for PND, and knew of resources to provide to patients for treatment and care. The providers were excited about engaging with this population and made an effort to screen every AA patient at the initial prenatal visit and at subsequent visits, if necessary. Due to the Primary Investigator (PI) being long-distance and communicating virtually, there were barriers when communicating with providers due to different time zones.

### **Methods (Plan)**

The setting of this project took place in three different obstetric clinics where perinatal AA patients were seen for care. Each clinic sees patients who have private or public insurance (Medicaid, CHIP, and Medicare). Four nurse practitioners were recruited to participate in the clinical project after obtaining an informed consent. Two providers worked at the same clinic, while the other two worked at separate clinics. A nine-question pre-survey known as The Perinatal Depression Attitudes and Screening Acceptability Questionnaire (PASAQ), was administered to assess their attitudes, beliefs, and knowledge related to AA women and PND. Because the survey was adapted for this population, a letter with permission from the author to alter the questionnaire is included in figure 1. The nurse practitioners completed the survey

within a week of receiving it. After completion of the survey, an educational presentation via PowerPoint with a voiceover was viewed. The presentation provided information on cultural competency and the importance of why initiating the screening tool at the initial prenatal visit was important. The information provided in the presentation was obtained from the review of literature.

A four-week implementation of the nurse practitioners screening for PND began. They used the EPDS and three questions from the Center for Epidemiologic Studies-Depression (CES-D) scale to screen for PND. During this time, data was recorded by each participant on an excel sheet noting demographics of the patients, timing of the screening, and what type of insurance the patient had as well as when the screening was first initiated and any rationale for screening later than the initial prenatal visit.

Post intervention, the nurse practitioners were given the (PASAQ) again to compare if their attitudes, beliefs, and knowledge changed after watching the presentation and implementing the new protocol. The post-survey also had five open-ended questions to inquire if they accepted the new protocol and if they would continue it in the future.

### **Project Design**

The project design was a combination of educational interventions with process improvement. The education provided to the healthcare providers allowed them to have evidence-based information to improve their practice. They used the information provided to guide how they assessed and screened for perinatal depression in AA women. This was defined as the process improvement portion. The interventions completed proved to be a necessary strategy to detect PND earlier. The surveys used to obtain information were both quantitative and qualitative. The pre-survey and post- survey noted objective information using a Likert scale.

The post-survey also allowed clinicians to write their own words to explain their experience and what they have learned over time.

The number of AA patients with public versus private insurance was also recorded as a quantitative measurement. Documentation from providers discussing if they had not screened patients at the initial prenatal visit and had continued to do so during the postpartum period was a qualitative measurement. This information showed if the education given was effective in relation to the importance of screening earlier in pregnancy or if more teaching was necessary in this area.

### **Project Site and Population**

The project occurred in four obstetrics/gynecology clinics under one health system that primarily serves the underserved population. Most patients that receive care at these facilities are on public assistance that only covers the pregnancy and up to six weeks postpartum. The majority population that presents to the clinics during pregnancy are Hispanics, but depending on the location of a particular clinic, AAs may be the majority. The participants were either family or women's health nurse practitioners that provided care in clinics as there are no physicians in any of the clinics. The typical number of patients seen on a given day in these clinics is 16-25 patients per provider. Patients benefited from the change of protocol and cultural competency education, but there was no direct patient interaction from the investigator as part of the project.

The recruitment strategy was based on who consented to be involved in the project. There were no more than four providers to maintain the data's integrity by keeping the information organized. A power analysis was not performed to determine the sample size as the sample would be one of convenience limited by clinicians in the clinics. Eligibility criteria for inclusion were: (a) to provide written informed consent, (b) to be a healthcare provider at an OB/GYN

clinic within the local health system within the region under the women's and children services, and (c) to speak English. Exclusion criteria were: (a) leaving the health system as an employee before the project was completed, (b) providing inaccurate information, (c) and not performing the tasks of completing surveys and watching the presentation.

The providers were contacted via email, phone, or text weekly to answer any questions and provide feedback on how they were implementing the new protocol and to allow them to have open communication if an issue or concern arose. The surveys and presentation were distributed via email with Qualtrics® being the survey generator. Resources used daily patients scheduled to ensure AA patients were being seen on the days of the screening. Potential barriers were provider absences and no AA patients being seen daily. To overcome these barriers, clinics were chosen that had the most AA patients and allowed the implementation to occur over four weeks to accommodate any possible absences.

### **Measurement Instruments**

To measure the outcomes of this project, the following instruments were used: The extracted PASAQ pre- and post-survey (Appendix A) with five open-ended questions as part of the post-survey (Appendix B), the EPDS screening tool (Appendix C) to assess for PND along with three other culturally sensitive questions (CES-D) (Appendix D). To ensure reliability, it was noted that the PASAQ has a Cronbach's alpha ranging from 0.45-0.86 depending on the component of the questionnaire (El-Den et al., 2018). The areas where questions were extracted included (a) acceptance of PND screening with a Cronbach's alpha of 0.86; (b) PND stigma with a Cronbach's alpha of 0.78; and (c) PND screening readiness with a Cronbach's alpha of 0.81 (El-Den et al., 2018).

The EPDS tool has been used worldwide in multiple languages and has proven to be reliable and valid. It is a standard tool used to assess postpartum depression but can be used antenatally. This is the predominant screening tool used at the site where the project was implemented. The cutoff score at the local institution is currently  $\geq 10$  for a positive screening. The split-half reliability is 0.88, and the standard alpha coefficient is 0.87 (Levis et al., 2020). Because it is used worldwide, one does not have to obtain permission to use it unless it is altered.

While the EPDS tool was used to measure PND, there was another screening tool found to incorporate more diverse questions. This tool is the Center for Epidemiologic Studies-Depression (CES-D) scale. This 20-item scale is used to determine the individual's well-being. A cutoff score of 16 indicates depression, and its scores are measured as positive or negative and have a coefficient alpha of 0.85 (Shaffer, K., 2014). The CES-D was used in a historical research study that measured cultural responsiveness in perinatal depression. In this study, Price & Handrick (2009) used the CES-D short form that included ten items and five other questions created by a community advisory team. The Cronbach's alpha of the CES-D scale with the other questions is 0.87.

The study's author granted permission to use three of the five questions from the CES-D, and they were added to incorporate more culturally diverse questions (Fig. 2). The author discusses in the study that language surrounding depression may be misinterpreted, and there is a need for screening tools to express cultural competence (Price & Handrick, 2009).

### **Data Collection Procedures**

The PI recruited the providers by contacting each provider separately to discuss the purpose of the project and what would be needed from them during the intervention. If they

agreed and decided to participate, they were sent the informed consent electronically to sign and return. The informed consents were then stored in the UA secure box. See Appendix E, F, and G for the local IRB guidelines and deferment letter.

### ***Plan***

The problem was identified as how to increase screening rates and improved attitudes for screening at the initial prenatal visit.

### ***Do***

Nurse practitioners completed a pre-survey and watched an educational presentation. The providers then recorded data noting if they screened patients with the EPDS alone or if they used the three questions from the CES-D scale with the EPDS.

### ***Check***

After collecting the data on the data sheet, a post survey was given with five open ended questions to obtain their views, attitudes, beliefs, and knowledge since completing the study. the surveys were scored and compared using a paired t-test and a graph was designed to note the comparison of each provider.

### ***Act***

The surveys were scored and compared using a paired t-test. Initial prenatal visit screening was continued by providers after the implementation was completed.

## **Data Analysis**

To analyze the data, a paired t-test was used to compare the pre and post scores of the PASAQ. To describe the data, a graphical representation was designed to show the pre- and post-survey response scores (Figure 3).

## **Cost-Benefit Analysis/Budget**

There were no financial costs for this project. The surveys and data sheet were transmitted via email and placed in the UA box with phone calls discussing the experience or answering questions. Communication with providers was usually 2-3 times weekly lasting for 30 mins to an hour per provider. See Table 1.

### **Timeline**

The timeline for the actualization of this project took six months, as summarized in Table 2. Before implementing the project, the proposal took about two months to write and the IRB process with approval took one month. The implementation of the project took six weeks, including the week to complete the pre-survey and watch the educational presentation, four weeks to screen the patients, and one week to complete the post-survey. After the project's implementation, the data analysis took two weeks, and dissemination took three months.

### **Ethical Considerations/Protection of Human Subjects**

The University of Alabama (UA) Institutional Review Board (IRB) approval was obtained before initiating the project. All participants were protected by the Health Insurance Portability and Accountability Act of 1996 (HIPAA) which, among other guarantees, protects the privacy of patients' health information (Modifications to the HIPAA Privacy, Security, Enforcement, and Breach Notification Rules, 2013).

Additionally, Standards of Care for practice in the OB/GYN office were carefully followed as noted in the guidelines from the local institution and other guidelines provided by the clinical preceptor. All information collected to evaluate this project's impact was aggregated data from the project participants and did not include any potential patient identifiers.

Participant confidentiality was assured by coding the participants using initials and identification numbers. The participants' list and identifying numbers were kept in a secure

electronic file with password protection through the UA box. Audits were consistently performed to guarantee that data was up to date. After the project, the UA box containing all the PHI was deleted.

## **Results**

Pre-intervention, two out of four clinicians were not screening for perinatal depression in AA women at the initial prenatal visit. The same two clinicians previously mentioned were solely focused on the postpartum period to treat postpartum depression. Initial prenatal visits ranged from 6 weeks to 35 weeks gestational age, depending on when the patients presented. There was an increase in screening at the initial prenatal visit by the two providers who were only screening in the third trimester or postpartum period as the intervention progressed. The other two providers, who were already screening at the initial prenatal visit, continued to screen at every visit, if necessary, due to symptoms or concerns they had for the patients after viewing the educational presentation.

Although there was increased screening, all the clinicians in the study indicated that if they had not screened at the initial visit but at the next visit, the reasons were due to the timing of the visit, forgetting to screen, or the provider not having enough initial prenatal visits to perform the screening. A total of 35 women were initially screened during the implementation of the study: 25 patients with public insurance at the initial prenatal visit, one patient with private insurance at the initial prenatal visit, two patients at subsequent visits after the initial prenatal visit, and seven patients at the postpartum visit.

Postpartum initial screening for depression continued. The providers who completed the screening indicated some reasons for postpartum depression screening: previous providers that had cared for patients had not screened during the pregnancy, the patient had healthcare with

another clinic outside of the UTMB system and presented for postpartum care, and the patients screened after having miscarriages.

Qualitative statements from the participating providers indicated that there is a need for more education on how to manage depression symptoms in perinatal AA women. The providers also expressed that the education provided during the study allowed them to be more aware of the data on how perinatal depression affects AA women and their families and that there was a greater level of understanding cultural differences while screening for depression.

A paired t-test was used to score the difference between the pre- and post-surveys given to providers. Fifty percent of providers had the same score, and the other fifty percent had improved scores. The scores were not statistically significant ( $p=0.276$ ) likely due to limited participant numbers. However, a 50% improvement with no decline in scoring of any participant is deemed clinically significant.

### **Discussion**

The findings highlight the importance of educating healthcare providers on screening AA women of low socioeconomic status for PND. Although the scores of the pre- and post-surveys were not statistically significant, likely due to the power of the sample, fifty percent of the providers showed improvement in their screening and 100% of providers were screening at the first prenatal visit after the intervention, which is clinically significant.

Screening data from the providers was obtained over a four-week implementation period. After four weeks, the information was tallied to visualize how many AA women were screened at the initial prenatal visit versus the traditional method of screening at the postpartum visit. The data showed how many low-income AA patients were coming into the clinic for prenatal visits to support the need for screening at the initial prenatal visit. This data confirmed that most patients

presented at the clinics were low-income and received public insurance to cover healthcare expenses. Due to this being a high-risk, marginalized group, providers should be educated and prepared to counsel on perinatal depression at any time during the pregnancy, but specifically at the initial visit (Lara-Cinisomo et al., 2018).

While gathering providers for the sample population, there was some attrition. One provider was no longer working for the hospital system, and another decided not to participate in the study. Although this affected the sample size, the other providers who participated provided the necessary information to show the importance of the newly introduced screening process. Deadlines were provided for watching the educational presentation, completing the pre-and post-survey, and when the data collection portion would end. Many providers had to be reminded of the dates of when to return data sheets and to complete the post-survey. In one of the four clinics, a provider stated that she did not have many AA patients as initial prenatal visits but was already seeing this population as return prenatal visits. No other barriers negatively impacted the project.

The project revealed that providing cultural education before screening for perinatal depression is helpful to clinicians to improve attitudes and acceptability of PND screening in AA women of low socioeconomic status. Healthcare providers that were a part of the sample used the educational presentation to obtain more information and resources to adequately screen AA women at the initial prenatal visit over the four weeks. The providers overall statement in the qualitative data obtained from the post-survey indicated that the presentation gave insightful information to use while educating the patient and educating themselves in understanding cultural differences.

The knowledge gained from the educational presentation also gave providers more insight into the need for screening at the initial prenatal visit versus the postpartum visit. One

provider stated she “understood the need to ask more questions for African American patients, so they feel comfortable voicing depression at the beginning of pregnancy.” One of the four clinics that participated in the study stated that the providers were already screening every patient at the initial prenatal visit. However, they acknowledged that the add-on questions and the presentation allowed them to know why this population of patients was hesitant to discuss perinatal depression and not be quick to judge the patient’s body language or verbal responses when specific questions were asked.

The sustainability of continuing the new protocol includes yearly cultural competency training with resources that have updated information on how PND affects AA women. Costs may be acquired by the hospital system if the providers are sent to a conference to understand cultural competency or if a live trainer presents the information to the providers.

The Transitions Theory guided the project by completing surveys to assess attitudes, providing training resources, obtaining data through implementation, and evaluating if outcomes were mastered (Meleis, 2010). The providers effectively transitioned from the traditional protocol to the new screening protocol at the initial prenatal visit. While demonstrating cultural competence by asking more in-depth questions specifically developed for African American women of low socioeconomic status, there was an increased understanding of how perinatal depression affects this population.

### **Conclusion**

Early PND screening in AA women is necessary for the patients to receive prompt treatment if there is a diagnosis. Perinatal depression symptoms can be detected by using a screening instrument at the initial prenatal appointment and collecting relevant personal and familial information. By providing healthcare workers with the opportunity to acquire knowledge

about cultural competency in this population, patients can be heard and get appropriate healthcare, resulting in better patient outcomes. This study contributes to evidence-based practice by addressing barriers to maternal mental healthcare in the perinatal AA community and educating healthcare providers on the importance of increasing screening rates and improving the acceptability of screening at the initial prenatal visit.

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## Appendixes

### Table 1

#### Cost Benefit Analysis

	Time
Phone Calls	2-3 times weekly lasting for 30 mins to an hour per provider
Managing data	2-3 hours daily to review data. Includes plotting graphical info and sorting info with documentation

### Table 2


#### Timeline of Implementing Project

Month	Activity
September/October	Obtain IRB approval
October	Obtain informed consent
November	Implementation of project
November/December	Follow up for feedback and to see if providers are continuing new protocol
December	Analysis and interpretation of data and outcomes
January/February	Dissemination of findings

## Figure 1

Permission for PASAQ Inbox x ✕ 🖨️ 📧

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 **Mellerie Langford** <mellerielangford@gmail.com> Tue, Jul 12, 10:38 AM (8 days ago) ☆ ↶ ⋮  
to sarira.el-den ▾


Hello Dr. El-Den,

My name is Mellerie Langford and I am currently in my doctorate of nursing program. My topic for my clinical project is on educating providers on the importance of screening for perinatal depression at the beginning of pregnancy. I discovered your questionnaire and I was inquiring if I may use it as a survey for my project. I would also like to ask if I may modify to remove some questions as well as to replace pharmacists with providers/nurse practitioners?

Thank you in advance for your feedback and help!

Warm regards,  
Mellerie Langford

---


 **Sarira El-den** Tue, Jul 12, 8:53 PM (8 days ago) ☆ ↶ ⋮  
to me ▾

Hello Mellerie

Thanks for your email. It is great to hear about your project. You are welcome to use/adapt the tool which is published. Please just make sure you cite our manuscript in any presentation/thesis/publication/manuscript etc...

Best of luck  
Sarira

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E [sarira.el-den@sydney.edu.au](mailto:sarira.el-den@sydney.edu.au)

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## Figure 2

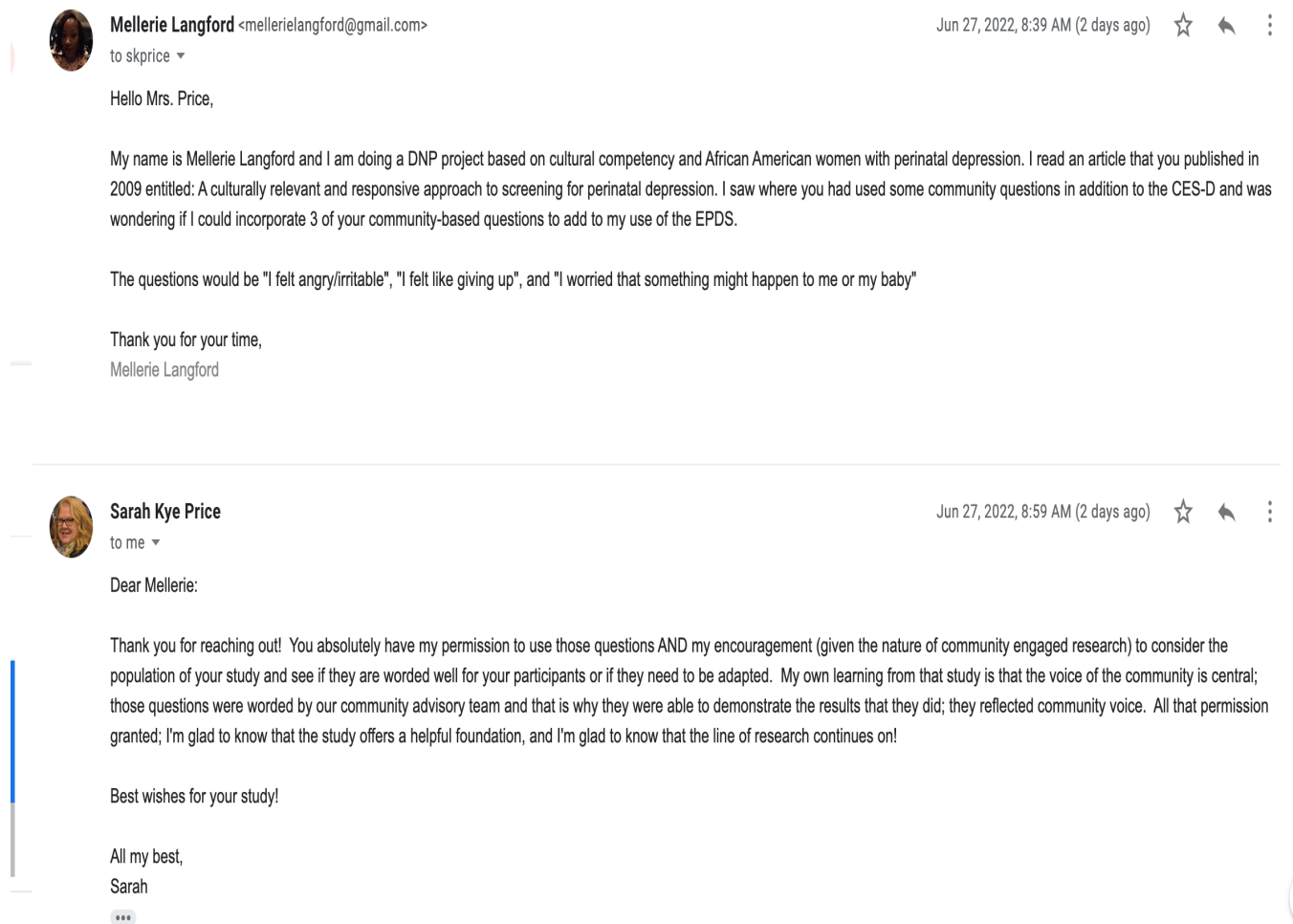
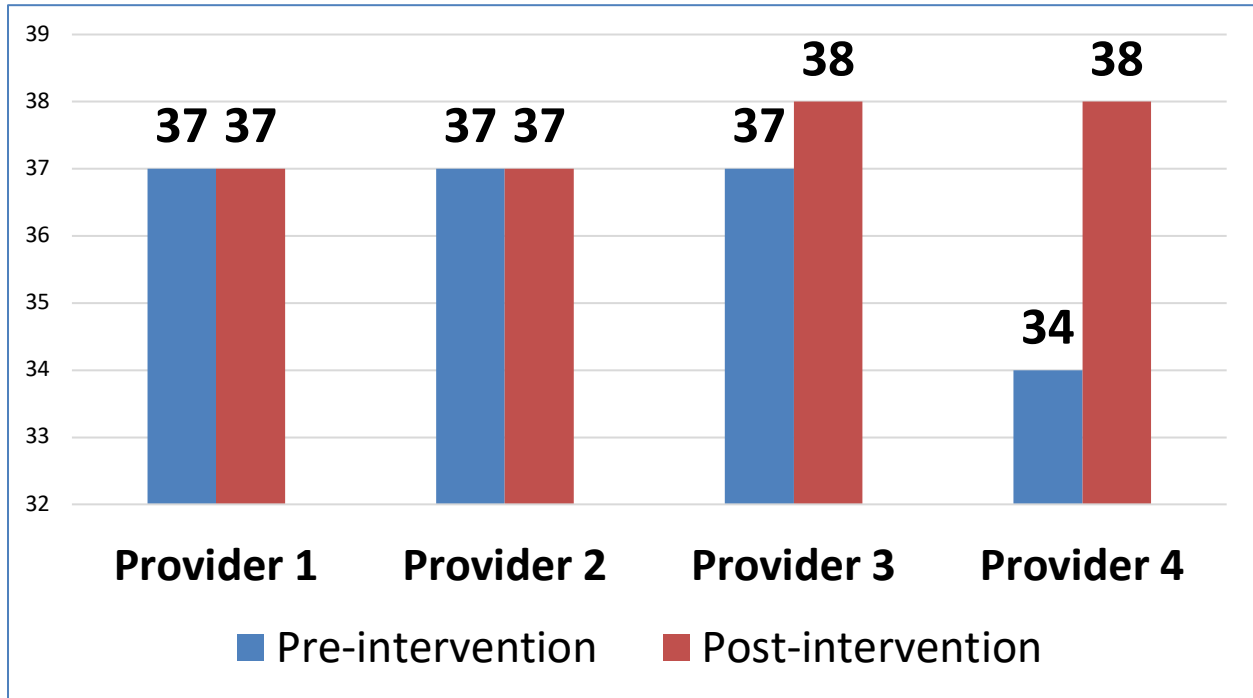


Figure 3

## Comparison of PASAQ Scores Among Providers



## Appendix A

### Pre and post survey questions (Extracted PASAQ)

1. Screening African American women for perinatal depression by healthcare providers is acceptable to me
2. Having healthcare providers screen for perinatal depression using a brief self-report tool is a good idea
3. Screening for perinatal depression is beneficial to African American perinatal women
4. Perinatal depression is a sign of weakness in African American mothers
5. African American women get perinatal depression because they can't cope with motherhood
6. Perinatal depression is a serious enough problem to warrant screening
7. Perinatal depression is common enough to warrant screening
8. I am confident in screening African American women for perinatal depression
9. I am comfortable in screening African American women for perinatal depression

#### Likert Scale Responses

- 1 – Strongly disagree
- 2 – Disagree
- 3 – Somewhat disagree
- 4 – Neither agree or disagree
- 5 – Somewhat agree
- 6 – Agree
- 7 – Strongly agree

## Appendix B

### Post-Survey (open ended answers)

- What did you find useful about the process?
- Do you feel that the communication when assessing for perinatal depression with Black/African American women improved? Why or why not?
- What challenges did you face?
- What did you learn?
- Do you think you will continue this new process in the future?

## Appendix C

Edinburgh Postnatal Depression Scale<sup>1</sup> (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:

- |   |  |
|---|--|
| <p>1. I have been able to laugh and see the funny side of things</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> As much as I always could</li> <li><input type="checkbox"/> Not quite so much now</li> <li><input type="checkbox"/> Definitely not so much now</li> <li><input type="checkbox"/> Not at all</li> </ul> | <p>*6. Things have been getting on top of me</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Yes, most of the time I haven't been able to cope at all</li> <li><input type="checkbox"/> Yes, sometimes I haven't been coping as well as usual</li> <li><input type="checkbox"/> No, most of the time I have coped quite well</li> <li><input type="checkbox"/> No, I have been coping as well as ever</li> </ul> |
| <p>2. I have looked forward with enjoyment to things</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> As much as I ever did</li> <li><input type="checkbox"/> Rather less than I used to</li> <li><input type="checkbox"/> Definitely less than I used to</li> <li><input type="checkbox"/> Hardly at all</li> </ul>     | <p>*7. I have been so unhappy that I have had difficulty sleeping</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Yes, most of the time</li> <li><input type="checkbox"/> Yes, sometimes</li> <li><input type="checkbox"/> Not very often</li> <li><input type="checkbox"/> No, not at all</li> </ul>  |
| <p>*3. I have blamed myself unnecessarily when things went wrong</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Yes, most of the time</li> <li><input type="checkbox"/> Yes, some of the time</li> <li><input type="checkbox"/> Not very often</li> <li><input type="checkbox"/> No, never</li> </ul>                  | <p>*8. I have felt sad or miserable</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Yes, most of the time</li> <li><input type="checkbox"/> Yes, quite often</li> <li><input type="checkbox"/> Not very often</li> <li><input type="checkbox"/> No, not at all</li> </ul>  |
| <p>4. I have been anxious or worried for no good reason</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> No, not at all</li> <li><input type="checkbox"/> Hardly ever</li> <li><input type="checkbox"/> Yes, sometimes</li> <li><input type="checkbox"/> Yes, very often</li> </ul>                                      | <p>*9. I have been so unhappy that I have been crying</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Yes, most of the time</li> <li><input type="checkbox"/> Yes, quite often</li> <li><input type="checkbox"/> Only occasionally</li> <li><input type="checkbox"/> No, never</li> </ul>  |
| <p>*5. I have felt scared or panicky for no very good reason</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Yes, quite a lot</li> <li><input type="checkbox"/> Yes, sometimes</li> <li><input type="checkbox"/> No, not much</li> <li><input type="checkbox"/> No, not at all</li> </ul>                               | <p>*10. The thought of harming myself has occurred to me</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Yes, quite often</li> <li><input type="checkbox"/> Sometimes</li> <li><input type="checkbox"/> Hardly ever</li> <li><input type="checkbox"/> Never</li> </ul>   |

Administered/Reviewed by \_\_\_\_\_ Date \_\_\_\_\_

<sup>1</sup>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.

<sup>2</sup>Source: K. L. Wisner, B. L. Parry, C. M. Plontek, Postpartum Depression *N Engl J Med* vol. 347, No 3, July 18, 2002, 194-199

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## Appendix D

**Table 1**  
**Center for Epidemiological Studies-Depression**  
**Instrument (CES-D) Items (1-10) Plus Community-**  
**Informed Tag-On Questions (11-15)**

---

1. I was bothered by things that don't usually bother me.
2. I had trouble keeping my mind on what I was doing.
3. I felt depressed.
4. I felt that everything I did was an effort.
5. I felt hopeful about the future (reverse coded).
6. I felt fearful.
7. My sleep was restless.
8. I was happy (reverse coded).
9. I felt lonely.
10. I could not get going.
11. I felt like everyone was against me.
12. I felt angry or irritable.
13. I felt like giving up.
14. I felt like hurting myself, my pregnancy/baby, or others.
15. I worried that something might happen to me or my baby.

Scale (all items), based on the past week:  
 0 = rarely or none (less than 1 day)  
 1 = some or a little (1-2 days)  
 2 = occasionally or moderate (3-4 days)  
 3 = all of the time (5-7 days)

---

**\*Questions 11, 12, and 13 will be added to the EPDS**

## Appendix E

### [UTMB IRB Guidelines](#)

To conduct human subject research at UTMB you will use two electronic systems - Velos e-Research and InfoEd. Velos e-Research is a tool to help investigators and coordinators manage the daily tasks of conducting clinical trials and is the first entry point to initiating a new research protocol involving human subjects. InfoEd is the electronic online submission system used by the UTMB Institutional Review Board to review all human subject research protocols. All protocols are initiated in Velos, submitted through InfoEd, and then electronically routed to the IRB for review.

### **How to Get Access to Velos and InfoED**

In order to get access to these systems you will need to take Velos training, and request access to both Velos AND InfoEd via your department's Trusted Requestor.

### **Study Documents**

We have protocol and consent form templates located on the [IRB Forms](#) page of the IRB website. For a chart review, you can utilize the Chart Review Protocol template to draft your protocol. You would also need to submit any recruitment materials, surveys, or any other documents that the subjects would see.

If you are unsure which documents your study requires please reach out to the IRB office

### **Mandatory Training**

You will want to make sure that everyone listed on the submission has completed the required Human Subjects training via the [CITI program](#). Instructions on how to register for CITI training are available on the Mandatory Training page. Additionally, all individuals engaged in human subjects research are required to complete COI training, as well file of a statement of financial interests. For COI questions and instructions please email the [Office of Institutional Compliance](#).

### **Entering a Study in Velos and InfoED**

Once you have completed the Velos training and have been granted access to the systems, you will be able to submit research studies into Velos and InfoEd.

- [Instructions on how to register a study into Velos, and initiate the application in InfoED](#)
- [Instructions/videos on how to submit via InfoED](#)

For initial submissions, a signature page will need to be completed and uploaded into the InfoEd submission. This document can be found on the [IRB forms page](#) under Signature tab.

Additionally, if the individual who will serve as the Principal Investigator is not Faculty, then a Faculty Sponsor will need to be listed in the submission, who will also provide signature on the signature page. Department Chair signature is required for Expedited and Full Board research.

## Appendix F

### UTMB IRB Deferment Information

#### Reliance Agreements

A reliance agreement (i.e. IAA's, IIA, etc...) is an agreement between two or more institutions that allows an institution's IRB to rely on another, unrelated institution's IRB for review of human subjects' research. A reliance agreement comes in multiple formats, with the most common being Institutional Authorization Agreements (IAA), Memorandum of Understanding (MOU) and Master Reliance Agreement (MRA). An Investigator working at multiple institutions, each having their own IRB, may decide to have one IRB serve as the IRB of record for some or all participating sites. This practice is commonly referred to as ceded review, reliance agreements, or deferral of IRB oversight. In this scenario, the UTMB IRB will either serve as the reviewing IRB (IRB of Record) or will cede oversight (rely) of the research activity to another equally qualified institution's IRB. Each individual IRB will indicate which agreement format is appropriate for a specific study.

#### Submission Process

A member of the UTMB Study team submits the Reliance Agreement request through InfoED. It is recommended you contact the UTMB IRB Office for a consultation prior to submitting any documents via InfoED. Please email us at [IRB@utmb.edu](mailto:IRB@utmb.edu)

#### Agreement Types

##### IRB Authorization Agreement (IAA)

An IRB Authorization Agreement (IAA) is an agreement between UTMB and another institution that holds a Federal Wide Assurance (FWA) with the Office of Human Research Protections (OHRP) of the U.S. Department of Health and Human Services (HHS). Any institution (e.g., university, medical centers, community organization, survey research organization) that receives funds from HHS must have an FWA. Entities use this agreement type to establish which institution will serve as the IRB-of-Record. Each institution's Institutional Official or designee signs the IAA.

##### Individual Investigator Agreement (IIA)

An Individual Investigator Agreement (IIA) is an agreement between UTMB and an individual collaborator who is not affiliated with an institution with an FWA (e.g., former student working after graduation with their faculty mentor, professional in the community with specific expertise, community partners). This agreement outlines the responsibilities of the individual investigator for the protection of human subjects. The IIA is signed by the:

1. Individual investigator
2. UTMB Institutional Official or designee

### **Master Reliance Agreement**

A Master Reliance Agreement (MRA) is utilized when multiple studies cede review to a specific external IRB. Master Agreements may be reciprocal in that signatory institutions can act as the site providing IRB review and oversight or the site relying. Master Reliance Agreements may be for a single protocol or a number of protocols that are negotiated on a case by case basis. The UTMB IRB currently has master agreements in place with the following external IRB's:

1. State of Texas Master IRB Reciprocity Agreement
2. Smart IRB

## Appendix G

### UTMB Deferment Letter



University of Texas Medical Branch  
Regional Women's Services & Pediatrics

301 University Blvd.  
Galveston, TX 77551  
O 409.772.5676  
W <https://www.utmbhealth.com/services/regional-women-pedi/home>

Date of Letter

Recipient  
Recipient's Title  
Street Address  
City, Alabama Zip Code

Subject Line

Dear University of Alabama Institutional Review Board,

I am writing to you as the Obstetrics and Gynecology chairman of University of Texas at Medical Branch facility on behalf of Mellerie Langford, DNP student at the University of Alabama Capstone College of Nursing. The project entitled **Prenatal Depression Screening Practices among African American Women of a Low Socioeconomic Status** is scheduled to be completed at our facility. We grant site approval for the project, but we have deemed this project to be a Quality Improvement project. We do have an IRC in place, but we do not review Quality Improvement projects. We are therefore willing to defer the IRB approval process for the protection of human subjects to the University of Alabama.

Feel free to contact me at 409-772-1957 if I can provide any additional information.

Sincerely,

**Jerome L. Yaklic, MD, MBA**  
Professor & Chair  
Garland D. Anderson, MD Distinguished University Chair  
Department of Obstetrics & Gynecology

