Examiner's commentary

The essay is very well-organized. It is particularly strong in its examination of the topic as a global as well as a local issue. Although the research is secondary throughout the student provides the reader with an object lesson in firstly how to critique resources and secondly how to build a rational argument in the light of the findings and the critiques. The argument is built carefully, and the student skillfully focuses on the target group of East Asian mothers at the latter part of the essay when a strong causal argument has already been established. The two subjects are integrated in the investigation since they are inextricably linked within the problem of Major Depressive Disorder within the context of post childbirth experience. The student, by setting up a discussion around the validity of different case studies, can involve the reader in the issues associated with the depressive condition. The developing global consciousness of the student is apparent in the conclusion to the work and their subsequent reflections, in particular the third reflection.

The Influence of Psychophysiological and Sociocultural Factors of East-Asian Migrant Mothers in Australia on the Onset of Major Depressive Disorder- With Peripartum Onset.

Research Question: **What are the factors affecting the susceptibility of migrant mothers in Australia who are of East-Asian backgrounds to develop Major Depressive Disorder-with peripartum onset in relation to psychological and sociocultural anthropological aetiologies, and how can their susceptibility be reduced?**

Subject: World Studies (Culture, Language and Identity)

Disciplines: Psychology, Social and cultural anthropology

Word Count: 4000

Table of Contents

Introduction

The most common postnatal neuropsychiatric complication is major depressive disorder, with peripartum onset (MDD- with peripartum onset) and it is "the onset of depressive episodes after childbirth" (Bobo & Yawn, 2014). The depressive episodes that sufferers of MDD- with peripartum onset experience correspond with the episodes involved in general clinical depression, or major depressive disorder. In the *Diagnostic and Statistical Manual for Mental Disorders, 5th Edition (DSM-5)*, the diagnostic criteria for MDD- with peripartum onset are equivalent to that of major depressive disorder (MDD) but with a peripartum onset (Bobo & Yawn, 2014). For an individual to be diagnosed with MDD, they must experience five or more symptoms within the same two-week period and at least one of the symptoms should either be a depressed mood or loss of interest (Shelton, 2019). Other symptoms include weight loss, fatigue, lack of concentration, feelings of worthlessness and suicidal thoughts (Shelton, 2019). For victims of MDD- with peripartum onset, this two-week period should be during pregnancy or within the four weeks after delivery (Bobo & Yawn, 2014). Although there is no definitive cause for MDD- with peripartum onset, there are contributing factors from biological, cognitive and sociocultural perspectives.

MDD- with peripartum onset is a growing global public health concern, but it is especially concerning for mothers who are also migrants. Migrant women have the highest prevalence rates of MDD- with peripartum onset, which is significantly higher than that of non-migrant populations (Schmied, Black, Naidoo, Dahlen & Liamputtong, 2017). These alarming statistics relate to migrant mothers from various nations, however this essay will be exploring MDD- with peripartum onset concerning East Asian migrant women in Australia.

Growing up as a daughter of a Chinese-Malaysian migrant mother living in Australia, I have always been aware of the peripartum difficulties and depression that East Asian migrant women like my mother have faced whilst becoming mothers in Australia. For example, my mother told me that after giving birth to my younger brother in Australia, she felt isolated and experienced conflict between traditional Chinese and western postnatal care practices, ultimately creating a stressful postpartum experience. After further conversation with her, realised that emotions like these during and after pregnancy were not uncommon, especially amongst other migrant women from East Asia.

This experience along with the understanding that migrant mothers have the highest MDD- with peripartum onset prevalence in comparison to other populations led me to explore the aspects of this specific context in which East Asian migrant mothers in Australia experience that could contain possible contributing factors for the onset of MDD- with peripartum. By discussing the psychophysiological changes that occur in migrant women due to their circumstances that may have implications on this onset, knowledge from a Psychological perspective can aid in exploring this topic. Additionally, by discussing the cultural and environmental factors that are present in the context of migrant women of East Asian background in Australia that could have psychological and physiological implications, explanations for the peripartum onset of MDD can be provided from knowledge of a Social and Cultural Anthropological perspective. Conclusions reached from the specified combined perspective could bridge issues raised from both psychology and sociocultural anthropology disciplines surrounding this topic and it may help explain the ways in which the context of women who give birth away from their home country could have an impact on their physiological vulnerability to developing MDD- with peripartum onset.

Thus, my essay will investigate the research question: **What are the factors affecting the susceptibility of migrant mothers in Australia who are of East-Asian backgrounds to develop Major Depressive Disorder-with peripartum onset in relation to psychological and sociocultural anthropological aetiologies, and how can their susceptibility be reduced?**

By researching and presenting a meta-analysis of relevant studies and articles, this research question can be discussed. Furthermore, knowledge about the onset of MDD- with peripartum onset in migrant women can be deepened, demonstrating how health organisations could reduce the prevalence of migrant women to develop depression following childbirth. Essentially, the outcome of this research is to encourage improved health care services to be implemented for these cases, thus the global impact of these circumstances on the overall prevalence of MDD- with peripartum onset can be reduced.

Psychophysiological Changes Involved in Major Depressive Disorder with Peripartum Onset

Although the exact cause for MDD- with peripartum onset is unclear, psychobiological aetiologies can provide useful information about how this disorder can develop. During pregnancy, women experience a fluctuation of hormones, and a significant drop in estrogen and progesterone hormone levels after delivery, which some women may be sensitive to; these hormonal changes are thought to play a role (Hirst & Moutier, 2010). Consequently, dramatic mood changes may occur or even depression. Migrant women may be more inclined to these consequences due to stressful prolonged environmental factors, like acculturation, that may upset the natural regulation of these hormones further.

As mentioned earlier, MDD- with peripartum onset is identical with Major Depressive Disorder (MDD), but with the addition of a peripartum specifier. One risk factor involved with the onset of MDD are fluctuations in the individual's neurochemistry, that is the role of the hypothalamic-pituitary-adrenal axis (HPA axis) in the development of depression. Cortisol is a hormone produced by the adrenal cortex in response to stress and to restore homeostasis, thus as a regulatory system for cortisol, the HPA axis also plays a role in these functions (Heaney, 2013).

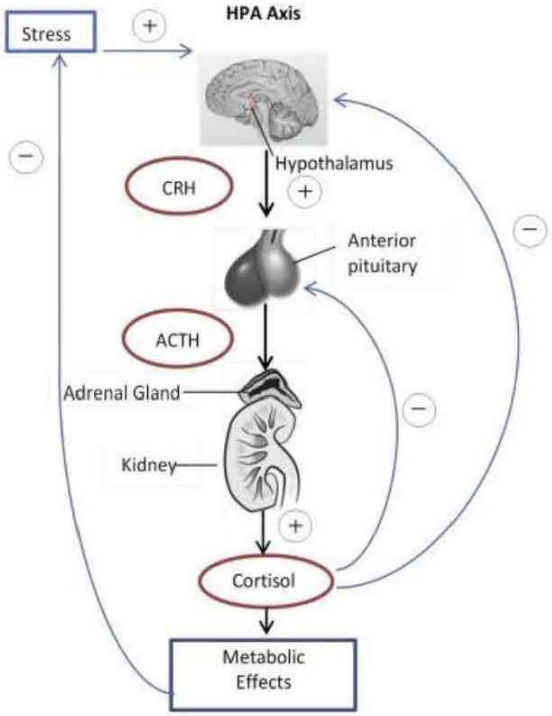

Figure 1: Processes working in the HPA axis (Kulkarni, Gavrilidis & Worsley, 2015).

The processes that work in the HPA axis are demonstrated in figure 1. The major physical components of the HPA axis are the hypothalamus, the pituitary gland, and the adrenal glands. These three glands are located

throughout the body, from the brain to the adrenals. Environmental stressors trigger the release of corticotrophin-releasing hormone (CRH) in the hypothalamus, which stimulates the pituitary gland to release the adrenocorticophin hormone (ACTH). When ACTH hormone is present in the bloodstream, the adrenals begins to secrete cortisol, which regulates its own secretion rates by feeding back to the receptors of the hypothalamus and pituitary glands (Duthie & Reynolds, 2013). Therefore, a healthy working HPA axis is needed in order to regulate the amount of cortisol that is secreted into the blood as a response to the environment.

The secretion of cortisol is an essential function that humans must have to manage the occurrence of stressful events. However, cortisol secretion becomes problematic when environmental stressors are excessive, and the secretion becomes prolonged. This occurs when the HPA axis not functioning correctly and becomes dysregulated. The prolonged secretion of cortisol correlates to the cessation of neurogenesis in the hippocampus of the brain, resulting in negative implications on memory functions. Additionally, the neuronal networks related to the release of serotonin, dopamine and norepinephrine are also affected. These neurotransmitters play important roles in emotional regulation, and an abundance of cortisol can interfere with the neuron firing of these neurotransmitters, ultimately disordering an individual's mood. Dysregulation of the HPA axis and an imbalance of serotonin, dopamine and norepinephrine neurotransmitters can result in poor cognitive emotions and correlates with the onset of depression.

For pregnant women, the risk of developing a dysregulated HPA axis increases due to the natural fluctuation of hormones that is experienced throughout and after childbirth. As a result, the chance that MDD- with peripartum onset occurs increases. The magnitude of this effect can depend on environmental factors, however with

appropriate care it can be avoided. During pregnancy, levels of cortisol increase dramatically due to the placenta which secretes high quantities of corticotrophin-releasing hormone (CRH), and changes in estrogen quantities stimulate an increase in free cortisol production (Duthie & Reynolds, 2013). Essentially, the formation and growth of the placenta plays a role in manipulating cortisol levels, as placental CRH stimulates the release of ACTH from the maternal pituitary gland, which in turn excites the maternal adrenal glands to secrete cortisol (Gangestad, Hooper and Eaton, 2012). Therefore, the maternal HPA axis will be regulated differently and may even become dysregulated in response to these hormonal changes, specifically the increased secretion of cortisol (Duthie & Reynolds, 2013).

Jolley, Carr, Barnard & Elmore (2007) researched the dysregulated HPA axis in relation to MDD- with peripartum onset, by comparing the reactivity and regulation of the HPA axis components- ACTH and cortisol- in depressed and nondepressed postpartum women. To test for these differences, a sample of 22 normal, healthy, nondepressed pregnant women were used in a comparative, longitudinal study. When the women were postpartum at 6 and 12 weeks, their physiological and MDD- with peripartum onset data was collected at a university clinical research centre (Jolley, Carr, Barnard & Elmore, 2007). Plasma ACTH and cortisol levels were stimulated and then measured via maximal treadmill exercise before, during and after 20 minutes of exercise. Additionally, MDD- with peripartum onset was measured using the Postpartum Depression Screening Scale. The primary finding was that the depressed group showed no relationship between ACTH and cortisol, suggesting a dysregulated HPA axis (Jolley, Carr, Barnard & Elmore, 2007). The nondepressed group showed an expected positive correlation between ACTH levels and cortisol levels; as ACTH increased, cortisol also increased (Jolley, Carr, Barnard & Elmore, 2007). This is

because physiologically, ACTH triggers the adrenals to secrete cortisol, thus when there is no relationship between ACTH levels and cortisol levels, the HPA axis is not regulating cortisol levels properly.

Jolley, Carr, Barnard & Elmore (2007) has limitations in the design of the experiment due to their lack of representative variability of the sample, resulting in low generalisability of the results (Jolley, Carr, Barnard & Elmore, 2007). Additionally, women who had a history of depression prior to the pregnancy or family history of depression were not omitted from the investigation (Jolley, Carr, Barnard & Elmore, 2007). This has significant impact on the data as both of these variables have been understood to increase the risk of MDD- with peripartum onset. Despite these limitations, an insightful conclusion relating to the role of the HPA axis in the development of MDD- with peripartum onset was reached.

As mentioned earlier, migrant women may experience certain situations that increase their vulnerability to MDD- with peripartum onset in relation to affecting the HPA axis, more specifically the effect of acculturation. The process of acculturation is the interaction of two cultures, resulting in the individual changing psychologically and culturally (Popov, Parker & Seath, 2017). Acculturation may also be thought as a cultural adaptation, in which a migrant would proceed to do after leaving their home country to settle in new land. As expected, acculturation is a stressful and enduring process, potentially harming the regulation of cortisol secretion in the HPA axis. For pregnant migrant women, this damage may become even more extensive, as the maternal HPA axis is already being harmed.

A study by D'Anna-Hernandez et al. (2012) investigated the effects of acculturation on cortisol in pregnant women in the US of Mexican descent. The sample used pregnant

women aged 18-45 who did not have a history of illicit drug use. During the entire pregnancy, individual maternal salivary cortisol samples were collected in intervals, and each participant filled out acculturation surveys. One main finding from their work was that a greater acculturation levels predicted a flatter diurnal cortisol slope or declines of cortisol levels during the day (D'Anna-Hernandez et al., 2012). This is significant as flat diurnal declines of cortisol have been reported in stressed and depressed populations, and as acculturation is an environmental stressor it may have effects that correspond with similar adverse physiological changes that lead to MDD-with peripartum onset (D'Anna-Hernandez et al., 2012).

As this experiment was conducted with a sample of the same ethnicity (Mexican), it is difficult to generalise to other migrant populations, even upon the assumption that majority of migrant women will experience acculturation. This study only reported on the number of life events rather than the perceived stress that was associated with these events (D'Anna-Hernandez et al., 2012). Additionally, the acculturated women had reported less stressful life events than the non-acculturated women (D'Anna-Hernandez et al., 2012). Despite the findings, it is still unlikely that environmental stressors alone, such as acculturation, are an explanation for this abnormal physiological response, and individual characteristics such as genetics could also play a role in their susceptibility. Nevertheless, the most significant point is that acculturated women exhibited a flatter cortisol diurnal decline, correlating to the onset of depression. An implication to these findings may be that less acculturation may assist in the buffering of depressed thinking styles such as negative perceptions of events (D'Anna-Hernandez et al., 2012).

Combined with previously stated research, the observation that acculturation can cause adverse effects on cortisol production that are like those in depressed patients, the HPA axis may have been somewhat dysregulated. In saying this, migrant women may have an increased susceptibility to the onset of MDD- with peripartum onset as the regulation of cortisol in the HPA axis has been diminished due to hormonal changes that were triggered from environmental stressors of their contextual situation.

Overall, it was argued that the dysregulation of the HPA axis, being an important factor in the development of depression, would have higher detrimental effects on migrant mothers as the environmental stressor of acculturation adds additional stress on the cortisol regulator. Therefore, cortisol levels are abnormal and the risk of developing MDD- with peripartum onset increases. Although other studies report similar correlations, a cause and effect relationship between these factors and the development of MDD- with peripartum onset cannot be established, primarily because other factors such as genetic predisposition and other uncontrolled environmental factors were not considered. Due to the lack of population variability provided in these studies, it is difficult to predict whether this argument would be true for migrant women across the globe. More in-depth research into the role of the HPA axis and abnormal neurochemistry in depression and the effect of the environment on this will provide a richer understanding to why migrant women have the highest global prevalence of MDD- with peripartum onset. Despite this limitation, we can still identify that by supporting migrant women through the process of acculturation, the level of acculturation can be reduced as well as their susceptibility to MDD- with peripartum onset, as further disruption of hormone levels and the HPA axis and would be avoided.

Sociocultural Anthropological Factors Involved in Major Depressive Disorder with Peripartum Onset

From an anthropological perspective, all human experiences are contextualised by one's culture, which contains shared ideas, perspectives, cognitive styles and expectations for emotional and behavioural responses (Abdollahi, Lye, Zain, Ghazali & Zarghami, 2011). Hence, culture influences how an individual may come to experience depression, as well as how they seek for physical or emotional support (Abdollahi, Lye, Zain, Ghazali & Zarghami, 2011). From an anthropological standpoint, the role of culture as a key factor in pregnancy and postpartum adjustment becomes clear (Abdollahi, Lye, Zain, Ghazali & Zarghami, 2011).

New mothers who are migrant women of East-Asian background in a Western country may have pragmatic opinions when it comes to using her own country's traditional peripartum practices and are willing to adhere to standardised Western clinical practices. However, other women may believe that their traditional practices and birth practices are imperative for them to follow (Vasey & Manderson, 2009). It is usually in the case of the latter where cultural issues can arise, which increase the woman's susceptibility to MDD- with peripartum onset.

Due to the rich variation that is held in the continent of Asia, one cannot deny that there are different cultural understandings of pregnancy for each region, thus ideas surrounding postpartum practices and rituals will vary greatly (Abdollahi, Lye, Zain, Ghazali & Zarghami, 2011). Asia is the most populous continent in the world, with over four billion people and six separate regions. Therefore, it is inevitable that Asia would include a plethora of languages, cultural history, religious practices and more. More relevantly, the range of mental health status across these regions is quite varied and can be a factor contributing to the postpartum rituals and practices of each culture, some of which may have methods that are believed to support and protect mothers

from symptoms of MDD- with peripartum onset (Abdollahi, Lye, Zain, Ghazali & Zarghami, 2011). Research demonstrates that for migrant women, these cultural dimensions of pregnancy play a key role in the development of MDD- with peripartum onset. Therefore, it is imperative for health care providers to consider the cultural backgrounds of these women in their postpartum period.

In the *Multicultural Clinical Support Resource*, published for Queensland Health, includes a chapter on the cultural dimensions of pregnancy to inform health care providers about the certain peripartum practices of specific cultures that are prominent in Queensland, Australia. However, I will only describe the perceptions of pregnancy from Chinese cultural groups.

For some Chinese people, health related beliefs include the classification of food, illness and medication into 'hot' or 'cold' depending on the apparent effects on the energy in the body (Vasey & Manderson, 2009). Based on this concept, some Chinese people may believe that the disharmony and imbalance of these components in the body may attribute to illness (Vasey & Manderson, 2009). Thus, the perception of pregnancy is that it disturbs the balance of 'hot' and 'cold' energy that is necessary for good health (Vasey & Manderson, 2009). To compensate for this, the food that is given to pregnant and postpartum women is critical for the health of the woman. For example, special soups and bone broths are believed to diminish the imbalance of negative and positive energy in the body and should be eaten during the pregnancy (Vasey & Manderson, 2009).

One important ritual that is seen amongst Chinese people is that after the birth of the child, some women may have to undergo a period of confinement, and during this time the mothers rest, dress warmly, limit showers and only eat 'hot' foods (Vasey &

Manderson, 2009). Although this ritual is becoming less popular amongst the more globalised Chinese women, the purpose is to recover and regain a balance of energy in the body. This practice is particularly conflicting with Australian medical beliefs which suggest early ambulation and washing following birth, as these will decrease the risk of developing deep vein thrombosis (Vasey & Manderson, 2009).

As mentioned earlier, research demonstrates that these cultural dimensions of pregnancy play a key role in the development of MDD- with peripartum onset. Wittkowski, Patel, & Fox (2016) presented a meta-synthesis exploring the experience of depression in migrant mothers living in Western countries during the postpartum period (Wittkowski, Patel, & Fox, 2016). They hypothesised that migrant women may be of risk to depression during their postpartum period as they attempt to follow western childbirth practices, which may intensify stress, even as they are facing other stressors in terms of the transition into motherhood (Wittkowski, Patel, & Fox, 2016). They aimed to synthesise qualitative studies exploring MDD- with peripartum onset in migrant mothers in western countries.

Through a meta-synthesis approach, 16 studies relating to this topic were identified across six different databases. These findings are based on a total of 337 women from migrant women living in countries such as UK, USA and Canada (Wittkowski, Patel, & Fox, 2016). Two general themes were revealed, regarding the migration and cultural factors on migrant mothers that interact and initiate a psychological understanding of depression in the postpartum period as well as contributing remedies and healthcare barriers (Wittkowski, Patel, & Fox, 2016). It was concluded that as migrant mothers living in western countries are subject to various external stressors following childbirth, their susceptibility to MDD- with peripartum onset is increased (Wittkowski, Patel, & Fox, 2016). The stressors that were identified include difficulties complying with

ideologies surrounding pregnancy in a western society, when removed from their sociocultural context (Wittkowski, Patel, & Fox, 2016). Additionally, social support seemed to play a mediating role for these mothers (Wittkowski, Patel, & Fox, 2016).

Overall, Wittkowski, Patel, & Fox (2016) provides useful information about the risk factors that migrant women are susceptible to due to cultural differences between their home country and the western world which correlate to the development of MDD- with peripartum onset. The research was an in-depth analysis of previous studies, providing rich data. However, a limitation of this is that certain factors could not be controlled, for example the age of the women, their country of origin and genetic predisposition; these could have an influence on the onset of depression. Nevertheless, the study explains the increased susceptibility to MDD- with peripartum onset in migrant women living in western countries. It also suggests that clinical practitioners caring for migrant mothers should consider the significance of these cultural dimensions of pregnancy, as adapting to westernised pregnancy ideas may be a primary factor for MDD- with peripartum onset.

Typically, the sociocultural factors associated with MDD- with peripartum onset primarily include the financial situation of the woman and her accessibility to physical and emotional support. However, as previously discussed, migrant women also have additional environmental stressors that impact on their postpartum health. Research from a Taiwanese study by Hung et al. (2012) suggested that when treating migrant women after child birth, clinicians should consider these environmental stressors mentioned earlier that impact their postpartum health, instead purely looking at financial and support needs (Hung et al., 2012).

Hung et al. (2012) aimed to "examine immigrant women's postpartum health in the context of Taiwan, in particular, their experience with postpartum stress and depression as well as the levels of social support available to them", they also wanted "to identify predictors of their postpartum health status." (Hung et al., 2012). Utilising the Hung Postpartum Stress Scale, Beck Depression Inventory-II, Social Support Scale and a Chinese Health Questionnaire, data from a sample 340 Mandarin-speaking migrant postpartum women from 10 general hospitals and one obstetric clinic in Taiwan from March – September 2005 was recorded (Hung et al., 2012).

The results were that postpartum health status of migrant women was influenced by their key helpers, depression status, levels of postpartum stress and social support (Hung et al., 2012). Additionally, the logistic regression analysis showed that "that a one-point increase in immigrant women's postpartum stress increased the probability of suffering from minor psychiatric morbidity by 1.04 times," (Hung et al., 2012). This suggests that the impact of postpartum stress or the environmental factors that migrant women experience, has a much higher impact on the onset of depression and PPD than previously thought.

Overall, Hung et al.'s research supports the hypothesis that the environmental stressors that migrant women experience play an important role when it comes to developing psychiatric stress or PPD, and provides insight and has implications in changing how practitioners should care for migrant postpartum women.

Local research concerning the postpartum health of East-Asian mothers in Australia has also been conducted, demonstrating the significance of socioeconomic support for these women to avoid adverse implications on their mental health. Chu (2005) researched the postnatal experience and health needs of Chinese migrant women in

Brisbane, Australia. It is a growing concern in this region for Chinese migrants to experience excessive postpartum stress due to the absence of support for cultural practices of pregnancy in Western societies, and this has shown to have negative implications for their mental health (Chu, 2005). The study compared the postnatal experience of migrant women from Taiwan, Hong Kong, and the People's Republic of China (PRC) (Chu, 2005). It was revealed that the PCR had the largest struggles with social mobility, unsatisfactory employment, economic insecurity, a lack of a supportive social network, inadequate English language skills, and communication difficulties (Chu, 2005). Additionally, this group had the least postnatal support, and consequently a greater proportion of women in the PRC group had suffered from MDD- with peripartum onset. Chu (2005) identified that under these circumstances, there may be an increased chance for the development of MDD- with peripartum onset. The paper concluded that in order to address these findings, postnatal health for migrant women needs to be promoted within the community and government service providers (Chu, 2005).

Conclusion

In conclusion, the prevalence of MDD- with peripartum onset amongst migrant women is a growing global concern, due to several psychophysiological and sociocultural anthropological factors. It was argued that acculturation, a process that migrants will typically experience to adapt to a new country, can bring about unwanted stress for a pregnant migrant woman which will have negative implications on the HPA axis, due to abnormal levels of cortisol, along with the natural fluctuations of hormones during pregnancy. Ultimately, the dysregulation of cortisol in the HPA axis correlates with the onset of depression, and migrant women who experience higher levels of acculturation are more vulnerable. It was also argued that a primary stress factor for migrant women are the differences between cultural dimensions of pregnancy. Lack of support for a migrant women's cultural pregnancy practices in a Western society has been shown to increase her chance of developing MDD- with peripartum onset. Overall, there needs to be more awareness of this issue in community institutions and government service providers (Chu, 2005).

The research question has allowed this topic to be explored in a local sense so that possible solutions to this global issue of MDD- with peripartum prevalence could be presented. The fundamental research in this essay was from secondary sources, therefore reliability and quality cannot be certain. Additionally, despite the research presented this essay, globalisation and the heavy influence of Western culture on East Asia and other continents raises questions about how these factors will influence MDD- with peripartum onset, especially within migrant populations. Nevertheless, improved healthcare services should be implemented to decrease the global prevalence of MDD- with peripartum onset in migrant women.

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EE/RPPF

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Candidate personal code:

Extended essay - Reflections on planning and progress form

Candidate: *This form is to be completed by the candidate during the course and completion of their EE. This document records reflections on your planning and progress, and the nature of your discussions with your supervisor. You must undertake three formal reflection sessions with your supervisor: The first formal reflection session should focus on your initial ideas and how you plan to undertake your research; the interim reflection session is once a significant amount of your research has been completed, and the final session will be in the form of a viva voce once you have completed and handed in your EE. This document acts as a record in supporting the authenticity of your work. The three reflections combined must amount to no more than 500 words.*

The completion of this form is a mandatory requirement of the EE for first assessment May 2018. It must be submitted together with the completed EE for assessment under Criterion E.

Supervisor: *You must have three reflection sessions with each candidate, one early on in the process, an interim meeting and then the final viva voce. Other check-in sessions are permitted but do not need to be recorded on this sheet. After each reflection session candidates must record their reflections and as the supervisor you must sign and date this form.*

First reflection session

Candidate comments:

I wanted to focus my essay on immigrant women in Australia and maternity health, as I've always been conscious of this within my family. Whilst planning, I thought I could use primary and secondary research methods to explore this topic and create a link between local and global issues. I'd brainstormed methods to collect primary data; performing surveys. From my supervisor, I became aware that ethical implications regarding questioning personal issues were likely. Therefore, I should seek advice from a psychology teacher concerning how I can ethically approach this. Also, I'd developed many ideas during planning but hadn't found a focused topic. I was advised to refine my topic by identifying common themes in my ideas. I have now refined my question as "How do differences in post-natal care across cultures affect maternal health and likelihood of postpartum depression of immigrant women?" I am also creating a list of personal due dates to keep me on track.

Date: November 13, 2018

Supervisor initials:

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Interim reflection

Candidate comments:

My research on psychobiological causes of post-natal depression and the different factors that East-Asian immigrant mothers may experience that could trigger its onset has been completed. Surprisingly, I had found more local research on my topic than expected, therefore I wrote a lot about it. However, my supervisor advised that I need to further emphasise the global significance and issue that this topic addresses and that I could do this by linking these local studies back to the wider issue throughout the essay. Additionally, I did not complete a conclusion for my first draft, so the essay's critical thinking was lacking; I should provide an overall evaluation of the sources and critique the "worthiness" of my research question here. My personal engagement paragraph was rather long, I need to cut this down and show personal engagement throughout the essay instead.

Date: May 10, 2019

Supervisor initials:

Final reflection - Viva voce

Candidate comments:

My essay is complete and I have evaluated my development of myself as a researcher during the EE process. Originally I thought that I needed a clear focus of my topic before researching, however I found I became uncertain and could not start. Instead, I just took note of any relevant things, then refined my research to identify a clear focus of my essay. For me, the research process was the most enjoyable aspect because reading journals was not only interesting, but also guided my essay structuring and communication skills. However, sometimes I would become immersed in irrelevant topics, and found it difficult to stay committed to my own topic. I learned that I needed to be disciplined and discerning to avoid this. Overall, to me researching is a skill that is developed with experience and is needed in many aspects of life. The WSEE has allowed me to have a more globally conscious mindset, questioning the impact that local circumstances have on a universal level. I think that the future will require more "global thinkers", so I believe this experience will prepare me for this. Additionally, I have gained a passion for women's health, which I may consider for my career.

Date: August 12, 2019

Supervisor initials