

ASSESSING POSTPARTUM DEPRESSION IN THE REFUGEE POPULATION IN A
PRIMARY CARE SETTING

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DOCTOR OF NURSING PRACTICE

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ABSTRACT

Mental health is an area lacking emphasis in the United States healthcare systems. Many patients have suffered due to the decrease in focus and resources required to help individuals struggling with mental disorders (Lieberman, Goldman, Olfson, Pincus, & Sederer, 2017). While the struggle for adequate screening for mental illness continues, minority populations, such as refugee women, are affected more due to multifactorial risk factors and lack of treatment emphasis (Ganann, Sword, Thabane, Newbold & Black, 2016; Lieberman et al., 2017). Due to the increase in the number of refugees that migrate to the United States, particularly in the Midwest, healthcare providers must continue to enhance their knowledge on risk factors of mental illness in vulnerable populations, such as refugee women, and implement evidence-based practices that will promote the best possible patient outcomes.

The practice improvement project aimed to increase healthcare provider awareness of the increased risk of postpartum depression (PPD) in refugee women compared to other patient populations and improve incidence rates of PPD during the first year of the postpartum period in refugee women. The project took place at a primary care clinic where the Edinburgh Postpartum Depression Scale (EPDS), an evidence-based screening tool for identifying risk for PPD, was implemented over a two-month period assessing for PPD. The results of EPDS were compared to the standard previously used Patient Health Questionnaire (PHQ-2) results over two months. A 30-minute educational session was given to the providers regarding how to assess for PPD, risk factors, providing culturally sensitive care, utilizing appropriate evidence-based screening tools for PPD, treatment options, and the results comparing the EPDS to the PHQ-2 implementation. Pre and post-survey evaluations were completed by the providers to evaluate the educational session and provider knowledge. Results indicated an increase in provider confidence and

knowledge in assessing for PPD and caring for refugee women during the first year postpartum. The EPDS screening tool indicated PPD in more refugee women, suggesting the EPDS to be a more sensitive screening tool for PPD in refugee women when compared to the PHQ-2. The providers preferred to continue using the EPDS instead of the PHQ-2.

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CHAPTER ONE. INTRODUCTION

Background

The United States is one of the countries that has embraced refugees from all over the world. According to Lum & Vanderaa (2010), the refugee population in the United States is anticipated to rise from 36 million in 2005 to 81 million by the year 2050; there is a 3.4-times increase in the number of foreign-born individuals when compared to those born by non-foreigners. The foreign-born population in the United States is roughly 43.3 million, and that number is anticipated to quadruple to an estimate of 78 million by the year 2065 (Nicholson, 2017). The rising number of refugees translates to the fact that there will be more unique needs for healthcare providers to address specific to this population.

While some individuals migrate to the United States in pursuit of education and better socioeconomic status, others do so as the only means of staying alive, which is usually the case for refugees (Firth & Haith-Cooper, 2018; Jesuthasan et al., 2018). Many refugees have been exposed to multiple extreme factors, such as civil war, persecution, domestic violence, poverty, and lack of adequate health care, all of which predispose them to a variety of mental health disorders (Firth & Haith-Cooper, 2018; Ganann et al., 2016). Refugee women are especially affected by the potential physical and mental health concerns, as they are often exposed to multiple life-threatening conditions, such as civil war, oppression, poverty, sexual assault, and lack of adequate health care (Firth & Haith-Cooper, 2018; Ganann et al., 2016).

Other risk factors that are specific to refugee women include exploitation, sexual violence, forced marriages at an early age, and genital mutilation. The lack of contraceptive use, which is most often influenced by the cultural belief that women are forbidden from using contraception and emphasized during marriage, is a significant problem (Sudbury & Robinson,

2016). The barrier of contraception use in refugee women poses a major health concern, as refugee women often have a higher rate of stillbirth and maternal mortality; they also experience higher rates of sexually transmitted infections (STIs) secondary to inadequate contraceptive use or lack of access to contraception, such as condoms (Jesuthasan et al., 2018; Sudbury & Robinson, 2016). Adverse maternal obstetrical outcomes, such as high-risk pregnancies and birthing processes, emergency cesarean, and gestational diabetes are often present in refugee women, which predisposes refugee women for unstable mental health (Johnson-Agbakwu et al., 2014). Gender inequalities also play a major role in refugee women's lives, as their role in the community and personal decisions are complicated by the culture's view of their native country, which typically continues even after residing in the United States (Jesuthasan et al., 2018). Refugee women are not only faced with the traumatic experiences that they sustained from their birthplace, but they also deal with the new challenges of adjusting to a new environment, learning a new language, and a continuous process of acclimating to a new-found culture and different customs (Firth & Haith-Cooper, 2018; Jesuthasan et al., 2018; Lum & Vanderaa, 2010).

Refugee women are considered forced immigrants, as they had to relocate to a refuge country due to fear for their lives and well-being. Refugee women have approximately 42% PPD prevalence rates when compared to the 10-20% prevalence rate present in the general population (Firth & Haith-Cooper, 2018; Mukherjee, Trepka, Pierre-Victor, Bahelah, & Avent, 2016). Racial disparities in PPD prevalence exist within minority populations, such as Asian/Pacific Islander at a 4.5 times higher likelihood of a positive screening for PPD when compared to the Hispanic population (2.7 times) and African American (1.7 times) population (Doe et al., 2017; Liu & Tronick, 2013). Refugee women have a higher prevalence of PPD when compared to other races, including Hispanic women, African American women, and white women (Doe et al.,

2017; Suárez-Orozco, Birman, Casas, Nakamura, Tummala-Narra, & Zárate, 2013). Liu and Tronick's (2013) findings indicate that mental illness, such as PPD, is a significant problem among refugee women and should be addressed so that these individuals can get the appropriate care to prevent further complications that can be associated with mental illness.

Purpose of the Project

The practice improvement project's purpose was to highlight the importance of adequately assessing postpartum depression (PPD) in refugee women, as well as understanding the multifactorial barriers specific to refugee women that can hinder these individuals from seeking the appropriate care in a timely manner. Subsequently, the goal was to enhance healthcare provider knowledge on the prevalence of PPD in refugee women and how to care for these patients in order to improve PPD in refugee women. The purpose was to be accomplished by raising awareness among healthcare providers that refugee women have higher risk factors that predispose them to PPD when compared to the general population. Because culture plays a significant role in the overall well-being of refugee women and their ability to seek medical help, healthcare providers must become more culturally aware to provide the best possible outcomes.

This practice improvement project implemented the Edinburg Postnatal Depression Scale (EPDS) at a family practice clinic that is a Federally Qualified Healthcare Center (FQHC) in a northern Midwest urban area with the aim of improving patient outcomes in refugee women by improving identification rates for PPD. The FQHC was initially using both the Patient Healthcare Questionnaire -2 (PHQ-2) and the Patient Healthcare Questionnaire -9 (PHQ-9). The PHQ-2 is a shorter version of the PHQ-9 used for initial screening for PPD, whereas the PHQ-9 was administered to patients with a positive PHQ-2. The PHQ-2 and PHQ-9 are evidence-based screening tools for depression, but they are not the most reliable or appropriate tools for

assessing PPD, nor as appropriate for the refugee population (Bass III & Bauer, 2018). While the PHQ-9 is one of the most common tools used to screen for depression in all patient populations, the PHQ-9 is not tailored towards unique situations, such as when dealing with PPD in minority groups (Yawn et al., 2009). The PHQ-9 is suitable for screening somatic symptoms of PPD while the EPDS detects both anxiety and postpartum depressive symptoms (Zhong et al., 2014).

The lack of adequate resources in diagnosing individuals with mental illness has been a great struggle for many healthcare providers, and this is especially important when dealing with minority populations (Baffour, 2017). The EPDS is also more widely studied in the refugee population, as well as being translated to the most amount of languages for ease of use in the refugee population. The EPDS offers the opportunity for patients to complete the questionnaire in their own language to foster independence and help reduce the language barrier that is often present in refugee women. The ability to screen both anxiety and depression using one scale enhances the potential for the best patient outcomes, as researchers indicate that most individuals with depression might also have anxiety, thus, making the EPDS an optimal screening tool. Utilizing the appropriate diagnostic tool enhances the provider's ability to diagnose patients adequately and accurately, thereby, enhancing appropriate referrals for further assessment and treatment (Milgrom, Ericksen, Negri, & Gemmill, 2005; O'Connor et al., 2016).

Significance of the Proposed Project

Due to the growing refugee population and cultural diversity in the United States, healthcare providers will care for patients with a cultural background different from that of their own (Suárez-Orozco et al., 2013). Healthcare providers must be prepared when the opportunity arises to provide care that is deemed culturally sensitive (Sanchezelminowski, 2015). “Being a culturally competent provider involves understanding and working with people of different

cultural backgrounds and developing effective skills that will promote positive outcomes” (Sanchez-Elminowski, 2015, p.112). An individual’s race and ethnicity have a significant impact on his or her ability to access quality healthcare and, ultimately, affect their health outcomes. Healthcare providers must be cognizant of the increase in diversity in the American population and healthcare disparities that can negatively influence patient care among minority populations (Lum & Vanderaa, 2010; Mukherjee et al., 2016).

Postpartum depression is often missed in healthcare screenings, particularly in the refugee population during the postpartum period. There are screening tools readily available to healthcare providers in order to improve patient outcomes (Mukherjee et al., 2016). This practice improvement project was intended to enhance the understanding of the under-addressed problem of mental illness in the United States, particularly regarding minority populations, such as refugees. The project assisted with increasing PPD identification rates by helping healthcare providers choose the appropriate screening tool to adequately screen for PPD in refugee women.

Project Objectives

1. An evidence-based screening tool, Edinburg Postpartum Depression Scale (EPDS), was implemented at a Federally Qualified Healthcare Center (FQHC) to assess the incidence of PPD in refugee women for every well-child or postpartum visit within the first year of the postpartum period during the practice improvement project.
2. Providers at the Federally Qualified Healthcare Center (FQHC) were to enhance their knowledge regarding providing culturally sensitive care by the end of the co-investigators presentation.

3. Increase identification rates of Postpartum Depression (PPD) in the refugee population and referral to the appropriate services if a diagnosis of PPD was indicated by the end of the practice improvement project.

CHAPTER TWO. LITERATURE REVIEW AND THEORETICAL FRAMEWORK

Literature Review

Non-refugees are individuals who migrated from one country to the other, whether for financial needs, pursuing education, or were sponsored by family members of that country (Dennis, Merry, & Gagnon, 2017). Refugees and asylum seekers are sometimes used interchangeably; an asylum seeker is a person seeking refuge in another country. Asylum seekers must meet one of the following criteria; “any person who is outside of his or her country of nationality who is unable or unwilling to return to that country because of persecution or a well-founded fear of persecution” (Asgary & Smith, 2013, p.3). A refugee is “an individual who moves to a new country to escape persecution, torture, or cruel and unusual punishment” (O'Mahony et al., 2013, p. 300). The co-investigator focused on the term “refugee” for this practice improvement project, as “refugee” was most commonly found in the literature and was suitable for the targeted patient population.

An Overview of Postpartum Depression

The description of PPD is a disruption in an individual's mental and emotional well-being, which occurs during the first year after giving birth. If not treated appropriately and promptly, PPD can affect both mother and child, as well as the entire family's well-being, thereby making this a public health concern (DeCapua 2018; Del Rosario, Chang, & Lee, 2013; Doe et al., 2017). Postpartum depression can affect both the mental and physical health of the mother and is related to increased mortality related to suicide (Do, Nguyen, & Pham, 2018). Consequences of untreated PPD not only impairs the mother-infant bond but, can also create long-term difficulty for the child as he or she develops, and the child may struggle emotionally, socially, behaviorally, and academically throughout life (Do et al., 2018; Lind, Richter, Craft, &

Shapiro, 2017; O'Connor et al., 2016; Upadhyay et al., 2017). Because PPD can affect the mother, the infant, and the entire family, PPD should be addressed promptly and adequately using a proactive approach, especially in individuals with higher risk factors that predispose them to mental illness.

The exact cause of postpartum depression is unknown. Researchers theorize that an alteration in the function of the hypothalamic-pituitary axis, thyroid gland, and variations in levels of estrogen, progesterone, serotonin, monoamine oxidase A, and gamma-aminobutyric acid plays a role in the development of postpartum depressive symptoms (Del Rosario et al., 2013). Some women can experience mild symptoms of mood swings known as the “baby blues”; these symptoms typically last for ten days after giving birth and rarely include severe symptoms, such as suicidal ideation or psychosis. The baby blues occur in approximately 80% of women and usually consist of somatic symptoms, such as fatigue and sleeping difficulties (Del Rosario et al., 2013; Olin et al., 2017; Sriraman, 2012). Postpartum psychosis is a severe form of PPD and is considered a psychiatric emergency with the potential of maternal and infant harm if timely and appropriate interventions are not applied (Bass III & Bauer, 2018). Postpartum psychosis has a rapid onset with symptoms ranging from “paranoia, grandiose, delusions, mood swings, confused thinking, and disorganized behavior” (Del Rosario et al., 2013, p.51).

According to the Diagnostic and Statistics Manual Fourth edition (DSM-V), symptoms of PPD typically start during the fourth week postpartum, although symptoms can occur at any time during the first year after giving birth (Del Rosario et al., 2013; McDonald et al., 2012; Olin et al., 2017). The criteria for diagnosing PPD according to the DSM-V includes the presence of five or more symptoms of major depression during the postpartum period. Symptoms of major depression include, but are not limited to, “depressed mood, anhedonia, change in weight or

appetite, sleep disturbance, inappropriate guilt, psychomotor disturbance, fatigue, diminished concentration, and thoughts or plan of suicide” (Del Rosario et al., 2013, p.52). The presence of depressed mood or anhedonia in addition to one or more of the above symptoms is also classified as major depression.

Symptoms of PPD typically occur after the first 2 weeks postpartum, as symptoms before this time are considered “baby blues.” Postpartum depressive symptoms peak within the first 4 months following delivery, but can occur anytime within the first year of the child’s life.

According to the American Academy of Pediatrics (AAP), PPD screening of the mother is recommended at the one-month, two-month, four-month, and six-month well-child visits (Bass III & Bauer, 2018; Olin et al., 2017). Early screening, especially during the first two weeks postpartum, increases the potential for false negatives due to a combination of hormone changes and the increased incidence of postpartum blues which typically resolve within two weeks.

While routine assessment of PPD is recommended during the first year postpartum, screening at the 2-month and 6-month appointments are considered the most optimal times, as the 2-month screening avoids false positive results; the four to six-month assessment is considered the peak time for postpartum depressive symptoms (Olin et al., 2017).

To better understand PPD, one must be aware of the various symptoms that many patients experience when dealing with PPD. General symptoms of postpartum depression can include, but may not be limited to, depressed mood, decreased interest of things that usually bring pleasure, feelings of restlessness and anxiety, inability to concentrate, feelings of guilt, worthlessness, low self-worth, difficulty sleeping, changes in appetite and weight, and thoughts of self-harm (Almond, 2009; Del Rosario et al., 2013). While some refugee women may experience the depressive symptoms stated above, most refugee women describe somatic,

physical, and generalized depressive symptoms, such as “heartaches,” “feeling of trembling and pressure in their hearts,” and “physical exhaustion” when describing depressive symptoms, which is different from typically reported depressive symptoms expressed by the general population (Firth & Haith-Cooper, 2018). Ganann et al. (2016) assessed PPD in West African women who screened positive for postpartum depressive symptoms. The women described their symptoms as feelings of distress, feeling overwhelmed or over-emotional, and irritable. While many women can have a similar experience of PPD symptoms, refugee women may have symptoms that are greatly influenced by their cultural and social beliefs, as well as previous traumatic life-changing events; thus, healthcare providers must be aware of these symptoms so that they can elicit the appropriate intent and diagnose patients appropriately (Firth & Haith-Cooper, 2018).

The Prevalence of Postpartum Depression in Refugee Women

The American Academy of Pediatrics (AAP) considers PPD to be a significant health concern in the United States. National statistics show that each year, more than 400,000 infants have mothers that suffer from PPD (Sriraman, 2012). The AAP recommends that individuals with low socioeconomic status and those considered to be in a minority population be screened for postpartum depressive symptoms, as these individuals have a higher underdiagnosed rate due to their lack of follow-up visits (Lind et al., 2017; Sriraman, 2012). About 10-20% of women are said to experience PPD during the first year postpartum, and women with a previous history of PPD have a 25-50% risk for reoccurrence of PPD (Bass III & Bauer, 2018; Mukherjee et al., 2016; Sriraman, 2012). Freedman (2018) found that 49% of participants screened positive for postpartum depressive symptoms during the first month postpartum. Research continues to show

that mental illness, such as PPD, is a significant problem in general in the United States and is prevalent in minority populations.

Refugee women are 1.5 to 2 times at risk for developing postpartum depression when compared to non-refugees (O'Mahony et al., 2013). Postpartum depression is more prevalent among first-generation immigrants than non-immigrants. Approximately 42% of first-generation immigrant women experience PPD compared to a rate of 10-15% in non-immigrant women (Ganann et al., 2016). A Canadian prospective cohort study (n=1,536) showed increased rates of postpartum depressive symptoms for those with recent immigration status at 16 weeks postpartum when compared to the rates found in Canadian-born women (Dennis, Merry, & Gagnon, 2017). Dennis et al., (2017) found a higher rate of PPD in refugee women, which was at 14.3%, compared to non-refugee women who had a PPD rate of 5.1%. Developing countries in which many refugee women migrated from have higher rates of PPD when compared to developed countries like the United States (Olin et al., 2017). Although mental illness can affect anyone, minority populations, to which most refugee women belong, are more prone to mental and physical illness due to multifactorial causes, such as violence, psychological and physical trauma related to war, lack of access to adequate healthcare, and the constant daily battle to meet their basic life needs like food, shelter, and safety. Healthcare providers need to be vigilant in recognizing the presence of PPD in refugee women (Jesuthasan et al., 2018; O'Mahony et al., 2013; Sriraman, 2012).

Risk Factors for Postpartum Depression in Refugee Women

There is a dearth of studies in the United States that address mental health disorders specific to the refugee population regarding the prevalence of mental illness, such as PPD. Many studies focus on the mental health of the mainstream population with limited studies focusing on

hard-to-reach vulnerable patient populations, such as refugees. Many research studies do not include factors such as poor socioeconomic status, poor health literacy, and social policy that further exacerbate refugee ability to access health care (Sudbury & Robinson, 2016).

The strongest predictors of PPD include a personal or family history of depression or anxiety, reoccurring stress, and the lack of adequate emotional and social support, all of which are frequently present in refugee women (Bass III & Bauer, 2018; Olin et al., 2017; O'Mahony et al., 2013). The higher incidence of PPD in refugee women is associated with the “lack of social support, migration induced stress, low socioeconomic status, and lack of access to healthcare and social services” (Dennis et al., 2017, p. 412). Assessing for PPD in patients with multiple risk factors is relevant, as these individuals have a higher risk for PPD when compared to those with minimal risk factors (Olin et al., 2017).

Previous Traumatic Experiences from Their Homeland

In the United States, approximately 5,000, 000 individuals are victims of torture, which can be commonly seen in the refugee population. Some of the most common countries from whom there are victims of torture include Somalia, Ethiopia, Eritrea, Senegal, Sierra Leone, Tibet, and Bhutan (Miles & Garcia-Peltoniemi, 2012). Victims of torture can lead to both physical and mental disabilities which can go untreated, as these individuals often lack awareness of treatment options (Jesuthasan, et al., 2018). About 50% of refugee women who were tortured reported sexual torture and being raped in the presence of their families (Miles & Garcia-Peltoniemi, 2012). Victims of torture are usually beaten with clubs, batons, fists, sexually assaulted, confined in boxes, burned, electrified, or experienced genital mutilation; they also suffer from chronic pain, hearing loss from trauma or gunshots, and multiple broken bones (Jesuthasan, et al., 2018; Miles & Garcia-Peltoniemi, 2012).

Healthcare providers must be cognizant of the profound tortuous experiences that many refugees have endured from their homeland and the potential effects on their physical, social, mental, and emotional well-being (Gagnon et al., 2004; Jesuthasan et al., 2018; Goodman et al., 2017). These profound experiences can lead to chronic pain syndromes, major depressive disorder, and functional limitations (Asgary & Smith, 2013). Many refugee women experience various types of traumatic experiences, such as “trauma related to the sociopolitical contexts in which they were situated, status-based trauma, which is related to their immigration status, and post-migration trauma that occurred once they were in the United States,” all of which predispose them to poorer health and overall well-being (Goodman et al., 2017, p.312). Treating individuals who are victims of torture can be very difficult, particularly since they usually have multiple comorbid physical and psychological conditions and other barriers that impede treatment. One of the reasons that refugee individuals get overlooked and, thus, untreated, can be from inadequate intake of histories and physical exams by healthcare providers (Miles & Garcia-Peltoniemi, 2012; Suárez-Orozco et al., 2013). Amnesia caused by the trauma from being tortured, stigma, and shame also act as barriers that prevent victims of torture from reporting torture or seeking help (Miles & Garcia-Peltoniemi, 2012).

Some refugees are able to overcome their previous traumatic experiences and take the step to seek medical assistance; others are commonly faced with barriers that impede their ability to seek care. Barriers for these individuals seeking care can include “mental illness discrimination, resettlement challenges, fear of deportation, language barriers, lack of insurance, financial means, social resources, and barriers in social assimilation” (Asgary & Smith., 2013, p.3). Adequate screening procedures for victims of torture and appropriate referrals are crucial in treating victims of torture to better help to decrease the patients’ pain and physical and mental

disabilities. Because torture affects the individual and their entire family, healthcare providers must be able to talk to refugee women about their previous experience of torture, exposure to war, or political violence in a direct manner (Miles & Garcia-Peltoniemi, 2012; Suárez-Orozco et al., 2013).

The Effect of Immigration Status/Proceedings

Healthcare disparities exist among minority populations in the United States, particularly among refugees. Health disparities are “racial or ethnic differences in the quality of healthcare that are not due to access-related factors or clinical needs, preferences, and appropriateness of intervention” (Abrishami, 2018, p.443). Factors that can contribute to health inequalities among refugees include the provider’s treatment of the patient, lack of the healthcare provider’s expertise in caring for patients from diverse backgrounds, and discriminatory actions towards minority populations. Healthcare providers must recognize when issues exist to be able to determine ways to work on resolving the problem (Abrishami, 2018). Pre-immigration proceedings that many refugee women encounter prior to seeking refuge in another country can be a challenging experience for immigrants, as they struggle to adjust to their new environment, which also contributes to unstable mental well-being (Suárez-Orozco et al., 2013). The aspect of being an immigrant as an independent factor is a significant predictor for developing PPD (Jesuthasan, et al., 2018; O’Mahony et al., 2013). The uncertainty of migrant status alone produces a great deal of stress and, when combined with the increased prevalence of previous traumatic experiences, places refugee women at a higher risk for mental health ailment (Anderson et al., 2017; Goodman et al., 2017).

According to Clements, Fletcher, Childress, Montgomery & Bailey (2016), lack of social support and inability to fully practice religious rituals are correlated to the development of PPD,

which can be very common in refugee women. Most refugee women strongly rely on their religious beliefs and community for social support, both of which are often impaired due to migration to another country (Suárez-Orozco et al., 2013). Many immigrants lack social, financial, emotional, and physical support from their families or spouses (Firth & Haith-Cooper, 2018; Goodman et al., 2017). For many refugee cultures, the women are part of a patriarchal system, which causes women to rely on men for financial support, as men are considered the breadwinner of the house. The immigration process can hinder the financial support from the men, as many refugee women ended up leaving their husbands behind during migration (Suárez-Orozco et al., 2013). Refugee women also lose their source of social and emotional support from their fellow women and the community in which they resided prior to migration (Suárez-Orozco et al., 2013). While refugee women may find an improved quality of life in their refuge countries, the transition can leave refugee women feeling a constant battle of finding ways to regain the social, emotional, and financial support that they left behind (Goodman et al., 2017; O'Mahony et al., 2013). Healthcare providers are also faced with challenges during health visits and may not feel equipped to care for refugee women, particularly when refugee women often present with multifactorial conditions that lack adequate time to address (Govere & Govere, 2016).

Language Barrier

The language barrier is also a significant factor that can impact the overall health and well-being of refugee women. Healthcare providers should take into consideration that having a qualified interpreter does not eliminate the potential language barrier during the communication process. Even though having a professional interpreter present during a patient encounter has significantly helped in caring for refugee women, factors such as the patient's age, gender, and

the subject matter being translated can be a potential barrier for refugee women and impact the quality of care (Sudbury & Robinson, 2016). A combination of language barrier, poor health status, and increased stressors can combine to create a negative impact on refugee women's mental health and well-being (O'Mahony et al., 2013).

The language barrier is a significant factor that is said to exacerbate refugees' lack of willingness to access healthcare services (Baffour, 2017). The screening tool used to screen for PPD in refugee women is generally in English and not in the patient's native language, which further contributes to the ongoing issue of the ability to communicate appropriately in the healthcare setting (Ekeroma et al., 2012; Schumacher & Zubaran, 2008).

Lack of Access to Healthcare Services

The emergence of the Affordable Care Act (ACA) led to tremendous change in the healthcare system, and as the number of individuals without health insurance coverage decreased so did healthcare disparities related to health insurance coverage in minority populations (Blewett, Planalp, & Alarcon, 2018). There was a 9-12% decrease in the number of uninsured minority individuals during the first two years of the implementation of the ACA (Blewett et al., 2018). The increase in healthcare coverage helped insured some minority populations; such as Blacks and Hispanics. Many immigrants, however, were still left uninsured, and those that were insured had more extended wait periods for insurance coverage to begin (Shin & Regenstein, 2016). The lack of healthcare services due to insurance coverage can create a further barrier to adequate and prompt management of mental and physical illnesses, which is can be more common among racial and ethnic minorities (Baffour, 2017). While there is no specific information regarding the number of refugees who are covered by ACA, factors, such as

immigration status, language barrier, and lack of access to healthcare, create difficulties for refugee women to be included in studies (Anderson, Hatch, Comacchio, & Howard, 2017).

The changes in healthcare coverage have also significantly contributed to the increasing need for healthcare providers, mainly in underserved populations. Advance Practice Registered Nurses (APRNs) and Advance Practice Providers (APPs) are often caring for underserved populations (Shin & Regenstein, 2016). The need for APRNs continues to increase tremendously, especially in primary care settings and in underserved areas (Torre & Drake, 2014). Primary care providers, whether physicians or APPs, who provide care to minority groups need to be educated regarding the concern for the increased prevalence of PPD in the refugee population and implement ways to minimize and, eventually, eliminate these disparities (Baffour, 2017).

The Effect of Socioeconomic Status in the Development of Postpartum Depression

Individuals living in poverty usually struggle a great deal to meet their basic needs; they are usually under high-stress and lack social support, which can lead to the development of mental illness (Ljungqvist, Topor, Forssell, Svensson, & Davidson, 2016). These contributing factors predispose individuals living in poverty to mental illness (Do et al., 2018; Firth & Haith-Cooper, 2018). The prevalence of PPD is higher in low-income families and minority populations (Olin et al., 2017). Poverty is associated with the development of mental illness, and this is a common reason why many immigrants, especially those who lived in third world countries, migrated to improve their lives (O'Mahony et al., 2013). "Poverty can increase the risk for behavioral health disorders throughout the life course, and exposure to stressful events without social support is attributable to poor behavioral health outcomes" both of which are common problems faced by refugee women (Baffour, 2017, p113).

Individuals with low socioeconomic status have a 2.5 times higher risk of developing mental health disorders, such as anxiety and depression, when compared to those with higher socioeconomic status (Baffour, 2017; Freedman, 2018). Segre et al. (2007) performed a cross-sectional study (n=4,332) where 12% of the women met the criteria for a diagnosis of PPD. The women in the above study with PPD were from low socioeconomic status, had numerous children, were younger, single, and had lower educational backgrounds. According to Doe et al. (2017), women with low socioeconomic status are twice as likely to screen positive for postpartum depressive symptoms (27%) when compared to 14% of those with higher socioeconomic status.

Doe et al. (2017) found a correlation between the prevalence of PPD and domestic violence. Child abuse or inadequate living arrangements combined with unemployment status was a major predicting factor for the development of PPD. Educational background and socioeconomic status also appear to play a role in the prevalence of PPD, as the Caucasian population with higher educational background and socioeconomic status have lower rates of PPD when compared to individuals with low socioeconomic status (Do et al., 2018; Liu & Tronick, 2013). Minority populations and people with low socioeconomic status are less likely to receive mental health care related to a lack of provider trust, mode of transportation, and of a financial means to pay for treatment (Orengo-Aguayo & Segre, 2016). Culturally, refugee women might also not have the option of making healthcare decisions for themselves, even regarding their health. For example, in some cultures, the man is the head of the family and will decide if further care needs to be sought or not. In that regard, gender can contribute to lack of access to mental health screening and services (Johnson-Agbakwu et al., 2014). Despite the increase in socioeconomic status that refugee women gain by migrating to the United States,

many continue to experience a decline in their mental well-being due to the persistent stressors that are related to the discrimination that they face in their day-to-day lives (Anderson et al., 2017).

Cultural Influence on the Health of Refugee Women

The healthcare provider's ability to recognize the impact of cultural beliefs in minority patients health is a significant determinant in patient care outcomes. "Cultural beliefs and values have an important effect on individuals' health-seeking behaviors, cultural competency, and diversity education is crucial in the healthcare industry" (Abrishami, 2018, p.442). The concept of mental health and illness is most often talked about and understood by many individuals in developed countries, such as the United States, whereas, individuals from developing countries may lack the understanding of mental illness or perceive mental illness as "taboo" (Firth & Haith-Cooper, 2018). For many refugee women, motherhood is viewed as a source of pride among their fellow women; the lack of understanding of postpartum depressive symptoms can be conflicting, as refugee women try to understand their emotional lability during a time when they are supposed to be happy (Ganann et al., 2016). Refugee women who understand some of the concepts of mental health and illness and decide to seek care can be labeled and maltreated by their families and the communities in which they reside.

Some cultures view mental illness as an abomination or curse and associate it with sorcery; this usually leads to adverse health outcomes, as refugee women are discouraged from seeking appropriate care in a timely manner (Firth & Haith-Cooper, 2018). Healthcare providers must utilize each opportunity to learn about their patient's perception of mental health and illness to provide education regarding the misconception of mental illness to their patients and their families. A healthcare provider's inability to understand and adequately address cultural

perceptions can create a barrier between the provider-patient relationship and can result in poor patient outcomes (Sanchezelminowski, 2015). Because cultural beliefs assist refugee women in navigating various aspects of their lives, including their health and well-being, providers must be culturally competent to provide care that fosters better health outcomes (Sanchezelminowski, 2015).

While cultural beliefs and practices can be a source of strength and support for some refugee women, cultural practices, such as female genital mutilation, which is said to be performed in 98% of Somalian women and is also common among many refugee populations, can create a permanent mental and physical scar for victims (Johnson-Agbakwu, Helm, Killawi & Padela, 2014). The Somalian population, along with other refugees from countries like Bosnian, Nepali, Vietnamese, and other West African nations, are some of the most common refugee populations seen at the FQHC. Female genital mutilation fosters the development of anxiety disorders due to the stigmatization of these cultural practices, which eventually leads to mistrust and miscommunication between refugee women and their healthcare providers and, ultimately, poorer health outcomes (Johnson-Agbakwu et al., 2014). The misconception among refugee women is often that healthcare providers are unable to take care of women who have undergone female genital mutilation, which they believe is the reason for the increased rate of cesarean section among their population. Refugee women also perceive that healthcare providers in the United States may view them to have “abnormal anatomy” because of the mutilation and this misconception can further create barriers, thereby hindering their ability to seek the appropriate care during pregnancy and the postpartum period (Johnson-Agbakwu et al., 2014). The patient’s inability to trust that healthcare providers can adequately care for them makes it

difficult for the patient to accept a diagnosis of PPD, thereby impeding their ability to seek treatment (Orengo-Aguayo & Segre, 2016).

A study conducted by Cheon, Chang, Kim, and Hyun (2016) demonstrated the negative impact of cultural beliefs pertaining to the perception of mental illness. Significant differences in perception and beliefs can create care barriers among healthcare providers and individuals with various cultural beliefs and the ability to seek care. Some cultures view mental illness as a dishonor to not only the individual suffering from mental illness but also the individual's entire family. Other factors, such as "mental illness stigma, structural barriers to service utilization, mistrust of mental health professionals and services, and the patient's denial of their mental illness were identified as general barriers to seeking mental health services" (Cheon, Chang, Kim, & Hyun, 2016, p.547). Minority populations' views regarding mental illness are one of the most significant barriers to their ability to seek assistance, as their cultural beliefs impede their ability to recognize mental illness as a problem and lack the adequate coping mechanisms to improve mental illness (Cheon et al., 2016).

As a cultural practice, refugee women rely on the knowledge and advice of their elders for decisions, including care during pregnancy and childbirth, which significantly influences their willingness to seek care from healthcare providers (Johnson-Agbakwu et al., 2014). The role of many refugee women, especially Somali women, is one that is traditional to a patriarchal society. In the Somali culture and many refugee women's culture, a woman's traditional role is to take care of the household, the children, and her husband. Many refugee women in patriarchal culture have minimal input into decisions for their healthcare and day-to-day decisions, which can negatively impact the overall quality of mental and physical well-being (Johnson-Agbakwu et al., 2014).

The healthcare provider's ability to understand the impact of cultural beliefs on refugee women better allows the provider insight into the reasoning behind the patients' decisions that could potentially harm their health. Healthcare providers are not only obligated to be aware and be sensitive towards their patients' cultural needs, but they must also be cognizant regarding the various cultural dimensions of their patient's health and illness, as this is a vital component in improving the mental and overall well-being of culturally diverse patients (Sanchezelminowski, 2015).

Recommended Areas of Increased Awareness for Providers Regarding Risk Factors

While many refugees struggle in adjusting to their new settings, their inability to adapt to their new environment may be influenced by the lack of social support, fear of the unknown of what will happen to the loved ones they left behind, and lack of food (Firth & Haith-Cooper, 2018). Those issues combined with their poor perceptions of mental health puts refugee women at a higher risk of developing PPD, especially women who are within childbearing age (Dennis et al., 2017). Elements, such as the social "pressure of the need for having a male baby, presence of two or more children under the age of seven, having two or more girl children, physical abuse, large number of family members living together, lack of employment of the husband" are all contributing factors for PPD (Almond, 2009, p. 222). Highlighting the various risk factors for PPD, such as lack of education, low socioeconomic status, and stressful events that many refugees undergo can help trigger healthcare providers to be vigilant for mental health disorders, such as PPD when they encounter refugee women. Implementing programs that address abuse, manage food scarcity, improve social support, and enhance the mental health of immigrants will assist in decreasing PPD symptoms and adequate management of depressive symptoms during the postpartum period and can eliminate some of the barriers (Dennis et al., 2017).

Providers must be aware of risk factors that could affect refugee health and general well-being to improve patient outcomes. Healthcare providers must also be willing to advocate for conditions like “unemployment, poor housing, food insecurity, and significant barriers to health care access,” all of which are major contributing factors for poor health (Asgary & Smith, 2013, p.9). The healthcare provider’s ability to recognize some of the most prevalent risk factors for PPD in refugee women can foster early intervention in preventing or decreasing the negative impact that PPD may cause on the mother and the entire family’s health (Leonardou et al., 2009).

Culturally Sensitive Care

Due to the increase in the number of minority populations in the United States, the need for healthcare providers to provide culturally sensitive care is vital (Govere & Govere, 2016). Culturally sensitive training positively benefits healthcare providers by improving their attitudes, knowledge, and skills, all of which increases the providers’ cultural competencies. Enhancing healthcare providers’ ability to provide culturally sensitive care also increase patient satisfaction (Govere & Govere, 2016). In order for healthcare providers to better care for refugee women, they must be well acquainted with the various cultural beliefs and views that could negatively impact these individuals and their ability to seek care, or at least possess a curiosity to inquire and learn about these factors (Sanchezelninowski, 2015).

Often, APPs work in areas with underserved populations, such as refugee women, and, thus, are obligated to be culturally sensitive in matters that can affect the health of their patients (Sanchezelninowski, 2015). Being a culturally sensitive practitioner involves the provider’s ability to “understand and appreciate the social-cultural background of clients, their families, and the environment in which they live” as this will lead to a “meaningful, cost-effective, and higher quality care” (Sanchezelninowski, 2015, p. 105). Healthcare providers can increase the ability

to provide culturally sensitive care through continual effort in advancing their professional education regarding minority patients, traveling to areas with diverse cultural populations, and working in areas that increase their encounters with patients from various cultural backgrounds and beliefs (Åstedt & Kaunonen, 2017). Due to the increase in healthcare disparities that occur in the minority population, focusing on issues like culture and language barriers can help minimize some of the disparities and promote better patient outcomes (Beharu, Bekele, Birhanu & Yimam, 2017).

Benefits and Barriers of Screening and Treatment

The identification of depressive symptoms is often missed during pregnancy due to the resemblance of depressive symptoms to that of the common symptoms that people experience during pregnancy, such as the fluctuation in weight and appetite, fatigue, and difficulty with sleeping (Mukherjee et al., 2016). Postpartum screening using a reliable screening tool is recommended in all women during the postpartum period, and this is typically missed by primary care providers for refugee women (Lujan, 2017). Screening for postpartum depressive symptoms is a critical aspect that primary care providers, especially those that work with women and the pediatric population, should integrate into their practice at regular recommended intervals, such as the 1-month, 2-month, and 6-month intervals (Bass III & Bauer, 2018; Kurtz, Levine & Safyer, 2017; Olin et al., 2017). Even though the recommended intervals are as above, multiple researchers identified that the most crucial time to screen patients was at the 2-month and 6-month intervals (Bass III & Bauer, 2018; Olin et al., 2017). Because primary care providers often have more contact with the patient during the postpartum period, especially during the well-child visit, they must utilize this opportunity to assess for PPD (Olin et al., 2017).

Patients suffering from PPD can be adequately managed in a primary care setting, which is considered a core clinical setting (Aragonès et al., 2017).

Screening for PPD has been shown to decrease postpartum depressive symptoms and decrease the prevalence of PPD when there is a treatment protocol in place and the healthcare providers are trained and equipped with the necessary skills required to care for this type of patient (O'Connor et al., 2016). Patient outcomes can be significantly affected by the effectiveness of the follow-up plan that is put in place for the patient (Olin et al., 2017).

O'Connor et al. (2016) (n=11869) found a significant decrease in the postpartum depressive symptoms of 59% to 18% in women who were screened for PPD with a follow-up in place when compared to those that did not have follow-up, thereby highlighting the significance of screening for PPD and developing a follow-up plan. Untreated or missed diagnoses of depressive symptoms during pregnancy can be the start of a challenging life for both the mother and the fetus, as this can lead to significant health conditions such as preeclampsia, early or stillbirth, risky behaviors such as illicit drugs and alcohol use in pregnancy, and ultimately leads to worsening patient outcomes (Mukherjee et al., 2016; Olin et al., 2017). The negative impact of PPD on the mother's health and that of the infant can be minimized through the implementation of early screening thereby promoting adequate diagnosing and treatment plans (Do et al., 2018; Zee-van den Berg, Boere-Boonekamp, IJzerman, Haasnoot-Smallegange, & Reijneveld, 2017).

Time constraints, failure of the administration of screening tools to the patient by the provider's support staff, and the provider's ability to remember to administer the screening tool are all barriers to adequately assess PPD in the clinic setting, which negatively affects patient outcomes (Lujan, 2017). Time constraints, inadequate or lack of resources, fear of liability, and the lack of provider's confidence in treating mental health are perceived reasons for the

discrepancy between screening and treating individuals with mental health illnesses (Sriraman, 2012). A literature review conducted by Olin et al. (2017) reported that considerations, such as routine screening for PPD using validated screening tools, assessing psychosocial risk factors, counseling, utilizing social support, and adequate referral process to mental health services could help providers to achieve better patient outcomes. Early interventions and treatment can decrease the overall cost associated with untreated PPD and improve patients' lives (Do et al., 2018). Healthcare organizations and healthcare providers must work diligently to overcome the above factors that improve their abilities to assess and treat postpartum depressive symptoms, thereby improving patient outcomes.

Screening for Postpartum Depression

While the focus on assessing mental health disorders is slowly increasing, many providers struggle with finding resources or appropriate instruments when assessing PPD, especially in minority individuals (Moran & O'Hara, 2006; Suárez-Orozco et al., 2013; Schumacher & Zubaran, 2008). According to Sriraman (2012), 90% of pediatricians at the infant 2-week follow-up visit recognize that they are responsible for assessing PPD in the mother, however about 71% rarely or never assess for PPD, and those that do assess PPD, 93% rarely or never provide the appropriate referral. The lack of adequate resources to manage mental illness creates a barrier and an individual's ability to attain optimal mental health which is often present in countries with low resources (Upadhyay et al., 2017). Because PPD can affect the entire family, providers must have the necessary tools required to adequately screen these patients (Olin et al., 2017; Sriraman, 2012; Zee-van den Berg et al., 2017). Utilizing the appropriate diagnostic tools enhances the provider's ability to diagnose patient conditions and disease processes accurately (Milgrom et al., 2005; Olin et al., 2017). Some of the commonly used

screening tools for postpartum depression include the Edinburgh Postnatal Depression Scale (EPDS) and the Patient Health Questionnaires (PHQ-2 and PHQ-9), with the PHQ-9 more commonly used when compared to the PHQ-2 (Olin et al., 2017). The PHQ-2 is one of the screening tools used in PPD screening and comprises of the first 2 questions of the PHQ-9, which include questions on a change in the patient's interest or pleasure, and feelings of depression or hopelessness (King, Pestell, Farrar, North, & Brunt, 2012). See Appendix F for PHQ-2.

There is a high false positive rate found with the use of PHQ-2 during PPD screening, though can be used as a prescreening tool followed by the EPDS (King et al., 2012). The PHQ-2 has been shown to perform poorly when used in minority populations and patients with low socioeconomic status (Bass III & Bauer 2018). The increase in false positive results when using the PHQ-2 may be related to the terms used in the questionnaires, as many refugee women may not understand terms such as pleasure, depressed feelings, or hopelessness, and are more likely to answer “no” to these questions.

While the PHQ-9 is commonly used in the United States to screen for general depressive symptoms, this screening tool is not specific to PPD; the EPDS is tailored for assessing PPD (Bass III & Bauer 2018). “The EPDS is more accurate in detecting for PPD when compared to the PHQ-9” (Davis, Pearlstein, Stuart, O’Hara, & Zlotnick, 2013. p.272). The EPDS and PHQ-9 have a cutoff score of 10. A score of 10 to 19 on both scales is considered moderate symptoms and a score of 19 or higher or a positive screen for suicidal ideation or thoughts of self-harm is considered severe and requires immediate attention and referral to a behavioral or mental health specialist or healthcare facility (Olin et al., 2017; Schumacher, & Zubaran, 2008). The PHQ-9 has been translated and validated into different languages, including Spanish, Portuguese, Haitian

Creole Mandarin, Chinese, Japanese, French, Greek, and Korean (Sawaya et al., 2016, p. 2). The United States Preventative Services Task Force (USPSTF) recommends a broader screening process for depressive symptoms and cautions that providers have appropriate measures in place that enable accurate diagnosis, treatment, and follow-up in place to enhance improved patient outcomes (DeCapua, 2018; Olin et al., 2017). The EPDS is a more suitable screening tool for PPD and is appropriate to use in the refugee population. The EPDS is not only specific to assessing PPD but its translation into over 50 different languages makes this scale suitable for refugee women and other minority populations and can significantly decrease the language barrier that typically impedes patient care (Davis et al., 2013; Ekeroma et al., 2012; McCabe-Beane et al. 2016).

Edinburgh Postnatal Depression Scale (EPDS)

The Edinburgh Postpartum Depression Scale (EPDS) is an evidence-based screening tool that is not only tailored towards assessing PPD but also appropriate to use in the minority population, such as the refugee population (McCabe-Beane et al., 2016; Moran & O'Hara 2006). The EPDS has been around since 1987 and has been found to be one of the most reliable screening tools for postpartum depression, both in the past and present among researchers and clinicians (Cox, Holden & Sagovsky, 1987; McCabe-Beane et al., 2016; Moran & O'Hara, 2006). Lind et al., (2017) and Milgrom et al., (2005) strongly recommends that the EPDS be incorporated as part of the standard of care and deemed this tool adequate in screening for postpartum depressive symptoms. The EPDS screening tool is user-friendly, safe, accurate, and appropriate in screening postpartum depression in the primary care setting (Bodnar-Deren, et al., 2017; Milgrom et al., 2005). The EPDS has a sensitivity ranging from 92.3 to 96 % and specificity ranging from 72.5 to 95 %, thereby making this scale a reliable tool for screening for

postpartum depressive symptoms (Bina & Harrington, 2016; Ganann et al. 2016; Dennis et al. 2016; Töreki et al., 2013). The use of the EPDS as a validated screening instrument for assessing PPD has significantly increased the detection rates of PPD (Zee-van den Berg et al., 2017). The EPDS is appropriate for assessing both anxiety and depression, along with anhedonia, and continuous use for mental health screening is recommended (Coates, Ayers & de Visser, 2017).

The lack of adequate screening and treatment in the primary care and obstetric setting accounts for 50% of missed PPD diagnoses (Kalina, 2015). The EPDS is accepted worldwide and has been officially validated in 12 countries and translated into 57 native languages (Gausia, Fisher, Algin, & Oosthuizen, 2007; McCabe-Beane et al. 2016; Shrestha et al., 2016). Some of the languages in which the EPDS has been translated to include English, Spanish, Hungarian, Chinese, Greek, Hebrew, Bangle, Samoan, and Tongan (Ekeroma et al., 2012). Some of the languages commonly spoken among refugee women at the FQHC include Spanish, Arabic, Nepali, Somalian, Turkish, Swahili, and Vietnamese. The EPDS scale has a “strong internal consistency between language and by ethnicity,” making the EPDS an appropriate screening tool for PPD in various ethnicity and minority populations (Ekeroma et al., 2012. p.46). The EPDS screening tool is generally administered at one, two, four and six-months postpartum during the well-child visit (Del Rosario, e al., 2013; Sriraman, 2012, Zee-van den Berg, et al., 2017). The EPDS is also used as a screening tool for PPD and anxiety, making this scale multidimensional (Bina & Harrington, 2016).

The scale consists of a 10 item tool. Each question scores from zero to three possible points per response, and then summed from zero to thirty. The EPDS looks at postpartum depressive symptoms within the last seven days during the postpartum period. A higher score is indicative of the probability of the occurrence of postpartum depressive disorder. A score of 10

or higher or the response of “yes” to suicidal ideation or plan is considered indicative of PPD, thus, appropriate intervention, such as urgent medical care or referral to a mental health specialist must be recommended by the healthcare provider (Bass III & Bauer, 2018; Moran & O'Hara, 2006; Sriraman, 2012). A patient who scored a 10 should have a repeat administration of EPDS in 2 weeks and a score of 12 or higher is indicative for further evaluation (Bass III & Bauer, 2018). The EPDS has a cutoff score ranging from 10-13 with a higher score indicating moderate to severe postpartum depressive symptoms (McCabe-Beane et al., 2016). Scores are classified as the following: 0-6 none or minimal depression, 7-13 mild depression, 14-19 moderate depression, and 19-30 as severe depression (McCabe-Beane et al., 2016).

Assessing for depressive symptoms during the postpartum period assists healthcare providers to intervene and implement the appropriate treatment plan that can prevent various adverse outcomes that can follow when timely diagnosis and treatment is not attained. Milgrom et al. (2005) strongly recommend the implementation of the EPDS as part of standard care and deemed this tool adequate in screening postpartum depressive symptoms. Healthcare providers must utilize each patient encounter as an opportunity to assess the mother for PPD, especially during the first year postpartum. The EPDS questionnaire is included below and in Appendix A.

Table 1

EPDS Questionnaire

Time of Visit <input type="radio"/> 1- month well-child visit <input type="radio"/> 2- month well-child visit <input type="radio"/> 4-month well-child visit <input type="radio"/> 6 month well-child visit <input type="radio"/> Postpartum visit <input type="radio"/> Other How Many Children do you have? _____	Completed With/By: <input type="radio"/> Nurse <input type="radio"/> Provider <input type="radio"/> Patient (self) <input type="radio"/> Translator Other Informamation <input type="radio"/> How long have you lived in the USA?_____ <input type="radio"/> Country of Birth?_____ <input type="radio"/> Who helps you at home with your child?_____ <input type="radio"/> Are you a Refugee?
1. I have been able to laugh and see the funny side of things.	<input type="radio"/> As much as I always could <input type="radio"/> Not quite so much now <input type="radio"/> Definitely not so much now <input type="radio"/> Not at all
2. I have looked forward with enjoyment to things.	<input type="radio"/> As much as I ever did <input type="radio"/> Rather less than I used to <input type="radio"/> Definitely less than I used to <input type="radio"/> Hardly at all
3. I have blamed myself unnecessarily when things went wrong	<input type="radio"/> Yes, most of the time <input type="radio"/> Yes, some of the time <input type="radio"/> Not very often <input type="radio"/> No, never
4. I have been anxious or worried for no good reason.	<input type="radio"/> No, not at all <input type="radio"/> Hardly ever <input type="radio"/> Yes, sometimes <input type="radio"/> Yes, very often
5. I have felt scared or panicky for no very good reason.	<input type="radio"/> Yes, quite a lot <input type="radio"/> Yes, sometimes <input type="radio"/> No, not much <input type="radio"/> No, not at all
6. Things have been getting to me.	<input type="radio"/> Yes, most of the time I haven't been able to cope at all. <input type="radio"/> Yes, sometimes I haven't been coping as well as usual. <input type="radio"/> No, most of the time I have coped quite well. <input type="radio"/> No, I have been coping as well as ever.
7. I have been so unhappy that I have had difficulty sleeping	<input type="radio"/> Yes, most of the time <input type="radio"/> Yes, quite often <input type="radio"/> Not very often a <input type="radio"/> No, not at all
8. I have felt sad or miserable.	<input type="radio"/> Yes, most of the time <input type="radio"/> Yes, quite often <input type="radio"/> Not very often a <input type="radio"/> No, not at all
9. I have been so unhappy that I have been crying	<input type="radio"/> Yes, most of the time <input type="radio"/> Yes, quite often <input type="radio"/> Only occasionally <input type="radio"/> No, never
10. The thought of harming myself has occurred to me.	<input type="radio"/> Yes, quite often <input type="radio"/> Sometimes <input type="radio"/> Hardly ever <input type="radio"/> Never
PHQ-2 Score _____ EPDS Score _____	

Referral/Treatment Plan

The healthcare system and policies on provider reimbursement for mental health services in the United States can create difficulties in managing PPD. An example is when a patient is suffering from PPD and the patient and her children are treated separately instead of as a unit (Olin et al., 2017). The PPD treatment rates among minority women continue to remain low despite the availability of treatment options. Stigma towards PPD treatment is a significant contributing factor, however other factors, such as lack of provider trust and inability to access treatment also contribute to the low rates in treatment (Bodnar-Deren, Benn, Balbierz, & Howell, 2017). Recognizing the prevalence of PPD in refugee women, understanding the effect of cultural beliefs on the mental illness, knowing the risk factors for PPD, and utilizing the appropriate screening tool for PPD in refugee women increases the potential for the best possible outcomes for refugee women. Treatment recommendations often focus on a multifactorial approach (Do et al., 2018). Non-pharmacological interventions, such as counseling are usually recommended as the first line of treatment of PPD.

Psychotherapy is a non-pharmacological treatment option used to treat mild to moderate symptoms of PPD and is commonly used in women that breastfeed (Bass III & Bauer, 2018; Del Rosario et al., 2013). Cognitive behavioral therapy is a form of psychotherapy which teaches the patient various methods on how to alter their thought patterns and enhances the individual's coping mechanisms. This type of therapy is said to be "interpersonal, time-limited, problem-focused modality that can be used alone or in conjunction with pharmacological therapy" (Del Rosario et al., 2013, p.52). Cognitive behavioral therapy is an alternative to pharmacological therapy in treating PPD and is considered an effective treatment approach (Bass III & Bauer, 2018; O'Connor et al., 2016). An EPDS or PHQ-9 score of 5-9 is considered mild symptoms and

recommendations include watchful waiting, along with verbal and written education on PPD with plans for the patient to be rescreened at the 6-month follow-up visit (Olin et al., 2017). Supportive interventions, such as providing patient education regarding the differences between PPD, baby blues, and chronic depression, and utilizing social support, counseling, and lifestyle changes are appropriate for patients with mild or moderate symptoms of PPD. Adjunctive measures, such as bright light therapy, acupuncture, massage, and lifestyle modification, such as eating healthy and exercising, also need to be incorporated to have successful therapy (Del Rosario et al., 2013). Patients should also be educated on the myths, realities, and expectations of motherhood; this is especially important for refugee women as their perceptions regarding motherhood and depression is most often influenced by cultural views and myths (Olin et al., 2017).

Because many refugee women are victims of torture, it is important that healthcare providers be aware of treatment options for victims of torture. Some treatment options for individuals with exposure to torture include physical therapy, psychotherapy, pain desensitization, cognitive behavioral therapy, psychosocial support groups/facilities such as International Rehabilitation Council for Torture Victims and the Center for Victims of Torture, all of which utilize a multidisciplinary approach (Miles & Garcia-Peltoniemi, 2012). Providing the opportunity for victims of torture to talk about their experience of torture is significant, as this process allows the patient to openly discuss their experience which gives the providers some insight into the patient's state of mind.

The decision to use pharmacological therapy as a treatment of choice for PPD is multifactorial, where the provider considers the severity of the patient's depressive symptoms, medication side effects, and the potential effect on the health of both the mother and the infant;

cost is also a major contributing factor in the treatment of choice (Del Rosario et al., 2013). The use of pharmacological intervention must be done diligently due to potential adverse health effects that can occur not only the mother but the infant during breastfeeding. Antidepressants have a positive health impact on the mother, infant, and the entire family due to the mother's ability to function and have a stable mental health status when used safely and appropriately. The provider's ability to utilize resources such as LactMed can assist in safe prescribing of antidepressants to breastfeeding mothers (Del Rosario et al., 2013).

Due to the potential adverse effect of every medication, especially antidepressants, some are not recommended during breastfeeding. The goal is to start the antidepressant at the lowest dose and increase the dose every fourth day based on the patient tolerance level. Selective serotonin reuptake inhibitors (SSRIs), such as fluoxetine, paroxetine, and sertraline are the first-line pharmacological agents of choice used to treat PPD (Del Rosario et al., 2013).

Approximately 44% of patients diagnosed with PPD are treated with SSRIs (Lind et al., 2017). Sertraline and paroxetine are recommended in breastfeeding mothers because only a small amount is found in the breastmilk when compared to other medications and are considered category "B" medications, which indicates that no risks have been found in humans as far as research has found. Tricyclic antidepressants (TCAs), such as nortriptyline and imipramine, can be used while breastfeeding with lower, divided doses used as a second line of treatment for PPD. Caution must be taken when prescribing this class of drugs due to their high risk for drug overdose. Research shows that an alteration in hormone levels, such as estrogen and progesterone, could be a potential cause of postpartum depressive symptoms; therefore hormone therapy such as transdermal estradiol is sometimes used as a third line of treatment (Del Rosario et al., 2013). To avoid relapse, an additional six to nine months of taper medication treatment is

recommended after the resolution of depressive symptoms for women being treated for PPD (Del Rosario et al., 2013). A mother that exhibits symptoms that are deemed high risk for the safety of the mother or the infant must seek medical attention immediately in-conjunction with appropriate follow-up plans in-place if needing hospitalization (Olin et al., 2017)

Because the development of postpartum depressive symptoms is multifactorial, multiple treatment modalities may be needed, such as both non-pharmacologic and pharmacologic options. When treating PPD, providers must be aware of potential barriers to care, such as mental illness stigma and its relation to motherhood, lack of insurance, fear of medication side effects, and provider's perceptions, and the fear of social services involvement and potential of losing their infant impedes the patient ability to seek care in a timely manner (Olin et al., 2017). The implementation of appropriate screening tools, accurate diagnosis, coordination between the patient and available community resources and proper follow-up increases the potential for positive results (Sriraman, 2012; Olin et al., 2017). Healthcare providers must be able to coordinate care between the patient, their families, mental health professionals, and the community in which the patient resides in order to adequately address the needs of the patient's mental health (Sriraman, 2012).

Theoretical Framework

An individual's culture has a significant impact on their perception of health and illness and life in general. Health care providers need to have sufficient knowledge regarding various cultural beliefs and practices in order to provide care that is deemed culturally appropriate to the patient population that they serve (Ekman & Emami, 2007). Culture plays a significant role in refugee women's perceptions of mental health and their ability to seek care; enhancing providers' knowledge in the various cultural beliefs systems can assist them in assessing,

diagnosing, and treating these patients in a timely manner (Debiasi & Selleck, 2017; O'Mahony et al., 2013). "Increasing one's consciousness of cultural diversity improves the possibilities for healthcare practitioners to provide culturally sensitive care, and therefore improved care" (Purnell, 2005, p.7).

Dr. Madeleine Leininger's Theory of Culture Care Diversity and Universality was the theory chosen to help guide this practice improvement project because the theory aims to assist healthcare providers to provide "culturally congruent and sensitive care," which aligns with the goals of the project. The theory of Culture Care Diversity and Universality theory aims to assist healthcare providers in providing care that is specific to the patient's culture, which includes their beliefs, values, practices, and the effect of cultural factors in health and illness (Ekman & Emami, 2007; Lopes Campelo et al., 2018). The ability to provide universal care involves the provider's understanding a person's values, beliefs, attitude and views, which is done through the understanding of the person's culture (Lopes Campelo et al., 2018). In order to demonstrate the interrelationship of the concepts of the Theory of Culture Care Diversity and Universality, Dr. Leininger created the Sunrise Enabler/model, which shows the various multicultural facets, thereby assisting healthcare providers in understanding and providing individualized care to patients with diverse cultural backgrounds.

Leininger's Sunrise Enabler to Discover Culture Care

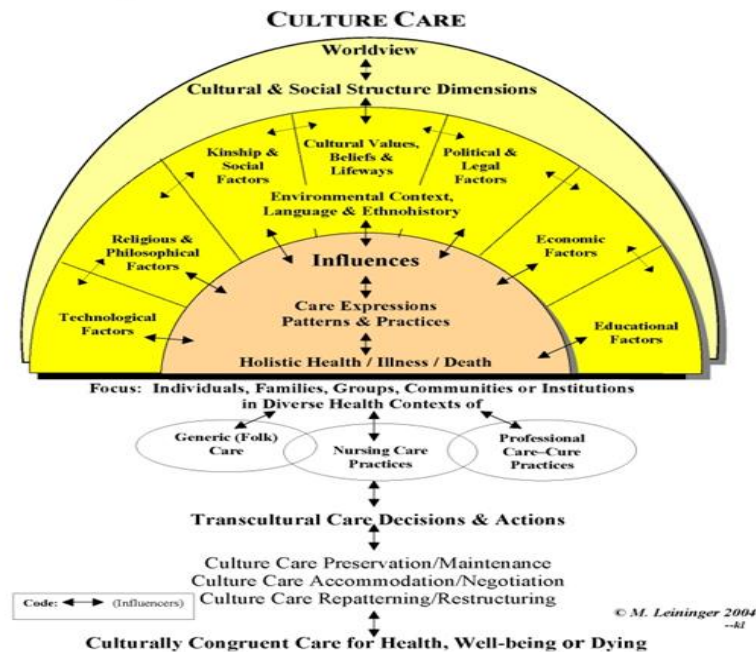


Figure 1. Sunrise Enabler/Model.

The Sunrise model contains a series of dimensions that are interrelated with the overall goal of providing culturally sensitive care. The various dimensions of the Sunrise model start with the goal of the theory, which is the first subconcept, Culturally Congruent Care, which means overall health/well-being for the individual. The next subconcept consists of the three modes of nursing care decisions and actions, which includes Cultural Care Preservation, Cultural Care Accommodation, and Culture Care Re-patterning or Restructuring. An example of all three modes of nursing care decisions includes when a female healthcare provider is assigned to provide care for a Muslim woman and completes an annual physical exam with minimal exposure of the patients' skin during the assessment. By doing so, the provider is preserving the patient's cultural beliefs and values (forbidden for Muslim women to be touched and seen partially naked by another man who is not their husband) and to enhance care and patient outcomes (a complete patient assessment, although modified for cultural beliefs through limited

skin exposure). Improved care can improve the patient experience and health in order to enhance patient follow-through with the provider recommendations and follow-up, such as when a provider recognizes potential cultural views impairing treatment for PPD and discusses these concerns with the patient. The subconcept was applied in the practice improvement project by better equipping providers within the FQHC with enhanced cultural knowledge regarding refugee women to help improve patient care delivery. A combination of the three modes stated above ultimately influences the decision of care that the provider takes, which also leads to the next subconcept of the sunrise model which is the Care Decisions and Actions, such as when the provider was able to adjust to patient cultural beliefs during the assessment and exam.

The third subconcept includes the Nursing Care Practices, which is interrelated with Generic (folk) Care and Professional Systems. This subconcept is influenced by individuals, families, groups, communities, and institutions in diverse health systems, all of which significantly influence the healthcare provider's care and patient outcomes. Providers within the practice improvement project were better educated on the unique influences pertaining to the refugee women in order to make clinical decisions to incorporate these areas into the patient care plan.

The beginning of the Sunrise model that resembles the rising of the sun started off looking at the Holistic Health (well-being). The Holistic Health involves Care Expressions, Patterns, and Practices of which includes multiple influences, such as Technological Factors, Religious & Philosophical Factors, Kinship & Social Factors, Cultural Values, and Lifeways, Environmental Context, Language & Ethnohistory, Political and Legal Factors, Economic Factors and Educational Factors. Technological, Economic and Educational Factors can be grouped together. Refugees in general, especially refugee women, may be at a disadvantage, as

many of them lack education which might be influenced by the lack of financial means for parents to send their children to school or the cultural belief that a woman's place in society involves getting married and raising children, thus less emphasis is placed on education. The lack of education and financial resources may have an impact on their ability to own and operate electronic devices. Healthcare providers can decrease the potential barriers that can be created by Technological, Economic, and Educational Factors by providing multiple modalities (paper and/or electronic) screening tools, avoiding communication methods via emails (my health) only, and writing letters, results, and educational information at a level the patient can interpret and, if possible, in the native language. Providers should use face-to-face or professional interpreters when communicating with patients and, if possible, establish a communication system with someone from the patient's community with the patient consent for those with no access to phones.

Actions of a healthcare provider's care that takes into consideration the Religious & Philosophical, Cultural Values and Lifeways, and Kinship & Social Factors include increasing provider awareness that many refugee women utilize the elderly women in their communities for guidance during pregnancies and the postpartum period as a cultural practice, thereby influencing refugee women's abilities to seek care from a primary care provider. Another example is the provider's ability to understand that some cultures view mental illness, such as PPD as a "taboo," and communicate concerns for PPD through the use of words that describe PPD in a manner that this particular patient population can understand and accept. An example of providing care that takes into account the Environmental Context, Language & Ethnohistory, Political and Legal Factors includes taking the time to learn about the community of refugee women in which the providers serve, finding out the common language, utilizing professionally

trained interpreters, and assessing and advocating for healthcare disparities like lack of healthcare services, transportation, healthy food choices, adequate housing, water, and electricity, all of which poses health concerns in the refugee women population. The awareness and utilization of the various facets of the Sunrise Model in the care plan of refugee women can enhance culturally sensitive care and improved patient outcomes.

Healthcare providers can incorporate this theory into their practice by not only becoming aware of their patient's culture, but also being sensitive toward their patients' cultural beliefs, values, and practices. These should be done continuously through research, implementation, and evaluation of patient outcomes (Lopes Campelo et al., 2018; Nelson, 2006). The theory supports educating providers on transcultural knowledge that can assist providers in providing patient specific cultural care that is based on the patient cultural beliefs and values and practices that affect the patient's overall well-being and illness (Ekman & Emami 2007; Lopes Campelo et al., 2018).

The push for healthcare providers to deliver culturally sensitive care continues to be an essential topic among many healthcare organizations, especially with the increase in healthcare inequalities that can occur among minority or underserved populations (Lopes Campelo et al., 2018). Some of the methods that healthcare providers can apply to enhance their ability to become culturally sensitive providers include working with individuals from the different cultural backgrounds, understanding cultural norms, and applying skills that will promote positive patient outcomes (Sanchezelminowski, 2015). Factors, such as evaluating the healthcare provider's cultural competency baseline, his or her overall perception of health and illness, and his or her perception of diversity in care can assist providers in providing care that is culturally sensitive to the patient populations that they serve (Debiasi & Selleck, 2017). Educating the

providers at the FQHC in the Midwest urban area on the Theory of Culture Care Diversity and Universality and using the questions on the culturally sensitive care questionnaire, Cultural Competence Assessment Item was utilized to better assist them to care for refugee women. The Cultural Competence Assessment Item can be found in Appendix B.

CHAPTER THREE. PROJECT DESIGN

Project Framework

The Plan, Do, Study, Act (PDSA) cycle uses a scientific approach that is utilized in health care settings to improve practice (Coury et al., 2017). The PDSA framework has been used in many clinical settings and helps to improve the overall care provided in the clinic, so the PDSA model was chosen to be used in the practice improvement project. The PDSA “can help uncover implementation challenges and may enable clinics to integrate a research-based intervention into everyday care processes” (Coury et al., 2017. p.9).

Plan: The purpose of this practice improvement project was to improve the identification rates for PPD in refugee women at the FQHC in a Midwest urban setting and to increase provider knowledge regarding caring for refugee women, particularly in the postpartum period. The FQHC included three clinic sites, where a total of 16 family practice providers all rotate between all three clinic sites with specific schedules.

The PHQ-2 (followed by the PHQ-9 if the PHQ-2 was positive) was previously used at the FQHC to screen for PPD in refugee women. Nursing staff administered the screening tool, and then the provider addressed positive screenings in the visit, along with all the other health promotion and maintenance required during the visit itself. The problem was identified within this step, and the literature was reviewed to determine that the EPDS tool would be a more effective screening tool for PPD in the refugee women. The EPDS has a higher sensitivity and specificity and can be provided in more languages for enhanced ability to identify PPD in order to more appropriately be able to refer patients to the appropriate services already established within the organization. Organizational support was elicited and accepted in order to develop educational materials to improve providers’ and staff’s knowledge guided by evidence-based

practice in the literature and determined to implement an improved process for screening at-risk individuals and referring patients to the appropriate services. Processes for implementation, timeframes, support, and data collection was discussed with the FQHC facility and the co-investigators committee.

Do: The EPDS was implemented in all three clinics over the course of two months in conjunction with their previous process of screening all postpartum women with the PHQ-2 to compare identification rates of PPD, however those who were identified by nursing staff as a refugee within the first year postpartum were to have all identifiable information removed and the hard copy of the screening tool was collected in a central locked file in the nurses station at the main clinic location and included scores from both the EPDS and the PHQ-2. Due to provider schedules and vacation time, the implementation of the 30-minute educational session to enhance healthcare provider knowledge in assessing for PPD in the refugee patient population was provided after the implementation of the EPDS in conjunction with the PHQ-2. The educational session was to educate providers, collect baseline data through pre and post-education surveys, and discuss results comparing the EPDS to the previously used PHQ-2 screening tools.

The expected impact from the educational session was to heighten the providers' vigilance in more readily assessing, more accurately diagnosing, and more effectively treating PPD in the refugee population by ultimately providing enhanced culturally sensitive care, while also being more aware of taking advantage of refugee women's ability to seek care at appropriate times and improve the PPD identification process in the refugee population through the use of the EPDS screening tool. Because culture plays a significant role in refugee women's perceptions on mental health and their ability to seek care, enhancing provider knowledge on the

various cultural belief systems can assist providers in assessing, diagnosing, and treating these patients promptly. Using the Cultural Competence Assessment tool as a guide, two surveys for providers were to be completed. The pre-survey served as a baseline survey on current perceptions and practices prior to the educational session. The post-survey evaluated for enhanced knowledge and intent to implement knowledge gained from the educational session into future practice by the end of the educational session.

Study: Feedback was obtained from providers and staff via informal discussion after the educational session. Results from comparing the EPDS to the PHQ-2 was presented and all providers indicated that they preferred to only use the EPDS screening tool going forward for assessing PPD. Comparison between the two tools was also made available in order to allow the FQHC to be able to determine the feasibility and longevity of use. Feedback and results were also disseminated to stakeholders regarding baseline data from the Cultural Competence Assessment Surveys and intent for improved care for the refugee population for use within the organization and to better help the facility to decide if further educational sessions should be sought to capture all of the providers and staff working at the facility or if other opportunities should be pursued in the future.

Act: All the providers and staff indicated that they preferred to use the EPDS instead of the PHQ-2 and plans were discussed to incorporate the EPDS on a long-term basis for the organization. Additional offerings for increased knowledge regarding culturally appropriate care was recommended for the organization.

Setting

The practice improvement project focused on an outpatient healthcare setting in a primary care clinic at a FQHC. The FQHC has three clinics in the Midwest urban area, with a

significant number of their patient population being homeless, low-income families, and refugees, as well as open to any patient population in the local communities. The FQHC provides comprehensive care to their local communities, including healthcare, dental, vision, mental health/substance abuse counseling, physical therapy, chiropractor care, x-ray and labs services, pharmacy, community paramedic, and low to-no cost prescription discounts for their patients. The FQHC has a total of 4 clinics, three of which are within 10-20 miles from each other within the urban community. The fourth clinic is about 60 miles away in a rural setting. The practice improvement project involved the three clinics in the urban location, with the potential to expand the concept after project completion if feedback was favorable. There is a total of 16 family practice providers and 3 women's health providers who all rotate between the three sites at different intervals. There are also two behavioral health providers, seven dental providers, six dental hygienists, one optometrist, five pharmacists, two clinical pharmacists, and three homeless health staff combined between all four locations.

The providers that work at the FQHC in the Midwest urban area consisted of three Physicians, three Nurse Midwives, two Physician Assistant, and nine Nurse Practitioners. About 95% of the providers are of Caucasian descent and have estimated age ranges from 28-65 years of age. The healthcare providers' work experiences ranged from 0 to 15 years at the time of the project.

Project Design

The practice improvement project was determined to be at the FQHC in a Midwest urban setting while the co-investigator was able to participate in clinical rotations within the clinic and saw the need for improved screening processes regarding PPD in the refugee population. The previous use of the PHQ-2 was not the most optimal tool for evaluating PPD in refugee women.

The need was identified, and the literature was reviewed to determine the best screening tool for the refugee population and discussions with the women's health providers during clinical rotations took place. After interest was discussed, the co-investigator approached stakeholders within the organization and a committee was formed using the PDSA model to develop a plan for implementation and feedback.

Researchers indicate that the most opportune time to screen for PPD is at two months. However, refugee women often face barriers to care (cultural perceptions/influences) that may not allow refugee women to come to the two-month well-child check-up. Therefore, the co-investigator and the FQHC proposed that the refugee women were to be offered the EPDS screening tool at any visit (post-partum checks or well-child checks) during the first-year postpartum.

Due to needing to reschedule the educational provider meeting several times related to provider schedules and weather events, the implementation of the EPDS in conjunction to the PHQ-2 was implemented prior to the educational session for providers. The nursing staff already administered the PHQ-2 at all postpartum visits within one year postpartum and well-child visits within the first year postpartum, so the addition of the EPDS was included in hard copy form. The EPDS was originally supposed to be distributed to patients in their own language, but due to issues within the organization with the process for this at that time, the EPDS was only distributed in the English language and given to interpreters when needed for patients who could not understand English. The screening tools were given by the provider, nurses, or the interpreter, depending on the patient's need and indicated who helped the patient with the screening tool on the sheet itself. Even though all postpartum patients were screened, only those identified as refugee patients had their identifiable information removed and the hard copy

placed in a locked file within the nurse's station centrally located in the clinic. The PHQ-2 was already part of the FQHC electronic medical record (EMR) and results of the PHQ-2 were recorded on the hardcopy of the EPDS for comparison by the co-investigator. Nursing collected the screening tool and addressed any patient questions if needed. The total number of screened patients versus the number of hard copies received was not recorded.

Moderate to high-risk patients were identified through the screening tools and nursing staff were to alert providers in order to trigger the EMR referral system to the appropriate services already established within the organization. Mild-risk patients were also identified and were provided education on PPD and support with plans to be screened at the patient's next follow-up visit to make the most of each opportunity that the patient presented to the clinic. Data were collected on positive PPD rates using the EPDS and PHQ-2 and were compared to better determine which tool had improved sensitivity for detecting PPD in the refugee women.

A 30-minutes educational session was developed by the co-investigator based off of evidence in the literature to educate providers and nursing staff regarding culturally sensitive care of the refugee women population. The purpose of the educational session was to raise awareness among healthcare providers that the incidence of PPD is a significant concern in refugee women and how various factors specific to this population affect screening options and treatment plans for PPD. During the educational session, providers were educated on the increased prevalence of PPD, symptoms of PPD, risk factors, and cultural beliefs and social norms unique to the refugee women population. While many refugee women lack the understanding of what PPD is, those that do understand are often reluctant in seeking care, which is greatly influenced by their cultural beliefs. Because culture plays a significant role in refugee women's perceptions on mental health and their ability to seek care, enhancing provider

knowledge on the various cultural belief systems was to assist them in assessing, diagnosing, and treating these patients promptly.

During the educational session, providers were educated on the prevalence of PPD in the refugee population compared to the general population with the hope of heightening the healthcare providers' vigilance in assessing for PPD in refugee women. The educational session was also comprised of postpartum depressive symptoms unique to refugee women and how to describe history-taking questions and assessments that are culturally appropriate. Other topics included major risk factors for PPD that are unique to refugee women, the effect of cultural beliefs and practices that may impact the refugee women's ability to seek care at the appropriate time, and the impact of providing culturally sensitive care. The educational session also provided a setting for the modified Cultural Competence Assessment pre and post-surveys for providers to take. The pre-survey was distributed prior to the education to all providers attending the scheduled provider meeting where the educational session took place to serve as baseline data on perceptions and current practices. The post-survey was distributed to providers directly after the educational session to garner responses regarding intent to change practice and knowledge and competence gained, as well as to provide feedback on the EPDS compared to PHQ-2 results (See Appendix B and C respectively for the pre and post-surveys).

The educational session was given to providers and nurses during a normal provider meeting within the clinic in the conference room so that all the providers and nurses would already be in attendance. No additional preparations were required for the meeting place, no additional incentive was offered, and technology supporting the educational session was already in place.

Congruence of the Project to the Organization's Strategic Plan/Goals

As the population of refugees continues to increase throughout the United States, especially in the Midwest urban areas, the need for healthcare providers to be equipped with the necessary knowledge and tools that enable them to provide healthcare services that promote a healthier mindset in this population is imperative (Sanchezelminowski, 2015). There are approximately 40 million immigrants in the United States, and 51% of whom are women (Goodman, Vesely, Letiecq, & Cleaveland, 2017). Midwest regional states, such as Minnesota, Idaho, and North Dakota, are in the top 10 states in the United States that resettled the most refugees in the 2016 fiscal year. In North Dakota, 71 out of 100,000 residents were refugees during 2016 (Refugee Processing Center, 2016). Between 2010 and 2014, there was approximately an increase of 60,000 people in the immigrant population in Minnesota with the total population of immigrants at that time equaling to 437,544 (Johnson, 2017). The increase in the number of the refugee population in the Midwest is related to the increase in job opportunities and decrease the incidence of discrimination thereby promoting an increased sense of security (Johnson, 2017). The increase in refugee population in the Midwest areas leads to an increase in diversity and the building of Buddhist temples and mosques to create a strong sense of cultural acceptance in the communities in which they reside (Eltagouri, 2017).

The number of displaced persons is at its historical highpoint due to the ongoing refugee crisis; this is a crucial time for healthcare providers to be cognizant of these changes and take firm actions that will decrease the negative implication of underdiagnosing mental health disorders in refugee women (Anderson et al., 2017). There is a pressing need for healthcare providers to address some of the major stressors that refugee women endure such as discrimination, poverty, and social isolation, all of which predisposes them to poor mental health

(Anderson et al., 2017). The FQHC facility has been caring for a diverse group of patients, with a significant number of them being refugees from various parts of the world, and they also work with low-to-no-income patients, such as the homeless population. The organization works tirelessly to ensure that their patients achieve optimal health and function to their maximum ability. The FQHC recognized the need for evidence-based concepts that can enhance their providers' abilities to care for this diverse patient population with the goal of improving the lives of their patients. The FQHC continuously seeks various methods to provide them with enhanced educational opportunities and improved patient outcomes; therefore, this practice improvement project aligned with the organization's mission.

Protection of Human Subjects

While this practice improvement project was tailored towards refugee women in the postpartum period, there was no direct contact with the patients themselves throughout the designated project timeframe by the co-investigator. The participants whom data were directly collected by the co-investigator included the primary care providers (PCPs) which consisted of, Physicians, Nurse Practitioners, Midwives, Registered Nurses and Licensed Practitioner Nurses within the main clinic of the FQHC. Registered Nurses and Licensed Practitioner Nurses were included in the educational session, as they were the ones that were administering the EPDS screening tool, however, were not included in the Cultural Competence Assessment Survey for data collection. Postpartum women were provided the EPDS tool through the implementation of the organization, though individual responses were not collected, and no identifying data was collected from the refugee women, therefore no consent was indicated.

Potential Benefits and Harms of Human Subjects

Providers were voluntarily asked to attend the 30-minute educational session during one of the established provider meetings. Surveys were completed by the providers prior to the educational session and directly after the educational session. The completion of the surveys served as the providers' informed consent and responses were anonymous and they had the ability to withdraw at any time without penalty. No incentive was provided.

Although no direct patient contact occurred during the time of the project, the co-investigator recognized that the utilization of the EPDS in assessing PPD could have brought some emotional distress to the patients. The co-investigator helped to minimize this risk by providing the PCP with the tools during the educational session to help ease the barrier that may be present during the initial patient encounter and there were already the necessary referral services should patients have any concerns or positive screening results.

CHAPTER FOUR. PROJECT EVALUATION

Objective One

Objective one was that “An evidence-based screening tool, EPDS, was to be implemented at a FQHC to assess the incidence of PPD in refugee women for every well-child or postpartum visit within the first year of the postpartum period during the practice improvement project.” Objective one was evaluated through the EPDS implementation at the FQHC over a two-month period. During the provider’s education session, information was provided to the providers on the difference in sensitivity and specificity between the EPDS and the PHQ-2 for enhanced knowledge on evidence suggesting appropriateness to help assist the implementation of the EPDS in practice. The EPDS was implemented to all refugee women at any visit pertaining to a postpartum visit or their infant’s well-child visit up to one year, according to the AAP and the FQHC’s desire to capture all opportunities to assess refugee women (Sriramen, 2012). Incidence rates and/or effectiveness of screening for PPD was evaluated through comparing results from scores from refugee patients on both the EPDS and the PHQ-2 over a two-month timeframe. Finally, this objective was further evaluated by the post-survey provider results, particularly, question #8 on the co-investigator’s evaluation of the educational session that asked “I feel that I would prefer to ONLY use the EPDS tool in my practice site if possible to screen refugee women for PPD” and the qualitative questions #1 and #2 pertaining to the EPDS screening tool at the end of the survey that assessed ease of use and barriers to using the EPDS.

Objective Two

Objective two was that “Providers at the FQHC will enhance their knowledge regarding providing culturally sensitive care by the end of the co-investigator’s presentation” and was

evaluated using a comparison between the modified cultural assessment pre and post-survey results. The evaluation of the pre and post-survey included a demographic section only on the pre-survey, which included a linked system for results between the pre- and post-survey results by the providers, indicating the last four digits of their phone numbers. Other demographics included the providers' gender, role (physician, nurse practitioner, physician assistant), and the number of years practicing.

The pre-survey looked at provider baseline knowledge in providing culturally sensitive care to refugee women. Questions one through twelve were set up in a Likert scale distribution with "Always," "Sometimes," "Not Really," and "Not Knowledgeable At All" as options for provider care questions. There was also one additional question added to ascertain how knowledgeable each provider felt when caring for refugee women with a Likert scale distribution of "Very Knowledgeable," "Somewhat Knowledgeable," "Not Very Knowledgeable," "Not Knowledgeable At All," and "Not Applicable" as options. The pre-survey evaluation questions evaluated provider knowledge in caring for refugee women, assessed the perception of the adequacy of the PHQ-2 used in screening for PPD in refugee women, and assessed the provider stereotypes regarding refugee women. In addition, the pre-survey assessed measures that could be implemented by providers to enhance culturally sensitive care, such as adapting standardized care to accommodate the unique needs of refugee women, assessing the patient's cultural needs and definition of health and illness, recognizing and minimizing barriers to services that could impede care, and the ability to utilize their resources to better care for refugees and their families.

The post-survey evaluation included assessing the providers' willingness to adapt their services to accommodate refugee women's needs, openness to discuss with colleagues regarding different cultural backgrounds, implementing screening tools tailored for assessing PPD in

refugee women, assessing the patient's expectation of care, trying to remove care obstacles, and improving the overall culturally sensitive care. Questions one through eight were given in a Likert scale distribution of "Very Likely," "Somewhat Likely," "Not Likely," "Definitely Not Likely," as options. These post-survey questions were modified to correspond with questions two through nine from the pre-survey for comparison after the educational session to better determine provider intent to enhance their cultural care practices regarding refugee women. The post-survey also included the providers' assessment on the impact of the educational session on their practice, knowledge, and skills when caring for refugee women. The educational session included strategies on how to adequately assess for PPD in refugee women, major risk factors of PPD in refugee women, providing culturally sensitive care, utilizing appropriate evidence-based screening tools for PPD, and treatment options. The post-survey evaluated the co-investigator's educational presentation including the objectives of the presentation, adequacy, and importance of the information presented, the applicability of the presenter's information to the providers' practice, and increased providers' knowledge as a result of the education. The post-survey also evaluated the providers' preference on using the EPDS in place of the PHQ-2. Additionally, three qualitative questions at the end of the survey evaluated potential benefits and barriers regarding the use of the EPDS, recommendations on continued use of the EPDS, and any recommended changes to the educational session.

Objective Three

Objective three was to "Increase identification rates of PPD in the refugee population and referral to the appropriate services if a diagnosis of PPD was indicated by the end of the practice improvement project." Objective three was evaluated by comparing the results from the EPDS

questionnaire on the identification rates of refugee women who screened positive for PPD to that of the results from the PHQ-2.

Information from the demographic section of the EPDS questionnaire assessed who assisted the patient with the questionnaire (patient, providers, translator, nurse), the time of patient's visit, if the patient was a refugee, country of birth, length of stay in the United States, how many children the patient had, and who assists the patient at home with his or her child/children. Evaluation of the demographic information helped to determine inclusion criteria (refugee) and better gain an understanding of possible barriers and the support system to help to determine risk for PPD. Evaluation was felt to better help determine if there was a correlation between the length of patients stay in the US, the number of children that the patient had, and the presence or lack of assistance with the child/children at home compared to the patient's EPDS score. Secondly, the patient EPDS and PHQ-2 scores were compared to help determine which screening tool was more appropriate/accurate in assessing for PPD in refugee women. Finally, the second aspect of the third objective was to potentially better refer patients who screened moderate to high-risk for PPD on the EPDS to the appropriate services already in place at the clinic. No patients needed to be referred, so this aspect was not evaluated. The actual EPDS screening tool for reference can be found in Appendix A.

Logic Model

The logic model was used as guidance in the evaluation process of this practice improvement project and the following components were included in the logic model: inputs/resources, activities, outputs, outcomes, and impact. The logic model is an action-oriented tool used during the planning, implementation, and evaluation of a program, and can provide a framework that assists with achieving specific goals set forth by an individual or group, as well

as identify sets of activities that need to be implemented in order to achieve the set goals (Daughtry & Engelke, 2018). The logic model requires a continuous process of planning and evaluation of the various components of the model and adjusting them to achieve the desired outcome. Table 2 shows how the logic model was used as guidance in the evaluation process of the practice improvement project.

Table 2

Project Logic Model

Inputs/Resources	Activities	Outputs	Outcomes	Impact
1. Co-investigator time/resources	1. Administering of the EPDS by the providers/nursing staff to postpartum refugee women	1. Results from EPDS questionnaire	1. Increased provider's awareness of the significant risk of PPD in refugee women and increased knowledge in caring for refugee women during the postpartum period.	1. Identified high-risk patient population (refugee women) thus early/appropriate screening for PPD was able to be implemented.
2. Dissertation committee members' time and feedback	2. Providers/nursing staff educational session at FQHC.	2. Providers/nursing feedback from the pre- and post-surveys.		
3. Providers/Nursing staff at the FQHC time and feedback	3. Comparing identification rates of PPD between the EPDS and PHQ-2	3. Providers/nursing feedback on DNP student presentation.	2. EPDS pilot was implemented at FHC.	2. Early treatment, education, or referral for refugee women with a positive score took place.
4. Postpartum Refugee women filling out the EPDS screening tool			3. Increased positive screening rates of PPD using the EPDS when compared to PHQ-2 in refugee women.	3. Continued use of EPDS to screen for PPD in postpartum refugee women in place of the PHQ-2.
5. Results disseminated to FQHC				
6. Utilization of the EPDS tool				

CHAPTER FIVE. RESULTS

Objective One

Objective one aimed to implement the EPDS within the clinic to assess the incidence of PPD in refugee women. The EPDS was implemented as the screening tool for assessing PPD in refugee women in conjunction with the PHQ-2, which was already used at the FQHC to compare outcomes for identifying patients with symptoms of PPD.

The EPDS was administered successfully for two months in the clinic. Data were obtained from the EPDS questionnaire and compared to that of the PHQ-2 results. A total of 10 patients completed the EPDS and PHQ-2 questionnaires, all of which were refugee women who were within one year of the postpartum period during either postpartum or well-child visits in the clinic. All patients completing both questionnaires did not score any evidence of PPD on the PHQ-2, however, all scored as a “mild” risk on the EPDS. See also Table 5.

Objective Two

Objective two aimed to enhance FQHC providers’ knowledge regarding providing culturally sensitive care, particularly for refugee women, by the end of the co-investigator’s presentation. There were a total of six participants between providers and staff that attended the educational session and completed surveys, though two were nursing staff. Only provider results were included in the results section, as objective two targeted the providers specifically, even though the nursing staff was invited to the educational session to improve continuity of care and provide a basis for implementing the EPDS. So, four providers were included in the results. All providers indicated they “Sometimes” provided care to the refugee women population. The majority of the data collected on the pre and post-surveys were in quantitative form, though there were three open-ended questions on the post-survey for providers to comment on preference

given to the EPDS versus the PHQ-2, potential benefits and barriers associated with the EPDS tool, as well as their recommendation(s) regarding the educational session.

All four providers in attendance for the provider meeting and educational session completed the pre and post-surveys. Table 3 describes the provider demographics.

Table 3

Pre and Post-Survey Provider's Demographics

Title:	Gender:	Years Practicing:	Knowledgeable regarding caring for refugee women:
Certified Nurse Midwife	Female	1-2 years	"Somewhat Knowledgeable"
Certified Nurse Midwife	Female	1-2 years	"Somewhat Knowledgeable"
Nurse Practitioner	Female	1-2 years	"Somewhat Knowledgeable"
Nurse Practitioner	Female	3-5 years	"Somewhat Knowledgeable"

The pre-survey questions one through twelve assessed the baseline for providers' knowledge and practices regarding providing culturally sensitive care prior to the educational session. The post-survey asked similar questions (one through eight) after the educational session that corresponded to pre-survey questions (two through nine) that helped to gauge provider intent to enhance culturally sensitive care. Examples include adapting standardized care to accommodate the unique needs of refugee women, assessing the patients' cultural needs and definition of health and illness, recognizing and minimizing barriers to services that could impede care, and utilizing available resources to better care for cultural patient populations as a result of the educational session.

The following table (Table 4) reflects the results of the pre and post-surveys. Please see Appendix B & C for pre and post-survey questionnaires.

Table 4

Results of the Pre and Post-Surveys

Theme between Pre/Post-test	Question	(N=4) Pre-test Positive Answers	(N=4) Pre-test Negative Answers	(N=4) Post-test Positive Answers	(N=4) Post-test Negative Answers
Provide care to refugee women	1. (Pre-test) I provide care to refugee women	100% “Sometimes”	0%	N/A	N/A
Seeking more knowledge	10. (Pre-test) I seek information on cultural needs when I identify a new refugee women patient in my practice.	25% “Always” 75% “Sometimes”	0%	N/A	N/A
	12. (Pre-test) I have resource books and other materials available to help me learn about refugee women from different cultures.	25% “Sometimes”	75% “Not Really”	N/A	N/A
Cultural Assessment	11. (Pre-test) I include cultural assessment when I do refugee women’s evaluations.	50% “Sometimes”	50% “Not Really”	N/A	N/A
Finding ways to adapt to culture	2. (Pre-test) I find ways to adapt my services to refugee women and their families’ cultural preferences.	25% “Always” 75% “Sometimes”	0%	N/A	N/A
	2. (Post-test) I plan to find more ways to adapt my services to refugee women and their families’ cultural preferences.	N/A	N/A	100% “Very Likely”	0%
Ask expectations	5. (Pre-test) I ask refugee women and families to tell me about their expectations for care.	50% “Sometimes”	50% “Not Really”	N/A	N/A
	5. (Post-test) I will better ask refugee women/families to tell me about their expectations for care.	N/A	N/A	100% “Very Likely”	0%

Table 4. *Results of the Pre/post-surveys (continued)*

Theme between Pre/Post-test	Question	(N=4) Pre-test Positive Answers	(N=4) Pre-test Negative Answers	(N=4) Post-test Positive Answers	(N=4) Post-test Negative Answers
Ask patient explanations of health and illness.	6. (Pre-test) I ask refugee women and families to tell me about their own explanations of health and illness.	50% “Sometimes”	50% “Not Really”	N/A	N/A
	6. (Post-test) I will better ask refugee women/families to tell me about their own explanations of health, illness, and mental illness.	N/A	N/A	100% “Very Likely”	0%
Welcome feedback	7. (Pre-test) I welcome feedback from refugee women and their families about how I relate to others with different cultures.	50% “Sometimes”	50% “Not Really”	N/A	N/A
	2. (Post-test) I will more readily welcome feedback from coworkers about how I relate to others with different cultures.	N/A	N/A	100% “Very Likely”	0%
Communicate adaptations	8. (Pre-test) I document the adaptations I make when caring for refugee women and assessing postpartum depression.	0%	100% “Not Really”	N/A	N/A
	7. (Post-test) I will better document cultural assessments.	N/A	N/A	100% “Very Likely”	0%
Assessing Barriers	9. (Pre-test) I recognize potential barriers to service that might be encountered by refugee women.	100% “Sometimes”	0%	N/A	N/A
	8. (Post-test) I will better try to recognize potential barriers to service that might be encountered by refugee women.	N/A	N/A	75% “Very Likely” 25% “Somewhat Likely”	0%

All providers evaluated the co-investigator’s educational session in the following areas:
improving patient outcomes, meeting objectives, improving skills and knowledge, enhancing

practice, increasing comfort, and improving awareness. All four providers indicated that they preferred to only use the EPDS if possible in the clinic, rather than the PHQ-2 after the educational presentation. The following graph (Figure 2) reflects the providers' post-survey results regarding the co-investigator's information following the educational presentation.

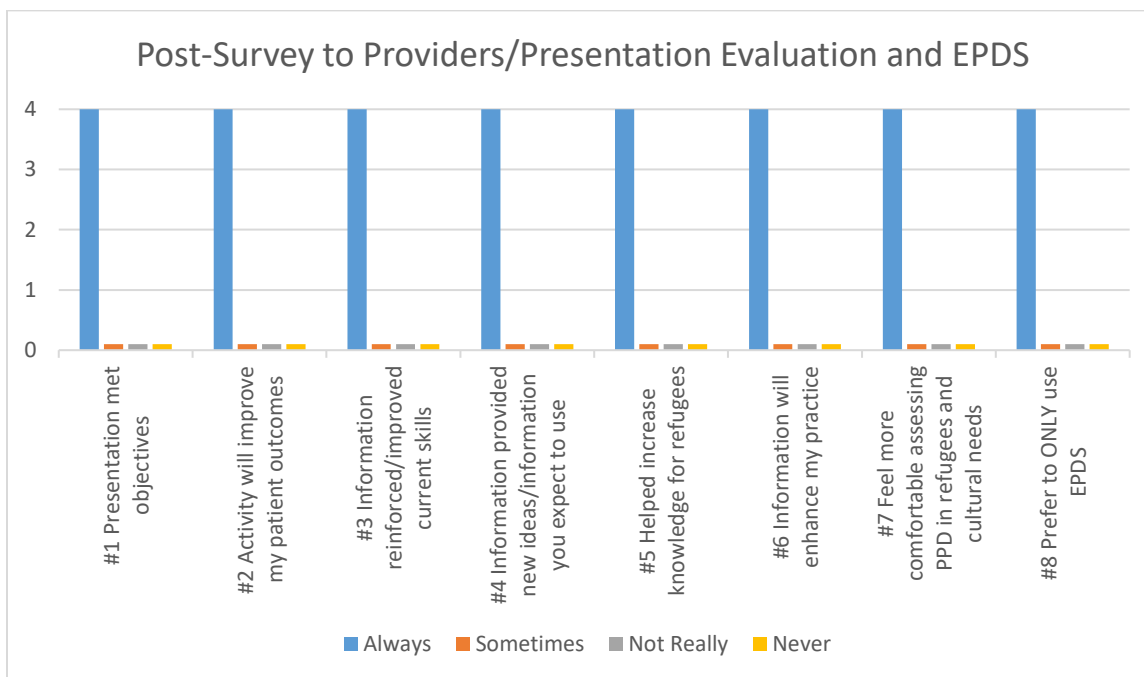


Figure 2. Provider Post-education Survey Presentation Evaluation Questions #1-8 and EPDS Results.

There were three open-ended questions at the end of the post-survey which assessed the providers' perceptions regarding the benefits and potential barriers regarding the implementation of the EPDS in their practice after the educational presentation. Question #1 asked "Do you feel that the EPDS screening tool is better than the PHQ-2? Why or why not?" Participants all responded regarding that they felt that the EPDS screening tool was better than the PHQ-2. No one gave any reason as to why. Question #2 asked, "What benefits, if any, do you anticipate regarding continued implementation of EPDS screening within the clinic?" Participants all indicated that one of the benefits of implementing the EPDS screening tool in their clinic was the

ability to adequately assess for PPD in all postpartum patients, but mostly important vulnerable populations, such as refugee women, thereby, improving patient care. A potential barrier identified by all the participants was the lack of time for providers and nursing staff to administer the EPDS screening and address concerns that might arise with positive findings for PPD. Question #3 asked, “What, if any, changes would you recommend to this educational offering?” All four of the participants stated that no recommended changes were needed for the educational session provided by the co-investigator and appreciated the additional knowledge gained from the educational offering.

Objective Three

Objective three aimed to increase identification rates of PPD in the refugee population and referral to the appropriate services if a diagnosis of PPD is indicated by the end of the practice improvement project. The project sample for the EPDS questionnaire included ten participants, which were refugee women within one year postpartum over a two month timeframe of the project implementation. Four of the ten participants reported having one child, the other six participants reported having ranges of two to four children. The number of years the participants resided in the United States ranged from two years to 28 years. Four of the participants were from Somalia, three participants were from Sudan and the remaining three participants were from Bhutan, Iraq, and Nepal. Four of the participants stated that no one helped them at home with their child/children, while six of the participants received help with child care at home. When comparing the PHQ-2 scores to that of the EPDS scores, all of the participants scored “0” on the PHQ-2, which correlates to no signs of PPD. The EPDS scores ranged from “6” to “11,” signifying the presence of mild symptoms of PPD. No patients scored moderate or high on the EPDS screening, therefore no patients ended up needing to be referred to any

specific or additional services at the clinic for their symptoms. Based on the results, the provision of education regarding PPD and coping strategies for their mild score on the EPDS was recommended for all patients, as supported in the literature review.

Table 5

EPDS Results

Visit Type	Participant#	Time of visit	# of children	completed by	# of years in the USA	Country of birth	Who helps at home	PHQ-2 score	EPDS score
Well-Child Check	1	2 week	1	Patient	28	Sudan	Husband	0	6
Well-Child Check	2	2 week	4	provider	27	Somalia	boyfriend	0	9
Well-Child Check	3	1 month	3	Nurse	3	Sudan	no one	0	9
Well-Child Check	4	2 months	4	Patient	10	Somalia	Husband	0	6
Well-Child Check	5	2 months	1	Patient	10	Iraq	mom	0	8
Post-Partum Visit	6	PP visit <1year	2	Translator	5	Butan	no one	0	6
Post-Partum Visit	7	PP visit <1year	3	Nurse	3	Somalia	no one	0	7
Post-Partum Visit	8	PP visit <1year	1	Patient	18	Sudan	mom	0	8
Post-Partum Visit	9	PP visit <1year	2	Patient	13	Somalia	sister	0	9
Post-Partum Visit	10	PP visit <1year	1	Patient	2	Nepal	no one	0	11

Data were obtained on both the pre and post-surveys completed by the providers upon completion of the educational presentation (Appendices B and C). The questions pertaining to objective one from the post-survey that indicated providers' desire to continue to implement the

EPDS included question #8 on the co-investigator's evaluation of the educational session that asked "I feel that I would prefer to ONLY use the EPDS tool in my practice site if possible to screen refugee women for PPD." All four providers indicated "Strongly Agree" to this question, indicating their preference for the EPDS over the PHQ-2 (Table 4).

In addition, the qualitative questions #1 and #2 pertaining to the EPDS screening tool at the end of the post-survey further helped to predict provider preference to implement the EPDS in place of the PHQ-2. Question #1 asked "Do you feel that the EPDS screening tool is better than the PHQ-2? Why or why not?" Participants all responded regarding that they felt that the EPDS screening tool was better than the PHQ-2. No one gave any reason as to why. Question #2 asked, "What benefits, if any, do you anticipate regarding continued implementation of EPDS screening within the clinic?" Participants all indicated that one of the benefits of implementing the EPDS screening tool in their clinic was the ability to adequately assess for PPD in all postpartum patients, but most importantly vulnerable population such as refugee women, thereby, improving patient care. A potential barrier identified by all the participants was the lack of time for providers and nursing staff to administer the EPDS screening and address concerns that might arise with positive findings for PPD.

CHAPTER SIX. DISCUSSION AND RECOMMENDATIONS

Discussion and Interpretation

Objective One

Objective one aimed to implement the EPDS within the clinic to assess the incidence of PPD in refugee women. Objective one was met, as the EPDS was able to be implemented in all three of the clinics and the results were compared with the PHQ-2 results showing that the EPDS screening tool was able to find evidence of mild PPD on all participants, compared to no evidence of PPD on PHQ-2 results. Implementing the EPDS in conjunction with the PHQ-2 for comparison over a longer period of time would have likely yielded more data with which to find correlations, such as support systems, the number of children that the patient had, and the presence or lack of assistance with childcare at home related to EPDS scores. Had more participants been garnered and if the facility would have been able to implement the EPDS in the language of each participant, more data would have been gathered to analyze further possible relationships.

The literature states although there is a high false positive rate found with the use of PHQ-2 during PPD screening, it is recommended to be used as a prescreening tool followed by the EPDS (King et al., 2012). The fact that this project found that the PHQ-2 results did not indicate any concern for PPD in any of the patients, the EPDS would not have even been administered to find the mild scores for PPD in all the patients, so utilizing only the PHQ-2 first may not be as advantageous. Furthermore, the PHQ-2 has been shown to perform poorly when used in minority populations and patients with low socioeconomic status, therefore the EPDS is suggested as being a more sensitive screening tool in all populations, particularly refugees (Bass III & Bauer 2018).

Objective Two

Objective two aimed to enhance providers' knowledge regarding providing culturally sensitive care, particularly for refugee women, by the end of the co-investigator's presentation. The objective was met, as all providers surveyed indicated an increase in knowledge. Further validation for the objective was also supported by the post-survey results as a whole. The providers all showed a desire to improve their culturally competent care after the information presented by the co-investigator. All the providers appeared to be more willing and open to feedback and to be more self-aware of their care when providing care to patients from different cultures, particularly refugee women and their families.

Having more providers in attendance for the scheduled provider meeting could have improved results even further, providing more data to make more correlations between years in practice and cultural competence, as well as the impact of gender and race on the results. There might have also been more information provided to compare the approach to care between physician, nurse practitioner, and physician assistant providers.

Objective two helped to improve provider knowledge and competence for a minority population. The literature supports interventions to increase providers' cultural knowledge and suggests that increased knowledge improves cultural self-efficacy regarding minority populations and can improve patient outcomes with improved patient satisfaction and trust (Truong, Paradies, & Priest, 2014). Pearson et al. (2007) found that using interventions to educate staff and providing competent linguistic services were a significant asset to improving culturally competent practice, though further recommendations were to have increased quantity and quality of studies to best determine the most appropriate interventions for improving cultural competencies in providers.

Objective Three

Objective three aimed to increase identification rates of PPD in the refugee population and referral to the appropriate services if a diagnosis of PPD is indicated by the end of the practice improvement project. All of the participants scored “zero” on the PHQ-2 questionnaire, which would not have triggered completion of a longer and more comprehensive PHQ-9 screening. Conversely, those same individuals all showed mild symptoms of PPD with the EPDS questionnaire. The results comparing the PHQ-2 and the EPDS screening tool used to assess for PPD in refugee women during one year postpartum indicated that the EPDS was a more sensitive screening tool for PPD in refugee women. Increased sensitivity for the EPDS is also supported by the literature, as the EPDS is found to be easy to use and accurate in the primary care setting for minority populations and has significantly increased detection rates of PPD (Bass III & Bauer, 2018; Bodnar-Deren, et al., 2017; Milgrom et al., 2005; Zee-van den Berg et al., 2017).

While the results from the EPDS showed only mild symptoms of PPD, the data could have been limited because the EPDS could not be provided in the patient’s own language as is supported by literature findings (Gausia, Fisher, Algin, & Oosthuizen, 2007; McCabe-Beane et al. 2016; Shrestha et al., 2016). Despite this limitation, mild symptoms were found resulting in an opportunity for providers to provide basic education regarding PPD to their patients. They were also able to discuss resources and treatment options with patients if symptoms of PPD persisted or increased in the severity of symptoms in subsequent visits. The above opportunity was not previously presented to the patients who scored “0” on the PHQ-2, which was the case for the patients prior to the practice improvement project.

The literature also noted factors, such as recent immigration status, being a first-time parent, lack of support at home, and the number of children to be a predisposing factor to PPD,

which also correlated with the results of the project (Dennis et al., 2017; O'Mahony et al., 2013). The participants with the highest EPDS scores (9 to 11) had the most recent immigration status, were either first-time parents or had two to four children, and did not have assistance at home to care for their child/children. Some of the participants whose scores were on the higher end of mild symptoms of PPD (9 or above) stated that their husbands or boyfriends assisted them at home with childcare. The cultural views and practices of many refugee women reflects that a woman's main goal in life is to engage in childbearing and take care of the children and the household (Johnson-Agbakwu et al., 2014). While the husband's role might provide financial support, many refugee women from patriarchal cultures receive minimal to no assistance at home relating to childcare from the male within the household. That cultural feature should be considered when examining why these women had higher EPDS scores despite the fact that they stated that they had help at home with child care. Larger sample sizes would have been more beneficial in determining the correlation between the length of stay in the United States, presence or absence of a support system, number of children, and how these variables impacted the severity of the EPDS scores.

Objective three was partially met, as the EPDS appeared to be more sensitive in assessing for PPD in refugee women, as indicated by the project results and supported by the literature. While there was an improvement in the incidence rates of PPD in refugee women seen from EPDS scores compared to PHQ-2 scores, there were no patients that scored moderate or high-risk on the EPDS. Therefore, none of the patients needed to be referred to other services in the clinic. Had more participants been able to take the survey, particularly with a longer implementation time, there likely would have been participants scoring moderate to high-risk, thus needing a referral to the services present at the clinic.

Dissemination

Dissemination of the practice improvement project results occurred by sharing data collected on the rates of refugee women with a positive screening of PPD with the use of the EPDS compared to the negative screening results from the PHQ-2 to stakeholders at the facility. The co-investigator also reported on the providers' post-survey results regarding the increased knowledge, comfort, and application from the educational presentation to their practice and how the co-investigator's educational session impacted the ways they intend to care for refugee women. The organization was made aware of the overall consensus from providers' preference for the EPDS screening tool in caring for refugee women to better aid their decision should they desire to continue using the EPDS screening tool long term and make this a standard at all clinic sites. The co-investigator also presented the data from the practice improvement project at both the 2018 and the 2019 NDSU College of Health Professions Poster conferences.

Limitations

One of the main limitations of this practice improvement project was the time constraint on the length of time allocated to collecting data for the EPDS. This was impacted by the facility's process for approving the project and availability of the providers. The limited number of providers able to participate due to scheduling conflicts and closed clinic time due to weather required that the educational presentation be rescheduled three times.

The EPDS was implemented system-wide within the three clinics, focusing on all patients who were one year postpartum and not just the targeted patient population for this project. This may have helped nursing staff remember to complete both screenings, but may have also made the process more cumbersome for nursing staff and time consuming with needing to perform both the EPDS and the PHQ-2 with each postpartum patient. The co-investigator did not

previously ask the clinic to determine the total number of patients screened compared to the hard copy results from the refugee population, so there may have actually been more participation rates that were not captured. There was also a time constraint on the length of time of the PowerPoint presentation within the scheduled provider meeting, which challenged the co-investigator to focus mostly on the major aspects of the project while still trying to allow for adequate time for questions at the end of the presentation.

There was also a lack of cultural diversity and gender among the providers that participated in the project, as all of the participants were female and of Caucasian descent. Being able to implement the EPDS and the PHQ-2 over a longer timeframe could have improved refugee patient results. A longer implementation timeframe could have also provided more insight for the FQHC regarding potential referral processes already in place to determine if implementing the EPDS long-term could handle the potentially higher influx of patients needing referrals for PPD. An increase in patient participants and providers would have also provided more data to better analyze relationships between identified variables. The co-investigator provided the EPDS questionnaires in the following languages, English, Spanish, Somalian, Turkish, Swahili, Vietnamese, and Arabic per the FQHC request as they were the most common languages seen at the FQHC. Only the English version of the EPDS was used due to the clinic time constraint and policy at the time of the project implementation. This is also a potential limitation, as the patients were not able to complete the EPDS in their native language, which might have influenced the results of the project and decreased that patients' understanding of the questionnaire, thus the level of PPD ascertained.

Recommendations for Nursing Practice and Future Projects

While the objectives were generally accomplished to increase provider knowledge and awareness and to assess and improve incidence rates of PPD in refugee women, the future possibility might be to assess and improve incidence rates of all minority patient populations who are considered vulnerable for PPD and/or mental illness. The recommendation for a future project would be to allocate more time on data collection (at least 6 months) of the EPDS questionnaire to elicit a larger patient population to relate results back to the literature. Another recommendation would be to implement the EPDS in the patient's own language to better determine if this could also increase detection rates.

Offering an incentive for provider involvement could have possibly increased the amount of providers involved in the project to attend to the provider meeting. In addition, providing a minimum of one hour for the provider educational session is recommended to allow for further examples and discussion among the co-investigator and the providers. The FQHC is in the process of implementing the EPDS in conjunction with the PHQ-2, which was already being used in all three of their Midwest urban clinics assessing for PPD in all postpartum women. Suggestions were made to the providers to continue utilizing mental health resources, such as conferences and online resources such as the Center for Victims of Torture, on a continuous basis in order to stay current in evidence-based practices that will better assist them in caring for vulnerable patient populations, such as refugee women and other minority groups. The use of the EPDS was accepted by all of the providers and, when combined with the strong literature recommendation of its use in refugee populations and all patient population in assessing for PPD, increases the possibility for improved patient outcomes.

Family Nurse Practitioners (FNPs) are at the forefront of the healthcare system, as they continue to provide care to patients throughout the lifespan and, possibly, the entire family (Shin & Regenstein, 2016; Torre & Drake, 2014). Therefore, FNPs need to continue to take the necessary steps that will identify high-risk populations for mental illness, enhance the utilization of appropriate screening tools for mental illness, and implement early interventions that will help combat the ongoing problem of mental illness in the United States.

Application to the Doctor of Nursing Practice

The healthcare system in the United States is one that continues to evolve. The immigrant population is anticipated to increase in the years to come, and healthcare providers, especially primary care providers, need to continue to diversify their care in order to provide the best possible outcome for all patients, particularly those that are considered to be a vulnerable population (Ganann et al., 2016; Lieberman et al., 2017; Suárez-Orozco et al., 2013). The nursing profession continues to strive professionally to ensure that their practicing APRNs obtain the best possible education by moving in the direction of doctorally prepared providers. One significance of the doctoral prepared APRN is the ability to critically think about the nursing profession in a broader perspective and implement evidence-based practices, such as practice improvement projects, that will positively impact not only the nursing profession, but all healthcare providers with the goal of better patient outcomes.

The FNP with a Doctor of Nursing Practice (DNP) has many roles. The co-investigator associated, through the process of the practice improvement project, with the role of advocate, educator, leader, clinician, and scholar. Through the role of advocate, the co-investigator was able to identify a gap in the literature and in the FQHC clinic practice regarding a vulnerable

population, refugee women, and improve PPD screening practices. An evidence-based intervention was researched and implemented to support the refugee women at the FQHC.

The co-investigator acted as an educator by researching the current evidence and applying that information in a PowerPoint presentation to the providers at the FQHC, as well as increasing the awareness of the need to continually improve culturally sensitive care and improving provider knowledge regarding PPD in the refugee population and other minority populations. The leadership and clinician roles were also demonstrated within the same manner, by being able to translate current evidence into practice in a way to change behavior and positively affect patient outcomes, as well as collaborating with the healthcare team to improve clinic processes.

The practice improvement project was disseminated through poster presentations and during the discussion of results to the FQHC stakeholders to support the role of scholar. Finally, the co-investigator disseminated the information through a three-minute video through the graduate school and during two poster presentations within North Dakota State University.

Conclusion

The purpose of the practice improvement project was to improve the mental and, subsequently, physical well-being of refugee women and their families. The project assisted this aim by enhancing healthcare providers' knowledge on the prevalence of PPD in refugee women by highlighting major risk factors that are unique to this patient population and enhancing the providers' knowledge on the importance of providing culturally sensitive care in this patient population. The implementation of this project at a primary care clinic at the FQHC led to a significant change within the targeted facility, as they were able to change their screening process for postpartum depression from the PHQ-2 to the EPDS, which is highlighted in he

literature to be a more reliable and valid tool in assessing for PPD not only for refugee women but all patient population postpartum. The FQHC implemented the EPDS system-wide in all three of their clinics, and the EPDS was not only administered to refugee women, but to all patients during the one-year postpartum period.

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APPENDIX A. EPDS QUESTIONNAIRE

Time of Visit <ul style="list-style-type: none"> <input type="radio"/> 1- month well-child visit <input type="radio"/> 2- month well-child visit <input type="radio"/> 4-month well-child visit <input type="radio"/> 6-month well-child visit <input type="radio"/> Postpartum visit <input type="radio"/> Other 	Completed With/By: <ul style="list-style-type: none"> <input type="radio"/> Nurse <input type="radio"/> Provider <input type="radio"/> Patient (self) <input type="radio"/> Translator
How Many Children do you have? _____	Other Information <ul style="list-style-type: none"> <input type="radio"/> How long have you lived in the USA? _____ <input type="radio"/> Country of Birth? _____ <input type="radio"/> Who helps you at home with your child? _____ <input type="radio"/> Are you a refugee? _____
1. I have been able to laugh and see the funny side of things.	<ul style="list-style-type: none"> <input type="radio"/> As much as I always could <input type="radio"/> Not quite so much now <input type="radio"/> Definitely not so much now <input type="radio"/> Not at all
2. I have looked forward with enjoyment to things.	<ul style="list-style-type: none"> <input type="radio"/> As much as I ever did <input type="radio"/> Rather less than I used to <input type="radio"/> Definitely less than I used to <input type="radio"/> Hardly at all
3. I have blamed myself unnecessarily when things went wrong	<ul style="list-style-type: none"> <input type="radio"/> Yes, most of the time <input type="radio"/> Yes, some of the time <input type="radio"/> Not very often <input type="radio"/> No, never
4. I have been anxious or worried for no good reason.	<ul style="list-style-type: none"> <input type="radio"/> No, not at all <input type="radio"/> Hardly ever <input type="radio"/> Yes, sometimes <input type="radio"/> Yes, very often
5. I have felt scared or panicky for no very good reason.	<ul style="list-style-type: none"> <input type="radio"/> Yes, quite a lot <input type="radio"/> Yes, sometimes <input type="radio"/> No, not much <input type="radio"/> No, not at all
6. Things have been getting to me.	<ul style="list-style-type: none"> <input type="radio"/> Yes, most of the time I haven't been able to cope at all. <input type="radio"/> Yes, sometimes I haven't been coping as well as usual. <input type="radio"/> No, most of the time I have coped quite well. <input type="radio"/> No, I have been coping as well as ever.
7. I have been so unhappy that I have had difficulty sleeping	<ul style="list-style-type: none"> <input type="radio"/> Yes, most of the time <input type="radio"/> Yes, quite often <input type="radio"/> Not very often a <input type="radio"/> No, not at all
8. I have felt sad or miserable.	<ul style="list-style-type: none"> <input type="radio"/> Yes, most of the time <input type="radio"/> Yes, quite often <input type="radio"/> Not very often a <input type="radio"/> No, not at all
9. I have been so unhappy that I have been crying	<ul style="list-style-type: none"> <input type="radio"/> Yes, most of the time <input type="radio"/> Yes, quite often <input type="radio"/> Only occasionally <input type="radio"/> No, never
10. The thought of harming myself has occurred to me.	<ul style="list-style-type: none"> <input type="radio"/> Yes, quite often <input type="radio"/> Sometimes <input type="radio"/> Hardly ever <input type="radio"/> Never
PHQ-2 Score _____ EPDS Score _____	

APPENDIX B. MODIFIED CULTURAL COMPETENCE ASSESSMENT PRE-SURVEY

Last 4 digits of your phone# _____					
Male/Female: _____					
Title (MD, PA, NP, other): _____					
Number of years practicing:	<1	1-2	3-5	6-10	11+
I feel I am knowledgeable regarding caring for the refugee women population.	Very Knowledgeable	Somewhat Knowledgeable	Not Very Knowledgeable	Not Knowledgeable at All	N/A
I feel my current use of the PHQ-2 is adequate to assess for postpartum depression in the refugee women population within my practice.	Strongly Agree	Agree	Disagree	Strongly Disagree	N/A
	Always	Sometimes	Not Really	Never	N/A
1. I provide care to refugee women					
2. I find ways to adapt my services to refugee women and their families' cultural preferences.					
3. I avoid making generalizing about groups of people (stereotyping).					
4. I act to remove obstacles when refugee women and their families identify them to me					
5. I ask refugee women and families to tell me about their expectations for care.					
6. I ask refugee women and families to tell me about their own explanations of health and illness.					
7. I welcome feedback from refugee women and their families about how I relate to others with different cultures.					
8. I document the adaptations I make when caring for refugee women and assessing postpartum depression.					
9. I recognize potential barriers to service that might be encountered by refugee women.					
10. I seek information on cultural needs when I identify a new refugee women patient in my practice.					
11. I include cultural assessment when I do refugee women's evaluations.					
12. I have resource books and other materials available to help me learn about refugee women from different cultures.					

APPENDIX C. MODIFIED CULTURAL COMPETENCE ASSESSMENT POST-SURVEY

Last 4 digits of your phone# _____					
As a result of the educational session:	Very Likely	Somewhat Likely	Not Likely	Definitely Not Likely	N/A
1. I plan to find more ways to adapt my services to refugee women and their families' cultural preferences.					
2. I will more readily welcome feedback from coworkers about how I relate to others with different cultures.					
3. I plan to better avoid making generalizations about assessing postpartum depression in refugee women.					
4. I will make more of an effort to remove obstacles for refugee women/families when they are identified.					
5. I will better ask refugee women/families to tell me about their expectations for care.					
6. I will better ask refugee women/families to tell me about their own explanations of health, illness, and mental illness.					
7. I will better document cultural assessments.					
8. I will better try to recognize potential barriers to service that might be encountered by refugee women.					
	Strongly Agree	Agree	Disagree	Strongly Disagree	N/A
I feel this educational session met the objectives.					
This activity will improve my patient outcomes.					
Did the information presented reinforce and/or improve your current skills?					
Did the information presented provide new ideas/information you expect to use?					
I feel the educational session helped to increase my knowledge regarding caring for the refugee women population.					
After hearing this educational session, I think this information would enhance my practice in caring for refugee women and assessing for postpartum depression in this patient population.					

	Strongly Agree	Agree	Disagree	Strongly Disagree	N/A
As a result of this educational session, I feel more comfortable assessing postpartum depression in refugee women and addressing their cultural needs.					
I feel that I would prefer to ONLY use the EPDS tool in my practice site if possible to screen refugee women for PPD.					

1. What barriers, if any, do you foresee regarding the implementation of EPDS screening within the clinic?

2. What benefits, if any, do you anticipate regarding the implementation of EPDS screening within the clinic?

3. What, if any, changes would you recommend to this educational offering?

APPENDIX D. PROVIDERS' COVER LETTER

NDSU

NORTH DAKOTA STATE UNIVERSITY

701.231.7821

*School of Nursing
College of Health Professions
NDSU Dept. 2670
P.O. Box 6050
Fargo, ND 58108-6050*

Dear Participant,

My name is Aminata Kamara. I am a Doctor of Nursing Practice/Family Nurse Practitioner student at North Dakota State University. I am asking for your help with a project. The purpose of this project is to improve awareness of the increased risk of postpartum depression in the refugee population and improve screening rates. As part of this project, I will educate health care providers regarding how refugee women are at increased risk over the general population for postpartum depression, how cultural factors impact their care, and screening recommendations using the Edinburg Postpartum Depression Scale (EPDS) compared to the PHQ-2 that is currently in use.

You are invited to participate in this project, where you will be asked to complete a brief pre-survey before the training and another post-survey form at the completion of the training. All survey responses will be kept confidential. The brief surveys are optional and should take less than 5 minutes each to complete. The survey is anonymous and contains no personal identifying items that will be able to be linked directly back to you, though some demographic information is collected. Completion of the survey forms will constitute your consent to participate. There is no penalty for failure to complete the evaluation form. There should be no risks involved in completing the survey. [All procedures for the study have been approved by the Institutional Review Board at North Dakota State University, protocol]

If you have any questions or comments, please feel free to contact us: Heidi Saarinen (heidi.saarinen@ndsu.edu or 701.231.7821), or Aminata Kamara (aminata.kamara@ndsu.edu). If you have questions about the rights of human participants in research, or to report a problem, contact the North Dakota State University IRB Office by telephone at 701.231.8995 or toll-free number 855.800.6717, or by e-mail at NDSU.IRB@ndsu.edu.

Thank you for your assistance.

Aminata Kamara, FNP-S, RN and Heidi Saarinen, DNP, APRN, FNP-C

APPENDIX E. PATIENTS INFORMED CONSENT

NDSU **NORTH DAKOTA STATE UNIVERSITY** *School of Nursing*

Hello!

My name is Aminata Kamara and I am a graduate student in the Doctor of Nursing Practice program at North Dakota State University (NDSU). I am working together with my advisor, Heidi Saarinen, on a project to help people learn more about postpartum depression and how postpartum depression affects refugee women. The purposes of this project are as follows:

- Help healthcare providers at the clinic learn more about things that increase refugee women's risk for having postpartum depression (PPD) after the first-year of having a baby.
- Two screening tools are being compared to see if one is better than the other in knowing if refugee women have postpartum depression. Refugee women, such as yourself, are being asked to fill out these forms when you come in for a visit at the clinic for your health after having a baby or when you bring in your infant for a check-up after having a baby.
- Help to find refugee women with postpartum depression to better give them support and see how else the clinic can help their postpartum depression.

You are being asked to fill out this form because you are between the ages of 18-60 years, are a female who has had a baby within the last year and are a refugee. The form has 10 questions about postpartum depression. The form will also ask you about basic information, such as your age, race, and how long you have lived in the United States, just to get some information about refugee women at this clinic. You will not be asked your name or any information that could let anyone know that you are the person answering the questions. If you choose to fill out the form, this allows us to use your answers from the form for the purpose of this project. It should take less than 5 minutes to fill out the form. Answering the questions about postpartum depression might make you concerned or more aware of postpartum depression, and if this is the case, please let the nurse know right away. The nurse will look at your score and see if your healthcare provider should be aware of the results. You can choose to fill out the form or not, and you can choose to quit filling out the form at any time without having anything happen or needing to do anything else. I and my advisor will not know who answered the questions and all the scores will be kept confidential for the purpose of the project. By filling out the form, you will allow us to use your answers in this project. If you do not want us to use your answers, please do not fill out the form.

- **If you have any questions or concerns during or about this project, please let the nurse know and/or contact:**
 - Aminata Kamara – aminata.kamara@ndus.edu
 - Heidi Saarinen- heidi.saarinen@ndus.edu
- If you have any questions about the rights of human participants in research or to report a problem, contact the NDSU IRB office at 701-231-8995, or toll-free: 855.800.6716, or e-mail ndsu.irb@ndsu.edu

Thank you for your time and participation,

Aminata Kamara, DNP-S

APPENDIX F. NIDA CLINICAL TRIALS NETWORK PATIENT HEALTH

QUESTIONNAIRE-2 (PHQ-2)

NIDA Clinical Trials Network Patient Health Questionnaire-2

(PHQ-2) *Instructions:*

Please respond to each question.

Over the last 2 weeks, how often have you been bothered by any of the following problems?

Give answers as 0 to 3, using this scale:

0=Not at all; 1=Several days; 2=More than half the days; 3=Nearly every day

1. Little interest or pleasure in doing things

☐0

☐1

☐2

☐3

2. Feeling down, depressed, or hopeless

☐0

☐1

☐2

☐3

Instructions

APPENDIX G. PERMISSION TO USE EPDS

Aminata.kamara@ndus.edu

Dr. John Vanderlaan <[email redacted]>

Reply all

Fri 10/12, 3:26 PM

Kamara, Aminata

Dr. Leininger's materials that are posted on her website are now under a Creative Commons license. You are welcome to use this information without permission.

Best wishes on your doctoral study!

Dr. Vanderlaan

On Thu, Oct 11, 2018 at 11:37 PM Kamara, Aminata <aminata.kamara@ndsu.edu> wrote:

Dear Dr. Leininger,

My name is Aminata Kamara, I am a Doctor of Nursing Practice student at North Dakota State University. I am currently working on my dissertation titled "Assessing Postpartum Depression in the Refugee Population in a Primary Care Setting," and have been using your theory "Theory of Culture Care Diversity and Universality" and the "Sunrise Model" as a guide to my educational module. My dissertation will include a 30 minutes educational session to primary care providers at a local clinic regarding postpartum depression in refugee women. The second part of my dissertation will include implementing an evidence-based screening tool call the Edinburgh Postpartum Depression Scale at the local clinic. I would like to obtain permission to discuss/use your theory during my educational module. Please let me know if you would like any additional information.

Thank you for your time.

Aminata Kamara, DNP-S, RN, BSN

North Dakota State University

Aminata.kamara@ndus.edu

APPENDIX H. FQHC PROVIDERS' POWERPOINT

Assessing Postpartum Depression in the Refugee Population in a Primary Care Setting

Aminata S. Kamara, RN, BSN, DNP-S
North Dakota State University
School of Nursing

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Objectives

- Brief introduction of the PIP (Purpose/significant of the project)
- Why the focus on refugee women's mental health?
- Major risk factors of PPD unique to the refugee population
- How culture impacts refugee women's' care overall
- Discuss evidence-based screening tool for PPD in refugee women.
- Benefits and Barriers of Screening.
- Project involvement and evaluation plan.
- Summary

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Purpose/Significance

- Overview of refugee population and postpartum depression in the United States.

Project Objectives:

1. Providers at the Federally Qualified Healthcare Center (FQHC) will enhance their knowledge regarding providing culturally sensitive care by the end of the co-investigators' presentation.
2. An evidence-based screening tool (Edinburg Postpartum Depression Scale) will be implemented at the FQHC to assess the prevalence of PPD in refugee women for every well-child or postpartum visit within the first year during the practice improvement project.
3. Improve screening rates of PPD in the refugee population and referral to the appropriate services if a diagnosis of PPD is indicated by the end of the practice improvement project.

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Why are refugee women more prone to postpartum depression (PPD)?

Major risk factors:

- Exposure to war or torture
- Immigration status
- Healthcare disparities
- Language barrier
- Socioeconomic status
- Cultural influence

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Culturally Sensitive Care

- Why is this important in this patient population
- How to approach the “talk” of mental illness like postpartum depression.
- Signs and symptoms of PPD unique to refugee population.
- Eliciting better response when assessing PPD in this patient population.

EPDS as an Evidence-Based Screening Tool

- Edinburgh Postnatal Depression Scale (EPDS)
 - Established 1987, sensitivity range 92.3 to 96 %, specificity range 72.5 to 95 %.
 - Validated in 12 countries and translated in 57 native languages
- When to assess for PPD?
 - The AAP screening recommendations for PPD.

Benefits and Barriers of Screening

- Crucial goal of primary care providers
 - care for both the mother and infant
- Consequences of untreated PPD
 - can affect the mother, infant, and the entire family
- Early interventions/adequate follow up
 - Increases cost-effectiveness
- Barriers
 - Time, providers' confidence, lack of resources, liability

Evaluation Plan

- Increase provider knowledge
 - Objective #1: Pre/Post Cultural Assessment Surveys
- Implement EPDS as the primary screening tool for PPD in refugee women
 - Objective #2, #3: use the EPDS at the 6-week postpartum follow-up and infant 2-week check and determine if the EPDS elicits more referrals over the PHQ-2
- Increase screening/referral rates using the EPDS
 - Objective #4: Determine the rates of PPD referrals

Summary

- Recognize risk factors for PPD, especially in refugee women
- Utilize most appropriate screening tools
 - Evidence-based
- Experience in working with diverse patient populations
 - Don't be afraid to start the conversation of mental health and illness
- Adequate follow-up/referrals to resources available

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APPENDIX I. PROJECT APPROVAL FROM FQHC

From: Stacey Hone SHone@famhealthcare.org <[email redacted]>
Sent: Monday, November 26, 2018 9:25 AM
To: Kamara, Aminata
Cc: Napoleon (Lucho) Espejo; Kelly Polcher; Mary Sprague; Diane Jones; Lynelle Huseby; Meghan Dockter
Subject: RE: Dissertation

Hi Aminata,

Sorry I had not had a chance to reply to you last week. I did have it on my "to do" list.

Yes your project was approved by the Education committee at the meeting. The only thing is that any education that you provide to the providers will need to be worked in to the provider meeting. We were not agreeable to blocking additional time after a provider meeting as that takes time away from patient care.

Please let me know what your plan will be going forward and what IT access you will need and what you will need from Family Healthcare.

Stacey Hone, RN
Clinical Service Manager
Family Healthcare
301 NP Ave
Fargo, ND 58102
701-271-1494 (direct line)
701-271-3344 (main line)

APPENDIX J. IRB APPROVAL LETTER



January 14, 2019

Dr. Heidi Saarinen
School of Nursing

IRB Approval of Protocol #PH19106, "Educating Primary Care Providers Regarding Postpartum Depression and Care Considerations in Refugee Women"

Co-investigator(s) and research team: Aminata Kamara

Protocol Reviewed: 12/20/2018 Protocol Expiration: 12/19/2019
Continuing Review Report Due: 11/1/2019

Research site(s): Family HealthCare Funding Agency: n/a

Review Type: Expedited category # 7

IRB approval is based on the revised protocol submission (received 1/7/19). Please use the approved consent form (received 1/7/2019).

Additional approval from the IRB is required:

- o Prior to implementation of any changes to the protocol (Protocol Amendment Request Form).
- o For continuation of the project beyond the approval period (Continuing Review Report Form). A reminder is typically sent approximately 4 weeks prior to the expiration date; timely submission of the report the responsibility of the PI. To avoid a lapse in approval, suspension of recruitment, and/or data collection, a report must be received, and the protocol reviewed and approved prior to the expiration date.

Other institutional approvals:

- Research projects may be subject to further review and approval processes.

A report is required for:

- o Any research-related injuries, adverse events, or other unanticipated problems involving risks to participants or others within 72 hours of known occurrence (Report of Unanticipated Problem or Serious Adverse Event Form).
- o Any significant new findings that may affect risks to participants.
- o Closure of the project (Protocol Termination Report).

Research records are subject to random or directed audits at any time to verify compliance with human subjects protection regulations and NDSU policies.

Thank you for cooperating with NDSU IRB procedures, and best wishes for a successful study.

Sincerely,

A handwritten signature in purple ink that reads "Kristy Shirley".

Kristy Shirley, CIP, Research Compliance Administrator

For more information regarding IRB Office submissions and guidelines, please consult www.ndsu.edu/irb. This Institution has an approved FederalWide Assurance with the Department of Health and Human Services: FWA00002439.

INSTITUTIONAL REVIEW BOARD

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APPENDIX K. EXECUTIVE SUMMARY

Background

Mental illness continues to be a significant health issue in the United States, as it affects all individual regardless of a person's age, gender or race. While mental illness can affect anyone, this is especially common in minority populations, such as refugee women who typically have unique risk factors that predispose them to both mental and physical illness when compared to the general population (Ganann, Sword, Thabane, Newbold & Black, 2016; Lieberman et al., 2017). Mental illness, such as Postpartum Depression (PPD), is more prevalent in refugee women, with a rate of 42% when compared to the general population rate of 10-20%. The increase in PPD rates in refugee women is associated with risk factors, such as increased incidence of being victims of torture, immigration proceedings, previous exposure to war, physical and emotional abuse, poverty, language barrier, cultural beliefs, lack of support system, and access to adequate healthcare (Firth & Haith-Cooper, 2018; Mukherjee, Trepka, Pierre-Victor, Bahelah, & Avent, 2016). The above risk factors specific to this patient population combined with the lack of effective mental illness screening tools and lack of culturally sensitive care can be detrimental to refugee women's overall health (Baffour, 2017).

As the population of refugee women continues to increase in the United States, it is crucial now more than ever that healthcare providers in the United State become more vigilant regarding mental illness in high-risk patient populations, such as refugee women. The foreign-born population in the United States is roughly 43.3 million, and that number is anticipated to quadruple to an estimate of 78 million by the year 2065 (Nicholson, 2017). Healthcare providers should enhance their knowledge regarding providing culturally sensitive care and implement evidence-based screening tools that can adequately assess for mental illness, like PPD, thereby

improving patients' physical and mental wellbeing. The practice improvement project aimed to increase healthcare provider awareness of the increased risk of postpartum depression in refugee women compared to other patient populations, enhance healthcare providers' knowledge in providing culturally sensitive care, and improve incidence rates of PPD during the first year of the postpartum period in refugee women.

Project Summary

A thorough literature review was conducted to examine the recommended evidence-based screening tool for PPD in refugee women, enhancing primary care providers' knowledge on culturally sensitive care, risk factors of PPD, treatment options, and Dr. Madeleine Leininger's Theory of Culture Care Diversity and Universality for this project. The project took place at a primary care clinic that is a Federally Qualified Healthcare Center (FQHC) in a northern Midwest urban area with the aim of improving patient outcomes in refugee women by improving identification rates for PPD. The Edinburgh Postpartum Depression Scale (EPDS), an evidence-based screening tool, was implemented to identify the incidence of PPD in refugee women over a two-month period. The results of EPDS were compared to the standard PHQ-2 results previously utilized at the FQHC clinic.

A 30-minute educational session was provided to the providers at a FQHC regarding how to assess for PPD, risk factors of PPD that are unique to refugee women, providing culturally sensitive care, and utilizing appropriate evidence-based screening tools for PPD. The educational session also included discussion of PPD treatment options, and the results comparing the EPDS scores to the PHQ-2 score post-implementation. The pre-survey looked at the providers' baseline knowledge in providing culturally sensitive care to refugee women. The post-survey modified cultural assessment evaluated the providers' knowledge in providing culturally

sensitive care for refugees after the educational session. The post-survey also included the evaluation of the co-investigator's educational session from the PowerPoint presentation and the continued use of the EPDS in their practice.

Findings and Conclusions

The EPDS was implemented system-wide in all three clinics of the FQHC. The EPDS screening tool indicated an increased incidence of PPD in refugee women, suggesting the EPDS to be a more sensitive screening tool in detecting for PPD in refugee women when compared to the PHQ-2. The providers who participated in the project preferred to continue using the EPDS instead of the PHQ-2 to screen for PPD in, not only in refugee women, but all patients who are within one year postpartum. The results from the pre and post-surveys completed by the providers indicated an increase in confidence level and knowledge for all providers in assessing for PPD and an increased knowledge in providing culturally sensitive care to refugee women during the first year postpartum.

The nursing profession continues to strive professionally to ensure that the patient population that they serve receives the best possible health outcomes. One way to ensure that this occurs is by obtaining the best education by moving in the direction of doctorally prepared providers. Advanced nurse practitioners emphasize the utilization of evidence-based practices, participation in clinical research, and involvement in policies that can impact practices and enhance health outcomes for all patients, thereby, promoting a healthy community and country. Healthcare providers need to continue to take the necessary steps to identify high-risk populations, enhance the utilization of appropriate screening tools, and implement early interventions for mental illness that will help combat the ongoing problem of mental illness in the United States.