

A Transcultural Perspective on Nonpharmacological Treatment of Postpartum Depression: A Systematic Review

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A TRANSCULTURAL PERSPECTIVE ON NONPHARMACOLOGICAL
TREATMENT OF POSTPARTUM DEPRESSION: A SYSTEMATIC REVIEW

by

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A thesis submitted in partial fulfillment of the requirements
for the Honors in the Major Program in Nursing
in the College of Nursing
and in The Burnett Honors College
at the University of Central Florida
Orlando, Florida

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ABSTRACT

The problem of focus in this systematic review is that PPD diagnosis and treatment are not properly addressed in the United States (US) and across the globe. There needs to be a greater understanding that women's beliefs and distinct social influences have a direct impact in how they interpret, perceive, and report PPD symptoms. The way women experience PPD and express emotions differs among cultures. Despite PPD's global extent, scarce research that addresses culturally competent alternative interventions exists. Equally worrisome is health care providers' lack of knowledge of alternative therapies for PPD in the US and across the world. Unfortunately, health professionals frequently consider that the experience and expression of PPD is transculturally equal for all women (Evagorou et al., 2016). The purposes of this study were to 1) analyze the existing literature on non-pharmacological treatment of PPD in the US and across selected cultures; 2) determine the effectiveness of cross-cultural non-pharmaceutical therapy; and 3) examine and suggest ways health care providers can integrate non-pharmacologic interventions into PPD treatment in the US. A systematic review of scholarly literature was conducted. The systematic electronic search comprised the databases Cumulative Index to Nursing and Allied Health Literature (CINAHL), Medline, PsycINFO and SAGE Research Methods. Searches were limited to English language, peer reviewed, and research articles between 2007 and 2017. A second search was performed through global Healthcare Organizations websites for additional insight. The result of the searches yielded a total of 495 texts, including website sources. Subsequently, only 67 articles were selected for inclusion in the final review. The inclusion process involved examining each article by reading the abstract, and later reading the full text to identify relevance to this review. The World Bank's country

classifications by income level (high-income, upper-middle income, lower-middle income and low-income) were adopted to present the findings.

This literature review found that passing *el calor* to the newborn, yoga; and cognitive-behavioral, interpersonal, family, and bright light therapies are successful interventions. Further, seclusion periods were identified as adequate interventions only when women voluntarily adopt the practice and have family support, with less social restrictions. While other non-pharmacological treatments' effectiveness was not ascertained, this thesis encourages healthcare professionals to integrate cultural traditions congruent with clients' preferences. Recommended nursing interventions and suggestions for improvement of current practice are also discussed.

DEDICATION

For all culturally diverse families, deserving of exemplary nursing care.

For all women battling with postpartum depression.

For compassionate nurses like ReAnna Greene, whose nursing philosophy serves as a blueprint for future generations of nurses.

To my parents, who never allowed 711.47 miles to stand between us. I cannot express how grateful I am to have you in my life. Your love, courage, and selflessness have made me the woman I am today.

To my loving family for standing behind me through all my endeavors.

To my partner, whose never-failing love and understanding give me the strength to continue to pursue my dreams.

To my friends, especially Kimberly S. Bogers, whose unmeasurable support has changed my life. Thank you for your loyal friendship.

Los amo.

For my uncle Hector Pita, who, like a father, never stopped at nothing to put a smile on my face.

For my aunt Nelida Pita, whose contagious laughter always lit up a room.

For my grandmother Myrna Pita, whose memory has inspired me to become a compassionate and kind nurse.

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INTRODUCTION

Postpartum depression (PPD) is a complex health issue that afflicts women across cultures. Its recognition dates back from the times of Hippocrates, who provided the earliest documentation. With the increased interest in mental illness of the 19th century, more efforts focused on the study of perinatal mental disorders (O'Hara & Wisner, 2014). In current practice, PPD is defined as a depressive episode with incidence between the fourth and up to the twelfth weeks after birth. Although its etiology is uncertain, much has been postulated with regards to its link to postnatal decrease of reproductive hormone levels, genetics, and socioeconomic factors. Affected women may experience a wide variety of symptoms that include, but are not limited to, irritability, sleep disruptions, obsessive behavior over the newborn, mood swings, anxiety, sadness and suicidal ideations (Stewart & Vigod, 2016). A history of depression, bipolar disorder, lack of social support, stress, and partner conflicts constitute common risk factors (O'Hara & Wisner, 2014). Concerning disability, depression is second to HIV/AIDS for women worldwide between the ages of 15 to 44 (O'Hara, 2009).

The purposes of this literature review were to 1) analyze the existing literature on non-pharmacological treatment of PPD in the US and across selected cultures; 2) determine the effectiveness of cross-cultural non-pharmaceutical therapy; and 3) examine and suggest ways health care providers can integrate non-pharmacologic interventions into PPD treatment in the US.

BACKGROUND

Prevalence and Diagnosis of Postpartum Depression

As one of the most common complications of childbearing, PPD's increased prevalence has made it one of women's major mental health issues. Depression is the most common reason of non-obstetric hospitalizations among women in the US (O'Hara, 2009). In 1968, the first and largest study conducted at the time assessed 305 ante and postpartum women and estimated a 10.8% PPD occurrence (Segre, 2011). A 1996 meta-analytic review further examined the issue reporting an incidence of approximately 13% (O'Hara & Swain, 1996). A systematic review of the literature from 1982 to 2011 updated PPD prevalence to a range of 3.7% to 36%. Later in 2015, the percentage of PPD patients in the US was estimated at 10% -20%, consistent with current findings (Evagorou, Arvaniti, & Samakouri, 2016). PPD, as a global health challenge, highly affects middle and low income countries (MLICs). Although international incidence varies, the healthcare literature emphasizes its high prevalence reporting 73.7% in Taiwan, 63% in Pakistan, 57% in Colombia, and 20.1% in Morocco (Evagorou et al., 2016). Thus, it has been reported that PPD's prevalence in high income countries (HICs) is 1.9 to 82.1 %; and 5.2 to 74.0% in MLICs (Abdollahi, Lye, & Zarghami, 2016). The limited research, social stigmas, and underdiagnosis of PPD may explain why these study findings are not fully congruent with other results which report different figures. While these statistics are alarming, it is even more concerning that about 40% of women who experienced PPD in the past will be subject to a relapse during either future pregnancies or unrelated life events (Stewart & Vigod, 2016).

Patients and clinicians alike often have difficulty recognizing PPD (Callister, Beckstrand, & Corbett, 2010). As a major depressive episode, PPD's diagnostic criteria requires the presence

of at least five symptoms: low mood and/or interest, lack of energy, poor decision making and thinking, disturbed appetite and/or sleep, and suicidal ideation. Diagnosis criteria allows for any combination of these symptoms, along with symptoms of either loss of interest or low mood, which are critical in making a diagnosis. These changes in usual functioning must be present for at least two weeks (Segre, 2011).

Diagnostic efforts have yielded screening tools specific for PPD detection (O'Hara, 2009). Although the best method for detection of PPD remains under consideration, the Edinburgh Postnatal Depression Scale (EPDS) is still recommended for universal identification (Stewart & Vigod, 2016). Other screening tools such as the Beck Depression Inventory (BDI), the Postpartum Depression Screening Scale (PDSS) and the Center for Epidemiologic Studies Depression Scale (CES-D) are also utilized for PPD. The EPDS and PDSS are suggested to be more sensitive and effective, thus they are widely used (Gaynes et al., 2005). The EPDS tool comprises ten questions that assess emotional disturbances of women during the seven days prior to assessment. A study evaluating whether the EPDS measures equally across various cultural groups found that culture, religion, socioeconomic status and family support influence self-report of PPD (Di Florio et al., 2017). Without a specific tool that considers culturally diverse women's perceptions, the misdiagnosis of PPD in the clinical setting may occur. Notably, roughly 80% of PPD cases are undetected and untreated (Evagorou et al., 2016), and less than 20% of women have admitted to refraining from disclosure of depressive symptoms to their providers due to distrust (Di Florio et al., 2017).

The scarce screening by clinicians further compromises the detection of PPD. Several studies assessing obstetrician-gynecologists (OB/GYNs)'s frequency of screening have

determined that, despite guidelines, providers do not assess for PPD as recommended. About 41% of physicians surveyed occasionally conduct their screening and 15% never do so. Moreover, only 32% and 16% utilize a validated screening tool or a patient self-report test, respectively. Those who do screen consult patients on their scores in only 35% of the visits. There are also statistically significant disparities in documentation of screening results with as little as 42% documentation for attending physicians and up to 94% documentation by nurse practitioners (Santoro & Peabody, 2010).

Only 18% - 36% of women who are offered treatment for PPD accept a referral for further evaluation. In addition, 90% of women who seek professional help describe care dissatisfaction due to proposed treatments that were not congruent with their views. Women are less likely to seek further care when presented with treatment options that they believe are unsuitable (Feeley, Bell, Hayton, Zelkowitz, & Carrier, 2016). Thus, PPD remains both underreported and inadequately detected.

Care for Women with Postpartum Depression

Research on allopathic and nonpharmacological treatment of PPD is limited. Potential cross-cultural differences exist. Middle and low income countries (MLICs)' care for PPD has a greater foundation on cultural beliefs and alternative postnatal interventions that are yet to be fully understood (Evagorou et al., 2016). Some women resort to natural approaches such as St. John's Wort and other over-the-counter supplements (Camp, 2013). Postpartum mandated rest, special diets, and rituals with the mother's placenta are also common (Evagorou et al., 2016). In HICs, many physicians consider pharmaceuticals as the primary treatment approach. The use of

both selective serotonin reuptake inhibitors (SSRIs) and tricyclic antidepressants (TCAs) is common (Camp, 2013). However, these medications are detected in breast milk, and evidence of their effectiveness remains limited (Stewart & Vigod, 2016). For example, studies show that Prozac[®] (SSRIs) is detected at therapeutic levels in infants exclusively breastfed. Common side effects for the infant include colic and impaired weight gain (Camp, 2013). The potential exposure of the breastfed neonate to routine depression drug regimens raises controversy on whether less allopathic and more alternative therapeutic measures should be explored (Segre 2011). Side effects for PPD patients further discourage compliance. Mothers' fears of being limited to psychotropic drugs and their use while breastfeeding may deter them from seeking professional help. Cognitive Behavioral Therapy (CBT) serves as another treatment for PPD in HICs. In CBT a trained professional helps the mother express her feelings, and has been identified as an effective alternative to pharmaceuticals (Camp, 2013).

Global barriers to treatment of PPD include embarrassment, stigma, financial burdens, lack of or inadequate transportation, and limited specialty care (Stewart & Vigod, 2016). Worldwide, the demand for family planning is increasing rapidly. In developing regions, only half of women receive the recommended amount of health care they need. Thus, in 2015 the United Nations recognized the persistence of inequalities in healthcare access and the need for a focus on women/maternal health. With the goal to address these issues, the United Nations, governments, businesses, and civil society have adopted the 2030 Sustainable Development Goals (SDGs).

Table 1. A Synopsis of The Sustainable Development Goals (SDGs)

Goals	Targets
1. No Poverty	<ul style="list-style-type: none"> ▪ eliminate extreme poverty worldwide ▪ implement social protection systems for vulnerable populations ▪ ensure equal rights to economic resources for all and reduce their exposure to economic, social, and climate-related disasters
2. Zero Hunger	<ul style="list-style-type: none"> ▪ ensure access to food by all people ▪ increase sustainable agricultural productivity and income of small producers ▪ maintain the genetic diversity of agricultural products and animals
3. Good Health and Well-Being	<ul style="list-style-type: none"> ▪ ensure healthy lives and well-being across the life span ▪ reduce maternal and infant mortality ratios worldwide ▪ eradicate epidemics and reduce mortality from non-communicable diseases, road traffic accidents, hazardous chemicals, and pollution ▪ ensure access to sexual and reproductive services ▪ universal health coverage
4. Quality Education	<ul style="list-style-type: none"> ▪ ensure access to quality, equitable, and affordable education throughout the lifespan ▪ eliminate gender disparities in education and build educational facilities that meet population needs ▪ increase the number of prepared education professionals
5. Gender Equality	<ul style="list-style-type: none"> ▪ contribute to the empowerment of women and girls worldwide ▪ end early and forced marriage, discrimination, and violence

- give women access to quality reproductive health and leadership opportunities

- 6. Clean Water and Sanitation
 - improve water quality, water-use efficacy, and water resources
 - provide safe water and sanitation to all
 - strengthen water-related ecosystems and global cooperation to support this goal

- 7. Affordable and Clean Energy
 - enhance access to reliable, inexpensive, and renewable energy through global partnerships
 - develop technologies to provide sustainable energy

- 8. Decent Work and Economic Growth
 - achieve high levels of employment with fair income
 - promote and achieve worker-centered economic growth
 - eliminate forced and child labor, slavery, child soldiers recruitment and human trafficking

- 9. Industry, Innovation and Infrastructure
 - promote global economic development in most modern terms
 - develop strong infrastructure suiting the economy needs

- 10. Reduced Inequalities
 - reduce the gap between high-resource and low-resource nations
 - reduce the gap between affluent individuals and those living in poverty
 - promote social, economic, and political inclusion of all

- 11. Sustainable Cities and Communities
 - implement and enforce regulations for newer more scientific approaches of the urban environment
 - minimize negative impact of cities on nature and people

- 12. Responsible Consumption and Production
 - optimize production, distribution and consumption of goods
 - adopt and implement most sustainable productions strategies

- 13. Climate Action
 - achieve full compromise from world nations towards mitigation of climate change effects
 - encourage highly industrialized nations to assume leading role in the facing global warming
 - improve education on climate changes measures, mitigation of impact and early warning

- 14. Life Below Water
 - exploit oceans sustainably and restore lost balance
 - eliminate overfishing, and destructive fishing practices

- 15. Life on Land
 - revert and minimize damage to environment (soil, water, flora, fauna) caused by human activity
 - implement sustainable management of ecosystems

- 16. Peace, Justice and Strong Institutions
 - promote and enforce inclusion and respect for the rights of all the elements of a strong moral society

- 17. Partnerships for The Goals
 - involve broad sectors of society and global government structures in a sustainable development programme for developing countries
 - promote cooperation through transmission of financial and human capital and sustainable science technology from high resource countries to developing countries and among developing countries themselves

Note. Material adapted from “Transforming our world: The 2030 agenda for sustainable development”, by the United Nations, 2017. Retrieved from <http://www.un.org/sustainabledevelopment/>

As shown in Table 1, the 3rd SDG (Good Health and Well-Being) aims to, among other things, strengthen the ability of all countries for prompt notification, risk reduction and appropriate management of global health issues. In fact, the 3rd goal seeks to ensure all women have access to reproductive health-care services by integrating these services into national strategies and programs.

Additionally, the 5th Sustainable Goal further emphasizes the need for women's empowerment and gender equality. In places such as Western Asia, females' ongoing struggle to enter primary and secondary education is concerning. Educational disadvantages translate into limited employment opportunities that directly affect women's socioeconomic status. Further, 35% of women worldwide are victim to intimate partner violence (IPV) (United Nations, 2017). These issues are frequently associated with a higher prevalence of PPD. Research shows that women who have low-income, a lack of education, and perinatal financial stress are at increased risk for PPD (Santoro & Peabody, 2010). Women who experience IPV are also more likely to report postpartum depressive symptoms (Stewart & Vigod, 2016). Through its 5th goal, the 2030 SDGs intend to (a) eliminate all forms of violence against all women; (b) give women equal rights to economic resources; and (c) provide equal access to education, health care, fair work, and representation in political and economic matters (United Nations, 2017). If attained, these objectives will positively contribute to the prevention and treatment of PPD.

Before the development of the 2030 SDGs, the nursing profession recognized the need for global collaboration in the improvement of maternal health. In 1999 the NURSE model of Care for PPD was developed to provide a comprehensive treatment approach with a focus on five different areas of health. NURSE is an acronym that proposes to address post parturient

women's needs through a holistic approach. The "N" stands for women's nutrition, and the need for medications. The "U" is for the understanding of the disease that is achieved through psychotherapy. The "R" is for rest and relaxation, with especial emphasis placed on sleeping patterns. The "S" stands for spirituality, faith, and belief. Finally, the "E" stands for exercise (Driscoll, 2006). Yet, in spite of these efforts, PPD treatment remains either deficient or ineffective.

METHODS

A systematic review of scholarly literature focused on cross-cultural treatment alternatives for PPD was conducted. The systematic electronic search comprised the databases Cumulative Index to Nursing and Allied Health Literature (CINAHL), Medline, PsycINFO and SAGE Research Methods. A variety of key terms were utilized to narrow the search results. Key terms include the following: “postpartum depression” OR “postnatal depression”, “alternative therap*” OR “treatment,” “traditional”, “cultur*”. Searches were limited to English language, peer reviewed, and research articles between 2007 and 2017. Unavailable full-text articles, and an unrelated focus to this literature review were excluded. A second search was performed through global Healthcare Organizations websites for additional insight. The result of the searches yielded a total of 495 texts, including website sources. Subsequently, only 67 articles were selected for inclusion in the final review. Reasons for eliminating 432 articles included: lack of focus on nonpharmacological interventions for PPD, poor presentation of findings, and insufficient data to accurately determine validity. The inclusion process involved examining each article by reading the abstract, and later reading the full text to identify relevance to this review. Some articles were used as background information sources, while others were used as both background and systematic review sources.

The World Bank’s country classifications by income level were adopted to present the findings. These classifications are based on the gross national income (GNI) per capita which is calculated using the World Bank Atlas method. This tool reduces the impact of exchange rate fluctuations when comparing national incomes. The Atlas conversion factor is determined by averaging the country’s yearly exchange rate and its exchange rates for the preceding two years.

The result is then adjusted to account for the national and international rates of inflation. For the year 2017, the World Bank classified the world's economies as high-income (> \$12,476), upper-middle income (\$4,036–\$12,475), lower-middle income (\$1,026–\$4,035), and low-income (\$1,025 or less). Therefore, the terms “high income country” (HIC), “upper-middle income country” (UMIC), “lower-middle income country” (L-MIC), and “low income country” (LIC) refer to these assignments. New designations are determined at the start of the World Bank's fiscal year in July to correspond with economic changes. Hence, these designations are not stagnant but dynamic as countries' economies fluctuate (The World Bank Group, 2018a, 2018b).

RESULTS

Postpartum Depression in High Income Countries

China

The prevalence of PPD in China is reported to range between 12.7% and 17.3 % (Evagorou et al., 2016). There is record of its existence since before the Ming and Qing Dynasties, when physicians noted postpartum changes (Huiru, Qing, Weiran, & Yaping, 2017). Traditionally, Chinese families believe that the *Yin* and *Yang* regulate the human body. *Yin* is described as a force that is hot air, or positive energy. Conversely, *Yang* is the force of cold air or negative energy. It is believed that a balance between *Yin* and *Yang* must occur for health and wellbeing to exist, otherwise, women may be prone to illness (Klainin & Arthur, 2009). In China, PPD may be referred to as the “wind illness” brought on by doing something wrong in the postnatal period. The *Yang* force is believed to be affected by the disease because of the clinical manifestations commonly observed in Chinese women (muscle pain, low energy, fever, etc.). Apart from women reporting symptoms of feeling pressure in the heart, confusion, sadness, and fear, they are also faced with a phenomenon identified as “phantom crying”. This term describes the experience of hearing the baby’s cry, when in fact the infant is not awake (Evagorou et al., 2016). Consequently, traditional postpartum practices are intended to restore the physiological balance that has been lost.

The postpartum convalescence period, *Zuo Yue*, is practiced to reinstate the equilibrium of *Yin* and *Yang*. During this period, the new mother is expected to rest, avoiding household chores and activities such as reading, washing their hair; or exposure to the sun, wind, or cold (Evagorou et al., 2016). Hence, it may be common to witness a Chinese mother abstain from

iced drinks, bathing, electrical fans, or open windows during pregnancy and after delivery (Wei et al., 2010). Further, the tradition of *Peiyue* (mothering the mother) encourages family support by urging the newborn's grandmothers to care for both the woman and the infant (Evagorou et al., 2016). This practice may be most beneficial to new mothers that have a good relationship with their mothers or mothers-in-law. Contrarily, generational differences, and the mother's lack of adherence to traditional customs may elicit conflict in the grandmother-mother relationship. Nevertheless, in some studies *Zuo Yue* and *Peiyue* have been associated with lower risks of PPD. Moreover, *Zuo Yue* has been linked to decreased severity of physiological symptoms (Callister, Beckstrand, & Corbett, 2010).

Prescribed diets for the postpartum period are also part of traditional Chinese medicine. Mothers are instructed to consume *Yang* (hot) foods such as chicken soup, brown sugar, and meats. On the other hand, the consumption of *Yin* (cold) foods is discouraged. In fact, eating fruits, vegetables, or cold drinks is considered a taboo in traditional Chinese households (Wei et al., 2010). Despite research focused on these cultural dietary restrictions, there are no definitive studies that evaluate their effectiveness.

Another cultural intervention for PPD is acupuncture. The extensive use of acupuncture therapy is due to its easy accessibility, low cost, and efficacy. In women, estradiol (E_2) is the estrogen with the most powerful biological action. Research has found that E_2 levels are decreased in PPD. As a result, monoamine oxidase levels increase, reducing monoamine neurotransmitters found in the synaptic cleft, and therefore, leading to a depressive mood. Some studies have validated the efficacy of acupuncture therapy by showing a positive correlation between the use of this therapy and the increase of E_2 levels (Wang et al., 2016).

Japan

The incidence of PPD in Japan fluctuates between 5% and 17%. The somatization of depressive symptomatology by Japanese woman has been documented, as they report physical rather than psychological manifestations. This may contribute to the underdiagnoses of PPD in this population. According to Evagorou et al (2016), Japanese women may convey an unduly concern for the care of their newborns, as they are “willing to endure the physical and psychological discomfort for the sake of the infant” (p. 144).

The healthcare literature highlights *Satogaeri Bunben*, “home to the village to give birth” (Eberhard-Gran, Garthus-Niegel, Garthus-Niegel, and Eskild, 2010, p. 460), as a Japanese tradition that aids women in their transition to motherhood. This custom entails the mother returning to her family home at 32-33 weeks gestation (Evagorou et al, 2016). She may stay at her parental home for the remaining of her pregnancy and up to 6 weeks postpartum (Callister, et al., 2010). During this time, the mother receives familial support both physically and psychologically. Additionally, the infant’s maternal grandmother is entrusted with the role of primary caregiver and is expected to pass on her experiences and knowledge to the new mother (Klainin & Arthur, 2009). After the period of rest, the mother returns to her marital home (Eberhard-Gran et al., 2010), and may choose to stop working (Evagorou et al, 2016).

Despite the support system fostered by *Satogaeri Bunben*, there is mixed evidence concerning its role in the prevention and prevalence of PPD. Additional research is necessary to accurately evaluate the effectiveness of *Satogaeri Bunben* as an intervention for PPD. Some studies did not support that this custom protected Japanese woman from PPD, as it did not significantly decrease negative symptoms (Klainin & Arthur, 2009). Still, a study conducted to

examine the prevalence of PPD between Japanese women (following postnatal customs) and postpartum women in England demonstrated that, although there was no significant difference, social support was a protective mechanism for both groups (Eberhard-Gran et al., 2010).

United States

In 1982 PPD prevalence was estimated at a 3.7% in the US (Evagorou et al., 2016). Additionally, in year 2000, the costs of depression in the US amounted to \$83.1 billion dollars. Although this figure does not represent the specific costs related to PPD, Santoro & Peabody (2010) point out that in most cases, depressed women have more costly medical claims than depressed men. In addition, pregnant women whose depression has been untreated are at higher risk of expensive complication such as premature labor.

In 2008, the nonprofit organization, Mental Health America, acknowledged the critical need for more awareness, resulting in the policy of *Position Statement 38 Perinatal Mental Health*. This policy aimed to educate the public and healthcare providers about PPD, screening, treatment, and follow-up care. However, PPD's occurrence, peaking at a shocking 36% in 2011, led to the development of the Center for Women's Mood Disorders. The unit created by the University of North Carolina's Department of Psychiatry, is the first in the US to provide specialized inpatient and outpatient services, and research programs to treat PPD (Evagorou et al., 2016).

The treatment of PPD in the US primarily focuses on technological monitoring of the mother and the infant (Callister, Beckstrand, & Corbett, 2010). Available treatment options include antidepressant medications, psychotherapy, and support groups. However, nonpharmacological complementary approaches have steadily become more popular.

SSRIs constitute the first line of defense among antidepressants in the treatment of PPD (O'Hara, 2009). These are recommended when PPD has not been resolved after psychotherapy or when immediate intervention is required due to severity of symptoms (Stewart & Vigod, 2016). SSRIs selectively inhibit the reabsorption of the neurotransmitter serotonin in the brain. Thus, mood improves as depressive symptoms decline due to higher levels of serotonin (Mayo Foundation for Medical Education and Research, 2018).

Some control trials support SSRIs' success. Nevertheless, much needs to be researched about their effectiveness when treating PPD, since the disease may be precipitated by a variety of factors rather than chemical imbalance alone (O'Hara, 2009). A qualitative systematic review of randomized clinical trials compared SSRIs to other treatments for PPD. The review concluded that although SSRIs seem effective, there is no compelling evidence that supports their superiority over other treatment options (De Crescenzo, Perelli, Armando, & Vicari, 2014). Moreover, side effects and fear of harming the newborn may render women noncompliant with pharmacologic interventions. Headaches, reduced sex drive, weight gain, and nausea are a few examples of common side effects associated with SSRIs (Camp, 2013). In addition, SSRIs may cause delayed lactation and difficulty achieving breastfeeding goals (American Association for the Advancement of Science, 2018). The majority of SSRIs pass into breast milk with a dose of less than 10% of maternal dose (Stewart & Vigod, 2016). Some studies claim that they are of no harm to the newborn (O'Hara, 2009), while others identify minor side effects such as fussiness, colic and sedation in infants (Davanzo, Copertino, de Cunto, Minen, & Amaddeo, 2011). The scarce research on SSRIs' effects on breastfeeding newborns along with conflicting data, reflect

the need for further research. Therefore, healthcare providers and clients must carefully consider whether the benefits of SSRI treatment outweigh its side effects on the mother and her infant.

The use of various types of therapy such as CBT, interpersonal (IPT), and family therapies have proven efficacious in the treatment of mild to moderate depression. In fact, based on research, the American Psychological Association recommends that psychotherapy should be the first line of treatment for PPD rather than medications (American Psychological Association, 2018).

Following a positive diagnosis, providers may initiate treatment with antidepressant medications and coordinate a referral to a mental health professional. These professionals tailor therapy-based treatments for each woman's needs depending on her individual circumstances (Santoro & Peabody, 2010). CBT, pioneered by American psychiatrist Dr. Aaron Temkin Beck, encourages patients to improve coping strategies and develop different thought patterns. The foundation of CBT is a cognitive model that suggests the existence of a close relationship between the individual's perception of a situation and their reaction to it. Rather than the situation itself, CBT focuses on the client's thinking and behaviors associated to the client's thoughts. The goal is to teach the woman new skills that will result in more positive thinking and a solution focused mindset (Beck Institute for Cognitive Behavior Therapy, 2016). There is strong evidence of the efficacy of CBT when treating perinatal populations. Interestingly, a meta-analysis assessing the efficacy of CBT during pregnancy and the first year postpartum found that CBT interventions were more successful when initiated during the postpartum period than when initiated antenatally (Sockol, 2015).

The psychological modality of interpersonal therapy (IPT) is a time-limited treatment approach to depression. As a manual based treatment, IPT is cost effective and available in a variety of healthcare settings. This type of therapy aims to improve communication skills and the client's sense of belonging by focusing on role transition, present (here-and-now) relationships, and the individual's social support (Deans, Reay, & Buist, 2016). Regarding the reduction of depressive symptomatology, studies have concluded that six to ten sessions of IPT are as therapeutic as chemical antidepressants alone (Santoro & Peabody, 2010).

The use of systemic family therapy (SFT) is also supported by the literature. The absence of family support critically contributes to the development of depression. Conflicts and tension among family members, inadequate coping strategies, and unhealthy family structures may deprive women from the support of their families. Therefore, SFT is directed at analyzing the interactions and problems within the family, while improving communication and relationships (Hou et al., 2014).

Bright light therapy (BLT) is another type of alternative treatment that is inexpensive, and home-based. Its efficacy in the treatment of seasonal affective disorder, and other types of depression has been well documented. Although literature regarding BLT as an alternative treatment for PPD is sparse, it has been tested with some degree of success. After delivery, most women in the US spend time indoors as they care for their infants. This results in women having less exposure to sunlight, which puts them at risk for depression. Research findings indicate that women are at more risk for PPD during fall and early winter months, due to the shorter duration of daylight. Further, there is evidence supporting that serotonin levels are significantly lower in

women suffering from PPD (Yildiz et al., 2017). Appropriately, the use of BLT boosts the serotonergic system, thus improving mood (Crowley & Youngstedt, 2012).

Postpartum Depression in Upper Middle Income Countries

Malaysia

PPD prevalence ranges between 3.9% and 9.8% in Malaysia (Evagorou et al., 2016). As in other Asian countries, the Malay healthcare system has been heavily influenced by the Hindu culture. A *bomoh*, general medicine man, and a *bidan kampung*, maternity care provider, are the main figures of the traditional Malay healthcare. Interestingly, although *bidan kampungs* are not legally recognized as providers, they are still used by the Malay. *Bidan kampungs* are experts in maternity related traditional customs such as *Pantang* (Ali, & Howden-Chapman, 2007).

Pantang is a 40-day confinement postpartum period in which Malay mothers may participate. During *Pantang* a bright light is burned during the 40 days and 40 nights, symbolizing the infant as a carrier of light (Klainin & Arthur, 2009). To protect the mother from evil spirits she is advised not to be exposed to the cold. Hence, Malay mothers consume warm foods and dress in warm clothes (Evagorou et al., 2016). Further, mothers may remain in a warm room to help in restoring their body's balance. Alternatively, they may bind warm rocks to their abdomen, if their room is not warm. Additionally, Malay women may receive massages and therapeutic baths from traditional midwives (Klainin & Arthur, 2009).

Although there are many pregnancy rituals in the Malay culture, there are relatively few studies that explore postpartum practices and their outcomes. In their review of PPD in Asian cultures, Klainin & Arthur (2009) highlighted that *Pantang* practicing Malay mothers who

participated in a cross-sectional correlated study were found to have higher scores on the Beck Depression Scale than Malay mothers who did not practice in *Pantang*. Although higher scores in the Beck Depression Scale (Inventory) are associated with more severe symptoms (ScienceDirect, 2018), it is unclear why *Pantang* practicing mothers scored higher than non *Pantang* practicing mothers. The effectiveness of other interventions could not be assessed due to the lack of research available regarding the maternal Malay population.

Mexico

A study aiming to investigate the prevalence of depressive symptoms in Latinas and 117 Mexican women found that 36% of the Mexican mothers showed signs of depression (Lara, Le, Letechipia, & Hochhausen, 2009). Another study utilized the Structured Clinical Interview's (SCID-I) mood disorders module to assess major depression according to the Diagnostic and Statistical Manual of Mental Disorders' (DSM-IV) criteria. Study findings revealed a prevalence of 13.8% at six weeks postpartum and 13.3% at six months postpartum (Lara et al., 2015). Other studies were non-specific regarding PPD data trends in Mexico. This may be due to the scarce utilization of mental health resources in in the country, as well as inadequate detection and treatment of PPD (Lara et al., 2015). This correlates with surveys that revealed that only 37.1% of public-sector obstetric units in Mexico have PPD detection protocols (Place, Allen-Leigh, Billings, Dues, & de Castro, 2017).

Mexican families practice a 40-day postpartum confinement known as *la cuarentena* (quarantine). During that time the mother receives help with household chores and female relatives are to visit her to neutralize spiritual impurities (Eberhard-Gran et al., 2010; Dennis et al., 2007). A significant influence related to the Mexican quarantine is that women feel closer to

their families and more connected with their family origin (Waugh, 2011). They also follow a special diet mainly consisting of broths, teas, and soups. Moreover, mothers may consider their bodies “open” after delivery. This belief is of special concern as being “open” may result in *aire* (drafts) or *el frio* (the cold) entering the body and causing symptoms of back pain, body aches, and headaches. To avoid this from occurring, Mexican mothers may place cotton in their ears, wear socks, close all open windows, avoid showering, and wrap up their babies and themselves in warm clothes. This custom also correlates with the believe that *el calor* (the heat) must be passed from the mother to the infant after delivery through skin-to-skin contact (Waugh, 2011). In order to do that, the mother must wrap her herself and her baby in a warm blanket. This particular practice may be considered a form of kangaroo care (KC) therapy and it is an important factor in the care of the woman. Badr, & Zauszniewski (2017) found that the decrease of circulating catecholamines, due to oxytocin production during KC, has a stress relieving effect and is a preventative of PPD. Although no studies were found related to the effectiveness of skin-to-skin in Mexican woman, this intervention has been effective for various women in the United States.

Fajarse (to bind oneself) is also a common practice. Mothers wrap their abdomens tightly to contract the belly and recover their shape. The fear of having their internal organs fall out also motivates some women to wear a *faja* (girdle). Waugh (2011) shared a woman’s experience about this practice:

I was going to wrap up [from the beginning] at the hospital but they wouldn’t let me. They said the faja wasn’t recommended because of my wound. The doctor told me that, and I said “ok,” and I took it off . . . “that’s what we do in Mexico,” I said. But ok, I

took it off. Then what I did was when the doctor left and they weren't paying attention, I put it back on. Then the nurse came in and told me again that it wasn't recommended to wear it, and again I said "ok, that's fine." I just told her that, but at any rate I wrapped up with the faja. When she left I said to Luis, "Help me quickly, put the faja on" because if not, they wouldn't let me. And there was no way I was going to walk downstairs, walk outside, and get up in the truck without the faja – it would have been really bad for me with my wound. So yes, I wore my *faja*. (p. 738).

Little was found in the healthcare literature regarding the tradition of *fajarse* and its effect on the mother's mental health. Waugh (2011) mentioned that *fajarse* immediately after delivery is not recommended due to the risk of blood clots and occlusion.

Research about the positive effects of *la cuarentena* in Mexican mothers has been promising. A comparison of Mexican mothers living in the US who practiced *la cuarentena*, versus some who did not, reported that those who followed this tradition experienced less PPD (Eberhard-Gran et al., 2010). Another study further supported these findings when revealing that Mexican immigrants in the US who followed their traditional postpartum practices reported lower incidence of depressive symptoms (Evagorou et al., 2016). This may result from the support mothers receive with childcare and housework which elicits a positive emotional response.

Thailand

In Thailand the prevalence of PPD is approximately 16.8 % (Evagorou et al., 2016). As in other Asian countries, Thai postpartum rituals are based on the humoral theory and traditional Chinese and Thai medicine. The humoral theory postulates that the body is composed of the

element of *Water, Earth, Air, and Fire*. These elements are further classified into internal or external parts. It is a widely held view that during childbirth the loss of *Water* (blood, amniotic fluid, urine, sweat), the injury to the *Earth* (perineal wounds), the changes to *Air* (due to pushing), and the depletion of *Fire* (due to physical efforts) cause bodily disequilibrium that may negatively affect the woman's psyche. The effects are believed to result in symptoms of depression, anxiety, and fatigue. Therefore, traditional postnatal customs aim to reestablish a balance among the elements. Traditional Thai medicine (TTM) practitioners also strive to maintain the body's balance. The integration of folk medicine, Buddhism, animism, and Khmer medicine are the main components of TTM. The Thai philosophy defines life (*self*) as a fusion of the physical self, the *chitta* (the nonphysical human being), and energy (which brings the physical self and *chitta* together). Based on this philosophy, it is believed that childbirth causes a disruption of the *self* (Elter, Kennedy, Chesla, & Yimyam, 2016) that must be treated.

Based on symptomatology, PPD in Thailand may be referred to as *lom pid duan*. Thai families may speculate that doing something wrong during pregnancy will cause *lom pid duan*, which translates to wind illness. Related to this illness are feelings of dizziness (*jeb hoa*, or *mao hua*), aches, pains, and having choked feelings and chest pain (*naen ok*).

The postpartum period in Thailand is closely related to rituals and rites of passage that are meant to aid the mother and welcome her infant. Thai families may engage in practices during the puerperium tradition of *Yu Duan*. *Yu Duan* is a period of when mothers have dietary restrictions, receive support from the family, and follow rituals to restore *Water, Earth, Air, and Fire* balance (Evagorou et al., 2016). An interpretive phenomenological study exploring spiritual healing practices among rural postpartum Thai women introduced the case of Chumaan (CM) as

an example of *Yu Duan* practices. CM enrolled into the study at 32 years of age after giving birth by having vacuum extraction. Elter et al. (2014) reported that “her mother said that CM has to *yu hon* (stay in hot area), *kin hon* (eat hot food), *kin nam hon* (drink hot water), and *non mae sa nan* (lie down on a wood plank)” (p. 251). These interventions are done with the goal of healing the mother and promoting bonding between the mother and her infant.

During *Yu Duan*, Thai women are restricted from foods with strong odors such as catfish (Elter et al., 2014). On the other hand, women may consume foods like grilled chicken, sticky rice, and *pu loei* (*Zingiber cassumunar*) to assist with blood flow (Elter et al., 2014; Liamputtong, 2008). Yet, the consumption of *pu loei* is discouraged by healthcare practitioners due to the risk for jaundice and anemia in both mother and newborn (Liamputtong, 2008).

Additionally, fire related rituals are performed because childbirth is believed to place the body in a cold state. The mother is expected to wear warm clothes and avoid exposure to cold, like cold water. *Hom Ya* is one of the fire rituals. There are various ways of doing *Hom Ya*, including using hot bricks and with *bai plao* (*Grewia paniculata*) or *pu loei* leaves on them for the mother to sit. After, water is poured on the leaves creating a medicinal steam for the mother to inhale. Prayer may also be a part of this practice (Liamputtong, 2008). Hot herbal baths with plants like *Nat* are also performed. The aroma produced by the hot water and herbs causes a sedative effect that has been known to treat exhaustion, emotional imbalances, and PPD (Elter et al., 2014). The steam’s positive effects on the woman’s body in both herbal baths and *Hom Ya* are comparable to those of inhalation aromatherapy. In Sánchez-Vidaña et al. (2017) inhalation aromatherapy was found to improve depressive symptoms. Breathing in aromas may stimulate olfactory receptors sending a signal all the way to the olfactory cortex. The effects of that signal

may elicit a neurotransmitter response resulting in the release of serotonin, and thus affecting mood (Sánchez-Vidaña et al., 2017). Nevertheless, other studies did not provide convincing evidence that the intervention was effective. Therefore, the literature is conflicting on whether or not inhalation of aromas could offer lasting benefits for mothers experiencing PPD. Another Thai fire ritual requires the mother to lie on a wooden bed over a fire. Some research suggests that this custom helps with the involution of the uterus while eliminating retained blood or placenta (Klainin & Arthur, 2009).

Through *Yu Duan*, Thai women have the support of their families as they help them prepare and follow the rites. At that time, the family network and community have a significantly supportive role. This role has been described by researchers as “a successful treatment for postpartum depression”. This is congruent with study findings that indicated less social support affected Thai women’s emotional coping (Liabsuetrakul, Vittayanont, & Pitanupong, 2007).

Postpartum Depression in Lower Middle Income Countries

India

PPD rates of up to 32.4% have been noted among Asian Indian (AI) mothers (Evagorou et al., 2016). This percentage may reflect the stigma associated with mental illness and the prevailing lack of maternal health awareness in India. Nevertheless, common postpartum practices, or rituals, among Indian communities focus on protecting the mother, and her infant’s holistic health. Postpartum practices often take the form of a ritual; a practice that is rooted in the culture and symbolic of its traditions. Although Indian rituals aim to enhance the woman’s

physical recovery, there is great emphasis on her spiritual and emotional balance (Jain & Levy, 2013).

Traditions specific to PPD include the thirty to forty days of mandated rest. This custom encourages new mothers to be dependent on female relatives that are entrusted with their care. Female relatives aim to protect new mothers from illness and evil spirits. This period of rest consists of the mother and infant staying at home with limited contact with the outside world, excluding doctor visits. The familial support received by the mother during the postpartum period, such as help with household chores, and care for the infant, have proven to reduce the woman's anxiety (Goyal, Ta Park, & McNiesh, 2015). Based on this practice, nurses may notice that mothers are opposed to getting out of bed and expect newborn care to be managed by the nurse if her family is not present (Goyal, 2016).

An AI woman residing in the US describes her experience as follows: "For 28 days back home in India you would get a massage in bed, your hair would be washed, somebody would give you a bath, the mother and the baby. And you're given very healthy meals" (Goyal, Ta Park, & McNiesh, 2015, p. 259). Moreover, another AI mother who did not experience Indian postpartum traditions stated: "Yeah, if I could, [I'd rather have had my baby in India] ...because you could afford a lot more support. And also you would get a lot more support from family and friends than you would here" (Goyal, Ta Park, & McNiesh, 2015, p. 259).

Other customs include the preparation of specific foods for the mother. The special foods are believed to promote healing and physical balance. "Panjiri" or "katlu" (sautéed whole wheat flour in butter with almonds and pistachios) is but one example of the traditional dishes prepared to aid post parturient AI women. The emphasis on the consumption of leafy vegetables, jaggery

(unrefined brown sugar), rice, and ghee (clarified butter) is also rooted on the idea of restoring the mother's balance and promoting breast milk production. Since ghee and milk are considered cold foods, they are believed to be healthful for the mother she transitions from the state of heated pregnancy (Goyal, Ta Park, & McNiesh, 2015).

The mother may also be an active participant in religious ceremonies, and rites of passage that focus on the newborn. The baby's naming ceremony (*Namkaran* or *Namkaran Sanskar*), and later, the introduction of first solid foods (*Annaprasan*) are rituals that may offer mothers a sense of fulfillment and belonging. The name-giving ceremony, occurring a few days after birth, involves family and friends gathering at home or at a temple. The mother purifies her newborn by wetting its head with water, and the father proceeds to whisper four times the baby's name into the child's right ear (Goyal, Ta Park, & McNiesh, 2015). If present, a priest prays and guests repeat the priest's words to formally accept the given name. A family astrologer may also participate in the ceremony. Due to this tradition, AI mothers giving birth in the US may risk having incomplete birth records or may feel pressured to provide a name before discharge from the hospital. Therefore, nurses should offer support and validate the mother's cultural practice of *Namkaran* (Goyal, 2016).

As *Namkaran*, *Annaprasan* marks a very special moment for the mother and her infant. *Annaprasan* is described as the time between six and twelve months after birth when the mother may start feeding the infant solid foods. Both *Namkaran* and *Annaprasan* may help the mother identify with her new caregiving role, while feeling accomplished as she achieves milestones with her newborn (Goyal, Ta Park, & McNiesh, 2015).

Another nonpharmacological intervention for PPD is yoga. Yoga has been practiced in India since the 5th century BCE and it is described as a system of physical exercises that require breathing control, meditation, and muscle flexibility. Its goal is to attain physical and mental well-being (Saral, 2013). The practice of yoga has been identified as one of the top ten complementary and alternative medicine (CAM) therapies. Although the literature does not state that yoga is part of Indian postpartum traditions, its benefits for depressed mothers cannot be ignored. Several studies support the efficacy of yoga in the treatment of PPD, highlighting that women who practiced yoga had a significant decline in depressive symptoms versus those who did not practice. Women reported feeling less anxious over the course of the intervention (Buttner, Brock, O'Hara, & Stuart, 2015).

According to Goyal, (2016), “women living in the United States and away from extended family and social support network in India may not be able to experience these traditions and ceremonies, which can increase the risk of perinatal depression” (p. 94). Further, regarding PPD help-seeking behaviors, a study exploring AI mothers’ perspectives of PPD reported that all twelve participants stated that they would only seek professional help as a last resort. Instead, the mothers stated that they would first seek out alternative interventions (Goyal, Ta Park, & McNiesh, 2015). Therefore, the nurse’s role in supporting AI mothers’ cultural traditions is of great importance.

Pakistan

Pakistani postpartum interventions are influenced by diverse cultural backgrounds and religious beliefs. The majority of the postpartum practices focus on the woman’s new social status and the idea of welcoming the newborn to the family. The social pressure of having a male

newborn is reflected on the woman's recognition by others. Despite the attention received by family and friends, women are not always supported in ways that contribute to her mental health. This is reflected in the high prevalence of PPD, ranging from 28.8% to 63.3% (Evagorou et al., 2016). Although these national estimates are high, it is probable that PPD is even more pervasive as Pakistani women underreport depressive symptoms. A study conducted in the district of Rawalpindi, Pakistan, found that rural women suffering from PPD tended to experience somatic symptoms and did not consider their condition an illness (Rahman, 2007).

Mothers follow the tradition of *chila*, a seclusion period of 40 days when the mother is required to rests. During *chila*, decisions about childcare are made by the whole family (Evagorou et al., 2016). The decision-making process is often a negotiation among the in-laws, extended family, and the newborn's parents (Rahman, 2007). This process may be supportive to the mother as she gains knowledge from more experienced female relatives. However, it may also contribute to her feelings of depression if her opinions are not taken under consideration. Moreover, *chila* does not permit the mother to cook or clean as she is perceived as impure (Evagorou et al., 2016). Social norm limits her because of her "pollution state" (*sutak*). Until postpartum bleeding has ceased, mothers are prohibited from praying (offering *namaz* or *salat*), touching, or reading the Quran (Azher Hameed, 2017). This cultural intervention may negatively affect women suffering from depression. In a prospective cohort study, it was validated that religious/spiritual involvement is a significant protective factor. The research supported the hypothesis that religious attendance offers stress relief that helps women face the challenges of their new role as mothers (Mann, McKeown, Bacon, Vesselinov, & Bush, 2008).

Consumption of certain foods is encouraged to help modulate postpartum bleeding during *chila*. Examples of those foods include clarified butter with semolina, sugar and nuts (*goandh*) as well as herbal mixtures with turmeric powder (Dennis et al., 2007). Rice, prawn, and fish are foods to avoid as it is believed that they induce lower abdominal pain. Similar to other Asian cultures, Pakistani culture supports the belief that drinking cold (*thandi*) substances should be avoided to prevent bone pain and other health issues (Dennis et al., 2007). Nevertheless, the literature research did not result in any studies that examined the benefits or disadvantages of these dietary traditions, and their effect on PPD occurrence.

The dominant patriarchal family system in Pakistan tends to marginalize women and devalue their concerns. Further, woman's health is a neglected issue by the government and healthcare organizations, leaving new mothers with little to no resources (Gulamani, Premji, Kanji, & Azam, 2013). This may add to new mother's stress and depressed mood as her needs are not met. The restrictions associated with *chila* may further predispose women to suffer from PPD. Overall, research was inconclusive with regards to the effectiveness of Pakistani cultural postpartum interventions.

Postpartum Depression in Low Income Countries

Ethiopia

The limited access to healthcare in Ethiopia is a major concern. Reflecting the national average, it has been reported that 89% of women have home births and 98% do not receive postnatal checkups in the Amhara region (Baumgartner et al., 2016). The low income, and unmet reproductive and obstetric health needs put mothers at risk of suffering from depression.

Nevertheless, these factors do not justify why the prevalence of PPD in Ethiopia is at 12% and not higher (Evagorou et al., 2016).

A review of the literature indicated that traditional postpartum practices in the country were more concerned with taboos and the supernatural, than with maternal health. Postnatal traditional interventions require Ethiopian mothers to participate in a confinement period lasting between 40 days and 3 months. During seclusion, women are instructed to rest and are not allowed to leave the postnatal house in order to recover from childbirth. Women fear that leaving the house will invite spirit attacks (*likift*) and bring shame to them and the family. The expectation is for mothers to receive good food and care from family and friends. Socially, people are obligated to visit the mother to congratulate her (Hanlon, Whitley, Wondimagegn, Alem, & Prince, 2009).

If the baby is healthy, women accompanying the mother celebrate by burying the placenta, washing the mother with herbs and water, and joining other female neighbors to consume porridge and coffee (Hanlon et al., 2009). Further, if the societal gender preference for a male newborn is met, there is a greater celebratory feast and more recognition. Although social recognition is meant to praise the mother, it may also negatively affect her mental health. Women who fail to meet social standards may be more prone to postpartum periods of depression and receive less support. This is validated by Hanlon et al. (2009)'s study that revealed Ethiopian mothers report feeling distress if the newborn is female or out of wedlock. Additionally, they feel sadness and embarrassment when lacking the resources to entertain guests according to social norms.

While social support is expected, some Ethiopian mothers reported having little to no help during their postnatal period (Hanlon et al., 2009). In a paper studying the association between PPD and social support, it was found that women were more prone to mental disorder when they experienced insufficient support from female friends (Baumgartner et al., 2016). It is even considered a tragedy to lack the help to prepare food and drinks (Hanlon et al., 2009).

The confinement period also puts women at heightened risk for marital problems that may further affect her mental health. During that time, they have less autonomy and rely more on their husbands. However, males do not assume a caretaking role and women experienced more disappointment and depression due to the deficit in care. Baumgartner et al. (2016) noted that husbands have the right to engage in intercourse with other women if their spouse refused to have sex.

A rural postnatal woman who was affected by her husband's little care indicated:

During that time I felt hopeless most of the time.... I thought about everything. I even thought about ending my life or leaving everything and going somewhere else.... Since I didn't have the guts to kill the baby or kill myself, I just thought about it. (Hanlon et al., 2009, pp. 1215).

Constraints associated with the postnatal period have proven to be troublesome in Ethiopia. Overall, research demonstrated that the confinement period was ineffective in the prevention or treatment of depression. Women stated feeling that they are not able to share their concerns with others (Baumgartner et al., 2016). Regarding her experience of the postnatal period, a rural Ethiopian woman describes:

It was not pleasant. As for any postnatal woman I was kept in the dark behind the curtain and I didn't like it. I got some relief when I pulled up the curtains and got some light....

There are things you are expected to do in the postnatal period. For example, they put butter on my head. I would throw it away. I wanted to be clean. Otherwise I don't feel healthy. (Hanlon et al., 2009, pp. 1215).

The literature search did not produce any research that confirmed the benefits of Ethiopian postnatal intervention with regards to PPD.

Uganda

PPD is a common psychological disorder in Africa, and rates vary between 10% and 43% in Uganda (Evagorou et al., 2016). Postnatal care is mostly entrusted to midwives and traditional healers. Often the woman's body is painted with henna as it is believed that this will protect her from depression, elevate her spirit, and recognize her new maternal role. In some African countries postpartum practices may be based on the belief of needing to maintain the balance between hot and cold (Evagorou et al., 2016). The disease may present itself as muscle aches, generalized pain, feelings of internal failure, pressure (*yandimukuba*) and even suicidal ideations (Evagorou et al., 2016; Nakku et al., 2016) Often the woman does not take many decisions regarding labor. Instead, her husband and family may select the place of the delivery (Evagorou et al., 2016). Traditionally, in most African communities the man is the decision maker, yet they consider that pregnancy and the postpartum period is a women's only affair. Hence, some Ugandan mothers believe that PPD results from the lack of support and neglect by their male partners (Nakku et al., 2016). Although PPD is not solely caused by the lack of assistance, male partners' absent support or unavailability may have an adverse effect on the mother's mental

health. Studies have noted that marital conflicts and spouses' lack of support contribute to PPD and disinterest in self-care (Kakyo, Muliira, Mbalinda, Kizza, & Muliira, 2012).

Because birthing is viewed as a natural process, most women in Uganda have traditional home births (Evagorou et al., 2016). Postnatally, the mother (*omwibo*) is isolated for a period of 3 months (Callister, et al., 2010). During that time, she sleeps on the floor on dry banana leaves. An alternative to this practice is the use of a mattress and placing dry banana leaves underneath. The isolation period requires for outsiders to not touch the child to avoid evil spirits and infections. The only way a mother would be allowed to break her seclusion is if there is a death of a family member or another critical event (Christine et al., 2015). Support from relatives is common, and may compensate for male figures' scarce involvement. Although the family provides great physical care to the mother during this time, there is a lack of awareness about mental health (Evagorou et al., 2016). This is aggravated by the separation between maternity and mental health services offered.

Additionally, herbs may be utilized to cleanse the body by either oral ingestion or vaginal insertion. Other practices include the baby's naming ceremony (*okukuza omwana*), ritual bathing, burial of the placenta, and resumption of sexual intercourse for the first time after delivery (Christine et al., 2015). A study conducted in the Ankole sub-region of Uganda, indicated that some of the traditions, including vaginal insertion of herbs and home deliveries, were contrary to recommended practices by the World Health Organization (Beinempaka et al., 2015). Home deliveries are managed by traditional health attendants instead of healthcare providers. This may be a contributor to the infant mortality of 56.1 deaths per 1,000 live births reported in 2007 (Central Intelligence Agency, n.d.).

Perinatal loss has a detrimental effect in the psychological health of the woman and her family. The literature shows that women who experience perinatal loss (either fetal or neonatal death) have depressive symptoms both after the loss, and for subsequent pregnancies; even if the new pregnancies resulted in the delivery of a healthy full-term infant. Therefore, the custom of home deliveries with traditional healers puts the mother at risk for childbirth complications that later may prompt PPD symptoms (Armstrong, 2007). Nevertheless, there is little research that evaluates the effects of Ugandan postpartum traditional interventions in women's mental health.

DISCUSSION

The postpartum period is a time for families to welcome the newborn and for mothers to develop a bond with their babies. As with any other significant life event, childbirth is celebrated across cultures in diverse and meaningful ways. Yet, for women suffering from PPD the happiness of that moment may be overshadowed by emotional distress. The distress is even greater when faced with limited treatment options that are incongruent with their beliefs. Nevertheless, there are some cultural interventions that have a positive impact on mothers' mental health, and that could potentially aid in their recovery. This literature review examined non-pharmacological treatments of PPD across selected cultures while also determining their effectiveness.

A recurrent theme throughout the literature was the use of postpartum seclusion periods and family support. The mandated periods of rest (*Zuo Yue*, *Satogaeri Bunben*, *Pantang*, *la cuarentena*, *Yu Duan*, *chila*, etc.) varied in duration across cultures, and were determined to be effective only in cases where the mother willingly opted to participate while also receiving good support from relatives. Furthermore, women following confinement periods that were more strict (e.g. prohibition from leaving the home, making decisions, or doing domestic tasks) reported to feel more depressed and unhappy after the experience (Christine et al., 2015; Evagorou et al., 2016; Hanlon et al., 2009; Klainin & Arthur, 2009) This was mostly due to the inability to share their feelings with others, pressure from relatives, loss of autonomy, and the lack of support from male partners and other family members.

For the most part, there was no evidence that supported the consumption of warm versus cold foods and other dietary restrictions. Neither was there a significant correlation between

special baths, or abstinence from bathing, with decreased levels of depression. However, it is noteworthy to consider that being pressured to not follow these traditions may result in increased levels of anxiety and depression as women perceive they are dishonoring their culture (Waugh, 2011). Based on the literature, passing *el calor* to the newborn and yoga were successful interventions (Buttner, Brock, O'Hara, & Stuart, 2015; Waugh, 2011).

The US stood out as the only country with a purely scientific approach to treat PPD. CBT, IPT, SFT, and BLT proved to be successful interventions, although they did not account for cultural considerations.

Limitations

One of the limitations of this literature review was the paucity of research relevant to cultural postnatal practices. The initial search results revealed promising studies, however most were eliminated due to insufficient data. Multiple studies briefly referenced specific postpartum interventions with Evagorou et al. (2016) being the most culturally inclusive. Additionally, most studies that comprehensively explored the subject of this review, failed to evaluate the effectiveness of cultural practices in the treatment of PPD. These limitations provide a great opportunity for nurses to conduct future research.

The scarcity of recent studies, especially those looking at LMIC and LIC, reveals the need for more research. However, a strength of this review is the abundance of studies that provided significant data about Asian postnatal customs.

NURSING IMPLICATIONS

In the US, healthcare practitioners may not be aware of the cultural interventions that, if implemented, might contribute to the perinatal woman's recovery. Culture has a powerful influence in individual's health choices, thus making it imperative to take traditions into account when providing care for culturally diverse mothers. Although this review of the literature found that some interventions put women at risk of PPD, knowledge of these practices will help the nurse anticipate future complications. Instead of disrupting the cultural equilibrium of patients' belief systems, healthcare providers and nurses should aim to integrate customs in a manner that is sensitive.

In the clinical setting, nurses that are familiar with postnatal cultural practices may include them in their admission and discharge planning. For example, knowing that some cultures may have special diets to follow, the nurse would be wise to advise the family to bring those special meals or to contact the hospital's kitchen staff to make the pertinent changes. The implementation of these cultural interventions may help in reducing the risk for PPD. It is important to point out that the nurse should always inquire about the mother's preferences.

The role of traditional postpartum practices to alleviate PPD symptoms is integral to provide better services. Nurses should approach the postpartum care of woman in a supportive manner, congruent with her culture and belief system. Further, nurses working in community settings that often interact with populations vulnerable to PPD should be encouraged to collaborate with the mother and her family to develop a plan of care that best meets the patient's needs. Some studies have found that woman tend to not disclose their postpartum customs for fear that healthcare providers will advise them to abandon their practices (Waugh, 2011). Others

have stopped seeking care when provided with treatment options that were not congruent with their practices (Feeley et al., 2016). Complementing CBT, IPT, SFT, and BLT with cultural interventions that are relevant might motivate more women in the US to seek PPD treatment.

Nurses that are responsive to populations' changing needs and understand diversity know that:

Postpartum depression may go unrecognized unless a culturally sensitive approach to assessment and care is used. To provide culturally competent and effective care in the postpartum period, collaboration between nurses from a technocentric framework and new mothers from ethnokinship cultures is needed to incorporate the best of both technocentric and ethnokinship postpartum practices into nursing interventions.

(Callister, et al., 2010, pp. 259).

Providers' unbiased understanding of the cultural interventions analyzed in this literature review will enhance the women's experiences when seeking healthcare services and suffering from emotional fraught. This review also adds to the knowledge of PPD non-pharmacological treatment options that would otherwise remain limited. Moreover, this paper provides areas for patient education on recommended practices, ultimately resulting in improved client outcomes.

APPENDIX: LIST OF TABLES

Table 1. A Synopsis of The Sustainable Development Goals (SDGs)

Goals	Targets
1. No Poverty	<ul style="list-style-type: none"> ▪ eliminate extreme poverty worldwide ▪ implement social protection systems for vulnerable populations ▪ ensure equal rights to economic resources for all and reduce their exposure to economic, social, and climate-related disasters
2. Zero Hunger	<ul style="list-style-type: none"> ▪ ensure access to food by all people ▪ increase sustainable agricultural productivity and income of small producers ▪ maintain the genetic diversity of agricultural products and animals
3. Good Health and Well-Being	<ul style="list-style-type: none"> ▪ ensure healthy lives and well-being across the life span ▪ reduce maternal and infant mortality ratios worldwide ▪ eradicate epidemics and reduce mortality from non-communicable diseases, road traffic accidents, hazardous chemicals, and pollution ▪ ensure access to sexual and reproductive services ▪ universal health coverage
4. Quality Education	<ul style="list-style-type: none"> ▪ ensure access to quality, equitable, and affordable education throughout the lifespan ▪ eliminate gender disparities in education and build educational facilities that meet population needs ▪ increase the number of prepared education professionals
5. Gender Equality	<ul style="list-style-type: none"> ▪ contribute to the empowerment of women and girls worldwide ▪ end early and forced marriage, discrimination, and violence

- give women access to quality reproductive health and leadership opportunities

- 6. Clean Water and Sanitation
 - improve water quality, water-use efficacy, and water resources
 - provide safe water and sanitation to all
 - strengthen water-related ecosystems and global cooperation to support this goal

- 7. Affordable and Clean Energy
 - enhance access to reliable, inexpensive, and renewable energy through global partnerships
 - develop technologies to provide sustainable energy

- 8. Decent Work and Economic Growth
 - achieve high levels of employment with fair income
 - promote and achieve worker-centered economic growth
 - eliminate forced and child labor, slavery, child soldiers recruitment and human trafficking

- 9. Industry, Innovation and Infrastructure
 - promote global economic development in most modern terms
 - develop strong infrastructure suiting the economy needs

- 10. Reduced Inequalities
 - reduce the gap between high-resource and low-resource nations
 - reduce the gap between affluent individuals and those living in poverty
 - promote social, economic, and political inclusion of all

- 11. Sustainable Cities and Communities
 - implement and enforce regulations for newer more scientific approaches of the urban environment
 - minimize negative impact of cities on nature and people

- 12. Responsible Consumption and Production
 - optimize production, distribution and consumption of goods
 - adopt and implement most sustainable productions strategies

- 13. Climate Action
 - achieve full compromise from world nations towards mitigation of climate change effects
 - encourage highly industrialized nations to assume leading role in the facing global warming
 - improve education on climate changes measures, mitigation of impact and early warning

- 14. Life Below Water
 - exploit oceans sustainably and restore lost balance
 - eliminate overfishing, and destructive fishing practices

- 15. Life on Land
 - revert and minimize damage to environment (soil, water, flora, fauna) caused by human activity
 - implement sustainable management of ecosystems

- 16. Peace, Justice and Strong Institutions
 - promote and enforce inclusion and respect for the rights of all the elements of a strong moral society

- 17. Partnerships for The Goals
 - involve broad sectors of society and global government structures in a sustainable development programme for developing countries
 - promote cooperation through transmission of financial and human capital and sustainable science technology from high resource countries to developing countries and among developing countries themselves

Note. Material adapted from “Transforming our world: The 2030 agenda for sustainable development”, by the United Nations, 2017. Retrieved from <http://www.un.org/sustainabledevelopment/>

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