Perspectives of Postnatal Depression in Malaysia: Exploring Experiences of Women and Healthcare Practitioners

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Declaration

I hereby declare that this thesis is a presentation of my original work. Every effort is made to properly acknowledge the contributions from other sources. No portion of the work referred to in this thesis has been accepted or submitted for any other degrees. The work was done under the guidance of Professor Helen Cheyne and Professor Margaret Maxwell at the University of Stirling, United Kingdom.

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List of Abbreviations

BDI	Beck Depression Inventory
DASS	Depression, Anxiety and Stress Scale
DSM	Diagnostic and Statistical Manual of Mental Disorders
EPDS	Edinburgh Postnatal Depression Scale
HADS	Hospital Anxiety and Depression Scale
HCP	Healthcare Practitioner
ICD-10	10th edition of the International Classification of Diseases
MCH	Maternal and Child Health
MDGs	Millennium Development Goals
MOH	Ministry of Health
MREC	Medical Research and Ethics Committee
NIHR	National Institute of Health Research
NMRR	National Medical Research Register
PHQ	Patient Health Questionnaire
PND	Postnatal Depression
WHO	World Health Organisation

Abstract

Background: Postnatal depression (PND) is one of the most common maternal mental health problems for women worldwide. Yet the wide range of reported rates of PND in different countries raises questions about how PND is experienced by women in different cultures and whether interventions developed in western cultures are appropriate in very different settings. It is important to establish how PND is defined, experienced and managed in different cultures in order to create culturally relevant interventions. No previous studies of experience of PND and its management have been conducted in Malaysia. The aim of this study was to explore women's experiences and healthcare practitioners' (HCPs) perspectives of PND in a multicultural country, Malaysia.

Methods: This was a qualitative study informed by a critical realist approach. Semi-structured interviews were carried out with 33 women (from three different cultural backgrounds) attending for child or postnatal care and 18 HCPs in six purposively selected maternal and child health (MCH) clinics and a female psychiatric ward in Kuala Lumpur, Malaysia. Data were analysed using framework analysis.

Findings: There were some differences in the women's perceptions of PND experience across three different cultural backgrounds in Malaysia. Malay women were more likely to describe the symptoms of PND based on a combination of emotional and behavioural changes, whereas Chinese and Indian women talked more about emotional changes. Traditional postnatal practices were described as contributing to PND by some Malay women but were accepted as promoting maternal and infant well-being by the majority of Indian women. Religious activities were reported as an effective strategy for the Malay women but were not seen as helpful by the majority of Chinese women. Considering HCPs, it appeared that the absence of a clear and specific policy and guideline in the management of PND within the Malaysian healthcare system has resulted in a lack of professional ownership in the management of PND, especially among HCPs in MCH clinics.

Conclusion: The women and the HCPs had distinct ways of conceptualising PND experiences, although they agreed on several symptoms and causal explanations. This study calls for a system-based enhanced PND care with an initiation of culturally appropriate care for PND within the healthcare system.

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1   Chapter 1: Introduction

Improving maternal mental health is recognised by the World Health Organisation (WHO) as being of paramount importance to the agenda of attaining the Millennium Development Goals (MDGs). The United Nations target to eradicate poverty through eight MDGs has remained the overarching development framework for the world for the past 15 years (United Nations 2015). Although maternal mental health is not explicitly mentioned in the eight MDGs, at least three of them directly and indirectly refer to maternal mental health. These include MDG 3: promoting gender equality and empowering women, MDG 4: reducing child mortality, and MDG 5: improving maternal health (WHO 2008). As part of the strategies to achieve these goals, it was recommended that maternal mental healthcare needs to be integrated into existing maternal and child health (MCH) programmes, and that maternal distress should be addressed during the perinatal period.

Postnatal depression (PND) is one of the most common causes of maternal distress and as such represents a considerable public health problem to affect the mother, her baby, and her family (Robertson et al. 2003; WHO 2008; Scottish Intercollegiate Guidelines Network 2012; National Institute of Mental Health 2013). Within the postnatal period, there is an increase of physical and emotional demands on the woman, and the debility associated with PND may impinge on her capability as a mother, such as to care for and bond with her new-born. For instance, the woman may be less engaged, and may even react negatively towards the child. Without diagnosis and treatment, PND may affect her ability to participate in normal activities, and interfere with her family and other social relationships (Pitanupong et al. 2007; Brett et al. 2008; Ferber et al. 2008; McGarry et al. 2009). These problems can compromise maternal-infant relationships, which may be associated with poor child cognitive and behavioural and social development (Jomeen 2004; Milgrom et al. 2011). Partners of women with PND have also been shown to be at risk of poor mental health (Boath et al. 1998; Zelkowitz and Milet 2001; Goodman 2004). Older children can also be indirectly affected if they take over their mother's responsibility in caring for the other siblings (Byrne et al. 2001).

Despite the negative consequences associated with PND, it still remains under recognised and therefore often undertreated in clinical practice (Mancini et al. 2007; Yawn et al. 2012; Scottish Intercollegiate Guidelines Network 2012). Reasons for this are unclear, but from what is evidenced in the literature, it can be reasonably

expected that factors contributing to underdiagnoses could come from both women and the healthcare practitioners (HCPs).

Qualitative studies conducted to understand women's experiences and perceptions of PND suggest that the majority of women were reluctant to disclose their depressive symptoms to HCPs (McGarry et al. 2009; Leahy-Warren et al. 2011). The reasons for not revealing their inner turmoil were associated with many factors, but were commonly linked with the stigmatisation of a PND diagnosis, such as concern it would make them 'feel weak', fear they would be judged as a 'bad mother', and fear of having their children being referred to social services (McCarthy and McMahon 2008; Sword et al. 2008; Chew-Graham et al. 2009). Although the reasons highlighted here were commonly shared by the women across cultures, the experience of PND is not fully shared or similarly expressed by women across the world, with some experiences being more common in certain cultures or countries. For instance, whilst social circumstance and biophysical stressors were described as factors contributing to PND in many countries, the issues of cultures and traditions were more common in Asian women (Gao et al. 2010; Chen et al. 2006). Despite these divergences, there is little research on women's experience of PND across cultures, leaving the explanations of these variabilities inadequate.

There have been studies conducted to understand HCPs' perceptions of PND that have contributed to some level of evidence in the literature. Qualitative studies found that the HCPs reported that their roles in managing women with PND were challenged by the social and cultural stigma and this was seen as limiting the women's willingness to seek help (Heneghan et al. 2007; Teng et al. 2007; Chew-Graham et al. 2008; Abrams et al. 2009; Bilszta et al. 2010a; Agapidaki et al. 2014). Again, such stigmatisation may or may not exist in different cultures or countries. Despite this finding, there is a lack of qualitative studies conducted among HCPs working in multicultural communities, and this may minimise the cross-cultural equivalence regarding management of PND.

The impetus of this study is derived from two main considerations. First, in order to explain why PND experience varies from one culture to another, it is important to include women from different cultural backgrounds in one study. Second, both women and HCPs perspectives must be understood in establishing interventions for PND. Therefore, taking Malaysia as a sample of a multicultural country, (which consists of three main cultural backgrounds: Malay, Chinese, and Indian), the context of PND in this country was explored.

My experience of working within clinical practice in Malaysia (previously as a midwife and recently as a nurse educator), led me to observe that there was a gap between the recommendations by the WHO regarding the integration of maternal mental health in the MCH programmes and what was being practised. For instance, no screening for maternal distress was carried out during the antenatal and postnatal visit, although the WHO has recommended that mental health problems during the perinatal period should be recognised and identified. Also, despite the suggestion that community-based interventions (e.g., empathy and active listening, the utilisation of different psychosocial approaches) should be made available to assist women with mental health problems during the perinatal period (WHO 2008), almost none of these were accessible within the clinics. It was because of these discrepancies that I began to question whether maternal mental health is being emphasised at any level, within the Malaysian healthcare system. Undeniably, this gap became quite obvious for me because I have been reading research about PND since the year 2010 while working on my Masters' dissertation.

This thesis concerns the perspectives of PND in Malaysia by exploring both women's and HCPs' perceptions. When embarking on this research it was recognised that women from different cultural backgrounds could have different views on a similar experience, and that women and HCPs may have their own understanding of PND. Therefore, the approach taken in this study was to interview both groups of the participants individually so that they could genuinely explore their own experience without being influenced by others' opinion. The women and the HCPs were purposively selected to represent the main cultural backgrounds in Malaysia and to represent different levels of a working position within the Malaysian healthcare system, respectively. This will be discussed further in Chapter 3. The aims of this study were to investigate women's and HCPs' accounts of understanding, perceived causes, managing of PND, and to explore their views on potential interventions for PND in Malaysia.

This thesis is comprised of six chapters, including this chapter (Chapter 1).

Chapter 2 begins with presenting the variability of the definitions and theories used to define and explain PND. This discussion is followed by a review of epidemiological studies to determine whether the variability of the existing approach to understanding PND could also be mirrored in the prevalence of PND worldwide. This chapter then presents the findings of two qualitative syntheses (women's experience and HCPs' perceptions of PND). The first qualitative synthesis was

conducted to understand women's experiences of PND in different countries and cultures. The second qualitative synthesis was carried out to understand HCPs' experiences of caring for PND in different countries and cultures. Both of these qualitative syntheses aimed to identify any qualitative studies that have been specifically carried out in Malaysia on women's experiences or HCP's perceptions of PND. Next, the context of PND in Malaysia as a sample of multicultural country is outlined. Towards the end of this chapter, the rationale for undertaking this research is presented.

Chapter 3 explains the rationale for choosing the adopted methods to meet the research objectives. This includes: the justification of the qualitative approach and critical realist perspectives, and the rationale of choosing an exploratory qualitative design, study setting, and sampling strategy. The explanations of recruitment of participants, data collection process, data analysis, methodological rigour and ethical issues within research process are also outlined.

Chapter 4 and 5 report the findings of the two studies.

Chapter 4 describes women's accounts of their experience of PND based on semi-structured interviews with 33 women (10 Malay, 12 Chinese, and 11 Indian) attending for child or postnatal care at MCH clinics. This chapter discusses four main themes derived from the women's accounts which include: (i) *the changes*, (ii) *causal explanations*, (iii) *dealing with postnatal depression*, and (iv) *perceived impacts*. *The changes* cover the signs and symptoms of PND, *causal explanations* refer to the women's perceived causes of their PND experience, *dealing with PND* describes the women's explanations of how they managed their symptoms, and the *perceived impacts* concern the women's descriptions of the implications of PND. Where applicable, the similarities and differences across the women's cultural backgrounds are highlighted.

Chapter 5 reports the HCPs' perspectives and experiences of managing women with PND based on semi-structured interviews with 18 HCPs at MCH clinics and a female psychiatric ward in Kuala Lumpur, Malaysia. In this chapter, the knowledge and perceptions of HCPs in relation to PND, how they manage PND, and what potential interventions they perceived as helpful for Malaysian women with PND are discussed. This discussion is organised into three main themes: (i) *conceptualisation of postnatal depression*, (ii) *causal explanations*, and (iii) *care and treatment*. The first theme covers the HCPs' general understandings of PND and

how they could distinguish it from other forms of maternal distress. The second theme provides the HCPs' explanations of the causes for PND. The third theme concerns the HCPs' views of their roles and responsibilities in managing PND, their explanations of challenges that they had in providing care for women with PND, and potential interventions that they felt should be available in the future. The HCPs' explanations of the above issues are compared and contrasted across their working setting (the MCH clinic versus psychiatric ward), or across their working position (e.g., nurses versus medical officers).

Chapter 6 discusses and summarises the findings by connecting them to the research objectives, theoretical position, and existing literatures and theories. This chapter begins with discussions of five main findings, which are followed by the implications of this study in the development of policy and guidelines, practice, education, and research. The methodological issues and the limitations of this study are discussed towards the end of this chapter and finally move on to the conclusion of the study.

2   Chapter 2: Literature Review

2.1   Introduction

This chapter includes an overview of the theoretical context and available empirical research in the study of illness behaviour, and perspectives and experiences of postnatal depression (PND). To set this study in context, a summary of theories around illness behaviour is first presented to better understand the people's illness belief. This is followed with a discussion of how PND was categorised, defined, and theorised in the literature. A review on the prevalence of PND is then presented, which is followed three other reviews: a scoping review of the prevalence of PND across different countries, a review of women's experiences of PND, and a review of healthcare practitioners' (HCPs) experiences of caring for women with PND. This chapter then provides some information on the context of PND in Malaysia that is relevant to the focus and conduct of this study.

2.2   Theories used to understanding illness behaviour

Understanding how people's illness beliefs are structured and experienced is important, as these beliefs shape how they make sense of an illness based on their own implicit and common sense knowledge. A considerable body of research has examined health and illness beliefs and behaviour (Corner and Norman 2005). The aim of this section is to provide a summary of some of the theories around illness behaviour. A review by Glanz et al. (2008) describes many of the health belief models/ theories that are often used (e.g., Transtheoretical Model/ Stages of Change, Social Cognitive Theory and Health Belief Model). It is not the aim of this section to cover all of these models/ theories. Rather, it is to examine four health behaviour models/ theories, which have been considered as the most relevant to this study. These models/ theories have been used to explore and understand how people understand and interpret an illness based on their own assumptions, knowledge, and beliefs.

2.2.1   The Health Belief Model

The Health Belief Model (HBM) (Becker et al. 1977) is one of the most widely used conceptual frameworks in health behaviour research. It is predominantly a model of health behaviours, both to explain change and maintenance of health-related behaviours and as a guiding framework for health behaviour interventions. This

model suggests that there are four main precursors to behaviour: threat perception (consists of perceived severity and perceived susceptibility), behavioural evaluation, cues to action, and health motivation (Williams 2007). Perceived severity refers to feelings about the seriousness of contracting an illness or of leaving it untreated, and includes evaluations of both medical and clinical consequences (e.g., disability and pain) and possible social consequences (e.g., effects of the conditions on work and family life) (Glanz et al. 2008). Perceived susceptibility refers to beliefs about the likelihood of getting a disease or condition, which likely derives from past experience and underlying health beliefs (Glanz et al. 2008; Williams 2007). Behavioural evaluation includes an assessment of the benefits and barriers of an action for reducing the illness threat. Cues to action denote the discrete event that can trigger actions, which may lead to behavioural change. The least explored component in this model is health motivation, which refers to the individual's readiness to be concerned about health (Williams 2007). Although the concept of threat perception has great relevance for health-related behaviours, the HBM does not consider the emotional component of behaviour. Glanz et al. (2008) suggested that this component should be better incorporated in HBM research.

2.2.2 The Theory of Planned Behaviour

The Theory of Planned Behaviour (TPB) (Ajzen, 1985, 1991) focuses on theoretical constructs that link beliefs and behaviour. It is concerned with individual motivational factors such as determinants of the likelihood of performing a specific behaviour (Glanz et al. 2008). Four elements of the theory that are relevant to illness behaviour are: attitude towards behaviour, subjective norm, perceived behavioural control, and behavioural intentions (Williams 2007). According to Fishbein and Ajzen (1975), the process of transforming attitudes to behaviour includes the creation of intention, therefore this theory postulates that behavioural intention is the most important determinant of behavioural change. This theory suggests that attitudes toward performing the behaviour, and the subjective norm associated with the behaviour may directly determine the individuals' behavioural intention. Perceived behavioural control is an independent determinant of behavioural intention. It is determined by the perception of the likelihood of the occurrence, weighted by their perceived power, or the impact of each control factor to facilitate or inhibit the behaviour (Glanz et al. 2008). While this theory provides a structure to understand how attitudes will lead to behaviour, it can also be argued that such attitudes may vary depending on

the context and time. It is also important to consider the contexts or the circumstances that could promote the behaviour.

2.2.3 Leventhal's self-regulatory model of illness behaviour

Leventhal's self-regulatory model of illness behaviour covers patients' beliefs and expectations about an illness or somatic symptom (Leventhal et al. 1980). Illness beliefs are defined as a person's own implicit, and common sense beliefs about his or her illness (Leventhal et al. 1980; Leventhal and Nerenz 1985). According to this model, coping with, and managing an illness is a problem-solving task (Leventhal et al. 1980; Leventhal and Nerenz 1985). Individuals with a problematic psychological or physiological experience perceive a change in their bodily or mental status, and are then motivated to identify the cause and nature of this condition (Williams 2007).

The process of bringing themselves back to their normal state involves 3 stages: i) identification and interpretations of the problem; ii) coping with the problem; and iii) an appraisal of the effectiveness of the coping strategy adopted (Williams 2007). In addition to the three stages, individuals with an illness also construct a representation of the problem or illness through 5 dimensions (known as illness beliefs). Such dimensions include: i) identity (refers to the label given to the diagnosis and the symptoms experienced); ii) the perceived cause of the illness (denotes biological and/ or psychosocial factors); iii) time line (refers to beliefs about how long an illness will last (acute or chronic)); iv) consequences (refers to the patient's perceptions of the possible effects of the illness on his or her life (physical, emotional)); and v) curability and controllability (refers to the patient's beliefs about whether their illness can be treated and cured, and the extent to which its outcome is controllable (either by themselves or by others)). The relevance of Leventhal's model in explaining the study findings is discussed in Chapter 6 (Section 6.7).

2.2.4 Kleinman's explanatory model of illness

Arthur Kleinman, an anthropologist, proposed an explanatory model (EMs) of illness. This model encompasses notions about an episode of sickness and its treatment. Kleinman (1980) suggested that patients' health beliefs are dynamic and complex, often based on more on 'common sense' than on clinical evidence. To elicit the patient's experience, an exploratory process of qualitative enquiry (a mini-ethnographic approach) was recommended. Such an approach should explore the patient's concern of: 'Why me?', 'Why now?', 'What is wrong?', 'How long will it

last?', 'How serious is it?', and 'Who can intervene or treat the condition?' (Bhui and Bhugra 2002). This may result in complex and multi-layered responses which carry with them information about social rituals, symbols in communication, forms of knowledge, and illness narratives (Bhui and Bhugra 2002). According to this model, it is through this rich view of the illness within the patient's social world that HCPs can gather a better understanding of the subjective experience of illness, and to promote collaboration and improve clinical outcomes. The understanding of the patient's experience is of great importance to HCPs, particularly when empirical evidence suggests that patients are most satisfied where their psychiatrist (or other HCP) shares their model of understanding distress and treatment (Callan and Littlewood 1998).

Overall, there is some overlap between the aforementioned models. The element of perceived behavioural control in the TPB has some overlap with the HBM. The HBM and the Leventhal's model also have some overlap but include a number of different concepts.

Although these models facilitate the understandings and making sense of the complexity of human beliefs and behaviours, it needs to be highlighted that they are not definitive and static. Williams and Healy (2001) argued that explanatory models did not consist of a coherent set of beliefs, but a variety of explanations that are either held simultaneously or taken up and dismissed rapidly. This means, a person's health and illness belief may vary depending on various factors such as the context and time.

There are also variety of established understanding of how an illness is interpreted, managed, and cured across different societies and cultures. While the abovementioned models provide a framework, or schema, for coping with and understanding an illness, there is evidence that psychological experiences are interpreted in different ways across cultures, and that individuals should therefore be treated differently (Williams and Healy 2001). For instance, the statement of 'I can hear the voices of my ancestors speaking to me' could be interpreted as psychotic diagnosis within Western psychiatric model, but is considered as a normative experience in Africa, although this does not mean that spirit possessions is 'normal', and most people expect to be possessed in this way during their life (Helman 2001).

To describe emotional states, different societies not only use different languages, but a wide range of words (Pilgrim and Bentall 1999). For example, in many non-

western cultures, no word is found for `depression' (Marsella 1980), and among Eskimos or Yorubas no words are found equivalent to `anxiety' (Leff 1973). These observations are supported by the view that the degrees to which depression is somatised are varied between and within societies, that societies have accepted ways of revealing illness, and cultures may have their own language of 'distress' (Kleinman 1980; Lewis 1981). Although societal explanations for the illness do not deny the existence of the illness as a reality, or that it might also be regarded as disease by HCPs, certain illness could be represented as a "folk illness" (Williams and Healy 2001). Such explanations, however, could differ from the HCPs' explanations.

2.3　Approaches used to understanding postnatal depression

The purpose of this section is to present the variability of the definitions and theories used to define and explain PND. It is not the aim of this section to provide the full range of definitions and explanations of PND. The section begins with a discussion of differential diagnosis of PND, namely postnatal blues, PND, and puerperal psychosis. This is followed by the relevant and significant literature that has influenced the definition and the time frame associated with the definition used in this present study. It is can be noted in section 2.3.1.2 that the timing of the onset of PND is still debated within research and clinical practice, and that the diagnosis of PND appears to be vague and it is not differentiated from general depression. While there are several theories available to understand PND, none of these are relevant to the research aims of this study. In the absence of the relevant theory, using critical realism to explore and understand the experiences and perspectives of PND is considered as an alternative approach.

2.3.1　Differential diagnoses of postnatal depression

As the focus of this thesis is PND, it is vital to distinguish the differential diagnoses of PND. Three types of mood disorders that may be experienced by a woman after childbirth (range in severity) are: mild (postnatal blues), moderate (PND), and severe (puerperal psychosis) (Nedhari 2011; Hollins Martin 2009). In the first following 3 sub-sections, the definitions of these diagnoses are described based on two main classification systems used to diagnose depression: the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders (DSM)-5 (American Psychiatric Association 2013), and the 10th edition of the International Classification of Diseases (ICD-10) (WHO 2016). Both diagnostic tools provide standard criteria for mental disorders and are used globally within clinical and research settings.

2.3.1.1　Postnatal blues

Postnatal blues, also known as 'baby blues' refers to a brief period of mild emotional disturbance after childbirth, characterised by dysphoria, tearfulness, mood lability, insomnia, irritability, loss of appetite, and anxiety (O'Hara and Wisner 2014; Nedhari 2011; Sharma et al. 2009). It affects 70% to 85% of women within the few days after childbirth possibly lasting until 2 weeks post-birth (Boyd et al. 2005). Unless persistent, the blues are considered as a 'normal' reactions to the hormonal changes and stress after birth, and therefore do not require treatment (Sharma et al.

2009; Lee and Chung 2007). While the DSM classifies postnatal blues as 'Adjustment Disorder with Depressed Mood' (309.0) or 'with Mixed Anxiety and Depressed Mood' (309.28), and which resolves without significant consequences (Nedhari 2011), the ICD-10 categorises it as postpartum mood disturbances (090.6) (ICD-10 2016).

2.3.1.2 Postnatal depression

PND refers to a depressive illness, which most frequently begins 2 to 3 weeks after birth and that may last for a year (Hendrick 2000; Josefsson et al. 2002). Although it is generally considered that PND affects 10% to 15% of women (O'Hara and Swain 1996), there is some evidence that it can affect up to 60% of new mothers (Halbreich and Karkun 2006). Depressive symptoms (e.g., feeling of sadness, low mood, lack of enjoyment, loss of interest in the wider world, lack of energy, and problems concentrating and making decisions) must be present for more than 2 weeks to be distinguished from the postnatal blues. PND requires treatment, which usually consists of counselling and possibly medication (Morris-Rush et al. 2003). Women with PND generally do not exhibit psychotic symptoms, such as auditory hallucinations and delusions. Thus, when PND is accompanied by psychotic symptoms, the possibility of puerperal psychosis should be considered.

Neither the DSM-5 nor ICD-10 recognises PND as a separate diagnosis from general depression. The DSM-5 classifies PND under "depressive disorder with peripartum onset", in which "peripartum onset" is defined as anytime either during pregnancy, or within the four weeks following delivery (American Psychiatric Association 2013).The ICD-10 considers that PND is one of a group of maternal mental disorders that tends to occur within six weeks after delivery (WHO 2016). The signs and symptoms of depressive disorders (not specific to PND) as described in the DSM-5 and ICD-10, are outlined in Table 1.

Table 1: Signs and symptoms of depressive disorders in the DSM-5 and ICD-10

DSM-5	ICD-10
Five or more out of 9 symptoms below (including at least one of depressed mood and loss of interest or pleasure) in the same 2-week period. Each of these symptoms represents a change from previous functioning, and needs to be present nearly every day:	In typical depressive episodes of all three varieties (mild, moderate, and severe), the individual usually suffers from depressed mood, loss of interest and enjoyment, and reduced energy leading to increased fatigability and diminished activity. Marked tiredness after only slight effort is common. Other common symptoms are:

- Depressed mood (subjective or observed) most of the day;
- Loss of interest or pleasure, most of the day;
- Change in weight or appetite. Weight: 5% change over one month;
- Insomnia or hypersomnia;
- Psychomotor retardation or agitation (observed);
- Loss of energy or fatigue;
- Worthlessness or guilt;
- Impaired concentration or indecisiveness; or
- Recurrent thoughts of death or suicidal ideation or attempt.

- Reduced concentration and attention;
- Reduced self-esteem and self-confidence;
- Ideas of guilt and unworthiness (even in a mild type of episode);
- Bleak and pessimistic views of the future;
- Ideas or acts of self-harm or suicide;
- Disturbed sleep;
- Diminished appetite.

(Sources: American Psychiatric Association 2013; WHO 1992)

The 'time limits' around PND

The 'time limits' around PND varies from 4 to 6 weeks within DSM-5 and ICD-10 (American Psychiatric Association 2013; WHO 2016). Similarly, there are also variability in the onset of PND across different countries. In the United Kingdom (UK), the Royal College of Psychiatrists (2016) defines PND as a depressive illness which often starts within one or two months post giving birth, but can also occur several months after having a baby. In the United States (US), the National Institute of Mental Health (2016) refers to PND as a mood disorder that may begin shortly before or any time after childbirth, but commonly begins between a week and a month after delivery. The Canadian Mental Health Association (2012) states that PND is depression that may start during pregnancy or at any time up to a year after childbirth. In Australia, the Department of Health (2012b) defines PND as depression occurring in the months following childbirth and may persist for many months and even years. The Malaysian Psychiatric Association (2010) states that PND can occur straight after the baby is born or months later. Based on the above definitions the onset of PND can be as early as before childbirth and may persist for many months and even years.

In deciding the time frame for recruitment of women with PND in this present study, the most common time frames used within research studies and clinical practices were considered. Within research studies, it ranged from three months (Kendell et al. 1987) to up to 12 months after delivery (Miller 2002), whereas it was somewhere between 1 to 12 months following childbirth within clinical practices (Robertson et al. 2003). Therefore, the time frame used to recruit women with PND in this present study was 1 to 12 months following childbirth. This, however, does not mean to say that the chosen period of time represents the onset of PND but it is applied to increase the possibility of including women with PND and to ensure a genuine experience and information of their distress.

2.3.1.3 Puerperal psychosis

Puerperal psychosis presents rapidly after birth, but can also occur during the first 4 weeks after birth (Morris-Rush et al. 2003). Compared to postnatal blues and PND, puerperal psychosis is far less common, affecting only about 1 or 2 in 1000 women (Sit et al. 2006; Morris-Rush et al. 2003). Women with puerperal psychosis may have paranoia, mood swings, insomnia, hallucinations, delusions, grandiose, confused thinking, and grossly disorganised behaviour that represent a dramatic

change from her previous functioning (Sit et al. 2006; Morris-Rush et al. 2003; Wisner et al. 1994). Mothers who develop puerperal psychosis usually have a diagnosis consistent with bipolar depression, mania, or mixed state, with psychotic features (Yonkers et al 2004). Unlike postnatal blues, puerperal psychosis requires immediate psychiatric assessment and intervention, due to the risks to the safety and well-being of the affected mother and baby (Lee and Chung 2007; Sit et al. 2006; Wisner et al. 1994). Puerperal psychosis can lead to devastating consequences such as infanticide and suicide (Sit et al. 2006; Morris-Rush et al. 2003). The DSM-5 defines psychotic disorders (in this case puerperal psychosis) as abnormalities in 1 or more of 5 domains: delusions, hallucinations, disorganised thinking, grossly disorganised or abnormal motor behaviour, and negative symptoms (Monzon et al. 2014). The ICD-10 classifies puerperal psychosis as a 'mental and behavioural disorders: behavioural syndromes associated with physiological disturbances and physical factors' (F53) (ICD-10 2016).

2.3.2   The existing theoretical constructs for the study of postnatal depression

There were several theoretical constructs available to understand PND. Although using other theories or models to explain PND is possible, what is included in this section are those that were developed specifically to study PND or were generated from qualitative study of women's experiences of PND. These theories/models have been considered for use in this study at the initial phase of the research course. Six theories/models were identified: (i) culture-bound PND, (ii) teetering on the edge, (iii) earthquake model of postpartum depression, (iv) attachment theory, (v) theory of maternal role collapse, and (vi) theory of social energy exchange for postpartum depression. Whilst the psychosocial elements were recognised in all of these theories/models, only one of them included the role of biological elements to explain the mechanism of PND; and only two of them explicitly mentioned the contribution of cultural elements to development of PND (Stern and Kruckman 1983; Posmontier and Waite 2011). The majority acknowledged the roles of women's micro world (e.g., loss of control, personal vulnerability, and maternal roles) as contributing factors to PND but excluding the women's macro world (e.g., dynamic interaction with their social and cultural network).

2.3.2.1　Culture-Bound Theory of Postnatal Depression

More than 30 years ago, Stern and Kruckman (1983) found that the lack of social structuring of the postnatal period in Western culture explained the aetiology of PND. Based on their observations and examinations of the cross cultural literature, they suggested that the elements of cultural rituals within non-Western cultures, including Asian, Arabic, and Hispanic have protected their women from PND. They proposed six essential elements of the rituals: (i) a formalised social support structure, (ii) recognition that the new mother is in a vulnerable state, (iii) a mandatory 30- to 40-day rest period, (iv) a social seclusion period where the new mother is protected from the demands of the greater society, (v) ritualised gifts given to the mother to recognise her new status, (vi) assistance with all household tasks by family, friends, and midwives. This theory postulated that in Western culture, women tend to develop PND when they cannot independently adapt to maternal tasks and changes (e.g., care for their new infants from two to seven days postpartum and resume normal household duties). What could not be explained by this theory is the difference in the nature and experiences of PND across cultures and why women in non-Western cultures develop PND despite practising traditional rituals.

2.3.2.2　Teetering on the Edge

Beck (1993) developed the 'Teetering on the edge: a substantive theory of postpartum depression' using grounded theory. This theory was formulated based on interviews with 12 married white women. Beck found that the essential psychological problem expressed in PND was loss of control, which was explained by four stages: (i) encountering terror, (ii) dying of self, (iii) struggling to survive, and (iv) regaining control. In the first stage, Beck suggested that the women felt that they were attacked by sudden and unexpected changes due to PND. There were three conditions that can be experienced by the women at the first stage: anxious and losing their mind, having obsessive thinking, and loss of concentration and sometimes motor skills. The results of these experiences were explained in stage two. At this second stage, the women did not feel their normal selves, loss of interest in goals, and attempted self-destruction. There were three coping strategies used by the women as explained in the third stage. The first strategy ('battling the system') referred to the phase where the women experienced disappointment, frustration, humiliation, and anger when they initially sought out professional help. The second strategy ('seeking solace in a postpartum depression support group')

stated that the women received support from the peer group. The third strategy ('praying for relief') referred to the practicing of prayer as one of their coping strategies. The final stage of PND experience, as explained by this theory, was the slow process of recovery from PND. Such a process has three consequences: the women experienced a combination of good and bad times (unpredictable transitioning), felt that they had lost a certain amount of their time with the baby due to PND (mourning lost time), and finally felt that they had recovered from PND (guarded recovering). Although this theory explicitly described the individual experiences and stages of PND, it does not include the explanation of the roles of cultures in developing (or protecting) such experience.

2.3.2.3 Earthquake Model of Postpartum Depression

Sichel and Driscoll (1999) used the analogy of an earthquake to conceptualise PND. The woman was viewed as a victim of the stress she experiences and her basic brain biochemistry was a fault line. This model explained that stressful life events and hormonal changes can bring internal pressures and disrupt the concealed fault line, resulting in an emotional earthquake (i.e., PND). To remove the emotional earthquake, it was suggested that the stressors that contribute to the earthquake should be first removed. Despite including an explanation of the biological (genetics, neurobiochemistry, and reproductive biology) and psychosocial factors (life experiences and psychological factors) in their explanation, this model placed more attention on the removal of the risk factors to prevent PND, rather than promoting the value of positive relationships with her social and cultural network.

2.3.2.4 Attachment Theory

In the attachment theory, Simpson et al. (2003) hypothesised that depressed mothers were either ambivalent or avoidant. Ambivalent mothers were described as demonstrating neediness and anxiety with spouses and infants through behaviours such as intrusiveness or anger, because their own needs were not being met. Avoidant mothers were described as valuing their independence and emotional self-sufficiency, and they actively distanced themselves from others when distressed. Compared to ambivalent mothers, avoidant mothers were hypothesised as less likely to experience PND. However, when the stress becomes severe, avoidant mothers might eventually experience increased depressive symptoms. Although this theory clearly explained how the nature of vulnerabilities to PND differed based on their attachment styles (ambivalent or avoidant), it did not describe how the

women's interaction within their social and cultural network could affect the development of PND.

2.3.2.5   Theory of Maternal Role Collapse

Amankwaa (2005) developed the theory of maternal role collapse to explain the experience of PND based on two interval interviews with 12 African-American women. Major components of this theory were: role stress, role strain, and role collapse. Role stress referred to the worry and concern experienced by the mothers during the postpartum period, whereas role strain concerned the emotional reaction to the stressful postpartum experiences. Role collapse referred to maladaptation to postpartum role stress that was characterised by PND. However, the explanations of PND by this theory mainly related to role of the mother, excluding other roles and underlying causes for PND.

2.3.2.6   Theory of Social Energy Exchange for Postpartum Depression

Posmontier and Waite (2011) viewed women with PND as recovering individuals in dynamic interaction with their social and cultural network. This was proposed in the theory of social energy exchange for postpartum depression. A woman with PND was seen as a dynamic individual who was actively seeking to achieve balance between herself (micro world) and her social and cultural network (macro world) through the free-flow exchange of social energy. This theory not only recognised the role of social and cultural context but also acknowledged the HCPs' role to facilitate the women's recovery from PND. Although it appeared that this is the most comprehensive model at explaining PND, it is not relevant to the scope covered in this present study. Apart from exploring the perspectives of women and HCPs, this present study did not directly include the views from communities, occupational system, and social and cultural networks, as suggested by the theory.

2.3.2.7   Biological theory

In addition to the above theories/models, there were also studies that linked PND with hormonal changes, such as adrenal, ovarian, placental, sex and peptid hormones (Wisner et al. 2002; Kendall-Tackett 2007; Donaldson-Myles 2012; Brummelte and Galea 2016). A recent systematic review suggested that the strongest PND risk predictors among biological processes were hypothalamic-pituitary-adrenal dysregulation, inflammatory processes, and genetic vulnerabilities (Yim et al. 2015). However, other authors reported that the contribution of hormonal

factors in development of PND remain weak and inconsistent (Robertson et al. 2003). Stewart et al. (2003) stated several limitations of biological studies in PND, such as taking blood samples at inappropriate times and discounting activities that can alter hormone levels (e.g., breastfeeding).

Overall, it can be concluded that PND experiences can be viewed as being influenced by psychological, social, and cultural constructs, or as a condition that results from biological changes. However, there appeared to be a consensus across the above theories/models that psychosocial influences tend to hold more weight for developing PND. Some theories were developed based on the data derived from a very specific culture and with a limited number of participants. Approaches used in the prior theories/model are considered insufficient to explain the phenomenon of PND in the social and cultural context without denigrating the medical concepts (biological factors). Considering the aim of this present study was to understand the perspectives of PND in Malaysia, by exploring experiences of women and HCPs in a multicultural context, none of the aforementioned theories seemed to be appropriate. Rather, the perspectives of PND in this study can be understood using critical realism as described below.

2.3.3   The contribution of critical realism to understanding mental health issues

As discussed in the last section (see Section 2.2.2) one can argue that sociocultural constructs may influence the experience of PND. Yet, another person may argue that PND is a disease or illness that results from biological changes. A practical solution to this lack of theoretical coherence is to consider merging these two views. This is supported by a theoretical position known as critical realism (Pilgrim and Bentall 1999). The aim of this section is to present an overview of the application of critical realism within mental health research, which has been particularly influential to this thesis, rather than to conduct a full review and criticism of critical realism. This section begins with a discussion of the features of critical realism, and is followed by examples of two articles that used critical realism in understanding depression/PND.

The philosophical basis of critical realism has been largely associated with the British philosopher Roy Bhaskar. Other contributors are Archer (1995), Collier (1994), Danermark et al. (2002), Lawson (1997), Outhwaite (1987) and Sayer (2000, 2010).

There are three distinctive features in Bhaskar's (1998) account of critical realism. Firstly, reality is distinguished by three domains: the 'real', the 'actual', and the 'empirical' (Figure 1). The 'real' acknowledges that the reality (e.g., postnatal depression) exists whether or not we experience it or have an understanding of it (Sayer 2000). The 'actual' refers to the manifestations of the reality (e.g., postnatal depressive symptoms) that occur due to the activation of mechanisms of the real. The 'empirical' specifically refers to what is directly or indirectly experienced or demonstrated (e.g., postnatal depressive symptoms as experienced by a woman).

Figure 1: Overlapping domains of critical realism

Domain of Empirical
Experiences (events that are observed and experienced)

Domain of Actual
Events (observed and unobserved) that are generated by mechanisms when activated

Domain of Real
Structures and mechanisms that can generate events
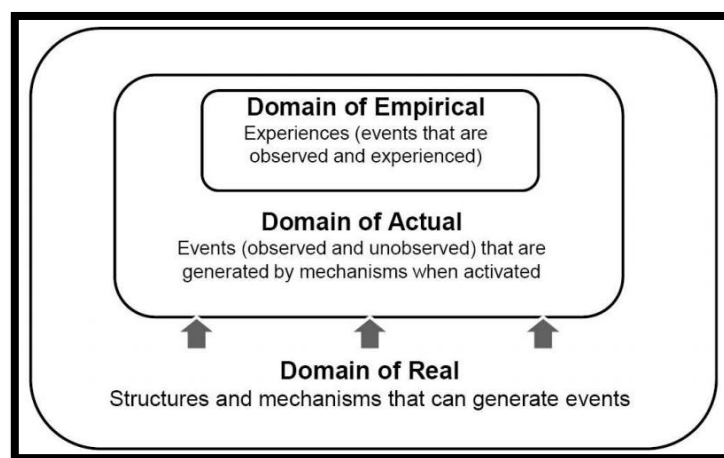
(Source: Mingers 2002)

Secondly, critical realism addresses the importance of causality by identifying causal mechanisms, understanding how they work, and discovering what conditions activate the mechanism or a specific event (Sayer 2000). Compared to critical realism, positivists focus on causality as the relation of cause and effect, that is produced through prediction of regularly occurring events or patterns (Robson 2002). In contrast, constructivists understand causality as the process of constructing meaning that is a result of the person's interpretation and understanding of that reality (Guba and Lincoln 1994; Appleton and King 2002; Rogers and Pilgrim 2005). Critical realists argue that the causality is not merely explained by what is observed and experienced, but produces in-depth explanations of the 'causal mechanisms' to offer more comprehensive explanations. With this in mind, critical realism is believed to go beyond both positivism and constructionism.

Thirdly, critical realism introduces two dimensions of knowledge: the intransitive and transitive (Bhaskar 1998; Sayer 2000; Danermark et al. 2002). While the intransitive

refers to the objects or real entities of scientific knowledge that constitute the natural and social world, the transitive includes the established facts, theories, models, paradigms, and techniques of inquiry available to a particular scientific discipline or individual (Outhwaite 1987; Bhaskar 1998). Critical realists argue that the social world is complex, as it is socially constructed and cannot independently exist without some transitive knowledge (Sayer 2000). Therefore, to understand a social world both intransitive and transitive knowledge cannot be studied in isolation.

There are a number of articles using critical realism to explain the complexity of mental health problems (Pilgrim and Bentall 1999; McEvoy and Richards 2007; Bergin et al. 2008; Bergin et al. 2010; Sword et al. 2012; Aalsma et al. 2014; Bonnington and Rose 2014; Eastwood et al. 2015; Gillard et al. 2015).

Pilgrim and Bentall (1999) used critical realism to explore some difficulties with the concept of depression. They argued that there was confusion and inadequacy in the current understandings of the concept of depression. One of the suggestions to improve this, was a recommendation to conduct more focussed research in a specific social context. However, such focus should consider a broader concept of depression, such as factors associated with family, social, and work life. It was also suggested that it is important to consider social methods of inquiry at the point of formulation (diagnosis) of depression and subsequent intervention. This requires seeking both the patient's individual attributed meanings of depression and external reality, rather than exclusively focusing on the end-point diagnosis of depression.

Sword et al. (2012) employed critical realism to identify the main mechanisms and factors associated with postpartum mental health and PND. Whilst they revealed several personal factors and mechanisms influencing postpartum mental health (e.g., physical recovery from labour and delivery, thought processes and expectations, personal insecurity, and implementation of proactive strategies to protect or enhance one's mental health), there was also an interplay between the personal and contextual factors found in this study. They suggested that research grounded in critical realism is needed to examine causative mechanisms underlying PND, especially among both women identified as being at risk and those at lower risk of PND.

Taking the critical realist approach allows me to consider that: (i) PND is a real condition; (ii) the signs and symptoms of PND can be experienced or observed; (iii) the causality of PND can be explored by identifying causal mechanisms,

understanding how they work, and discovering what conditions that activate the PND experience; and (iv) PND experience can be explained by marrying the medical concept and social context, but not to be studied separately. This approach is seen as a 'third way' between positivism and social constructionism and potentially offers a flexible approach to understand PND. Justification of using critical realism as a theoretical perspective in this thesis is explained further in Chapter 3 (see Section 3.3).

2.4 Prevalence of postnatal depression

In the previous section (see Section 2.2), theoretical approaches used to understand PND were presented. This work identified two key areas:

(i) There is variation in the definitions and theories used to explain PND.

(ii) There is an argument whether PND experience is influenced by sociocultural constructs or as an illness that resulted from biological changes.

This raises the question whether the variability in these findings could also be translated into epidemiological studies of the cases of PND worldwide. Previous reviews have shown that the prevalence of PND ranged widely from 0 to 60% globally, and from 3.5 to 63.3% in Asian countries (Halbreich and Karkun 2006; Klainin and Athur 2009). However, the current prevalence across different countries and cultures is unclear. The aim of this section is to present the current evidence on prevalence of PND by undertaking a scoping review. Specifically, the purposes are to:

(i) Provide recent epidemiological evidence of the prevalence of PND across different countries and cultures.

(ii) Identify specific epidemiological studies that have been carried out exclusively in Malaysia on the prevalence of PND.

2.4.1 Methods

The scoping review was undertaken in two stages: the initial review (at the outset of this thesis) and a more recent updated review. The initial review was conducted based on the search terms used by Halbreich and Karkun (2006). The updated review was conducted with an improved search strategy of the initial review (Table 2).

In both reviews, PND is defined as 'any depressive symptomatology occurring within the first postnatal year' (Dennis and Chung-Lee 2006, p. 324). However, to avoid any inclusion of postnatal blues in the reported prevalence, the time frame used in these reviews was 1-12 months following childbirth. Studies undertaken within the year 2006-2016 were included because they are more likely to reflect the current state of knowledge on PND. The largest review involving worldwide studies by Halbreich and Karkun (2006) only included articles up to 2005. This present review

was conducted using scoping review methodology reported in Joanna Briggs Institute Reviewers' Manual 2015 Methodology for JBI Scoping Review (Peters et al. 2015).

Table 2: Initial and updated review of prevalence of postnatal depression

	Initial reviews (2006-2014)	Updated reviews (2010-2016)
Databases	CINAHL, MEDLINE, PubMed, PsycArticles, PsychInfo, Web of Science, and The Cochrane Library.	CINAHL, PubMed, MEDLINE, PsyINFO and ASSIA.
Keywords	Prevalence, postnatal depression, and postpartum depression.	Incidence, prevalence, postnatal depression, postpartum depression, depression, maternal mental health, depressive disorders, puerperal disorders, emotional distress, low mood disorders, after childbirth, psychological distress.
Inclusion criteria	Peer reviewed articles published from 2006-2014, studies that report prevalence of PND within 1-12 months following childbirth, full text available, and English/Malay language publications.	Peer reviewed articles published from 2010-2016, studies that report prevalence of PND within 1-12 months following childbirth, and English/ Malay language publications.
Exclusion criteria	Review papers, and PND and/or postnatal women were not the focus of study.	Review papers, PND and/or postnatal women were not the focus of study, studies within psychiatric population, and studies that were conducted among high risk group of women.
Total of studies included in the final analysis	39	104

2.4.2   Results

Findings presented in this section are based on the summary of both the initial and updated reviews. The initial review identified 7896 articles, screened 80 abstracts, and identified 68 full text papers for inclusion. The updated review identified 4828 articles, screened 411 abstracts, and identified 156 full text papers for inclusion. Figure 2 and Figure 3 show the flow diagrams of search strategy used in the initial and updated review, respectively.

The common reasons for excluding the articles in both reviews were: they did not relate to PND/ did not publish within 2006-2014 (initial review) or 2010-2016 (updated review), were not conducted within 1-12 months following childbirth, were not focused on PND, were not reporting prevalence of PND, were review papers, were conducted among high risk groups of women, were not in English/Malay, were duplicate studies, were within a psychiatric population, and were conducted among fathers with PND.

Whilst the initial review finally included 39 articles, 103 articles were included in the updated review. A total of 17 studies were duplicates (found in both reviews) and ultimately 125 articles were included in the final analysis. These studies were conducted in more than 50 countries. Described in relation to continents, 58 studies were conducted in Asia, 30 in America, 23 in Europe, eight in Australia, five in Africa and one in New Zealand. Data extracted from each included study were instruments, sample size, time of assessment, study design, study setting, and prevalence of PND (Appendix 1).

Figure 2: Flow diagram of search strategy for prevalence of postnatal depression (initial review)

Identification

| CINAHL 198 articles | Cochrane Library 246 articles | MEDLINE 188 articles | PsycINFO 202 articles | Web of Science 7056 articles | PsycARTICLE 6 articles |

Screening

Transferred to RefWorks Bibliographic databases
7896 articles

Titles not related to PND/ not published within 2004-2014
7814 articles

Assessed for eligibility titles and years of publication (2004-2014)
82 articles

Eligibility

Duplicates removed
2 articles

Assessed for eligibility (abstract)
80 articles

Not meet with inclusion criteria
12 articles

Assessed for eligibility (full-text)
68 articles

Not meet with inclusion criteria
29 articles

Included

Included in qualitative synthesis
39 articles

Figure 3: Flow diagram of search strategy for prevalence of postnatal depression (updated review)
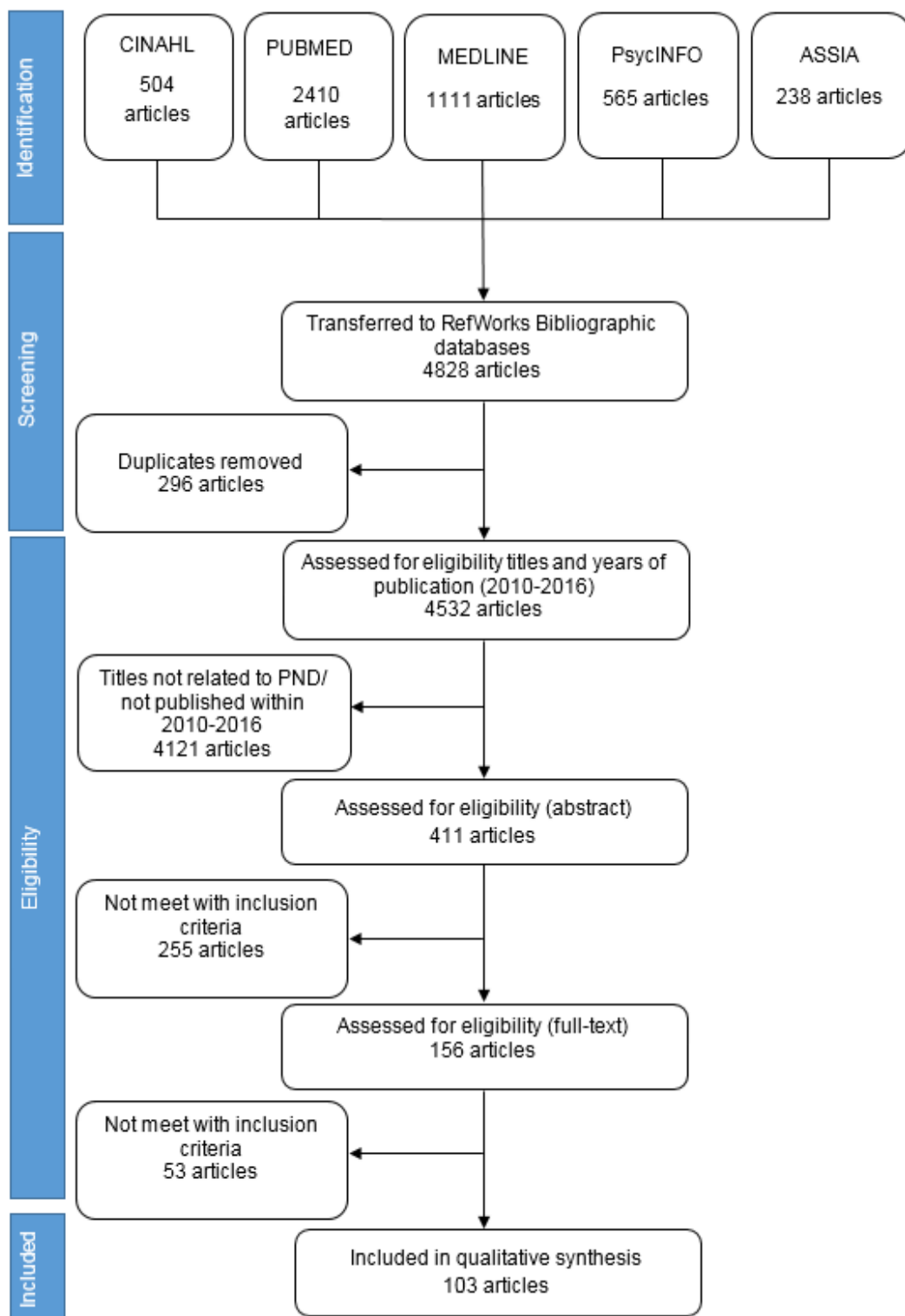
There were wide variations in the screening instruments and diagnostic tools used, although the Edinburgh Postnatal Depression Scale (EPDS) was the most common instrument applied to identify PND. Most studies included were cohort and cross sectional, however, study sample sizes and the timing of assessments varied across the 125 studies. For studies that assessed the prevalence at more than one time point, only the prevalence within 1-12 following childbirth were included in this review. The majority of the studies were conducted in community setting/outpatient maternity clinics, although there were also studies which analysed data from a large population-based survey.

Overall, the prevalence of PND ranged from 4.0% to 63.9%, with Japan and America recording the lowest and highest rates of PND, respectively (Mori et al. 2011; Le et al. 2010). Within continents, a wide variation in reported prevalence was also found. The prevalence of PND varied from 4.0-48.3% in Asia (Mori et al. 2011; Bolak Boratav et al. 2015), 5.0-63.9% in America (Gjerdingen et al. 2011; Le et al. 2010), 4.4-22.8% in Europe (Escriba-Aguir and Artazcoz 2011; Lambrinoudaki et al. 2010), 6.0-32.8% in Australia (Brooks et al. 2009; Austin et al. 2010), 7.2-50.3% in Africa (Guo et al. 2013; Stellenberg and Abrahams 2015), and 7.6-30.9% in New Zealand (Abbott and Williams 2006).

The problems of PND in Asian countries should not be underestimated as PND appears to be as prevalent as in American and European countries, and wide variations in rates has also been reported within countries. For instance, the reported prevalence of PND ranged from 15.8-46.9% in India (Gupta et al. 2013; Johnson et al. 2015) and 9.4-27.4% in China (Wu et al. 2014; Deng et al. 2014).

In Malaysia, the prevalence of PND ranged from 6.8-27.3% (Zainal et al. 2012; Kadir et al. 2009). A total of five Malaysian studies were published between 2006 and 2016 and were included in this review (Azidah et al. 2006; Wan Mohd Rushdi et al. 2006; Kadir et al. 2009; Zainal et al. 2012; Mohamad Yusuff et al. 2015). The prevalence reported in these studies differed as there were differences in study instruments, sample size, time of assessment, study design, and study setting. The EPDS with a cut-off point of 12 was used in all studies except one (Zainal et al. 2012). The times of assessment used to assess PND in these studies were 4-6 months following childbirth. The sample size ranged from 293-979 with a total of 2458 postnatal women involved in the five studies. Three of the studies used a cross sectional design; one was a prospective cohort and one was a population survey. Three of these Malaysian studies were conducted in maternal and child health

(MCH) clinics, whereas two of them were conducted in postnatal clinics at the teaching hospital. Whilst three of these studies focussed mainly on Malay women, two included women from other cultural backgrounds, such as Chinese, Indian, and other ethnic minorities (Zainal et al. 2012; Mohamad Yusuff et al. 2015).

2.4.3   Discussion and conclusion

This scoping review found that the prevalence of PND to range from 4.0%-63.9% with Japan and America recording the lowest and highest rates of PND, respectively (Mori et al. 2011; Le et al. 2010). Within continents, a wide variation in reported prevalence was also found. This finding is consistent with an earlier finding of a review of 143 studies across 40 countries that identified the prevalence of PND ranged from 0-60% (Halbreich and Karkun 2006). As with their review, this present review also indicated that the widely cited prevalence of PND as being 10-15% (O'Hara and Swain 1996) does not represent the actual magnitude of PND problems worldwide.

Although the reasons of the wide range of prevalence shown in this present review may also be explained by the inconsistency in the estimated sensitivity and specificity of the EPDS (as being used in the majority of the studies in this review) (Eberhard-Gran et al. 2002), this could be linked to cross-cultural differences and how the women understand and interpret items in the EPDS. The EPDS was designed specifically by Cox et al. (1987) to identify symptoms of PND. It is the most widely used PND screening instrument with community-based populations in the United States and internationally (Gaynes et al. 2005; Gibson et al. 2009). The EPDS consists of 10 statements describing depressive symptoms with some reverse coded items with four possible responses, which are 0, 1, 2, and 3, with each score according to PND symptoms severity or duration. The total score is calculated by adding together the scores for each of the ten items with an overall score ranging from 0 to 30 (Pallant et al. 2006). Cut off scores for screening is typically set at ≥ 10 or ≥ 13. Nevertheless, some cultures may define unique clusters of symptoms that differ from the western concept of PND (Grigoriadis et al. 2009). This means the standard measurements that have been developed within western culture like the EPDS, may not capture the localised expressions of depressive symptoms, and therefore lack conceptual equivalence. As indicated earlier (see Section 2.2.1 and 2.2.2) there is variability of the definitions and theories used to define and explain PND, hence it may be possible that the women have different

explanations of their PND experience which may go beyond the 10 items included in the EPDS.

The prevalence of PND in Malaysia ranged from 6.8-27.3%, which has shown that the cases of PND were not as low as had initially been reported by two earlier reviews (Halbreich and Karkun 2006; Klainin and Athur 2009). In their international review of prevalence of PND, Halbreich and Karkun (2006) reported that there were very few reports of PND in Malaysia with a rate of 3.9%. Similarly, Klainin and Athur (2009) stated that the prevalence of PND in Malaysia was only 3.5%, the lowest prevalence reported in Asian countries. Their finding was based on the review of 64 studies from 17 Asian countries conducted between 1998 and 2008. Both reviews presented their findings based on the only one Malaysian study published in 1997 (Kit et al. 1997). This study was the earliest published study on the prevalence of PND in Malaysia. Kit et al. (1997) conducted their study among 154 postnatal women from three main Malaysian cultural backgrounds: Malay, Chinese and Indian and reported that the rate of PND in Malaysia was 3.9% (Kit et al. 1997). There was a recent review by Norhayati et al. (2015) that reported that the prevalence of PND in Malaysia at 4-6 weeks was 20.7%, but they also based this on only one study (Azidah et al. 2006). The prevalence of PND reported in this present review was made based on the results of five current studies in Malaysia.

It seems clear that the rates of PND in Malaysia are not as low as reported by the international and Asian studies. Yet it is still unclear whether the wide range of reported prevalence of PND is due to variation in actual cases or to incorrect reports caused by use of instruments to diagnose PND that are inappropriate to the population and culture in Malaysia where, for example, there may be the stigma of a socially unacceptable reaction.

Although the instruments used in the studies of the prevalence of PND (such as the EPDS) were translated into the Malay language, again, items covered in these instruments may not fully match with the Malaysian understanding of PND. It was for this reason that Grace et al. (2001) recommended that a qualitative approach is essential to explore PND experience amongst Malaysian populations. Prior to this recommendation, they studied the relationship between PND, somatisation and behaviour in Malaysian women using two established instruments: the EPDS and the Bradford Somatization Inventory (BSI). They used both instruments to measure PND with the expectation that BSI may have picked up symptoms not shown by the

EPDS. However, they found there was moderate correlation between the EPDS and the BSI suggesting that the BSI would not detect PND cases missed by the EPDS.

Despite contributing to a current magnitude of PND problems across 50 countries, this review has two limitations that should be addressed. First, it only included the English/Malay articles in the chosen databases, which may have limited the generalisability of the findings. Second, the methodological quality of the included papers was not assessed, therefore the time assessment of PND and inclusion criteria (such as maternal age, presence of medical and obstetrical problems, and socioeconomic status) varied across the studies. However, an effort has been made to include only rates reported after four weeks postnatal, therefore minimising the possibility of the inclusion of postnatal blues instead of PND.

Overall, the reported rates of PND in Malaysia are much higher than that previously documented with a range of 6.8-27.3%. The reasons of this variability may not be fully explained. It is unclear whether this is due to variation in actual cases or to the use of inappropriate instruments in assessing PND. This review calls for a complementary qualitative study that could explain the nature of PND experience in Malaysia reasons for these variations.

2.5 Qualitative synthesis of women's experience of postnatal depression

As discussed above, the scoping review of the prevalence of PND across different countries identified varying rates of PND, from from 4.0-63.9% globally. This raises the question whether PND is a universal medical diagnosis as defined by the DSM-5 or ICD-10 or whether it is more socially and culturally bound resulting in a wider set of signs and symptoms expressed across different cultures. The aims of this qualitative synthesis were to:

i.   Understand women's experience of PND in different countries and cultures.
ii. Determine whether the experience of PND is a universally shared experience that is similarly expressed across the world.
iii. Identify specific qualitative studies that have been carried out exclusively in Malaysia on women's experience of PND.

2.5.1 Methods

The method for data analysis was based on the approach suggested by the Cochrane Collaboration i.e based on the purpose of the review. Since the aim of this qualitative synthesis was 'to identify domains and themes related to the women's experience of PND as experienced by women from across cultures', it seemed reasonable to use a thematic synthesis. Thematic synthesis allows researchers to identify the recurring concepts across the primary qualitative studies, analyse these concepts closely and transparently, and draw new ideas and interpretation (Khan et al. 2007; Thomas and Harden 2008). In this review, the development of the conclusions was based on the three stages: free line-by-line coding of textual findings, organisation of 'descriptive themes' and generation of 'analytical themes' (Thomas and Harden 2008). Upon exporting the selected papers to Nvivo software, the first step of the analysis began with coding the textual findings of each paper by reading the findings line-by-line. Based on this coding, the 'descriptive themes' were developed and then were compared and contrasted across the studies. Next, the new interpretive constructs of the descriptive themes (the analytical themes) were developed. The development of 'descriptive themes' and 'analytical themes' were conducted through discussion with my two PhD supervisors to generate final consensus regarding themes, and to verify credibility and confirmability of the findings. As a result of this collaborative analysis, nine subthemes were identified, which were then categorised under three main themes (see Section 2.4.2).

Inclusion and exclusion criteria

The inclusion criteria included: qualitative methods of data collection and analysis (either a stand-alone study or a discrete part of a larger mixed method study); peer reviewed publication; studies that were carried out among women who had been diagnosed with PND by HCPs, and/or women who self-reported, and/or self-identified having some level of distress within 1-12 months following childbirth; scope of the primary studies included experience of PND; women of all ages and parity; and published in English/Malay in academic journals between 2006 and 2016. Studies published between the year 2006 and 2016 were included because they are more likely to reflect the current state of women's experience of PND. Studies were limited to the English/Malay language due to a lack of translation resources. Studies were excluded if they were not peer reviewed papers and not published in English/Malay and had no citations or abstract.

Search strategies

The following online databases were searched: CINAHL, PubMed, MEDLINE, PsyINFO and ASSIA. Keywords used in various combinations were: postnatal depression, postpartum depression, experience, perspectives, and qualitative studies. References lists of included studies were inspected in order to capture relevant references. The assessment for eligibility of the studies conducted in three different stages included: screening titles, abstracts and full text (Figure 4).

Figure 4: Flow diagram of search strategy (women's experience of postnatal depression)

| Identification | CINAHL 244 articles | PUBMED 151 articles | MEDLINE 105 articles | PsycINFO 230 articles | ASSIA 105 articles |

Screening

Transferred to RefWorks Bibliographic databases
835 articles

Duplicates removed
310 articles

Eligibility

Assessed for eligibility titles and years of publication (2006-2016)
525 articles

Titles not related to PND/ not published within 2006-2016
377 articles

Assessed for eligibility (abstract)
148 articles

Not meet with inclusion criteria
99 articles

Assessed for eligibility (full-text)
49 articles

Not meet with inclusion criteria
22 articles

Included

Included in qualitative synthesis
27 articles

As can be seen from Figure 4, 835 journal articles were identified and transferred to a bibliographic database Refworks. A total of 310 articles were excluded as they were duplicates. The remaining 525 articles were screened for the title and year of publication (2006-2016). This identified 377 articles that were not published within the years and titles that were not related to experience of PND. The abstracts of the remaining 148 articles were screened. At this stage only 49 studies met the inclusion and exclusion criteria, therefore, 99 papers were excluded. A further 22 articles were discarded for the following reasons: nine conducted assessment of PND before four weeks or beyond 12 months following childbirth, seven included non-depressed women in their study, and six did not focus on women's experience of PND.

This resulted in 27 articles being included based on the inclusion and exclusion criteria highlighted above. These studies were examined further to confirm that the main focus was on the women's experience of PND. The selected articles were then included in the review. Papers were appraised using Critical Appraisal Skills Programme (CASP) (Public Health Resource Unit 2006). The main purpose of using CASP was to assess the quality of the papers and provide insights into the methods and methodology used in the primary studies.

2.5.2   Findings

The selected studies were conducted in ten different countries: four studies in America, four in Canada, two in South Africa, eight in the UK, one in Norway, four in Australia, one in New Zealand, and three in Asia. No study carried out in Malaysia was found. The majority of the studies 74% (n= 20) were conducted among local ethnic women while the remaining 26% (n=7) were conducted among immigrant women. The characteristic of included studies is presented in Appendix 2. The overall quality of the included papers was high, with five studies meeting all of the CASP criteria and 22 meeting most of the criteria. The most common methodological weaknesses were related to the issues of reflexivity (not reported in 16 studies). The CASP quality assessment is presented in Appendix 3. Analyses of the results of studies included in this paper have been organised under thematic clusters of: (i) *symptoms;* (ii) *attribution of the symptoms*; and (iii) *help seeking behaviour*.

Across the wide range of cultural context represented in the included studies, women shared their experience of PND by explaining recognition the symptoms,

attributions of the symptoms, barriers and facilitators of seeking help, and coping strategies. Whilst the women discussed the distress they had after their childbirth, the majority of them were not able to recognise these as depressive symptoms. Women from various cultural backgrounds shared common ways of explaining the causes of PND although some factors/elements may only be applicable to certain cultures. Many women reported barriers to seeking help from HCPs, and only a few of them acknowledged triggers that facilitated their help seeking behaviour. The majority of the women were more likely to discuss self-help methods rather than professional help to cope with their distress.

2.5.2.1 Symptoms

Women commonly described the experience of PND by acknowledging changes in their normal self, including sadness and unhappiness, increased in irritability, and somatic symptoms. They linked their sadness and unhappiness with emotional pain, tearfulness, 'so much tension', feeling guilty, really anxious, and self-blaming (Williamson and McCutcheon 2007; McCarthy and McMahon 2008; Morrow et al. 2008; Sword et al. 2008; Kathree and Petersen 2012; Wittkowski et al. 2012; Coates et al. 2014; Kathree et al. 2014; Edhborg et al. 2015). Women, particularly those in studies from South Africa revealed that they had irritable moods such as feeling angry and intrusive thoughts and suicidal ideation. In one study this irritability was translated into their aggressive behaviours such as hitting children and even stabbing their husband (Kathree et al. 2014). Somatic symptoms were reported by women in Canada, South Africa, Taiwan, and Bangladesh. The symptoms included difficulty in sleeping, being forgetful, weight loss, lacking an appetite, stomach pains, chest pains, headache, dizziness, low or high blood pressure, jaundice, urinary problems, gastric problems, and having trouble walking after childbirth (Chen et al. 2006; Morrow et al. 2008; Sword et al. 2008; Kathree et al. 2014; Edhborg et al. 2015). Compared to others, women from USA, Canada and South Africa appeared to talk more about the symptoms, especially about sadness and unhappiness after childbirth.

2.5.2.2 Women's attribution of the symptoms

Attribution of the symptoms refers to women's causal explanation of PND, including three subthemes: *social circumstances, biophysical factors* and *cultures and traditions.* The women's attribution of PND was primarily associated with their social circumstances which were reported by almost all of the studies. Whilst women across cultures acknowledged biophysical factors as contributing to PND, the significance of cultures and tradition were particularly discussed in three Asian studies (Gao et al. 2010; Chen et al. 2006; Edhborg et al. 2015). Details of women's causal explanations are discussed below.

Social circumstances

Social circumstances referred to women's situational surroundings that influenced or coincided with their experience of PND. Women across cultures related their experience of PND with a lack of support from social network, financial problems, multiple roles, and problematic interpersonal relationships.

Women described PND as being mainly related to a lack of support from their social networks which led them to feelings of isolation, fear, frustration, helplessness, and feelings of being ignored (Buultjens and Liamputtong 2007; Chen et al. 2006; Hanley and Long 2006; Morrow et al. 2008; Abrams and Curran 2009; Dennis and Moloney 2009; Callister et al. 2011; Kathree and Petersen 2012; Wittkowski et al. 2012; Vik and Hafting 2012; O'Mahony et al. 2013; Coates et al. 2014; Kathree et al. 2014; Edhborg et al. 2015; Shafiei et al. 2015).

Concerns about financial constraints as a cause for PND was raised by diverse groups of women, including American, South African Indian, Welsh, Chinese, Bangladeshi, and immigrant women in USA and Canada (Hanley and Long 2006; Morrow et al. 2008; Abrams and Curran 2009; Gao et al. 2010; Callister et al. 2011; Kathree and Petersen 2012; O'Mahony et al. 2012; Kathree et al. 2014; Edhborg et al. 2015).

A number of studies found that women with PND encountered difficulty in coping with their multiple responsibilities as a new mother and that put extraordinary pressure on them (Buultjens and Liamputtong 2007; Chen et al. 2006; Hanley and Long 2006; Morrow et al. 2008; Abrams and Curran 2009; Dennis and Moloney 2009; Homewood et al. 2009; Callister et al. 2011; Vik and Hafting 2012; Edhborg et al. 2015). The sense of inability to fulfil expected roles became significant when there was mismatch between maternal expectation and the reality of becoming a

mother (Buultjens and Liamputtong 2007; Hanley and Long 2006; Morrow et al. 2008; Chew-Graham et al. 2009; Dennis and Moloney 2009; Bilszta et al. 2010b; Gao et al. 2010; Callister et al. 2011; Vik and Hafting 2012; Wittkowski et al. 2012; Coates et al. 2014).

Issues related to problematic interpersonal relationships such as marital problems, conflict with family members and in-laws were highlighted across different studies (Buultjens and Liamputtong 2007; Chen et al. 2006; Morrow et al. 2008; Abrams and Curran 2009; Bilszta et al. 2010b; O'Mahony et al. 2013; Kathree et al. 2014; Edhborg et al. 2015). This became evident when Australian women reported that their partner was not understanding and was unsympathetic towards the way they were feeling and this lead to frustration (Buultjens and Liamputtong 2007). Asian immigrant women in Canada described conflicts with their mother-in-law who they often described as unfair or unsupportive, coinciding with PND (Morrow et al. 2008).

Women from different cultures appeared to believe that their social context could contribute to PND. However, what made them more vulnerable was if they perceived their roles as a new mother as unexpected, overwhelming and stressful.

Biophysical stressors

Women interpreted biophysical stressors as one of the causes of PND. The stressors they described included physical and mental exhaustion, difficult birth experiences, breastfeeding experiences, and hormonal changes.

Most of the women in this review considered that stressful events during the postnatal period led to PND and that it was related to health problems and tiredness due to having difficulty in settling the baby and breastfeeding, a demanding schedule, lack of sleep, and household chores (Buultjens and Liamputtong 2007; Chen et al. 2006; Hanley and Long 2006; McCarthy and McMahon 2008; Morrow et al. 2008; Abrams and Curran 2009; Dennis and Moloney 2009; Gao et al. 2010; Kathree and Petersen 2012; Vik and Hafting 2012; Coates et al. 2014; Kathree et al. 2014; Edhborg et al. 2015; Shafiei et al. 2015). Women in western countries expressed their exhaustion by describing motherhood as 'less or no reward', 'being unable to escape', 'not worth', and 'no-win' situation (Buultjens and Liamputtong 2007; Hanley and Long 2006; Dennis and Moloney 2009; Kathree and Peterson 2012). Asian women appeared to regard this as 'collapsing', 'cursing' 'feeling drained' and 'had no physical strength' (Chen et al. 2006; Gao et al. 2010; Edhborg et al. 2015).

Women also attributed PND to traumatic childbirth such as emergency caesarean section, expressing the feeling that they 'couldn't really recover', 'stressful', and 'frightening during labour and delivery' (Buultjens and Liamputtong 2007; Abrams and Curran 2009; Kathree and Petersen 2012; Coates et al. 2014; Edhborg et al. 2015).

Pressure to breastfeed was described as compounding the women's distress and gave them the greatest sense of failure especially among women who had high expectations of breastfeeding (Coates et al. 2014; Gao et al. 2010; Homewood et al. 2009).

The role of hormonal changes in contributing to PND was not mentioned except in three studies conducted in Canada, New Zealand, and the UK (Sword et al. 2008; Chew-Graham et al. 2009; McCarthy and McMohan 2008). Compared to women living in their home country, immigrant women spoke less about the biophysical factors. Cultures and traditions appeared to be an important factor for Asian women and they discussed these as much as they discussed biophysical stressors.

Cultures and traditions

Traditional practices and beliefs were perceived to protect mothers from PND in some cultures, but could also contribute to a negative impact in another community. For example South African women enjoyed postnatal rituals and these were perceived to be calming, soothing, assisting with pain relief, and promoting deep sleep (Kathree and Petersen 2012). Findings from a study among immigrant women in Canada indicated that a lack of postnatal cultural traditions had reduced the women's support system and made them more vulnerable to PND (Morrow et al. 2008; O'Mahony et al. 2012). Conversely, for many Asian women, traditions were identified as one of the contributing factors to PND (Gao et al. 2010; Chen et al. 2006). For example, the traditional postnatal practice of 'doing the month' required the women to stay inside the house for a month was described as 'being in prison' and losing of control over themselves (Gao et al. 2010; Chen et al. 2006).

There were two factors that were only mentioned by Asian women: gender preference of the baby and the existence of an 'external power'. The issues associated with giving birth to a baby girl made Bangladeshi, Chinese and Indian women experience strained relationships with their husbands and in-laws as they believed that their in-laws blamed them for not being able to give birth to a male child (Morrow et al. 2008; Gao et al. 2010; Edhborg et al. 2015). Similarly, the

existence of an external power also has been associated with PND in Asian cultures, particularly among South Asian and Chinese women although one Australian study mentioned that bad powerful source as related to PND. A few mothers in these communities mentioned 'evil eye', 'evil fortune', and 'satanic whisper' as the 'external power' (Chen et al. 2006; Williamson and Mccutcheon 2007; Wittkowski et al. 2012; Edhborg et al. 2015)

While the majority of the women from different cultures discussed social circumstances and biophysical stressors, Asian women were more likely to discuss the factors of cultures and traditions. Although the women's perceived causes of PND appeared to affect their help-seeking behaviours, this also seemed to be influenced by barriers and triggers to seeking help.

2.5.2.3 Help seeking behaviour

Help seeking behaviour refers to the women's social behaviour in seeking assistance from others, including both formal and informal sources. Women discussed barriers and triggers to seeking help, their coping styles and what interventions they perceived as helpful to manage their emotional distress in the future.

Barriers to seeking help

With the exception of Asian women, women from the various cultures included in this review discussed barriers to seeking help. There were three levels of barriers discussed: personal, social and the healthcare system.

At a personal level, women described not wanting to disclose the symptoms of PND for many reasons, including: (i) concern it would make them 'feel weak', (ii) a desire to present a 'coping' image, (iii) fear they would be judged as a 'bad mother', and (iv) fear of having their children being referred to social services (Buultjens and Liamputtong 2007; Hanley and Long 2006; Shakespeare et al. 2006; McCarthy and McMahon 2008; Morrow et al. 2008; Sword et al. 2008; Chew-Graham et al. 2009; Dennis and Moloney 2009; Bilszta et al. 2010b; Slade et al. 2010; Callister et al. 2011; Kathree and Petersen 2012; O'Mahony et al. 2012; Wittkowski et al. 2012; O'Mahony et al. 2013). Women were also found to have limited understanding of PND, did not recognise and/or normalised the symptoms, and believed that their distress would get better by adopting self-help measures (Buultjens and Liamputtong 2007; Hanley and Long 2006; Shakespeare et al. 2006; Morrow et al.

2008; McCarthy and McMahon 2008; Sword et al. 2008; Bilszta et al. 2010b; Slade et al. 2010; Callister et al. 2011; Wittkowski et al. 2012; O'Mahony et al. 2013; Coates et al. 2014; Shafiei et al. 2015).

At a social level, many women reported that there was a cultural stigma attached to PND, preventing them from seeking help. This stigma was found across a range of cultures and appeared to contribute to the women's feelings of being 'viewed differently' from other mothers in their culture (O'Mahony et al. 2013; Bilszta et al. 2010b; Williamson and McCutcheon 2007; Shakespeare et al. 2006). Women believed that their social network, including husband, family and friends had a limited understanding of PND, had normalised their feelings, and had not encouraged them to get professional help (Hanley and Long 2006; McCarthy and McMahon 2008; Morrow et al. 2008; Sword et al. 2008; Bilszta et al. 2010b; O'Mahony et al. 2012; Wittkowski et al. 2012; O'Mahony et al. 2013).

At a healthcare system level, women reported that the HCPs attempted to normalise their depressive feelings and felt that they were discouraged from pursuing help for PND (Hanley and Long 2006; Shakespeare et al. 2006; Morrow et al. 2008; Sword et al. 2008; Chew-Graham et al. 2009; Dennis and Moloney 2009; Bilszta et al. 2010b; Callister et al. 2011 Wittkowski et al. 2012; O'Mahony et al. 2013; Coates et al. 2014; Kathree et al. 2014; Shafiei et al. 2015). They also were unclear and uncertain about the role of HCPs. Some thought the HCPs were not an appropriate source of assistance for their emotional distress (Shakespeare et al. 2006; Morrow et al. 2008; Chew-Graham et al. 2009; Bilszta et al. 2010b; Slade et al. 2010;Callister et al. 2011; O'Mahony et al. 2013) although the reasons of this were not clearly discussed.

Triggers to help seeking

For some women their help seeking was prompted by positive relationships with HCPs and when they reached crisis point. The supportive HCPs were described as 'good listener', 'goddesses', and 'understanding and unrushed' (Shakespeare et al. 2006; O'Mahony et al. 2013; Coates et al. 2014; Shafiei et al. 2015). Women also reported that they were prompted to seek help upon receiving encouragement from their husband/partner, family members, and friends (Sword et al. 2008; Slade et al. 2010; McCarthy and McMahon 2008). Some women reported that they made a conscious decision to seek assistance or were forced to disclose their feelings when they reached at crisis point and had no other choice (McCarthy and McMahon 2008;

Sword et al. 2008). For instance, women might have had awareness of when they were not feeling 'like themselves' such as not enjoying their daily living, being forgetful, experiencing thoughts of self- harm, inability to think clearly and logically (Sword et al. 2008; Bilszta et al. 2010b; Slade et al. 2010). Some women reported that they chose professional help for various reasons, others stated that self-help and informal social support were helpful in coping with their distress.

Coping styles

Social support, self-help and professional support were identified by the women as improving their distress.

Having a supportive social network was reported as helpful for the majority of the women. Support and reassurance received from female relatives, husbands, parents, in-laws, and siblings were emphasised as helping them coping with PND within their family setting (Morrow et al. 2008; O'Mahony et al. 2013; Shafiei et al. 2015).

Women from different cultures seemed to learn specific self-help ways of reducing their distress. Asian women, both living in their home country or abroad were more likely to describe self-help and social support as ways of coping and did not describe professional help at all (Chen et al. 2006; Wittkowski et al. 2012; Edhborg et al. 2015; Shafiei et al. 2015). Whilst immigrant women in Canada and South Asian women in England reported that spiritual and religious beliefs were helpful, European women were more likely to talk about recognising their own needs and personal adjustment such as keeping busy and getting out the house every day (Homewood et al. 2009; O'Mahony et al. 2012; Vik and Hafting 2012; Wittkowski et al. 2012; Coates et al. 2014).

Women in Western countries including Australia, New Zealand, UK, and US were more likely to discuss the usefulness of professional support (Buultjens and Liamputtong 2007; Hanley and Long 2006; Shakespeare et al. 2006; Williamson and McCutcheon, 2007; McCarthy and McMahon 2008; Homewood et al. 2009; Slade et al. 2010; Callister et al. 2011). Receiving professional support such as psychologically informed sessions, listening visits, regular home visits, and telephone-based services were described by the women as helpful for promoting their mental well-being. (Hanley and Long 2006; Shakespeare et al. 2006; McCarthy and McMahon 2008; Morrow et al. 2008; Homewood et al. 2009; Slade et al. 2010; O'Mahony et al. 2013).

In addition to the above coping styles, women expressed the need for support that went beyond the conventional medical treatment. This included education about PND, talking therapy, culturally appropriate care, treatment during home visit, and on-going relationship with HCPs (Shakespeare et al. 2006; Bilszta et al. 2010b; Callister et al. 2011; Wittkowski et al. 2012; O'Mahony et al. 2013; Wittkowski et al. 2012; Kathree et al. 2014).

2.5.3   Discussions and conclusions

This review highlights that although women acknowledged changes in themselves after their childbirth, they were often not able to recognise these as depressive symptoms. They believed that the causes of PND were largely related to social circumstances, biophysical stressors, and cultures and traditions. Whilst other causes were common across cultures, the issues of cultures and traditions were more common in Asian women. Comparable to other literature, this review suggests that non-performance of postnatal traditions and rituals has been inconsistently associated with PND and that performance of some postnatal traditions is associated with PND (Fisher et al. 2004; Lee et al. 2004; Rahman et al. 2003; Chan et al. 2002). The trend towards modernisation, migration and globalisation may reduce the capability of a woman to follow tradition rituals or to feel pressured when they are asked to follow the practices that they no longer believe (Dennis et al. 2007).

The majority of the women reported that they felt that their depressive symptoms could not be resolved by healthcare treatments. Lack of knowledge of PND and the cultural stigma were also described as important factors in delayed diagnosis. These findings were in accordance with Dennis and Chung-Lee (2006), who revealed that the lack of knowledge about PND or the acceptance of myths was a significant help-seeking barrier and rendered mothers unable to recognise the symptoms of PND.

There was a lack of understanding about the roles and responsibilities of the HCPs with regards to supporting psychological health among new mothers. For instance, women spoke about the health visitor's role in relation to the infant, and typically did not understand the part of the health visitors' role in providing emotional care for the mother (Slade et al. 2010). The quality of a woman's relationship with her health visitor, and the health visitor's interpersonal skills appeared crucial in determining the quality of experiences of postnatal care (Slade et al. 2010). In their analysis of qualitative studies on PND conducted between 1999 and 2005, Knudson-Martin and

Silverstein (2009) suggested that it is important to have education programmes and relationship therapy to teach husbands/partners, friends, family, and HCPs to notice and respond to women's depressed feelings. Such education programmes not only promote the roles of HCPs with regards to management of PND, but also establish mutual empathic support between practitioners and community.

Generally, supportive social networks were reported as helpful for the majority of the women. This finding suggests that interventions should more focus on empowerment of social support rather than pharmacological intervention because antidepressant medication, for example, was found to be undesirable and stigmatising for women with PND (Williamson and McCutcheon 2007; Sword et al. 2008; McCarthy and McMahon 2008; Slade et al. 2010; Callister et al. 2011). A qualitative systematic review conducted on PND help seeking barriers and maternal treatment preferences concluded that women preferred to have ''talking therapies'' with someone who was nonjudgmental rather than receive pharmacological interventions (Dennis and Chung-Lee 2006). The intervention also, should be culturally appropriate and not depend fully on existing frameworks (Rahman 2007). Asian women, both living in their home country or outside appeared to mention self-help and social support as ways of coping and did not at all talk about professional help. Again, this could be associated with their understanding that PND is caused by social and cultural factors therefore believed that seeking professional help may not be necessary.

While this review represents the cross-cultural literature on the women's experience of PND, there were several limitations that must be addressed. First, this review only includes the published studies in the past 10 years and therefore left the unpublished studies and those studies published not within the limited years remains uncovered. Second, the wide variations in PND measures, qualitative approach used, assessment time frame and focus of interview guide create challenges for comparing findings across studies. For instance, the experience of suicidal ideation was mentioned in several studies but not in all. This probably resulted from the inclusion of suicidal ideation as one of the symptoms of PND in the screening tools used in that particular study therefore, it was further explored during interview session. Other studies, which used different tools or methods, may have different interview guides or study focus. In spite of these limitations, this review addresses an important gap in understanding the women's experience of and perception towards PND, their help seeking styles and how the cultural background affecting perceptions and patterning their coping mechanism, collectively.

Four important conclusions can be made from this review. First, there was no qualitative study that has been carried out in Malaysia on the women's experience of PND. Second, regardless of their cultures, women commonly were not able to recognise their emotional distress after childbirth as PND. Third, although social circumstance and biophysical stressors were described as factors contributing to PND across cultures, the issues of cultures and traditions were more common in Asian women with performance of postnatal traditions and rituals has been associated with PND. Fourth, the women's coping styles were not only influenced by their causal explanation of PND but were also triggered by what resources were available and accessible in their communities.

Overall, it can be concluded that PND is a set of medical diagnosis as defined by the DSM with some influence from societal and cultural interpretation and labelling of symptoms. Women from different countries and cultures shared similarities and differences in describing experiences of PND with some experiences that were not common in another part of the world. This suggests that experience of PND is not a fully shared experience that is similarly expressed by woman across the world, possibly due to influence of an interpretive lens resulting in PND being interpreted differently from one person to another (Walsh and Evans 2014).

2.6 Qualitative synthesis of healthcare practitioners' perceptions of postnatal depression

It is recommended by the WHO that HCPs should have appropriate skills to assess psychological distress in women attending for antenatal and postnatal healthcare (WHO 2008). It is also important to include HCPs' views in developing interventions for PND. However, little is known about the perceptions of HCPs about PND and its management. The aims of this review are to:

  i. Understand HCPs' experience of caring for PND in different countries and cultures.
  ii. Identify any qualitative study that has been specifically carried out in Malaysia on HCP's perceptions of PND.

2.6.1 Methods

The methods used in this review are comparable to the qualitative synthesis conducted for women with experience of PND (see Section 2.4.1). Five themes were identified and they are presented in the following section (see Section 2.5.2).

Inclusion and exclusion criteria

The inclusion criteria were studies that: described HCPs experience of caring for women with PND, were carried out among HCPs (e.g., midwives, nurses, health visitors, doctors, general practitioners, and paediatrician), used qualitative methods of data collection and analysis (either a stand-alone study or a discrete part of a larger mixed method study), have been peer reviewed, and published in English/Malay in academic journals between 1983 and 2016. The year 1983 was chosen because it saw the first publication of theory on PND in the academic literature. Studies were limited to the English and Malay languages due to a lack of translation resources. Studies were excluded if they were not peer reviewed papers, and not published in English/Malay.

Search strategies

The following online databases were searched: CINAHL, PubMed, MEDLINE, PsyINFO and ASSIA. Keywords used in various combinations were: healthcare practitioners, postnatal depression, postpartum depression, experience, perspectives, and qualitative studies. References lists of included studies were

inspected in order to capture relevant references. The assessment for eligibility of the studies conducted in three different stages included: screening titles, abstracts and full text (Figure 5).

Figure 5: Flow diagram of search strategy (healthcare practitioners' perspectives of postnatal depression)

CINAHL
256 articles

PUBMED
273 articles

MEDLINE
198 articles

PsycINFO
205 articles

ASSIA
127 articles

Identification

Transferred to RefWorks Bibliographic databases
1058 articles

Screening

Duplicates removed
351 articles

Assessed for eligibility titles and years of publication (1983-2016)
707 articles

Titles not related to PND/ not published within 1983-2016
617 articles

Assessed for eligibility (abstract)
90 articles

Eligibility

Not meet with inclusion criteria
60 articles

Assessed for eligibility (full-text)
30 articles

Not meet with inclusion criteria
15 articles

Included

Included in qualitative synthesis
15 articles

Initially, 1058 journal articles were identified and transferred to a bibliographic database *Refworks*. A total of 351 articles were excluded as they were duplicates. The remaining 707 articles were screened for the titles and this identified that 617 articles were not related to perspectives and experience of caring for women with PND. The abstracts of the remaining 90 articles were screened. At this stage only 30 studies met the inclusion and exclusion criteria, therefore excluding 60 papers. A further 15 articles were discarded for the following reasons: 12 were not focused on the experience of caring for women with PND, one was a duplicate, one was not conducted among HCPs, and one was a quantitative study. Finally the search identified 15 studies which specifically provided information related to experience of caring for women with PND based on the inclusion criteria.

2.6.2   Findings

The 15 selected studies were conducted in eight different countries: five studies in Australia, three in the UK, two in USA, one in Brazil, one in Canada, one in Greek, one in Mexico, and one in Slovenia. No study conducted in Malaysia was found. A total of 267 HCPs were involved: 10 studies used face to face in-depth interviews, three used focus groups, one used telephone interview, and one used a combination of interviews, observations, and field diary records. All studies were conducted among HCPs except one study which also included women with PND and community members. The characteristic of included studies is presented in Appendix 4. The overall quality of the included papers was high, with one study meeting all of the CASP criteria and 14 meeting most of the criteria. The most common weakness of the included studies was related to the issues of reflexivity (not reported in 13 studies). The CASP quality assessment is presented in Appendix 5. Analyses of the results of studies included in this paper were organised under the thematic clusters of: (i) *understanding postnatal depression*; (ii) *perceived causes*; (iii) *managing women with postnatal depression*; (iv) *challenges and limitations*; and (v) *strategies for interventions*.

Although HCPs had various ways of expressing their understanding of PND, the majority of them agreed that PND was caused by both women's own experience and their social circumstances. Despite acknowledging their roles in managing PND, HCPs reported several limitations in the management of PND. Such limitations were not only derived from their limited knowledge about PND but were also affected by a lack of resources within healthcare system and by women's understanding of PND. Considering these limitations, the majority HCPs believed that strategies to improve

the management of PND should include upgrading healthcare services and raising awareness within the society.

2.6.2.1   Understanding postnatal depression

Healthcare practitioners across studies commonly discussed PND based on signs and symptoms although some explained it on the basis of consequences of PND. Those who conceptualised PND based on its signs and symptoms relied mainly on observational or empirical signs, including withdrawal, sadness, lack of interest in the infant, and weight loss (Heneghan et al. 2007; Mivsek et al. 2008; Junior et al. 2013; Agapidaki et al. 2014; Place et al. 2015). Another way that HCPs described PND was based on the impacts it could bring on the functioning and wellbeing of the women, the child and the family (Lloyd and Hawe 2003). These impacts included the woman's inability to fulfil maternal duties, self-harm or harm of others, child abuse, and developmental problems for the child (Lloyd and Hawe 2003; Agapidaki et al. 2014; Place et al. 2015). There were HCPs who did not conceptualise all distress as PND. These HCPs viewed PND as 'a worry about their condition and their situation at home', 'emotional turmoil rather than depression' or described the distress as 'pathologised' or exaggerated by the women (Lloyd and Hawe 2003; Chew-Graham et al. 2008; Place et al. 2015).

2.6.2.2   Perceived causes

The explanation of the causes of PND by the HCPs primarily derived from psychosocial factors with less of them describing biological factors. In this review, psychosocial factors refer to women's psychological aspects and their interactions with their social network. Two psychosocial factors discussed here are women's personal factors and social circumstances.

Women's personal factors refer to adjustment to motherhood and their personality. Healthcare practitioners reported that women were more likely to develop PND when they were unable to accept the changes of motherhood (Lloyd and Hawe 2003; Belle and Willis 2013; Bilszta et al. 2010a; Place et al. 2015). A study conducted among HCPs in Mexico reported that they believed that PND occurred when a woman failed to adapt to features of motherhood such as decreased sleep, the stress of taking care of a newborn, and the modifications in family dynamics (Place et al. 2015). Another study reported that HCPs perceived that where a

woman's personality was 'prone to perfection' this may contribute to PND (Mivsek et al. 2008).

Compared to the women's personal factors, social circumstances were more often discussed by the HCPs as factors contributing to PND. The majority of the HCPs attributed PND mainly to social circumstances such as a lack of social and family support, and financial problems and unemployment (Lloyd and Hawe 2003; Belle and Willis 2013; Agapidaki et al. 2014; Place et al. 2015). Some mentioned a previous history of mental health problems or depression, unplanned pregnancies, unfulfilled expectations, difficult birth, and child's health problems (Chew-Graham et al. 2008; Belle and Willis 2013; Agapidaki et al. 2014; Place et al. 2015). In addition to these circumstances, HCPs stated that media always portrayed mothers as being very glamorous and this could result in underestimation of the difficulties that the women may experience following childbirth. They explained that not only do women have unrealistic expectations of motherhood but the community does not understand the magnitude of change that women, partners and families go through (Lloyd and Hawe 2003; Bilszta et al. 2010a; Belle and Willis 2013). In summary, HCPs' causal explanations of PND were mainly associated with psychosocial factors. A comparison of the perceived causes between studies or countries could not be made as the causes were not reported in six studies (McConnell et al. 2005; Brown and Bacigalupo 2006; Heneghan et al. 2007; Teng et al. 2007; Junior et al. 2013; Rush 2012). The role of hormonal imbalance in development of PND was only mentioned in two studies (Junior et al. 2013; Place et al. 2015).

2.6.2.3   Managing women with PND

When discussing the management of PND at their level, there was mixed opinion as to whether caring for women with PND was part of their roles. Those who did not see this as part of their responsibilities justified this saying that they 'had nothing to offer women themselves and no resources to refer women to', 'have no role in the prevention and treatment of PND', 'were not familiar with PND', and that PND has to be treated by other HCPs (e.g., general practitioner, psychologists, psychiatrist) (Chew-Graham et al. 2008; Mivsek et al. 2008; Place et al. 2015; Junior et al. 2013).

Some HCPs appeared to believe that it was part of their responsibilities to help women with PND. They reported that they had to provide them with the opportunity to discuss and explore 'what is normal' and 'what is depression' in relation to postnatal adjustment during consultations or visits (Bilszta et al. 2010a; Agapidaki et

al. 2014). For instance, psychologists in Mexico appeared to consider themselves as 'the professionals who determined the legitimacy of PND', community health nurses in Australia seemed to see maternal sadness as 'distinct to her role', and paediatricians in USA appeared to believe themselves part of women's support system because they 'have frequent contact' with the women (Heneghan et al. 2007; Belle and Willis 2013; Place et al. 2015).

Healthcare practitioners who acknowledged their roles in the management of PND also discussed their responsibilities in making diagnosis and initiating treatment and support for the women. One of the initial strategies for making the diagnosis as reported by the HCPs was identification of the signs of PND. The most commonly reported approach used by the HCPs to identify the symptoms were through general assessment in their routine care and using the EPDS (Place et al. 2012; Rush 2012; Belle and Willis 2013; Agapidaki et al. 2014). Healthcare practitioners, including social workers, nurses, health visitors, physicians, and paediatricians mentioned that they looked for 'observable depressive symptoms' during medical exams or when obtaining patients' vital signs or social histories (Agapidaki et al. 2014; Place et al. 2015). To facilitate the maternal disclosure of depressive symptoms, HCPs believed that a good relationship with the women should be established (Heneghan et al. 2007; Chew-Graham et al. 2008; Mivsek et al. 2008; Agapidaki et al. 2014).

Making referral was commonly mentioned by the HCPs when discussing managing or initiating treatment for women with PND (Junior et al. 2013; Rush 2012; Belle and Willis 2013; Agapidaki et al. 2014). They explained that the purpose of making referral was to ensure that the mother would get help from a mental health specialist and to ensure that the woman and the child were safe (Agapidaki et al. 2014). Depending on which discipline they were in, the referral centre could be general practitioners, parenting services, mother and baby units, social workers, psychologists, or psychiatrists (Junior et al. 2013; Rush 2012; Belle and Willis 2013). Treatment options for PND were not discussed in any study except one Australian study (Rush 2012). Rush (2012) explored the experience of responding to women with PND among eight MCH nurses in Australia. Among treatment options mentioned by the nurses were open sessions, additional visits/phone calls, new parents' groups, support groups, and special programmes (e.g., baby steps and 'managing motherhood').

2.6.2.4 Challenges and limitations

Although some HCPs recognised their roles in the management of PND, this was challenged by numerous limitations that came from their personal boundaries, the healthcare system and women's society. While HCPs from other countries repeatedly mentioned these limitations, Australian HCPs seemed to less likely to discuss this (Rush 2012; Bilszta et al. 2010a).

At the practitioners' level, the most common barriers reported across the studies were time constraints and inadequate knowledge (Heneghan et al. 2007; Mivsek et al. 2008; Junior et al. 2013; Rush 2012; Agapidaki et al. 2014). Time-limited visits were seen as not promoting the establishment of HCPs-women relationships therefore reduced the ability to detect depressive symptoms (Mivsek et al. 2008). Lack of knowledge and training resulted in: (i) misunderstanding of the signs and symptoms of PND; (ii) inability to differentiate PND from other type of maternal distress; (iii) uncertainty in detecting mild postnatal depressive symptoms; (iv) unreadiness to respond to women in an efficient way; (v) lack of comfort in approaching women who could potentially be suffering from PND; (vi) underestimating of the incidence of the problem; (vii) incorrectly labelling depressive symptoms as a normal part of motherhood; and (viii) conducting the assessment of PND based on women's appearance and childcare skills, and their communication styles (Abrams et al. 2009; Bilszta et al. 2010a; Mivsek et al. 2008; Junior et al. 2013; Place et al. 2012; Agapidaki et al. 2014).

Healthcare practitioners also mentioned there were inadequacies within the healthcare system. Two limitations repeatedly mentioned were lack of resources and absence of policy regarding management of PND. Inadequate resources reported by the HCPs as interfering the management PND were: lack of expertise in maternal mental health, lack of free and available community mental health services, lack of collaboration between community services and mental health services, and the absence of assessment tools within the clinical practice (Heneghan et al. 2007; Teng et al. 2007; Chew-Graham et al. 2008; Mivsek et al. 2008; Place et al. 2012; Agapidaki et al. 2014). Without the policy or guidelines, HCPs viewed that their practice contexts should prioritise the women's and children's physical well-being rather than maternal mental health.

Women's views and perceptions of PND were also described by the HCPs as an important influence on the management of PND. They reported that their care was

challenged when the women had fears of being stigmatised. They described that women were: often hesitant to use psychotropic medication, would not be receptive to an option like referral, often did not acknowledge feelings of depression or anxiety, and of believing that they should always display an image of good mother (Heneghan et al. 2007; Teng et al. 2007; Chew-Graham et al. 2008; Abrams et al. 2009; Bilszta et al. 2010a; Agapidaki et al. 2014). Such stigmatisation were seen by the HCPs as limiting the women's willingness to get help for their emotional distress.

2.6.2.5 Strategies for improvement

Having recognised limitations in delivering care for women with PND, HCPs proposed several strategies to improve this. The most common strategies mentioned across the studies were upgrading the healthcare system and creating awareness about PND within the society. Again, such interventions were more likely to be discussed by the HCPs from other countries such as Greek and USA but were not widely described by the HCPs in Australia.

There were various potential interventions suggested by the HCPs to upgrade the healthcare services in relation to maternal mental health. It was found that HCPs were aware of women's preferences for non-medical language and resistant to taking on an illness perspective with regard to mental health care (Abrams et al. 2009; Bilszta et al. 2010a). It was based on these explanations that HCPs recommended framing treatment for PND to be non-judgmental and not fully based on the medical model (Heneghan et al. 2007; Abrams et al. 2009; Bilszta et al. 2010a). Training courses were suggested by the HCPs as building their confidence and improving their knowledge about PND (Heneghan et al. 2007; Teng et al. 2007; Agapidaki et al. 2014). Early detection of postnatal depressive symptoms was also suggested although there were mixed views about whether or not to use screening tools (Heneghan et al. 2007; Bilszta et al. 2010a; Junior et al. 2013; Agapidaki et al. 2014). Availability of appropriate physical facilities, accessibility of a mental health specialist for consultation in the community setting, and collaboration between community health and mental health services were also seen by the HCPs as helpful ways of delivering healthcare services for women with PND (Heneghan et al. 2007; Bilszta et al. 2010a; Agapidaki et al. 2014).

To create awareness within societies, HCPs proposed that targeted interventions for the prevention of PND could involve mothers, partners, family, community networks, and local governments (Lloyd and Hawe 2003; Heneghan et al. 2007; Mivsek et al.

2008; Bilszta et al. 2010a; Junior et al. 2013; Agapidaki et al. 2014). Parenting classes and a telephone information hotline was suggested as ways to provide women with information and support to reduce the stress of parenting and to alleviate depressive symptoms (Heneghan et al. 2007). Although the mechanism of these interventions remained unspecified, HCPs believed that such interventions if designed to increase awareness could contribute to the elimination of PND stigmatisation (Agapidaki et al. 2014).

2.6.3   Discussions and conclusions

It could not be concluded whether or not HCPs from different countries shared similar definitions of PND as this was not directly reported in all studies. This was because not only was the focus of the studies different, but the way HCPs talked about PND also varied across the studies. What can be understood from this review is that the HCPs' experience of caring for PND across different countries and cultures was not totally different from one to another. However, the way that they perceived their roles in the management of PND appeared to be influenced by the availability of policy and guidelines and training received regarding maternal mental health. For instance, the majority of Australian HCPs were less likely to report limitations in the management of PND as compared to HCPs from other countries, suggesting that they had received more training on maternal mental health (Tong 1999; Lloyd and Hawe 2003; Belle and Willis 2013). Rush (2012) reported that the majority of MCH nurses in her study said that they felt confident in responding to PND because of familiarity with local GPs and counsellors, self-education, clinical supervision, and on-the-job experience. In Australia, there were various resources available with regard to PND: pamphlets of emotional health during pregnancy and early parenthood, screening programmes for PND, and various interventions for mothers at risk of PND such as additional consultations by home visit, clinic visit or telephone (Rush 2012; Belle and Willis 2013). Presumably, the presence of these resources made the HCPs in Australia were more likely to report that they felt confident in managing PND, regardless which level they were.

This review found no qualitative studies on HCPs' perceptions of PND in Malaysia. Findings from a small scale quantitative study conducted in a teaching hospital in Malaysia suggested that more than 50% of nurse-midwives confused PND with postnatal 'blues' (Keng 2005). This clearly indicated a lack of knowledge of PND among Malaysian nurses. However, the quantitative approach used limited further explanation of the misconception.

Overall, this review drew two important findings. Firstly, although the experience of caring for women with PND across different countries was not totally different, the way that HCPs perceived their roles in managing PND appeared to be influenced by the presence or absence of the policy and guidelines. Secondly, there was no qualitative study that had been carried out in Malaysia on the HCPs' perspectives of PND. Therefore understanding of how Malaysian HCPs perceive and understand PND and their roles in managing PND is beneficial to uncover details of the management of PND in the clinical practices in Malaysia.

2.7 The context of postnatal depression in Malaysia

Although the two qualitative syntheses showed that there was evidence about women's experience and HCPs' views of PND, there is a lack of qualitative studies conducted across the multicultural community and this may minimise the cross-cultural equivalence. In Malaysia, neither qualitative studies of women's experience of PND, nor qualitative studies on HCPs perceptions about PND have been published. Considering these limitations, this present study was developed to include women with experience of PND as well as their HCPs in a multicultural country, Malaysia. The purpose of this section is to provide an overview of the multicultural background of Malaysia and to understand how these elements were linked with PND. Towards the end of this section, a review of policy regarding management of PND in the Malaysian healthcare system is also presented.

2.7.1 Multicultural background of Malaysia

Malaysia, a multi-ethnic country located in Southeast Asia. It covers an area of 329,847 square kilometres and has a total population of over 28.3 million (Department of Statistics Malaysia 2010; Khader 2012). Malaysian citizens comprise three main races, including Malay (53.3%), Chinese (26.0%) and Indian (7.7%) (Khader 2012). Another 13% of the Malaysian population is made up by other ethnic populations in Sabah and Sarawak (Ishak 2009).

While the Malays are regarded as the local or native population, the Chinese and Indian population in Malaysia today are descendants of those who originally migrated before the independence of Malaysia from Southern China and Southern India, respectively (Chee et al. 2005). The Malaysia population, therefore, has a wide-range of cultural and ethnic backgrounds that offers a great opportunity to understand the different role of cultures and postnatal practices in relation to PND. Those differences, as well as similarities, should be acknowledged as associated traditions may affect the women's experience of PND (Fisher et al. 2004; Lee et al. 2004; Rahman et al. 2003; Chan et al. 2002).

2.7.2 Healthcare system in Malaysia

The healthcare system in Malaysia is comprised of a combination of both the private and public sector. Private clinics and hospitals are widely accessible in the urban areas and managed by non-government companies. The public sector is operated by the Ministry of Health (MOH) and is the main healthcare service, encompassing a

system of hospitals and primary care clinics. Hospital services provided by the MOH consist of small district hospitals in towns, to large hospitals in larger urban areas (Country Report 2006). In the primary care settings the MOH provides healthcare services under a two tier system, including small clinics (also known as community clinics) and larger community polyclinics (also known as health clinics).

Whilst community clinics provide healthcare services for approximately 2,000 to 4,000 mothers and children in rural areas (Jaafar et al. 2007), the health clinics offer a comprehensive range of services in larger towns and urban regions of approximately 15,000 to 20,000 persons (Ministry of Health Malaysia 2012). Currently, health clinics often include a mix of the following health professionals: family medicine specialists; medical officers; physiotherapists; occupational therapists; nurses; assistant medical officers; nutritionists; and dieticians (Mustapha et al. 2014).

Maternal and child health (MCH) clinics are attached to the health clinics. Generally, these are managed by the nurses and a medical officer. It should be noted that in next section, 'the nurses' refer to community nurses, registered nurses, nurse-midwives, and head nurses.

2.7.2.1 Nursing and Midwifery in Malaysia

There are several tiers of the nurses in Malaysia: community nurses, registered nurses, nurse-midwives, and head nurses. A community nurse is a person who has undergone a formal course of community nurse education (two years training in the community nursing college). A registered nurse is a person who has undergone a formal course of nursing education (either three years diploma or four years degree programme), and registered with the Malaysian Nursing Board (Malaysia Nursing Board 2015). A nurse-midwife (or known as midwife in the UK) is a registered nurse who has successfully completed a one year course of studies in midwifery, and has acquired the requisite qualifications to be registered, and legally licensed to practice midwifery (Ministry of Health Malaysia 2013). This is contrast to the UK system, where midwives have their own separate training, and do not have to study nursing first. A head nurse is a registered nurse or a nurse-midwife who generally will have had 15 years working in clinical practices.

The different levels of nurses (community nurses, registered nurses, nurse-midwives, and head nurses) work collaboratively to manage pregnant and postnatal mothers in the MCH clinic. They are trained and educated to provide healthcare

services offered within the clinics. Such services are largely provided by the community nurses and nurse-midwives. In general, community nurses provide care for low risk mothers, while nurse-midwives provide care for high risk mothers. When it is necessary, they may refer an abnormal case to the head nurse and/ or the medical doctor for further care and treatment.

Healthcare services offered within MCH clinics include antenatal, postnatal, and child care (Country Report 2006). Antenatal care begins when a pregnant woman visits the clinic for the antenatal booking assessment around 10 to 12 weeks of gestation and continues until the birth. In this first visit, community nurses or nurse-midwives perform antenatal assessment, which includes: height and weight, last menstrual period (LMP), family history of diseases such as diabetes and high blood pressure, breast examination, blood tests, estimated due date (EDD), and a urine test (to check for protein and glucose levels). Subsequent visits mostly follow the schedule of: once a month until the seventh month of pregnancy (first booking-28th week), fortnightly in the eighth month of pregnancy (32nd-36th week), and once a week from the 37th week until delivery (BabyCenter 2015). In these visits, the community nurse or nurse-midwives conduct routine assessments such as: fetal movement, urine test for protein and glucose, blood pressure, body weight, and abdominal palpation. They also conduct the Oral Glucose Tolerance Test (OGTT) and assist in ultrasound scans when it is required (BabyCenter 2015).

Most women give birth in a maternity hospital, where they will be looked after during labour by nurse-midwives, medical doctor and/ or obstetrician. Postnatal care includes home visits, breastfeeding guidance, and family planning, which is also delivered by the community nurses and/ or nurse midwives. Malaysian Ministry of Health guidelines for home visits are a total of eight visits, 1st, 2nd, 3rd, 4th, 6th, 8th, 10th and 20th postnatal days by the community nurses or nurse-midwives (Kaur and Sigh 2011). On the 42nd postnatal day, a routine examination for mother and baby is performed at the MCH clinic by the medical officer. Child healthcare services covered by the community nurses or nurse-midwives include child immunisation, child development monitoring up to four years of age, nutrition assessment, and food supplement for those under-weight, and home visits for high risk babies and malnourished children (Country Report 2006).

In addition to the aforementioned roles, the nurses who work in the MCH clinics serve as link between the mothers and health services, educate and advise mothers within healthcare services, and play an important role in the prevention of maternal

mortality and morbidity and of premature, stillbirth, and neonatal deaths (Manap 1975).

The services offered by the MCH clinics play a major role in the promotive and preventive care for the urban and rural population. The referral system connects primary health care facilities with the hospitals (Ministry of Health Malaysia 2008). Both health clinics and hospitals have common policies and operating procedures to facilitate management of referred cases. Community clinics are able to refer to health clinics or directly to the hospitals, according to established patient-management protocols (Mustapha et al. 2014).

2.7.3   Management of perinatal mental health in Malaysia

It should be noted in the aforementioned discussion (Section 2.7.2) that the focus of antenatal and postnatal care within the MCH clinics in Malaysia is more on physical health. Ng (2014) suggested that one of the reasons for the undiagnosed depressed cases in Malaysia is related to the HCPs' over focus on physical issues. Such a focus results in less attention on the roles of managing mental health issues within their clinical practice. For instance, as previously mentioned (section 2.6.3), more than 50% of Malaysian nurse-midwives confused PND with postnatal 'blues' (Keng 2005). The international guidelines for diagnosing PND (e.g., DSM-5 and ICD-10) are not commonly used within the MCH clinics, although the DSM-5 has been widely used within psychiatric setting in Malaysia.

Yusuff et al. (2015) recommended that management and referral of depressed women should be included in Malaysian maternal health policy in order to prevent PND. Yet, there is no formal mechanism or assessment to detect PND in the MCH clinics. Although several screening tools have been translated into the Malay language with established psychometric properties (e.g., Beck Depression Inventory (BDI), Depression, Anxiety and Stress Scale (DASS), Edinburgh Postnatal Depression Scale (EPDS), Hospital Anxiety and Depression Scale (HADS), and Patient Health Questionnaire 9 (PHQ-9)), these are not routinely applied within the clinics (Mukhtar and Oei 2011). Rather, they have only generally been used in research studies on depression or PND.

Without a specific policy on screening and care for maternal mental health problems, antenatal or postnatal women with any mental health issues (including PND) are commonly referred from MCH clinic to the psychiatric unit in the hospital.

When it is required, they are then treated within the same psychiatric setting as patients with general depression, and other psychiatric problems.

The local guideline for managing general depression is known as Clinical Practice Guideline (CPG) for the Management of Depression (Ministry of Health Malaysia 2007). While this local treatment guideline recommends both psychotherapy and pharmacotherapy (Ng 2014), the main form of treatment for depression in community settings and hospitals in Malaysia is pharmacological treatment (Razali and Hasanah 1999). In severe cases of puerperal psychosis, pharmacotherapy or electro-convulsive therapy is the main choice of treatment. Monotherapy with selective serotonin reuptake inhibitor is the first line of pharmacotherapy treatment recommended in the guideline (Ng 2014).

Although psychotherapy for the treatment of depression are applied clinically in Malaysian clinical settings, there is less emphasis on the psychological aspects in the process of disease recognition and understanding, particularly for depression (Deva 2006). There is also no empirical evidence to suggest that such use has been established, and therefore it is still unknown whether psychological instruments for the assessment of depression, and the theories for depression are valid and reliable for use in Malaysia (Mukhtar and Oei 2011). There is also less attention to primary prevention such as public education, awareness programmes, and screening activities, although they have been recommended for all levels of the population (Yusuff et al. 2015; Ng 2014).

2.7.4   Screening tools for postnatal depression

As discussed in Section 2.7.3, the common assessment tools used to screen for depression in Malaysia are: BDI, DASS, EPDS, PHQ-9, and HADS (Mukhtar and Oei 2011). These tools have been translated into the Malay language and their psychometric properties have been established (Mukhtar and Oei 2011).

The BDI is one of the most commonly used screening tools either in a clinical setting or in research on depression worldwide (Stahl 2000). The use of BDI as an instrument to measure levels of depressive symptoms in Malaysia has also been established with the Cronbach's alpha between 0.56 to 0.90, and test-retest reliability between 0.56 to 0.87, indicating acceptable reliability (Mukhtar and Oei 2011; Oei and Mukhtar 2008). The Depression Anxiety Stress Scale (DASS) is commonly used to screen for depression among general populations within outpatient clinics in Malaysia. The Cronbach's alpha and test-retest reliability for

DASS-21 are between 0.74–0.83 and 0.82–0.84, respectively, indicating good reliability. The Cronbach's alpha of the PHQ-9 and HADS is 0.67 and test-retest reliability is 0.73, indicating good reliability (Mukhtar and Oei 2011).

While the abovementioned instruments have been validated within Malaysian population, they are commonly used to screen for general depressive symptoms. They were not specifically designed for screening for postnatal depressive symptoms. Considering the limitations of these validated instruments, the EPDS and the PHQ-2 was chosen to screen for postnatal depressive symptoms in this study. The reasons for using these two instruments simultaneously are presented in Chapter 3 (Section 3.7.1.1).

The EPDS was developed by Cox et al. (1987). It is a self-administered questionnaire designed specifically to measure the risk of PND (Cox et al. 1987). It consists of 10 items with four response scores of 0, 1, 2, and 3 according to increased severity of the symptoms (Siti et al. 2014). The total score of the EPDS ranges from 0 to 30. The reliability and validity of the Malay version of the EPDS has been verified (Kadir et al. 2004; Wan Mohd Rushidi et al. 2003). It was found to have good internal consistency with Cronbach's alpha 0.86, and split half reliability with Spearman split half coefficient 0.83 (Wan Mohd Rushidi et al. 2003). The score of 11.5 represents the optimum cut-off point for 72.7% sensitivity, 95% specificity, and positive predictive value of 80% (Kadir et al. 2004). As the cut off of 11/12 was recommended to determine a woman at risk of developing PND (Yusuf et al. 2015; Wan Mohd Rushidi et al. 2003), women with an EPDS score ≥12 were categorised as having depressive symptoms in this study.

The PHQ was developed by Spitzer et al. (1999). It is the most commonly used screening tool for the initial screening for major depression in primary care (worldwide) (Mitchell et al. 2016). The PHQ-9 consist of 9 questions regarding depression: 8 questions assess symptoms and 1 question assesses functional impairment. The questions are scored on a scale of 0 to 3 (Kroenke et al. 2001). The PHQ-2 is the 2-item version utilising only the first two questions of the PHQ-9. The two items include 'loss of interest' and 'low mood' for the past 2 weeks, scored by simple linear scoring using a threshold of 2 or higher (Kroenke et al. 2003). These items are adequate for the first step of assessing depression in primary care (Mitchell et al. 2016). The PHQ-2 is shorter than the PHQ-9, and other diagnostic instruments available in Malaysia for identifying depression (Mukhtar and Oei 2011).The validity and reliability of the Malay version of the PHQ was conducted by

Sherina et al. (2012). The PHQ was found to be a valid and reliable instrument for detecting depression in primary care. Although the PHQ-2 is not validated in the Malay version, these two items were tested within the psychometric test of the PHQ-9. Sherina et al. (2012) suggested that the PHQ-9 had a sensitivity of 87% (95% confidence interval 71% to 95%), a specificity of 82% (74% to 88%), positive Likelihood Ratio (LR) of 4.8 (3.2 to 7.2), and negative LR of 0.16 (0.06 to 0.40). The sensitivity of the PHQ-9 at the cut-off value of 10 and above was 87% and the specificity was 82%.

2.7.5   Postnatal practices in Malaysia

There are slight differences in the postnatal practices among the three main cultures in Malaysia, such as in defining the period of the confinement. However, they share several similarities in terms of the key elements used in the postnatal practice, dietary restrictions, and companions for the postnatal period.

Within the Malaysian communities, the postnatal period is commonly referred to as postnatal confinement. In Malay society, the postnatal period is called *masa dalam pantang* (Ministry of Health Malaysia 2014) and both mother and baby are expected to remain house-bound for around 44 days. In Chinese communities, the postnatal period is the point from the baby's birth up to one month later, whereas the postpartum period in the Indian community refers to the period after the childbirth until between 30 and 40 days later (BabyCenter 2014b).

The elements of herbs, heat and massage are traditionally practiced among newly delivered women in Malaysia, as a means of avoiding any health problems (BabyCenter 2014a). Among Malaysian communities, there is a practice of avoiding 'cooling food' such as cucumber and cabbage during postnatal confinement as these practices are said to enhance the blood circulation and toughen the joints of the mother (BabyCenter 2014a).

In the postnatal period, most of the women will be taken care of by their own mother or mother-in-law. In this situation, some new mothers may have different views and beliefs from their caregivers, such as whether or not to follow restrictions in confinement diet and traditional practices of bathing and massage. Given that the sociocultural contexts of motherhood have a link with PND, an understanding of this concept in the Malaysian context may be of value (Buultjens and Liamputtong 2007).

2.7.6 The sociocultural context of postnatal depression in Malaysia

In the past 30 years, Stern and Kruckman (1983) have suggested that the incidence of PND was lower in Asian compared to western countries. Culturally based postnatal behavioural constraints were speculated as protecting Asian women from PND. However, with the changes from traditional to modern lifestyles in recent decades, this may no longer be the case in Malaysian society. In fact, some of the sociocultural elements have been highlighted in two Malaysian studies as being contributing factors towards development of PND (Azidah et al. 2006; Grace et al. 2001).

Azidah et al. (2006) explored the association between sociocultural practices during the postnatal period and PND in Malaysia. This cross sectional study employed the EPDS to screen 421 pregnant women between 36-42 weeks of pregnancy, 1 week and 4-6 weeks postnatal. They found that women undertaking traditional practices such as consuming traditional medication and practicing traditional massage were found to have 10-fold risk of getting PND. Azidah's findings corresponded to the earlier result by Grace et al. (2001) who studied a smaller sample size of 145 postnatal women in Seremban General Hospital, Malaysia. The women provided data at six months postnatal regarding participation in three traditional practices: birth patterning, warming practices and following a special diet. Their findings indicated that a stronger adherence to traditional postnatal practices was linked with a higher depression score although this was not statistically significant. Both researchers hypothesised that women with higher levels of PND were more likely to participate in traditional postnatal practices and/or that some element or substances in traditional practices may play a role in the development of PND. Furthermore, during the postnatal confinement period, Malaysian women were not allowed to leave the 'confinement house' and they were expected to adhere to certain traditional practices to avoid unwelcomed consequences (Azidah et al. 2006). In this case, postnatal women probably suffered from depressed feelings without any assistance or referral to an appropriate channel. However, both studies used a quantitative design which may have limited the information on the nature and experience of PND in Malaysia.

2.7.7　Policy document review and analysis

The review of the HCPs' perspectives and experiences of caring for women with PND (see Section 2.5.3) found that the absence of policy or guidelines about management of PND could influence how they viewed their roles in managing women with PND. It was therefore important to investigate whether relevant policies were available in Malaysia. The aim of the policy document review was to explore policy relating to PND and to identify any relevant pathway or guidelines for the management of women with PND in Malaysia.

2.7.7.1　Method

A general search on google was conducted to explore potential websites associated with healthcare policy in Malaysia. The websites of the Ministry of Health (MOH) Malaysia, the Malaysian Psychiatric Association, the Academy of Medicine Malaysia, and the Malaysian Mental Health Association were searched. Keywords used individually or combined were: postnatal depression, post-natal depression, postpartum depression, post-partum depression, maternal mental health, mothers and women. No relevant documents were found on the websites except from the website of the MOH. A range of different documents were identified from this website ranging from clinical practice guidelines, health services policy, and health bulletins. The search was restricted to 2000-2016 as it was felt this was related to the implementation of community mental health programme in Malaysia (which begins in 2000). Eleven documents were identified which were then read and summarised (Table 3). However, none of these were directly related to the management of PND.

Table 3: Included policy documents

Title	Year
Community Mental Health in Malaysia: Marriage of Psychiatry and Public Health	2000
Laws of Malaysia: Act 615- Mental Health Act 2001	2001
Clinical Practice Guidelines: Management of Major Depressive Disorders	2007
Ministry of Health Malaysia Strategic Plan 2006 – 2010	2008
National Strategic Plan for Non-Communicable Disease (2010-2014)	2010
General Hospital without Consultation-Liaison Psychiatrist	2010
Psychiatric and Mental Health Services Operational Policy	2011
Country Health Plan: 10th Malaysia Plan 2011-2015	2011
The Mental Health Development in Malaysia: History, Current Issue and Future Development	2013
Home Visiting	No Date
Traditional Postnatal Care in Restoring Women's Physical and Mental Health Executive Summary	2015

2.7.7.2 Findings and discussion

The provision of mental health services in Malaysia is relatively new. In the early 1900s the mental health policy was based on British and Indian law (Chong et al. 2013). In 2001, the National Mental Health Act was introduced. This act encompasses detailed policy guidelines for the delivery of mental health services that brought huge changes to the mental health system in Malaysia. Despite this achievement, it was argued that the act treats mental disorders as a medical problem, rather than a phenomenon that is triggered by a whole range of psychosocial factors within the larger society (Crabtree and Chong 2001).

A year before the act was enforced, community mental health was launched. This resulted in mental health care in Malaysia moving from hospital-based settings towards community-based care. There are two forms of community mental health services: formal and informal. Whilst formal services are linked with primary care services provided in a community, informal services are provided by local community members other than HCPs, including traditional healers, community support groups, and non-government organisations (Jamaiyah 2000). Despite having a well-planned and comprehensive programme, the implementation of the community mental health service had faced several challenges. This included resistance to change from both psychiatrists and public health personnel. For example, some psychiatrists were hesitant to change from illness-oriented to wellness-oriented approaches, and some HCPs in the community were hardly involved with people who had mental disorders. There was also a lack of mental health practitioners (e.g., clinical psychologists, community mental health nurses), a lack of continuity care, problems in referral (especially for district hospitals without psychiatrists), and a lack of proper patient information flow (Jamaiyah 2000).

Although all of the above challenges may not have been totally resolved, mental health care is currently integrated into all the health clinics, administratively under the public health division of the MOH. In 2010, in addition to psychiatric services in hospitals, 671 health clinics (82.9%) provide mental health services in the community (Ministry of Health Malaysia 2011).

Out of 11 the documents identified, only one document directly related to PND. This was a report of a review conducted to examine the effectiveness of traditional postnatal care. The review concluded that: (i) there were limited retrievable evidences to suggest the effectiveness of traditional postnatal care in restoring women's physical and mental health and (ii) there was no retrievable evidence on

safety and cost-effectiveness of traditional postnatal care (Akmal et al. 2015). Despite this conclusion, the Malay postnatal care package consisting of massage, hot compression (*bertungku*), and abdominal wrapping (*barut*), as well as postnatal breast massage, are still provided in the Traditional and Complementary Unit in several dedicated governmental hospitals in Malaysia.

In the absence of clinical practice guidelines for PND (or any form of maternal distress), the only source available is Clinical Practice Guidelines for Management of Major Depressive Disorders, which was introduced in 2007 (Ministry of Health Malaysia 2007). However, it does not cover the management of depression in antenatal and postnatal women as stated in Figure 6 below:

Figure 6: Target population of clinical practice guidelines for management of major depressive disorders

TARGET POPULATION

This guideline is developed for the management of major depressive disorder in adults and the elderly. It does not cover the management of depression in children or pre- and post-natal women, or the management of dysthymic disorder, depressive episodes in patients with bipolar disorder or adjustment disorder with depressed mood.

(Source: Ministry of Health Malaysia 2007)

2.7.7.3 Conclusion

The existing mental health act in Malaysia has been criticised as treating mental disorder as a medical problem, although it is known to be influenced by various psychosocial factors. There have been several difficulties in putting the community mental health policy into practice, such as resistance to change, a lack of human resources, and a lack of continuity of care. Current approaches to promote maternal mental health are based on limited or no retrievable evidence. There are no guidelines or policies available with regard to maternal mental health generally and PND specifically.

2.8　Chapter summary

The reviews of the literature presented in this chapter have shown that PND experience can be viewed as a socially constructed condition, or as a condition that results from biological changes. Critical realist approach is considered as helpful to explain PND experience, by taking into account the social and cultural context without denigrating the medical concepts (biological factors).

The review of the prevalence of PND has also shown that the reported rates of PND varied widely across cultures, but the explanations of these variations are still ambiguous. Possible reasons could be the use of less culturally-oriented instruments to screen PND or the different cultural backgrounds within the populations included.

Two qualitative syntheses were conducted to further understand the women's experience and HCPs' perspectives of PND. Results of the first qualitative synthesis (the women's experience of PND) concluded that: (i) PND experience can be influenced by societal and cultural interpretation and labelling of symptoms; and (ii) PND experiences are not fully shared by women across different cultures. Findings of the second qualitative synthesis (the HCPs' perspectives of PND) suggested that the way that HCPs perceived their roles in managing PND could be influenced by the presence or absence of policy and guidelines. Overall, both reviews indicated that there was a lack of qualitative studies on women's experience and HCPs' perspectives of PND conducted across the multicultural community, and there was no research evidence published regarding the experience and perspectives of PND in Malaysia.

Within the Malaysia context, a policy document review and analysis failed to find any guidelines that specifically focused on the management of PND. In the absence of reliable scientific evidence, and policy, and guidelines, it is questionable whether the current approaches to promote and manage maternal mental health in Malaysia have a sense of cultural-based strategies. These significant gaps indicated the need for a qualitative study that explicitly focussed on the experiences and perceptions of PND in Malaysia.

3 Chapter 3: The research methodology and methods

3.1 Introduction

This chapter discusses the justification for choosing the adopted methods to meet the research objectives. In this section, the research objectives and research questions are described. In Sections 3.2, 3.3 and 3.4, the rationale of adopting the qualitative approach, the critical realism perspectives and the exploratory qualitative design are outlined, respectively. I then provide some details of the study setting in Section 3.5 and the sampling strategy in Section 3.6. This is followed by an explanation of the recruitment of participants, data collection process and data analysis. Finally, explanations of how this thesis attended to issues of methodological rigour, ethics and reflexivity within the research process are outlined.

Chapter 1 acknowledged that both women and HCPs perspectives must be understood in establishing interventions for PND. Chapter 2 highlighted that the absence of information on the cultural context of PND in Malaysia has created uncertainty as to whether interventions and approaches to care, derived in largely western medical cultures, are appropriate and transferrable to Malaysian women. From this evidence we know that the problem appears to relate to the lack of meaningful studies and usable information in Malaysia that could help develop more appropriate policy and practice. As such, both Malaysian women and HCPs perspectives of PND should be explored if culturally appropriate approaches to diagnosis and management (via interventions) are to be developed. The research objectives and questions are as follow.

3.1.1   Research objectives

The objectives of this study were to:

  i.   Understand the experience of postnatal depression among Malaysian women.

  ii. Explore the views of women and healthcare practitioners in Malaysia on the causes of postnatal depression.

  iii. Understand the women's experiences of care and what they perceive may help them manage their symptoms.

  iv. Explore the knowledge and perceptions of healthcare practitioners in managing women with postnatal depression.

  v.   Explore the views of the women and the healthcare practitioners on potential interventions for Malaysian women with postnatal depression.

3.1.2   Research questions

The following research questions are posed for both groups of participants:

Addressing women with postnatal depressive symptoms:

  i.   What are the experiences of postnatal depression among Malaysian women?

  ii. Do women's perceptions and causal explanations of postnatal depression differ across different cultural backgrounds within Malaysia? If so, how do these differ?

  iii. What are the experiences of care for Malaysian women with postnatal depression and what they perceived may help them to manage their symptoms?

  iv. What types of interventions might Malaysian women find helpful to address maternal mental well-being?

Addressing healthcare practitioners involved with postnatal care:

  i.   What are the knowledge and perceptions of healthcare practitioners towards postnatal depression in Malaysia?

  ii. How are women who have experienced postnatal depression supported in the healthcare system?

  iii. What are the resources available in the healthcare system for women with postnatal depression?

  iv. What types of interventions do healthcare practitioners think might be helpful for women with postnatal depression?

3.2 Approach of the study: qualitative approach

As reported in Chapter 2, there is a lack of research conducted about PND across different cultures. Thus this study intended to understand the experience of women with PND in multicultural communities. Without the depth of understanding generated by qualitative data, it would be challenging to formulate appropriate strategies that could begin to address this problem. Ritchie and Lewis (2003) advocated the use of qualitative methods in addressing complex social phenomena and their contexts which require explanations or understanding. Denzin and Lincoln (2005) described qualitative research as a situated activity that involves interpretive or naturalistic approaches to study phenomenon in their natural settings to generate meaningful findings. In other words, adopting the qualitative approach in a particular study enables the exploration of how participants interpreted their lived experiences and how these interpretations were transformed into meaningful thoughts within their social world.

The fundamental aim of qualitative research is to explore the meaning and understanding of individual's subjective experiences in their social context. The qualitative approach is considered as an appropriate method to explore PND from the perspective of women and HCPs. Employing a qualitative approach allows for flexibility and openness in exploring PND by providing an opportunity for both women and HCPs to describe their experiences and perspectives in detail.

3.3   Theoretical perspectives: critical realism

Theoretical perspectives, or the research paradigm, can be defined as a set of basic beliefs that represent how researchers view and understand the reality of the world, people and any possible interaction between them (Guba and Lincoln 1994). A theoretical perspective not only guides researchers to formulate research methodology, but also influences the thinking of what constitutes the social reality and how they can know and understand the social world. Guba and Lincoln (1994) discussed four paradigms in qualitative research: positivism, critical theory, constructivism and post-positivism. The first three paradigms are discussed below, while post positivism (which is based on the ontology of critical realism) is discussed later in this section.

Positivists believe that reality is driven by immutable natural laws and mechanisms; hence they search for reality by performing empirical or statistical tests (Guba and Lincoln 1994). If this research was to fully embrace this paradigm, PND would have to be measured and proven to exist. Up to this date, there is no biomedical test for PND, therefore, in the absence of physical evidence, the positivist approach has been taken to develop tools and measures that reflect signs and symptoms associated with the condition. However, Pilgrim (2013) explains that mental illness cannot be simply categorised, because there are some people who have difficulty in dealing with life experiences or who evaluate their experience negatively. Using such tools or measures alone, therefore, may not be helpful in fully understanding the experience of PND.

Critical theory itself concerns with the influence of structure and agency in society, and the circumstances that enslave human beings in order to promote 'human emancipation' in circumstances of domination and oppression (Horkheimer 1993). Critical theories can therefore include similar philosophical approaches as feminism, critical race theory, and post-colonial criticism. Critical theorists propose reality as historical or virtual, and which has, over time, been shaped by a collection of socio demographics and cultural elements to form a real, natural and immutable reality (Guba and Lincoln 1994). If this paradigm was considered, PND would be assumed as not a real phenomenon historically, but one which has become real due to various social, cultural, economic, and gender specific factors. The domination or oppression of women would be a lens through which to understand the phenomenon of PND, rather than any clinical or physical manifestation.

Adopting the social constructionists' standpoint, reality is described as mentally and socially constructed. If this research was to be conducted from a full social constructionists' perspective, the assumptions would be that PND is a socially constructed phenomenon and each woman constructs their understandings of PND based on their own language (Lewis-Beck et al. 2004). A fundamental constructionist position would deny the reality of PND as an illness and consider that it only exists as a phenomenon because society has collectively defined and labelled a set of behaviours or symptoms as such. Like critical theory, there is no room for any biological or physical reality in the phenomenon of PND.

Having discussed three different possible ways of explaining PND, it is more likely that neither approach is entirely sufficient to explain the phenomenon of PND, nor that those mechanisms may play a part in its emergence. PND is a complex phenomenon and people have their own ways of understanding the condition. Whilst some acknowledge PND as a specific entity that links with childbirth, others perceive it as multidimensional in terms of definition and aetiology (Wylie et al. 2011). Up to this date, there is no singular approach that may explain the underlying process that link the associated factors with its development and how this mechanism may vary by context and culture (Sword et al. 2012). In other words, PND could not merely be explained by either biomedical or psychosocial research alone (Walsh and Evans 2014).

Instead, the complexity of PND is reflected in these two polarised positions, of positivism and social constructionism (Pilgrim and Bentall 1999). Bhaskar (1978) raised the possibility of bridging the gap between these two positions in the 1970s by introducing an approach known as critical realism. Critical realism is a way of thinking that is used to answer the question; 'what must reality be like to make science possible?' (Bhaskar 1978). As described in Chapter 2, the ontology of critical realism is based on three levels; (1) the 'empirical', which is the observed or experienced; (2) the 'actual', which includes the underlying mechanism regulating the *empirical*, but may not be observed; and (3) the 'real' that are underlying reasons for the level of 'actual' (Walsh and Evans 2014). Based on this ontology, critical realism allows a combination of a modified naturalism, as well as recognising the interpretive understanding in social life by marrying realist ontology with a constructionist epistemology (Sayer 2000; Walsh and Evans 2014).

By adopting a critical realist approach, I consider that PND, as with other medical diseases, is a real and distressing condition and is not just constituted by language.

The symptoms of PND are real, and the impacts of PND are real. In fact, all data gained from the interview process in studying PND are not 'unreal'. Thus, PND is not just a phenomenon interpreted and constructed by human beings. I also consider that to understand PND, both medical concepts and the social and cultural context need to be included and not be studied in isolation or separately. I also acknowledge the appropriateness of this approach to capture the complexity of the causes of PND by including individual and contextual factors. It is through these considerations that helps me to discover the possible factors contributing to PND (as explained by women and HCPs), whether or not such factors are similarly expressed by the women from different cultures and how these factors could differ from one culture to another.

To summarise, the ontological and epistemological position in this study is best presented by critical realism. This position has been chosen due to its utility and relevance to the phenomenon of PND as described herein.

3.4   Research design

Research design provides a menu for standard types of designs to be chosen by researchers, or a plan that consists of specific stages for the purpose of conducting a study (Maxwell 2013). That is to say, research design provides a detailed blueprint used to guide researchers in exploring the answers to the research questions, and thereby achieve the research objectives. There are arguments about appropriate research design to be employed within a critical realism approach. Some researchers may argue for quantitative methods, as these are appropriate in determining variables and examining differences. Without denying the ability of quantitative methods to measure what people think from a statistical and numerical point of view, it should be acknowledged that qualitative method is an intensive approach and has renowned capabilities in identifying contextually-grounded explanatory mechanisms that may not be achieved by using statistical values.

Qualitative research has been organised in various ways. Patton (2002) classified 16 types of qualitative research, including common classifications such as grounded theory, ethnography, and less common categories such as semiotics and chaos theory. Denzin and Lincoln (2005) included six research strategies in their classifications: case study, ethnography, grounded theory, life and narrative approaches, participatory research, and clinical research. Whilst Creswell (2007) identify five 'approaches': case study, ethnography, grounded theory, narrative research, and phenomenology, Merriam (2009) presents five qualitative research courses, including basic qualitative research, phenomenology, grounded theory, ethnography, narrative analysis, and critical qualitative research. Merriam stated that whilst those types of qualitative research share some characteristics, each course has a different focus, and therefore the research questions, sample selection, data collection and analysis, and findings reported will vary from one to another.

Among qualitative approaches, ethnography, case study and grounded theory would be the appropriate designs of choice in this study, as they allow the exploration of how a woman's experience of PND is bounded within the family, society and cultural context. However, through time and further reading, I realised that this present study may not fit with one of the above traditions. Nonetheless, this present study has all the characteristics of qualitative research as highlighted in Merriam's descriptions: i) constructed meaning of the participants life-experience, ii) researcher as an instrument in data collection and data analysis, iii) building concept and theory based on inductive process, and iv) findings yielded are rich in detail (Merriam 2009,

pg. 14). The justifications for not adopting any of the above traditions are explained below.

An ethnographic approach is useful to enable the elicitation of women's cultural knowledge within their specific community through observation and interview (Roberts 2009; Goodson and Vassar 2011). Ethnographers conduct observation in a specific setting with a certain boundary, but this was not the case in this study. Observation may not be helpful to achieve the aims of this study (i.e., to understand the experiences and perspectives of PND) for two main reasons. Firstly, there was no specific boundary or geographical location for the observation to be based on, if observations were to be conducted in order to understand the experiences and perceptions of PND. Secondly, even if observation were possible; the onset of PND varies from one woman to another. This then raised the issue of when would be the right time for the observation to be conducted. PND may have occurred in the past, but not during the observation, thus this may not give an accurate representation of its spectrum.

Case study designs may give fruitful information through multiple sources of data collection, including thorough observation (Creswell 2013). It may provide a comprehensive understanding of the PND phenomenon within the real women's context (Boblin et al. 2013). However in this study, it is not feasible to observe the women within their own culture, due to time, budget, and ethical constraints. For instance, it is not feasible for me to stay with women from different cultural backgrounds and their family members to observe how postnatal practice may affect the development of PND.

Although grounded theory may allow the investigation of the surrounding context of human lives (Charmaz 1990), the approach is not appropriate in this study for the following three reasons. Firstly, grounded theory is not compatible with the longer term aim of this research: to develop culturally appropriate interventions to improve maternal mental health in Malaysia. In this case, the primary focus of this study was not on building theory, but exploring potential intervention based on participants' descriptions. Secondly, grounded theorists attempt to approach data collection without any attention to a-priori theories. With the longer term aim, as described above, semi-structured interviews are required in this study to keep the interviews focused and to enable the generation of the required information, whilst also allowing for flexibility within the interviews for women and HCPs to talk about their own key concerns and experiences. This practice of data collection method

contradicts the principle of grounded theory. Thirdly, a grounded theory approach would also call for theoretical sampling ~ whereby the early data analysis will identify themes and tentative theories that require further exploration and perhaps within specific populations. Whilst this can be a helpful approach in exploratory studies, it can also be time consuming and may take the research in unintended directions.

The answer for the research questions in this study can be well explained through a collection of concepts adopted from Morse and Richards (2002), Ritchie and Lewis (2003), and Caelli et al. (2003): (i) understanding the importance of participants' experiences and perspectives in their context of lives, and representing participants accounts accurately, (ii) using methods that are congruent to the methodology to answer the research questions, rather than fitting the questions to a particular methodological approach or course, (iii) clearly synthesising participants' descriptions as well as clarifying researcher interpretations, (iv) declaring the researcher's theoretical position, (v) clearly articulate the researcher's approach to demonstrate transparency, and (vi) acknowledging personal values reflecting the researcher's beliefs that may influence the findings of the study. Simply put, any exploratory qualitative design is able to produce valid and reliable findings provided that thorough strategies have been taken in order to achieve the trustworthiness of the findings.

According to Green and Thorogood (2014), researchers might introduce their own perspectives when choosing their research design, and may not confine their ideas based on traditional qualitative designs to achieve their research objectives or to answer research questions. Choosing an exploratory study, without being confined to any of the existing qualitative research designs, would be more doable and the most suitable way to answer the research questions explained at the beginning of this chapter.

As previously mentioned, I have an interest in women's experiences of PND and the role of culture in shaping these experiences. An exploratory qualitative design would be the most appropriate approach to interview a sample of women representing different cultural backgrounds in Malaysia. Exploratory qualitative research is also particularly useful, as it is flexible and adaptable to change with the presence of new data and insights (Saunders et al. 2012). This design allowed me to explore the impact of culture from the women's and HCPs' perspective of PND, as the precise nature of this problem in Malaysia is still ambiguous.

3.5　Study setting

Chapter 2 has discussed the Malaysian geographical context, its cultural background and the healthcare system in Malaysia. The main healthcare service in Malaysia is operated by the Ministry of Health (MOH) and encompasses a system of primary care clinics (small/community clinics and health clinics) and hospitals. Whilst the maternal and child health (MCH) clinics offer their services under the primary care clinics, the psychiatric ward is attached to the hospital.

This study was conducted at six purposively selected MCH clinics under the Health Department of Federal Territory Kuala Lumpur and a female psychiatric ward, Hospital Kuala Lumpur. The MCH clinics in Kuala Lumpur were chosen as they include a diverse population from which potential participants of various socio-demographic and cultural backgrounds can be sampled. Postnatal mothers attend MCH clinics for a postnatal visit in the first month of the postnatal period and are followed by an appointment given for the child's healthcare. These visits provided an opportunity for me to access and obtain a sufficient number of women to be interviewed.

The HCPs were sampled from six selected MCH clinics and a female psychiatric ward. The inclusion of HCPs who work in MCH clinics allowed an exploration of their experiences of caring for women who already received healthcare treatment for PND and/or those who may not yet be diagnosed as having PND. The inclusion of HCPs who work in the female psychiatric ward, Hospital Kuala Lumpur allowed an investigation into their experiences of caring for women who have been diagnosed as having PND and being admitted to a psychiatric ward.

3.6 Sampling strategy

Participant selection is an important element in qualitative research, as it has profound effects on the quality of the research (Coyne 1997). In this study, purposive sampling was employed. Purposive sampling is the most common sampling method used in qualitative research, because it elucidates some features or process of interest (Silverman 2013). Participants in this study were selected because they hold particular characteristics, which enable a detailed exploration and understanding of PND in Malaysia in which this research is based. The aims of this type of sampling are to ensure that all the relevant constituencies of PND are covered and to include some diversity, so that the perspectives of PND are comprehensively explored.

3.6.1 Study population

The study population was decided upon based on three key decisions as suggested by Ritchie and Lewis (2003): (i) which group or subpopulation is of central interest to PND; (ii) are there subsets of this group that should be excluded; and (iii) are there additional groups or subpopulation that should be included because their experience and views would add or contrast with the findings from the main group.

The central interest for this study was women with PND symptoms from different cultural backgrounds, including Malay, Chinese, and Indian women, who attended for postnatal care or child healthcare at MCH Clinics in Kuala Lumpur; and HCPs who work in those selected clinics and who also work in the female psychiatric ward, Hospital Kuala Lumpur. The inclusion of three cultures in one study provided the potential to generate a rich dataset relating to female populations that have been previously unstudied in the field of PND. The majority of previous Malaysian studies that have focused on cultural aspects have only explored this as a collective experience and have not attended to different ethnic and cultural groups within Malaysia (Wan Mohd Rushidi et al. 2002; Wan Mohd Rushidi et al. 2003; Azidah et al. 2006; Wan Mohd Rushdi et al. 2006). Although the inclusion of the women's family members, such as husband/partner and mother in law may bring complementary insights to this study, it is beyond the scope of this research to explore their perceptions.

3.6.2   Study sample

The potential participants for this study were determined by the research objectives and the characteristics of the population (diversity of cultural background in Malaysia). Recruitment of the participants was conducted in six purposively selected MCH clinics under Health Department of Federal Territory Kuala Lumpur and a female psychiatric ward in Hospital Kuala Lumpur. Two groups of participants were identified to answer the research questions: women with postnatal depressive symptoms and the HCPs with experience of dealing with postnatal women and/or managing women with maternal distress. The inclusion and exclusion criteria for each group of participants are as follows.

3.6.2.1   Inclusion and exclusion criteria: women

In purposive sampling, selection criteria are decided upon in the early stage of the research (Ritchie and Lewis 2003). The inclusion criteria for the women in this study were:

i.   Age 18-45 years.
ii.   At 6-52 weeks after last childbirth during screening stage.
iii.   Malaysian by nationality.
iv.   Had been staying in Malaysia after the last childbirth and until the time of the interview.
v.   Score three or more in the Patient Health Questionnaires (PHQ-2) and/or scored 12 or more in Edinburgh Postnatal Depression Scale (EPDS) and/or self- identified and/or being referred by head nurse in charge.
vi.   Sufficiently fluent in Malay or English Language to participate in the interview.

The exclusion criteria include the women who were:

i.   Non-Malaysian by nationality.
ii.   Severely depressed to the extent that participation in the interview might worsen their condition.
iii.   Not fluent in Malay or English Language.

According to Guest et al. (2006) a sample of only six interviews may be adequate to give meaningful themes and appropriate interpretation to a phenomena being

studied. However, they recommend a larger sample size if the goal of the study is to assess variation between different groups. Given the fact that there are three main cultural groups in Malaysia, the participants in this study were recruited from across those groups. A total of 33 women comprised of 10 Malay, 12 Chinese, and 11 Indian were interviewed.

3.6.2.2 Inclusion and exclusion criteria: healthcare practitioners

The HCPs were recruited from the MCH clinics under Health Department of Federal Territory Kuala Lumpur and a female psychiatric ward, Hospital Kuala Lumpur. Selecting HCPs who had been working for more than six months in MCH clinics/psychiatric ward was to ensure that they had sufficient understandings and experiences in their work setting.

The inclusion criterion for the HCPs in this study was those who had worked for more than six months in the MCH clinic or female psychiatric ward. The exclusion criterion for the HCPs was thus, those who had worked for less than six months in the MCH clinic/ female psychiatric ward/ female psychiatric ward.

The sample included 18 HCPs comprised of five head nurses, three medical officers, three nurse-midwives, three community nurses, two psychiatric nurses, one psychiatrist, and one registered nurse.

3.7　　Recruitment of participants

As previously mentioned, there were two groups of participants recruited in this study: women with postnatal depressive symptoms and HCPs. The process of recruitment of the participants is explained below.

3.7.1　　Recruitment of women with postnatal depressive symptoms

The recruitment of women with postnatal depressive symptoms aimed to achieve the first, second, third, and fifth research objectives: understand the experience of PND among Malaysian women, explore the views of the women on the causes of their experience, understand the women's experiences of care and what they perceive may help them to manage their symptoms, and explore the women's views on the potential interventions for women with PND in Malaysia.

The recruitment of the women with postnatal depressive symptoms began with the screening stage followed by the interview stage. The women were approached during their child health visit and were assessed for the first four inclusion criteria as described (see Section 3.6.2.1). Those who fulfilled the first four criteria were given an explanation of the nature of the study, making clear that their participation was voluntary, and that refusing to participate or withdrawing from the screening process while in progress would not affect their care in any way. They were provided with the Patient Information Sheet (for screening stage) (Appendix 6). In order to assess the fifth inclusion criteria (scored three or more in the PHQ-2 and/or scored 12 or more in EPDS and/or self-identified and/or being referred by head nurse in charge), there were three types of assessments used. These assessments are explained in the Section 3.7.1.1. Figure 7 shows the summary of the recruitment strategy for the women with postnatal depressive symptoms.

Figure 7: Summary of recruitment of women with postnatal depression symptoms
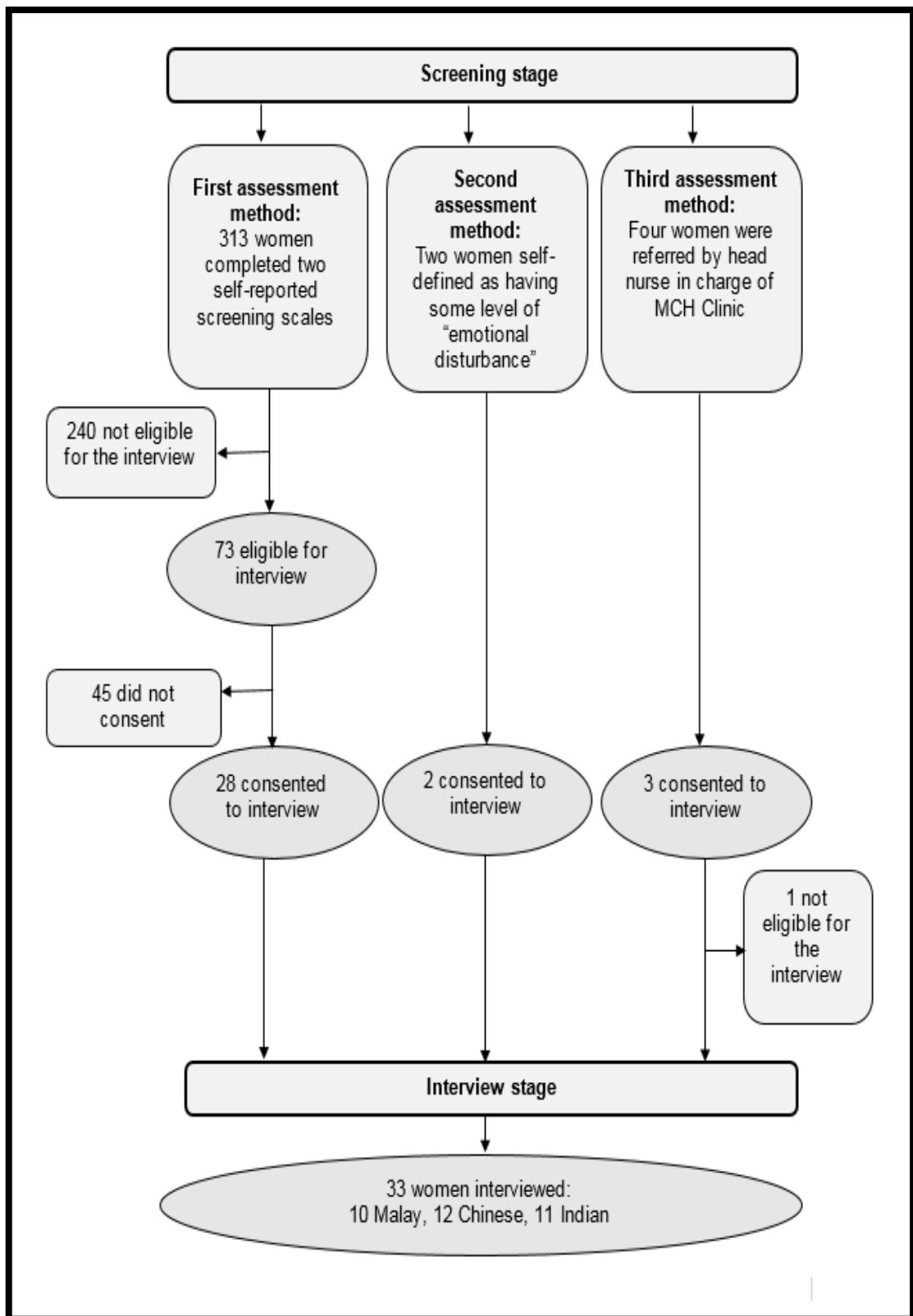
3.7.1.1 Screening stage

As can be seen from Figure 7, in the screening stage, three types of assessments were used: i) potential participant was asked to complete two self-reported screening scales, ii) potential participant was asked whether she classified herself as having 'emotional distress' or 'emotional disturbances' after her last childbirth, and iii) head nurses in charge in the respective clinics were asked whether they had encountered any cases of 'emotional distress' or 'emotional disturbances' during the postnatal period whom they could refer to participate in the study.

In the first assessment, potential participants were asked to complete two self-report questionnaires: the EPDS and the Patient Health Questionnaire-2 (PHQ-2) (Appendix 7). While the EPDS consists of ten specific questions on postnatal depressive symptoms, the PHQ-2 consists of two short questions on general depressive symptoms: 'little interest or pleasure in doing things' and 'feeling down, depressed or hopeless'. Both instruments were applied in this screening stage due to the expectation that the EPDS would capture the depressive symptoms which were not asked in the PHQ-2. A total of 313 women were approached and asked to complete two sets of screening questionnaires. These women were informed that if eligible, they would be invited for the next stage of the study involving a face to face interview at a location of their choice, lasting approximately one hour. This assessment was conducted in a private room in each clinic to minimise the risk of any distress that could arise from the questions. The screening assessment took approximately 10 to 15 minutes. The women were requested to return the questionnaire, sealed in an envelope, to me at the clinic counter. I reviewed the completed questionnaires immediately after they were submitted. Those scoring three or more in the PHQ-2 and/or scored 12 or more in EPDS were invited for the interview session. Using cut-off points of 11/12 in the EPDS was recommended by a previous study in determining whether a woman was at risk of developing PND in Malaysian women (Wan Mohd Rushidi et al. 2003). Non eligible women were informed about the result of the screening assessment and were reassured that there were no immediate concerns about their emotional status based on the screening tools. Participants completed questionnaires were stored for the purpose of report writing: to report the total number of women who were eligible for the interview stage out of the total number of screened women. Following a review of the questionnaire responses, 77% (n=240) were not eligible for interview, as they scored less than 3 in the PHQ-2 and less than 12 in the EPDS. The remaining 23% (n=73) were eligible for interview as they fulfilled the

eligibility criteria (scored 3 and more in the PHQ-2 and/or 12 and more in the EPDS). Out of 73, a total of 45 women were not consented for the interview: 25 declined to participate; 19 were uncontactable; and one could not converse in Malay or English. A total of 28 women identified by the screening questionnaire consented and took part in an interview.

The second assessment was conducted after completing both screening scales, i.e., potential participants were asked: 'Do you think that you have had some level of emotional distress or emotional disturbances after your last childbirth?' This approach was used in line with the ontology of critical realism position, to allow that not all experiences of PND can be defined and captured through only one lens, and that screening tools are only a proxy measure of the phenomena being studied. The research should not limit its definition of PND to only those contained within (positivist) screening tools, but should allow for women to also define what constitutes the phenomena.

The third assessment was conducted separately with the first and second assessments. In this assessment, the head nurse in charge at every selected MCH clinic was approached and asked whether they had encountered women with 'emotional distress' or 'emotional disturbances' after childbirth. This assessment was not only to identify women with postnatal depressive symptoms, but also to ensure that women with severe depression, who had underlying mental illness or a serious medical condition were not approached. Based on referral by the head nurses, potential participants were contacted and a face to face appointment arranged. Four women were referred by the head nurse as having some level of emotional distress. All of them consented for the interview, however, one was not deemed well enough to continue the interview session. This was noticed when she appeared to give similar answers for different questions asked during the first ten minutes of the interview. Because of this, she was excluded from the study to avoid any potential stress. This means only three women were recruited through the third assessment.

Based on the three assessment methods, women who were eligible for the interview stage were given an invitation letter (Appendix 8) and a Patient Information Sheet (for the interview study) (Appendix 9). They were then contacted by phone after at least 24 hours to ask for the decision whether to participate in this study. Once the agreement was gained, an interview session was arranged. The consent form (Appendix 10) was completed before conducting the interview. In total, 33 women were interviewed and this included 10 Malay, 12 Chinese and 11 Indian women.

3.7.1.2 Interview stage

Interviews were conducted either at women's homes, or in a private and quiet room at the respective clinic, or at another location of the women's wish. The interviews were recorded using an audio recording device with participants' permission. Participants' information including a non-identifiable number or pseudonym, age, date and place of data collection were recorded in the recruitment log (Appendix 11) to maintain the confidentiality and transparency of the research process. The interviews were conducted using the topic guide for women with postnatal depressive symptoms (Appendix 12). The field notes were written and maintained immediately after each interview session to reflect the participants' emotions and non-verbal communications (Barolia et al. 2013) (other reflexive activities during interview stage are explained in Section 3.12.2).

3.7.2   Recruitment of healthcare practitioners

This part of data collection aimed to achieve the second, fourth, and fifth research objectives: explore the views of HCPs on the causes of PND, explore the knowledge and perceptions of Malaysian healthcare practitioners (HCPs) about PND and how they manage women with PND, and explore what types of interventions do HCPs think might be helpful for women with PND in Malaysia. Figure 8 shows the summary of the recruitment strategy for the HCPs.

Figure 8: Summary of recruitment strategy of healthcare practitioners

1st meeting- Engaging with HCPs: introduction to the researcher and topic of interest

↓

2nd meeting- Presentation of proposal: conducted in each study site (6 MCH Clinics and 1 Female Psychiatric Ward)

↓

Approaching the potential participants
Conducted in each study site (6 MCH Clinics and 1 Female Psychiatric Ward)

↓

Participants:
5 Head Nurses
3 medical doctors
3 nurse-midwives
3 community nurses
2 psychiatric nurses
1 psychiatrist
1 registered nurse

As can be seen from Figure 8, the head nurses in the selected MCH clinics were contacted to arrange the first meeting. The purpose of this meeting was to establish rapport with the HCPs thereby allowing researcher-participant engagement. At the end of the first meeting the head nurse was approached to arrange the second meeting. The aims and the processes of the study were presented to all HCPs in the second meeting. At the end of the second meeting, the HCPs were given an invitation letter (Appendix 13) and the Participants Information Sheet (Appendix 14). They were asked to provide their name, position, years of working in MCH clinic/female psychiatric ward and contact number if interested in participating in the study. Healthcare practitioners were allowed to have enough time to decide on their participation. After at least 24 hours, the eligible HCPs were approached whether to participate in the study. An interview session was arranged upon their agreement and informed consent (Appendix 15) was sought before the interview session. They were informed that they have the right to withdraw from the study if they wished to do so. A total of 18 HCPs were interviewed including five head nurses, three medical officers, three nurse-midwives, three community nurses, two psychiatric nurses, one psychiatrist, and one registered nurse. Healthcare practitioners were recruited from different positions so that each of them could represent the voices of those at each and every level.

Interviews were conducted in a quiet room at the respective clinic/ward. They were audio recorded with participants' permission and this was clearly written in the informed consent. Participants' information including non-identifiable number or pseudonym, age, date and place of data collection were recorded in the recruitment log (Appendix 16) to maintain the confidentiality and transparency of the research process. The interview was started using the topic guide for HCPs (Appendix 17). The field notes were written and maintained immediately after each interview session to allow the reflective process (Barolia et al. 2013).

3.8   Data collection process

As previously mentioned, the main focus in this study was to: understand how women interpret their PND experience, what they perceive may help them manage their symptoms, how HCPs understand and perceive PND, and how they make sense of their understanding and perceptions to care for women with PND. These aims could not be fully achieved through observing the participant's behaviours and feelings. Merriam (2009) asserted that behaviour, feelings, or how people interpret their world cannot be observed and interviews are essential. Data collected from this study was based on individual interviews with the participants. Interviews offer an opportunity to understand people's experiences and to explore their perceptions in their own words and real life in which it derives. By conducting interviews in their social context, this enhanced the collection of relevant and personally meaningful data from each participant (Hammersley 2008). The procedure and process of these interviews is discussed below.

3.8.1   Semi structured interviews

According to Merriam (2009), there are three types of interviews based on interview structure continuum: highly structured/standardised, semi structured and unstructured. The aims of this study were to understand the women's experiences of PND and to explore the HCPs' perspectives of PND. In this case, neither structured nor unstructured interviews were applicable.

Using highly structured interviews requires researchers to adhere rigidly to the predetermined questions. It does not allow the participants to fully discuss their perspectives and understandings in their own world. The use of this type of interview may not be appropriate in this study context because the same questions will be asked to all participants regardless of variability in their views and perspectives. Unstructured interviews include no predetermined set of questions and require a skilled researcher to deal with its flexibility during interview process (Merriam 2009). This type of interview does not fit with the aims of this study as there was a priori concept to be asked.

Rather, the process of gathering data in this study was conducted using semi-structured interviews. Semi structured interviews allow the participants to express their feelings and raise any related issues with PND without fully depending on the existing self-administered questionnaires or closed-ended questionnaires method. It facilitates the data gathering by providing designed questions as well as permitting the researcher to control and direct the interview session (Gerrish and Lacey 2010). This

however does not refute the flexibility of the data collection process, as the questions would be adjustable to the variability of participants' experiences and responses.

Semi structured interviews used in this study were guided by five elements suggested by Merriam (2009): (i) interview guide consists of both less and more structured questions; (ii) all questions used flexibly; (iii) some specific questions asked to all participants; (iv) most of the questions were guided by issues to be explored; and (v) questions were asked with no particular order.

To obtain valid and reliable data, it is important for the researcher to establish a good relationship with the participants and to observe their non-verbal communication, such as eye contact, facial expression and body language. Face to face semi structured interviews provide these opportunities and allow interpretations of any hidden feelings so that the researcher may respond accordingly to further clarify the participants' emotions, which adds great value to the study (Gerrish and Lacey 2010).

3.8.2 The interview guide

The interview guide is a list of questions to be asked in the interview session (Merriam 2009). In this study, the interview guide consisted of several specific questions to be asked of every participant, as well as open-ended questions asked depending on participants' responses. This included predetermined topics to guide me to stay focussed on the research questions throughout the interview sessions. The topic guide was used constantly in the first few interviews, but when I became more familiar with the listed topics and issues, it was only used to confirm that all topics have been covered. After the first few interviews, some modifications were made according to participants' responses to the questions to ensure the clarity and understanding of the language and concepts.

3.8.3 Conduct of interviews

For women with PND, interviews were conducted either at their home; or in a private and quiet room at the respective clinic; or at another location of the women's wish. For HCPs, the interviews were conducted in a private and quiet room at the respective clinic or ward. The interviews were recorded using an audio recording device with participants' permission. Participants' information including non-identifiable number or pseudonym, age, date and place of data collection were recorded in a recruitment log to maintain the confidentiality and transparency of the research process. The field notes were written and maintained immediately after each interview session to reflect

the participants' emotions and non-verbal communications (Barolia et al. 2013). The same researcher conducted all of the interviews. Each interview lasted approximately one hour.

3.8.4   Recording and transcribing interview data

As previously mentioned, interview data was recorded using a digital voice recorder. Taking into consideration the potential for the recording equipment to malfunction, field notes were written containing as much information as could be remembered as soon after the interview as possible. There were also a few cases whereby participants' naturally shared their experiences and ideas after the recorder was stopped. Together with this written data, my own insights and participants' non-verbal communication were also jotted down. The practice of writing at the end of the interview session was to ensure all important data were included in data analysis, including unrecorded voice, all types of communication and my own ideas.

The process of transcribing was a tedious and time-consuming one, including a close re-listening to recordings. An attempt to ask someone else to transcribe the data was made, however it was found that the transcriber was unfamiliar with the terminology, and not able to transcribe some participants' voices in the presence of background noise. For this reason, all interview data were transcribed by myself.

3.8.5   Translation

Almost all interviews were conducted in the Malay language, except for six (18%) which were conducted in English (Appendix 18). All transcripts were analysed using their original language. For the purpose of report writing, the quotes from the interviews conducted in English were maintained verbatim, while quotes from interviews conducted in Malay were translated into English, but the structure of speech used by the participants were maintained. To improve the trustworthiness of the data analysis, two post-doctoral researchers, who understand English and Malay and have had experience of conducting qualitative interviews, were appointed to verify the translation.

Although hiring a professional translator is helpful to ensure the accuracy of the translation and increase the validity, he/she may not be able to wholly capture the languages used by the participants by only reading the transcribed text (Harrington and Turner 2001). Commonly, the participants' languages carry their own values and thoughts that most of the time is accompanied by their facial expression and body

language (Temple and Young 2004). These expressions were absent in the text. For instance, the word 'banyak' (in Malay) could be translated as 'many'; however in certain situations, when a woman pronounces 'banyak' as 'ba------nyak', it was meant to say 'more and more'. By getting involved in the process of translation, a researcher becomes more immersed in the data and clearer with the context and situation of the interviews and thereby facilitates data analysis and interpretation (Temple and Young 2004). Based on the above reasons, translations were conducted by myself to prevent any loss of meaning in translation. All translations were discussed with a qualitative researcher and validated by a professional translator who understood both English and Malay, therefore, this improved the trustworthiness of the study.

3.9   Data analysis

This section discusses the approach used for data analysis including a description on the systematic process to produce the study findings. It begins with a discussion on qualitative data analysis followed by a justification of choosing the analysis approach.

3.9.1   Consideration of data analysis method

Compared to quantitative study, the procedures for qualitative data analysis are not clearly specified and there is no single recommended method to analyse data. Often, the approach to analysis data varies depending on the theoretical perspectives adopted in the study. Due to the variability of its methods, the process of qualitative data analysis has to be transparent and auditable to improve credibility of the findings. Smith and Firth (2011) suggested that a novice researcher should have a systematic and explicit guidance in the process of qualitative data analysis, as this facilitates the development of skills to perform robust data analysis.

Relevant analysis methods compatible with critical realism were considered. This included thematic analysis and framework analysis. Thematic analysis is referred to as 'a method for identifying, analysing and reporting patterns (themes) within data' (Braun and Clarke 2006, p. 79). Thematic analysis is an independent and reliable type of qualitative data analysis. It permits researchers to explore transcripts analytically and categorise the participants' description into relatively small units of contents (Sparker 2005). The most important characteristic of thematic analysis is that it allows researchers to analyse the participants' transcripts without overlooking their context (Loffe and Yardley 2004). According to Braun and Clarke (2006), even though the outcome of the analysis might differ, thematic analysis can be used by both realists and constructionists. However, thematic analysis has been criticised as fragmenting the original data and may lead to misinterpretations of the data, thereby critics suggest that findings are subjective and lack of transparency (Smith and Firth 2003).

Framework analysis addresses the criticisms of thematic analysis. Although framework analysis shares similarities with thematic analysis, particularly when recurring and emerging themes are identified, it offers transparency and verified associations between the stages of the analysis (Ritchie and Lewis 2003; Braun and Clarke 2006).

3.9.2   Framework technique in analysing interview data

Framework analysis was developed by social policy researchers in the UK. It is a pragmatic approach for real-world investigations and has been commonly used in healthcare research such as in midwifery (Furber 2010), nursing (Ward et al. 2013) and health psychology (Tierney et al. 2011).

Unlike the grounded theory approach, framework analysis is less focussed on theory as a product of research and is a useful method to address specific questions (Ward et al. 2013). As such, framework analysis can be flexible in terms of allowing data collection and analysis to run in tandem and consecutively with a structured approach in order to answer the research questions (Srivastava and Thomson 2009).

Framework analysis was chosen to underpin data analysis in this study because it: (i) is appropriate to analyse cross sectional descriptive data, therefore it allows different aspect of concepts under studied phenomenon to be captured; (ii) offers transparency in the interpretation process (Ritchie and Lewis 2003); and (iii) includes interconnected stages in the analysis process hence, enabling me to move forward and backward across the data until the final themes were developed. In other words, framework analysis allows systematic data management and analysis, as it allows an in-depth exploration of data while providing an effective and transparent audit trail. It not only provides a route map or systematic guideline, but also enhances a robust and transparent data analysis process and improves trustworthiness of the findings.

The approach of framework analysis used in this study was adopted from Ritchie and Lewis (2003) who described three interrelated stages involved: i) data management ii) descriptive accounts, and iii) explanatory accounts.

3.9.2.1   Data management

The purpose of the data management stage was to construct a thematic framework. Applying the data management phase to this study, I followed the steps as suggested by Ritchie and Lewis (2003): (i) familiarisation with raw data, (ii) deciding initial themes or categories, and (iii) summarising or synthesising the data.

Familiarisation with raw data

This is the first step in framework analysis. Familiarisation with raw data builds a foundation of the framework structure. At this stage, I made a careful selection of the data (transcripts) to be reviewed to ensure diversity of the participants' characteristics and circumstances. For the purpose of identifying any potential gaps or overemphasis

in the dataset, I re-examined the sampling strategy and the profile of the achieved sample (Ritchie and Lewis 2003). I believe that only by considering the above factors, a representative framework for the whole dataset can be developed.

As mentioned in Section 3.7, participants in this study consisted of two groups: women with postnatal depressive symptoms and HCPs. The selection of transcripts to build a thematic framework for women's groups was made based on representativeness of multicultural backgrounds. Although other factors may be relevant and associated with the experience of PND, cultural background was considered as the most important based on the research questions of: 'Do women's perceptions and causal explanations of PND differ across different cultural backgrounds within Malaysia? If so, how does it differ?' After reviewing the whole dataset, a total of nine transcripts were chosen (three from women from each cultural background) to represent three main cultural backgrounds in Malaysia. This was to ensure that a range of different cases were reviewed and data were rich, deep and diverse.

Transcripts for HCPs were selected based on representativeness of the positions. Based on the careful review of all datasets, five HCPs' transcripts were chosen as these transcripts were considered as representing HCPs views and perceptions towards PND.

To become more familiar with the data, I jotted down the important issues and recurrent points written in the selected transcripts. This process was facilitated by the use of a coding matrix. The process of labelling to each and every relevant line was conducted manually for the first three transcripts. I worked with my two PhD supervisors to review the same transcripts. Table 4 shows the sample of coding matrix used to identify codes and categories in the data management stage. Initial categories were the final product of this stage.

Table 4: Coding matrix used to identify code and categories

Raihana, a 28 year old Malay lady, first time mother with a two month old baby, housewife, stays with her mother in law during postnatal period.

Interview transcript	Description	Preliminary thoughts	Initial category
After giving birth, I spoke less. I didn't even laugh, I didn't enjoy my life, [and] I didn't feel like talking to others. There was a sudden change. No feeling, nothing, like laughing, not at all.	Spoke less, no feelings	Not enjoying life as before	Recognising* something is wrong (*the changes*)
My mother-in-law follows the traditional practices strictly. So I was stressed. That's why I was stressed. When my baby had jaundice, she showered him with various types of leaves. I'm not that kind of person. I live in the city for quite some times so I can't follow her way.	Mother in law and postnatal traditional practices	Having conflict to follow traditional practices	Tradition-modernity conflict
I did *dhikr* [reciting Arabic verse to remember God] and it helped me to relax. That's all I did.	Remember God	Religious practices	Ways of reducing distress

* Initial categories became themes

Deciding initial themes

After the initial categories were developed based on the selected transcripts, the initial themes were decided and links between themes were identified, grouped and sorted to produce a level of main themes and subthemes. This was not a straight forward process. Instead, it involved logical and intuitive thinking, making judgements about meaning and examining connections between arising concepts and issues to ensure the research questions were fully addressed (Ritchie and Spencer 2002).

The construction of the initial themes was based on the priori issues as informed by the research objectives, emergent issues raised by the participants and recurrent points on particular experiences patterned by the participants' transcripts. This was to avoid any concepts derived from previous studies and existing theory that may 'contaminate' the meaning of the data as expressed by the participants. At this stage, most of the themes were substantive in nature (e.g., emotions, behaviours, descriptive explanations). Some of the initial categories became initial themes (as indicated in the coding matrix above).

The labelled transcripts were revisited to allow for consistency in labelling. All revisions were recorded as a referral for the later stage of analysis. The process of familiarisation was continued until all selected transcripts were reviewed and understood. To avoid any overlapping between the themes, a thematic framework consists of initial themes and initial categories, as illustrated in thematic framework (Table 5).

Table 5: Thematic framework with initial themes and initial categories

Initial themes	Initial categories
Recognising something is wrong (*the changes*)	• Easily becomes irritated/ angry • Crying • Rough towards baby • Loss of excitement • Sensitive • Physical discomfort: Migraine/ headache • Loss of appetite • Suicidal ideation • Neglecting the baby
Causal explanations	• Physical factors: Constipation, wound break down, perineal wound, limited movement • Baby's health problems • Tiredness • Infections during pregnancy • Traditional practices • Family health problems • Lack of support • Baby's attitude • Job-related stress • Limited time with children • Financial constraints • Marital problems • Sociocultural problems
Ways of reducing distress	• Express feelings to others • Religious practices • Sleeping • Self-persuasion • Diversional activities/ positive thinking
Perceptions towards HCPs	• Giving health advice like mothers know everything • Verbal advice, no practical support • Lack of spiritual support • Lack of understanding
Potential interventions	• Seminar for expecting mothers • Health education on emotional changes during postnatal period • Postnatal life/ motherhood/ baby's care

Summarising or synthesising the data

At this stage, the thematic framework was applied to all transcripts. This final process of data management aims for 'reducing the data' and tracking evidence to aid for reporting of findings. Each transcript was examined thoroughly for two main reasons. The first reason was to match the thematic framework with the transcripts and vice versa. The second reason is to identify emerging concepts without excluding words or sentences immediately, just because they did not fit the framework. These processes were conducted by maintaining participant's own language and giving minimum interpretation for each word/sentence.

3.9.2.2 Descriptive accounts

In the descriptive accounts stage, elements and dimension were defined and themes were refined involving three key steps: detection, categorisation and classification (Ritchie and Lewis 2003). In the detection step, not only were substantive concepts identified, but the thematic framework was also investigated to identify any linkage and similarity between one category to another, thus, it differentiated two quite related themes. For instance, feelings that were aroused during the occurrence of PND (symptoms of PND) and the changes that occurred as a result of PND (perceived impacts of PND) were separated.

Whilst categorisation involved refining categories by assigning descriptive data, classification introduced a higher level of abstraction (Ritchie and Lewis 2003). This process was conducted with three main thoughts: (i) remain close to data, (ii) level of detail captured, and (iii) categorisation is comprehensive. Some initial themes were retained, whereas others were grouped into a more abstract level as analysis progressed. New language/terms were used to represent the original meaning of the participants' descriptions while maintaining their overall meaning.

3.9.2.3 Explanatory accounts

Explanatory accounts involved the process of detecting patterns, associative analyses and identification clustering. These provide deeper understanding of the reviewed subjects. To do this, the whole dataset was inspected to confirm some repeated patterns. The reasons for the differences between groups were also explored.

The first step in explanatory accounts was checking exactly how the level of matching between the phenomena was distributed across the whole set of data. For instance, examining how many participants stated that cultural factors were related to development of PND and within which cultural background it was highlighted more.

The second step was interrogating the patterns of association which involved searching not only the data that matched with the patterns, but also included deviant cases. This process continued until the whole dataset was examined.

Explanations of any differences and associations across the data set were developed through 'reading the synthesised transcripts, examining patterns, sometimes re-reading full transcripts and most of the time thinking around data' (Ritchie and Lewis 2003, pg. 252).

As a result of the above process, four themes were identified for the women with PND and three themes were identified for the HCPs. For the women's group, the themes were: *the changes*, *causal explanations*, *dealing with postnatal depression*, and *perceived impacts*. For HCPs' group, the themes were: *conceptualisation of postnatal depression*, *causal explanations*, and *care and treatment*. Table 6 displays the sample of development of the core concept, labelling and final themes for women with PND.

Table 6: Development of the final themes within women's dataset

Initial themes	Initial categories	Refined categories	Core concepts	Final themes
Recognising something is wrong	• Easily gets irritated/ angry • Loss of excitement • Sensitive • Suicidal ideation	Different character Bad thoughts	Emotional changes	The changes
	• Crying • Rough towards baby • Neglecting the baby	Uncontrollable crying Temperamental actions	Behavioural changes	
	• Difficulty falling asleep at night • Physical discomfort: Migraine/ headache, loss of appetite	Sleep deprivation Loss of appetite and physical discomfort	Physiological changes	

Causal explanations				
	• Afraid the baby would die in her womb • Worries about the effects of antibiotics to the baby in her womb • Anxiety due to vaginal infections • Doctor said maybe the baby is abnormal.	Anxiety during pregnancy	Pregnancy-related stressors	
	• Not ready to have baby	Unplanned pregnancy		
	• Physical factors: Constipation, wound breakdown, perineal wound • Tiredness	Physical stressors	Transition to motherhood	Causal explanations
	• Baby's attitude • Limited time with children • Lack of knowledge - on childcare/ breastfeeding	Family management		
	• Unable to work after last childbirth • Pregnancy is not as what as expected • Less time for herself and husband/partner • Less active • Depending on others	Roles and identity		

	• Lack of support • Financial constraints • Marital problems • Baby's health problems • Family health problems	Social circumstances	Sociocultural factors
	• Traditional postnatal practices • Breastfeeding problems and conflicts • Conflicts in caring for the newborn	Tradition-modernity conflict	

Ways of reducing distress	• Diversional activities- cooking, playing with children, go for a walk, listening to music, reading	Diversional methods	Coping strategies	
	• Try to follow the traditional practices as possible. • Set routine	Positive actions		
	• Religious practices • Sleep and rest • Received support from others	Relaxing measures		
Perceptions towards HCPs	• Roles of HCPs in the clinic- not in psychological health • Verbal advice, no practical support • Lack of spiritual support • Sufficient care • Viewed as a personal problem	Perceived roles of the HCPs	Barriers in seeking help	Dealing with postnatal depression
	• Unsatisfying advice • Loss of confidence on the HCPs • Less priority given to maternal emotional health	Past experiences		
Potential interventions	• Counselling • Follow ups via phone calls • Support group	Professional support	Desired care	
	• Education and thorough assessment	Education		

Perceived impacts	• Harsh response towards the child's behaviour • Shouting at the newborn baby • 'Two different people'	Parenting styles	-	Perceived impacts

3.10   Methodological rigour

Merriam (2009) explains trustworthiness and rigour in qualitative research by relating these to the terms commonly used in quantitative research. She suggested practical strategies to achieve rigour through credibility (or internal validity), consistency (or reliability) and transferability (or external validity).

3.10.1 Credibility

Credibility or internal validity is a true picture of the study, which elucidates how congruent the study is with reality (Shenton 2004). Several strategies were used to improve the credibility of this study: (i) established prolonged engagement with the potential participants; (ii) recruited participants using purposive sampling; (iii) included a wide range of participants and multiple study sites; (iv) ensured honesty in participants' descriptions and responses by explaining their right to refuse to participate in the study; (v) identified my initial impressions before each interview session and then later and compared and contrasted these with the participants' transcript; and (vi) used team analysis to confirm codes and themes.

Initially, contacts with potential participants were established through meetings in the selected clinics, phone calls and these were followed by a face to face final meeting. Spending four months involved in the fieldwork had given me an opportunity to build a good rapport with the participants. This became evident when some of the participants shared their problems (out of the study scope) before and after the interview session, such as their physical health problems and handling child fever, although this also means that they identified me as a HCP.

As mentioned in Section 3.6, participants in this study were recruited through purposive sampling. Although random sampling is considered as one of the methods to improve credibility, its application in this study may have introduced the potential of choosing uncooperative or inarticulate participants, as I would not have had any control over the selection of participants.

Shenton (2004) suggested that using a wide range of participants and involving participants from several sites may improve credibility. Recruiting women with postnatal depressive symptoms from six different MCH clinics in Kuala Lumpur helped to reduce the effect on the study of particular local factors peculiar to one clinic. This strategy is supported by Schuermans (2013) who pointed out that multiple sources of

data lead to comparable findings, and this strengthened the truth value and may promote greater credibility in the eyes of the reader.

Many strategies were used in ensuring honesty in participants' accounts and responses. This included an explanation of their right to refuse to participate. Potential participants were also informed that they would not be required to disclose the reason for their refusal. The purpose of these strategies was to include only those who were willing to contribute, thereby promoting trusted and reliable data.

To improve credibility, my initial impressions were noted before each interview session and these were compared and contrasted with the findings of this study, and past studies to assess its congruence. As in other qualitative research, I also played a major instrumental role in data collection and analysis thus my background, my qualifications and experiences are explained at the end of this chapter.

Initially, data analysis was conducted by me. Emerging themes were identified with important data and were highlighted and labelled with tentative themes. Following individual analysis, all themes were cross-checked by my two PhD supervisors to generate final consensus regarding themes and to verify credibility and confirmability of the findings. All three researchers (my supervisors and myself) supported the analysis by being involved in the process of creating the framework from its beginning and discussing about the analysis from early to the end of the process. In this case, it addresses the issues of dependability and confirmability by improving rigour, transparency and provides an audit trail (Dixon-Woods 2011). As asserted by Dixon-Woods (2011), such 'team' analysis may facilitate the transparency of the data analysis. The people in this research team also comprised of individuals from different roles to enhance rigour (two midwives and one sociologist).

3.10.2 Consistency

Consistency refers to the extent to which the study, if repeated in the same context will give similar findings (Merriam 2009). This can be achieved by the following strategies.

The questions (iterative questioning) were rephrased in case it was not correctly understood by participants. The questions in the topic guide were asked in a way that related to the participants' last response and therefore may not necessarily follow the same sequence. All responses were considered even if they differed from other participants (negative case analysis).

As part of the strategies to improve consistency, the research design and its implementation (see Section 3.4), the operational detail of data gathering (see section 3.8), and the coding process (see Section 3.9.2) are explained in detail. The reflective appraisal of this study is elaborated in the last section of this chapter. These strategies have been applied to improve consistency or dependability of the study.

3.10.3 Transferability

Transferability or external validity refers to the degree to which the findings can be exported or transferred to other context or situations outside the study setting (Merriam 2009). The geographical and sociocultural context of the participants has been explained in Chapter 2 (see Section 2.6.1-2.6.4) in order to provide contextual information about the study setting. Nonetheless, it seems impossible to generalise the findings of a qualitative study to another setting, as the purposive sampling used in this study aimed to select participants with some level of experience and explore their particular experience to answer the research questions. After all, a qualitative study is not aimed to find out what is generally true of the majority (Merriam 2009).

3.11   Ethical considerations

The protection of human subjects through the application of appropriate ethical principles is important in a study (Orb et al. 2001). In a qualitative study, ethical considerations have a particular resonance due to the in-depth nature of the study process. There are six important ethical issues considered in this study, and these are discussed below.

3.11.1   Informed consent and voluntary participation

To participate in a research study, participants need to be adequately informed about the research, comprehend the information and have a power of freedom of choice to allow them to decide whether to participate or decline (Polit and Beck 2006). Participant's agreement to participation in this study was obtained only after a thorough explanation of the research process.

All participants were required to provide written informed consent. The potential participants were approached individually and given an explanation of the purpose of the study and data collection process. They were given an appropriate time to ask questions and address any concerns. It was explained that as their participation was voluntary, refusing to participate or withdraw from the study while it was in progress would not affect their care or job in the respective clinic in any way.

A patient/participant's information sheet was provided to further explain the study. The potential participants were given appropriate time (24 hours up to one week) to read the information sheet and to decide whether or not they wanted to be involved in this study. They were required to sign the informed consent form before the interview to indicate their permission to be part of the study and this signature was confirmed prior to the interview session.

An explanation was clearly given to potential participants that they had a right to withdraw from the study at any time even after the informed consent had been signed. Consent to audio record the interview was also asked from them. The patient/participant's information sheet and informed consent was available in two languages: Malay and English.

3.11.2 Anonymity and confidentiality

The anonymity and confidentiality of the participants was preserved by not revealing their names and identity in the data collection, analysis and reporting of the study findings. Privacy and confidentiality of the interview environment were managed carefully during telephone communication, interview session, data analysis and dissemination of the findings.

Telephone communication

Since the eligible participants (women with postnatal depressive symptoms) were contacted through phone to know their decision whether or not to participate in the interview study, proper safeguards were taken. There were a few cases where the phone call was answered by the third party (husband/ mother). In this situation, I did not expose details of the study. Instead, I explained that the purpose of the phone call was to follow up the information that had been given during the previous visit to the respective clinic. I left the contact number with that person and asked for a better time to call back.

Interview session

Each interview was conducted individually in a private and quiet room in the respective clinic or participant's home without access by outsiders. I am the only one who should be able to match the identity of the participants and voice recordings.

Data analysis and dissemination of the findings

Data transcribing was conducted in a private room using earphones to avoid the possibility of recordings being heard by other people. The identities of the participants were removed during data transcription, including their names or any significant aspect of identity. They were referred to by their pseudonym names in the verbatim quotes that will be presented in Chapter 4 later.

Written consent or any document which contains the participants' personal detail was kept in a locked cabinet with no access to anyone other than myself. This personal information will be destroyed in accordance with the University of Stirling research governance procedures.

Participants were however, notified that their actual age would be used for the purpose of reporting the data from the interview (Gerrish and Lacey 2010). Data were shared

with PhD supervisors for the purpose of reaching agreement of the interpretation without exposing the participants' details at any interim stage. The access of the supervisors to the data was explained to the participants and their consent regarding this matter was obtained.

This project adhered to the University of Stirling Code of Good Research Practice. The University of Stirling has adopted the Model Publication Scheme (MPS) for Scottish Higher Education Institutions (HEIs), which has been developed by Universities Scotland This MPS was approved by the Scottish Information Commissioner on 25 March 2004 (Freedom of Information (Scotland) Act 2002). Overall responsibility for this Publication Scheme resides with the University. No participants identifying information will be included in reports or publications arising from this project.

3.11.3 Ethical approval and access to participants

The ethical approval was sought and granted from two main research ethics committees: the School Research Ethics Committee (SREC) in the School of Health Science, University of Stirling and the Malaysian Medical Research Ethics Committee (MREC).

Upon approval from the SREC (Appendix 19), the ethical approval from the Malaysian National Institute of Health Research (NIHR) and MREC were applied through online registration with the Malaysian National Medical Research Register (NMRR). Prior to this application, permission from the respected authorities of the study sites was first sought. Therefore, application letters were sent to the Director of Hospital Kuala Lumpur, and the Director of Health Department of Federal Territory Kuala Lumpur.

Upon getting the permission from the respected authorities of each study site, the online application was submitted. The process of application was monitored at the NMRR website. The final decisions were notified by the MREC through email to inform the status of the application. Approval from the Economic Planning Unit, Department of Prime Minister Malaysia was also sought in order to obtain the research pass as this research was considered to be an application from outside Malaysia.

Initially, only five MCH clinics were selected and approved by MREC (Appendix 20). However, after almost three months in fieldwork, there were fewer numbers of Indian women participating in the study due to a low rate of attendance in the five selected MCH clinics. For this reason, an approval to increase the number of clinics had been made through online application at NMRR website. Three MCH clinics were added.

Upon getting this approval, I started visiting the newly selected clinics and looking, mainly, for Indian participants. At the end of the fourth month of the study period, it was decided that there was no more new concepts emerging, therefore the data collection stage was ended.

3.11.4 Data protection

Screening stage

All questionnaires for the screening stage were kept in a secured cabinet in a locked room with no access other than by researcher to ensure adherence to legal requirements (Data Protection Act 1998) and ethical guidelines. There were a total of 240 women who were not eligible for the interview study after being screened for PND: score less than 3 in the PHQ-2. In this case, their questionnaires were stored for the purpose of report writing: to report the total number of women who were eligible for the interview stage out of the total women who had been screened.

Interview stage

Data analysis was conducted simultaneously with the data collection. I transcribed and analysed the data independently and was supervised by my two PhD supervisors: Professor Helen Cheyne and Professor Margaret Maxwell.

Data were stored in encrypted devices and password protected. As for the purpose of cross checking in data analysis, the transcripts were shared with the PhD supervisors through password protected email. The information storage on the university computer, personal computer or laptop, hard disk and memory sticks were protected by using passwords that were only held by me (Gerrish and Lacey 2010). Hard copies or written materials of the data were kept in a secured cabinet in a locked room with no access to others to ensure adherence to legal requirements (Data Protection Act 1998) and ethical guidelines. Both written and electronic data from this study will be stored for five years. However, the interview recordings will be disposed once they are no longer needed.

I was aware that any unexpected adverse event which was caused by this study should be reported to the MREC and the SREC, School of Health Science, University of Stirling. However, no such event occurred throughout the study period. The results of the study will be reported and disseminated through peer reviewed scientific

journals, conference presentations, thesis dissertation, university library and written feedback to research participants or relevant community groups.

All anonymised data will be securely stored for a period of 10 years in accordance with the University of Stirling Code of Good Research Practice: the safe and secure storage of the primary data will normally be for at least ten years, a safe and secure method of disposal must be used after this time, and all accordance with the requirements of the Data Protection Acts (Data Protection Act 1998). Personally identifiable data (e.g., the recruitment log) will be destroyed as soon as I am sure that they will not be needed again.

3.11.5 Cultural and linguistic barriers

It is important for researchers to be fully aware of the obstacles in their research and plan for preventative action, as this may affect the timing of the research. Since the beginning of this study, I was aware that in some cultures, women may need permission from their husband/partner to take part in this study. Therefore, I allowed adequate time for the eligible participants to discuss the decision to participate with their husband/partner. In this case, the women were allowed to contact me or I only contacted the women with their permission. Although there was a case where a woman gave this as a reason not to participate, the majority of the participants discussed the decision to participate with their husband and were allowed to be involved in this study.

In Malaysia, Malay language is used as the formal or official language. The questionnaire for screening stage (the EPDS) was available in English and Malay version, however, other participants-related documents, such as patient's information sheet, invitation letter, informed consent, and topic guide were translated into Malay and verified officially. Those translated documents were piloted with Malaysian users from three different ethnic groups to ensure the clarity and understanding of the language and concepts. Some modifications were taken according to the feedback received ~ to print the screening instruments in fewer pages as possible to ensure it was answered completely.

I was also aware that there were three different cultures with different mother-tongue languages involved in the interview session. Given the fact that Malay is the formal language in Malaysia, I assumed that most of Malaysian women and HCPs were able to converse and express their experiences at the optimum level using Malay language.

I also included the ability to converse in either Malay or English as one of the inclusion criteria for this study. This was to optimise the understandable communications between researcher and participants. There was one case where a Chinese woman was eligible for the interview session based on the screening tools (as this was based on reading in Malay), but somehow was found not to be able to converse fluently either in Malay or English for the interview stage. Therefore, she was excluded from the study.

There were also some of the participants who preferred to be interviewed in English. This involved six interviews with women and three interviews with HCPs. Due to limited human and financial resources, there were no other versions of the questionnaire for screening and the topic guides used other than Malay and English.

3.11.6 Handling and managing distress during interview

The face to face semi structured interview technique requires me to listen and respond to the participants' answers or speech. The act of my listening may create unintended harm to the participants (Warren 2002). I was aware that working with a vulnerable group of people, the participants may potentially become stressed while expressing their feelings during the interview session. Therefore, a woman who believed herself (or was considered by the nurse in charge or by me) to be severely depressed to the extent that participation in the interview might worsen her condition, was excluded from this study. In one case, a woman was referred by a head nurse as having some level of depression after her last childbirth. After phone communication, a meeting was arranged at the woman's home. However, she was found as not being able to concentrate in the interview session, therefore the interview was stopped after ten minutes. She had not developed any adverse effects, but I felt that her descriptions on her depressive experiences were in a repetitive manner and her responses did not always relate to the questions being asked. As this woman was not able to focus, it was assumed that she had probably not fully recovered, therefore I decided not to introduce any potential harm to her and she was excluded from the study.

As applied to all participants, they were advised to withdraw from the interview at any point if they thought answering the interview questions and disclosing their feelings may impact upon their emotional health status. Ten out of 33 participants were crying when sharing some parts of their experience of PND during interview sessions. In this case, I offered them to discontinue the interview if they felt it would cause any physical or psychological harm. They were also given a choice to stop the interview and

continue once they were ready to do so. In all cases, women chose to stop talking about the study topic for a few minutes and continued after they felt better. During this 'time break', I tried to distract women's attention by having conversation outside the study scope (e.g., her child's name or anything she likes to do in her spare time). Stopping the interview and searching for possible solutions for the participants' distress indicates that researchers are aware of the vulnerability of participants and their rights (Orb et al. 2001).

Women were informed that the additional support was available as quickly as they needed it especially for those who were interviewed at the MCH clinics. Offering and referring participants to counselling in case they needed it was regarded as fulfilling the moral obligation by ensuring that they have regained control of the situation by talking (Orb et al. 2001). All women were informed that the Counselling Psychology Unit Department was available in the Health Department of the Federal Territory Kuala Lumpur for further assistance. All of the women did not show any interest in contacting this unit, although this was offered.

3.12 Reflexivity

One of the main considerations with qualitative data is the role researcher's play as a data collection instrument. To minimise personal and intellectual biases or influence that they may have on participants at each stage in the study development process, qualitative researchers explicitly impart their own personal motivations, values and assumptions (Mays and Pope 2000). In this way, they are considered as sensitively and consciously aware of how any of these factors have shaped the collected data. This thoughtful, conscious, and transparent self-awareness process of reflection is known as reflexivity. Reflexivity allows for an external review of the methods applied to avoid obvious, conscious and systematic bias, therefore increases the credibility of the study (Finlay 2002; Ormston et al. 2014). Finlay (2002) recommends three different stages that reflexive analysis can be applied within the research process: the pre-research stage, data collection, and data analysis. In the sections below, I demonstrate how I ensure the reflexive process was applied in gaining insight, as well as a tool for evaluation. Adopting this approach helped me to ensure that reflexivity become truly embedded throughout my study.

3.12.1 Pre-research stage

At the start of this research, I took an explicit reflection on both the topic for study and my own relationship to this topic. I examined my motivations, assumptions, and interest in this topic to recognise forces that directed or skewed my research track.

My interest in PND initially evolved from my own personal experience. I was not prepared when I first knew that I was pregnant with my first baby seven years ago, which then created some level of distress during pregnancy. After going through a childbirth process, I experienced negative reactions as described in the literatures: an overwhelming feeling of responsibility as a new mother, worrying too much about my baby's health, and feelings of failure when the breast milk produced was not enough for the baby. The presence of such reactions led me to explore an association between my unplanned pregnancy and postnatal distress.

Coincidentally, at this time I was looking for a topic for my Masters' dissertation. Through reading, I found that the rates of PND in Malaysia were considered as among the lowest rates in the world (Halbreich and Karkun 2006), with a prevalence of 3.5%. I was not convinced with this evidence and when found other evidence indicating that the rate of PND in Malaysia is not as low as reported (Azidah et al. 2006; Kadir et al.

2009). Reading these study findings made me reflect on my personal and working experience. I noticed that there was limited concerns and support given to maternal mental health in the clinical practice. I have also learnt from non-academic resources (e.g., local newspapers and social media) about how PND was portrayed in Malaysia. The most striking news was that three famous Malaysian celebrities publicly confessed that they have had postnatal depressive symptoms and were calling for attention to PND and to find interventions which could help women. One of them said she had been contacted by many women after her confession, admitting that they also had suffered PND. At this point, I started to enquire whether PND in Malaysia was as low as reported by the literature.

There were authors suggesting that traditional postnatal practices have protected women from PND (Stern and Kruckman 1983), but I felt this was not always so and might change over time. I considered that, with the modern way of living and the education that the women received, some of them may find the practices as too extreme and not relevant to their life style, although I was aware that this may not be relevant for each women. From what I have observed and experienced, Malaysian women were not allowed to leave their house during the postnatal period and they were expected to adhere to certain traditional practices. I personally believe that although this was said to protect the mothers' physical and spiritual health, it could also limit the women's social life. A study conducted among Malaysian women by Azidah et al. (2006), approximately 33 years after Stern and Kruckman's study (1983) somehow supported my thoughts. This study reported that women practicing traditional massage were found to have a 10-fold risk of getting PND. At this time, the influence of cultural backgrounds did not make any sense to me and the assumption remains unchallenged until I begin my data collection and analysis.

3.12.2 Data collection stage

At the beginning of the participants' recruitment, I introduced myself as a researcher from the University of Stirling and an academic from the International Islamic University Malaysia. Nonetheless, when engaging with the participants throughout the study, especially with HCPs group, disclosure of professional status (as a midwife) occurred. When disclosure happened, I emphasised that although I am a midwife, my latest job scope was more on teaching and research instead of directly caring for mothers in clinical practice.

Despite making clear my dual role as a researcher and a midwife, I felt that some HCPs were not wholly expressing their views. They were more likely to provide positive reviews of the healthcare and mask the negative aspects of the current healthcare systems. It was felt that some of them were uncomfortable discussing patient care in case their reported practices were audited or possibly reported to a higher authority. Perhaps, such concealment was due to a concern that they would be judged by me, as a midwife, or probably they might have been concerned about senior managers or those in higher authority becoming aware of these criticisms when findings of the study are published (despite of being assured of anonymity and confidentiality of the data).

Without a nurse uniform, my professional status remains unknown to the majority of the women who participated in this study, except for a small number of them. By concealing my affiliation, I hope that they would freely and openly discuss both positive and negative reviews of their experiences of care. This may not always be the case for each woman that I interviewed. Some of them appeared to have concerns that sharing their experience, especially any negative feedback on HCPs would affect their care in the clinic, although they were informed that it would not affect the care that they received in any way.

Despite positioning myself as a researcher, there were situations where researcher-clinician conflict occurred. For instance, a woman complained of having persistent postpartum bleeding after two months of her childbirth and asked whether or not I could help her with this. At the end of the interview, I advised her to seek help from the clinic, the one that she visited during her pregnancy. Back in the clinic, I discussed this with the head nurse in charge. However, the head nurse was not keen to follow up this case as she believed that her postnatal care was only up to one month postnatal. Rather, she suggested to me that I should advise the woman to visit another health clinic. What I have learnt from this was, some HCPs may be reluctant to provide help if it was not included in their job scope, although their reluctance could jeopardise the woman's health. This perception somewhat influenced my thoughts throughout the data collection process.

Having previously shared some level of postnatal distress, this positioned me in the role of the 'insider' while interviewing women in this study. Because of this experience, I was able to understand their experience and to show some level of empathy, and acknowledge the significant difficulties and struggles in managing their condition, better than ones without such experience. Despite the advantages of being an 'insider', I had to guard myself from assuming that my experience may not influence the conversation

flow, and continuously be alert to the fact that the women may not share the same language as me. Rather, I rigorously reflect that the experiences and struggles of being a new mother may differ for each, and learning from these women would be a great opportunity.

As previously mentioned (see Section 3.8.3 and 3.8.4) field notes were written as soon as each interview ended. The notes contains participants' non-verbal communication and narratives (as much as it could be remembered), the significant event during the interview (e.g., presence of husband and mother in law, baby's crying), and my own insights. For instance, the flow of the interview was interrupted when some women had to stop talking due to their baby's crying, and attend to the baby for a few minutes, and then continue with the interview. All of these events were clearly recorded in the field notes. Not only to ensure all important data were included in data analysis, but also this practice, I hope, supports the trustworthiness of this study.

3.12.3 Data analysis stage

Although I was aware that some of my thoughts seemed to be challenged during data collection, this became clearer when I analysed my data. For instance, I expected the HCPs would focus more on biomedical factors and may not acknowledge any esoteric elements or spiritual belief as a contributing factor for PND. I presumed that the women would acknowledge the contribution of spiritual beliefs, such as 'dirty blood', in the development of PND. This however was not the case. Rather, very few of the HCPs discussed biomedical factors, in fact, some of them mentioned spiritual belief such as 'dirty blood' and 'bad spirit' as factors that could lead to development of PND. On the other hand, only one woman acknowledged the factor of spiritual belief in relation to their PND experience.

Throughout the data analysis process, I have reflexive notes which helped me to record my personal feelings and ideas about the participants' narratives and themes. Writing these notes not only helped me to become aware of my personal growth in the research process, but also provided transparency in study development.

To summarise, although it is not always possible to stand back and examine my preconceptions, I have considered many efforts in ensuring all thoughts, feelings and activities associated with the study were kept recorded along the research process. These reflexive practices somewhat helped me to develop self-awareness and turning back on my own initial reactions, as well as to provide credibility and accuracy of the

study (Parahoo 2006; McGhee et al. 2007). Most importantly, I hope these reflexive practices enabled the participants' voice to be heard, rather than carrying my personal and professional bias in the data analysis and interpretation. Although I was aware that my personal experience could influence how I interpreted the participants' experience, I certainly believe that it actually boosted my interest and passion, rather than inappropriately influencing data collection and analysis.

3.13   Chapter Summary

This chapter provided the justification for choosing the critical realism approach to conduct an exploratory qualitative study in order to achieve the research objectives. The framework approach used in data analysis was described, leading to the findings discussed in the next chapter. The framework approach was used to analyse interview data from both groups of participants: women with postnatal depressive symptoms and HCPs.

To discuss these findings, a rich description and explanation of the final themes will be discussed in the two following chapters. Whilst Chapter 4 offers a description on four themes as discussed by the women's group: *the changes*, *causal explanations*, *dealing with postnatal depression*, and *perceived impact*, Chapter 5 reveals three themes from HCPs group: *conceptualisation of postnatal depression*, *causal explanations*, and *care and treatment*.

4 Chapter 4: Women's experience of postnatal depression

4.1 Introduction

As outlined in Chapter 3, the purpose of this qualitative study was to explore the perceptions and experiences of postnatal depression (PND) in Malaysia. Data were collected through face to face semi-structured interviews with two main groups of participants: women with experience of PND, and HCPs who were working either in maternal and child health (MCH) clinics or a female psychiatric ward.

During the interviews the women described their perceptions and experiences of PND, while the HCPs discussed their knowledge and perceptions of PND and shared their experiences of caring for the women with PND. Research findings reported in this chapter were based on the analysis of the interviews conducted with the women. Chapter 5 will discuss the findings from the interviews with the HCPs.

As mentioned in Chapter 3 (Section 3.7.1.1), there were three types of assessments that were used to identify women with postnatal depressive symptoms: (i) potential participants were asked to complete two self-reported screening scales (EPDS and PHQ-2); and/or (ii) potential participants who had completed the screening scales and not scored as depressed were asked whether they would describe themselves as having any 'emotional distress' following their recent childbirth; and/or (iii) head nurses in charge of each MCH clinics were asked to identify women from their clinics who they described as experiencing 'emotional distress' postnatally.

Table 7 illustrates the demographic characteristics of the participants.

Table 7: The demographic characteristics of the women with postnatal depressive symptoms

Demographic characteristics	Frequency	Percentage (%)
Age		
21-30	18	55
31-40	13	39
> 40	2	6
Level of education		
High School	26	79
University	7	21
Employment status		
Housewife	19	58
Working	14	42
Marital status		
Married	32	97
Separated	1	3
Parity		
Primiparous	11	33
Multiparous (2-5)	22	67
Duration after childbirth		
≤ 6 months	21	64
6- 12 months	12	36
Place of the interview		
Home	18	55
Clinic	10	30
Workplace	2	6
Other locations	3	9

As can be seen from Table 7, more than half of the participants were in the age group of 21-30, and the majority had finished their high school education (79%). Whilst more than half were housewives, the rest were working mothers. All of the women were married except one who was separated (in the process of a divorce). The majority of them (67%) were multiparous mothers, which meant that they had 2 to 5 children, whereas others were first time mothers. Out of 33 women, 64% (n=21) of them had given birth in the past 6 months and the remainder had given birth between 6 and 12 months previously. About half of the women were interviewed at home, while others were interviewed at the clinic, workplace or other location of their choice.

As described in Chapter 3, all discussions in the interview sessions were carried out with sensitivity. The women were asked about their perceptions of postnatal emotional distress, but were not labelled as 'mentally ill' or 'depressed'. Instead, it was explained at the beginning of the interview that they had been selected to take part because they had indicated (by questionnaires) that they were experiencing some level of emotional distress following their recent childbirth. They were informed that the purpose of this study was to understand more about the ways that the emotional distress affected their daily lives, how they recognised emotional distress, and how they coped with these experiences. This approach was used to provide an open, but focused discussion, and to avoid labelling their symptoms.

During the interviews, the most common terms used by the women to explain their emotional distress was as 'stress', 'tension', 'unhappy', and 'feelings of being disturbed'. Only one woman clearly stated that she was depressed. These terms were used throughout the interviews to explore women's perceptions and experiences of emotional distress as a broader approach to exploring PND. In many interviews, the terms 'emotional disturbance' and 'emotional distress' were also used interchangeably with the above terms.

The participants contributed large amounts of information that have been summarised under 4 themes (Table 8) that represent the women's perceptions and understandings of PND. The following sections provide an account of how the women described the manifestations of emotional distress after childbirth (the changes), how they explained their perceived causes of PND (causal explanation), how they dealt with the distress (dealing with postnatal depression), and what were the perceived impacts of PND on their daily life (perceived impacts).

Table 8: Themes, subthemes and categories from interview data with women

Themes	Subthemes	Categories
The changes	Emotional changes	Different character
		Negative thoughts
	Behavioural changes	Temperamental actions
	Physiological changes	Sleep deprivation
		Loss of appetite and physical discomfort
Causal explanations	Pregnancy-related stressors	Unplanned pregnancy
		Worry and anxiety
	Transition to motherhood	Physical stressors
		Family management
		Roles and Identity
	Sociocultural factors	Social circumstances
		Tradition-modernity conflict
Dealing with postnatal depression	Surviving strategies	Positive actions
		Relaxing measures
	Barriers to Seeking Help	Perceived roles
		Past experiences
	Desired care	Professional support
		Education and assessment
Perceived impacts	Parenting styles	-

4.2   Theme 1: The changes

The changes refer to the symptoms or 'cues' which were recognised by the women in identifying that something was wrong with their emotional health after their recent childbirth. On a broad overarching level, three categories of symptoms were identified: emotional, behavioural and physiological changes. Whilst a few women reported all three changes, the emotional changes were the dominating sign of PND that women focused on. When compared across cultural backgrounds, it was found that Indian and Chinese women were more likely to discuss the symptoms of PND based on changes in their emotional state, whilst Malay women described this using a combination of emotional and behavioural changes. The following sections explain how women described the emotional, behavioural and physiological changes that they experienced as problematic.

4.2.1   Emotional changes

Emotional changes refer to the feelings that were being experienced by the women when they felt down or depressed. Almost all of the women spoke about emotional changes as an indicator for PND. This subtheme is discussed in two categories: different character and negative thoughts.

4.2.1.1   Different character

This category refers to the unusual feelings that the women experienced after their childbirth, which they felt contrasted with their normal self. It was the feeling of being a different person that made women aware that something was wrong with their emotions. The women discussed having feelings of being different, such as 'loss of excitement', 'getting easily irritated', and 'being not normal'. According to Raihana, she realised that she felt different from what she expected when she was not enjoying her experience of motherhood:

> After giving birth, I spoke less. I didn't even laugh, I didn't enjoy my life, I didn't feel like talking to others. There was a sudden change. No feeling, nothing, like laughing, not at all. (Raihana, PT7, Malay)

Raihana mentioned 'sudden changes' to explain that her loss of excitement or enjoyment were the changes that she had experienced after the birth.

Other women noticed that they became easily irritated and learnt that these changes had appeared after the birth of their recent child, yet they had no idea why this

happened. Maria pointed out that the stress that she had after giving birth made her become a more sensitive person and she would lose her temper easily:

> I don't know why it happens. After my last childbirth, I felt like I easily get angry, sensitive, like became easily irritated. Sometime I easily get stressed while I was working….when I felt stressed, I easily get angry. I was like extremely irritated. (Maria, PT2, Malay)

Despite a lack of understanding of these emotional changes, women were sure their current emotions were different to how they had felt before the birth of their child. Lila, a first time mother shared her feelings of being irritated since her childbirth as something she felt contrasted with her usual personality. As she noticed her different character, Lila tried to keep calm, but perceived that it was difficult to control her emotions. Lila shared her difficulty in handling her feelings:

> I've no idea why it happened. Sometimes I was thinking why I should do that, I tried to keep calm but I can't. I don't know why it happens. I've these changes after giving birth, I don't know. (Lila, PT20, Indian)

Feelings of having a different character could be also related to feelings of not being normal in some women. The 'not normal' term was repeatedly mentioned by some women when describing the feelings of not being their normal self. Lin said:

> When I felt stressed, I'm not a normal person. Now I'm okay. I was not normal before this, perhaps [it was] because of the stress. (Lin, PT15, Chinese)

When asked to explain about her meaning of 'not a normal person', Lin said her life was generally full of crying and quarrels with her husband:

> Every day I cried, almost every day. Every day we were arguing with each other. (Lin, PT15, Chinese)

Apart from recognising that something was wrong when they felt that they had a different character, women also realised that they tended to think negatively following childbirth.

4.2.1.2 Negative thoughts

The majority of women in this study reported having negative thoughts as one of the changes they felt related to their emotional distress. Negative thoughts include 'negative feelings' and suicidal ideation.

Chun described her 'negative feelings':

> I think a lot of negative things. What will be happened in the future? I can't think of the future, you know. My baby, I mean how will I take care of my first child? Can I handle her or not? Negative feelings. I can't! I can't! I can't! (Chun, PT28, Chinese)

Chun considered the presence of the doubt of her capability to manage both of her children as 'negative things' that made her recognise there was something wrong with her normal self. She said:

> When you think negative things and then you start to cry, aiiyo! You know something was wrong already. (Chun, PT28, Chinese)

Suhaili shared the thoughts she had of taking her premature baby from hospital and taking her home without rationalising the risk to the baby's health:

> I've told my husband: "no matter what happens, I want to take my baby home". I told myself: "if I've to fight the doctors, or the nurses, it doesn't matter at all". I thought like that. I wanted to open the incubator and take her back home. (Suhaili, PT11, Malay)

Another example of negative thoughts was suicidal ideation. Several women reported making an attempt at suicide using several methods, such as cutting their wrists and jumping off a high building. Lila, for example described her attempted suicide without understanding the reasons of doing so:

> To some extent I felt it better for me to die. That's how bad I felt. I don't know, I don't know why. There's one time I took a broken glass and tried to cut here [showing her wrist]. I don't know why. (Lila, PT20, Indian)

While some women could not explain the reasons for their suicidal ideation, several of them provided reasons, such as feelings of being very depressed and feelings of not being an important person. Whilst Nisha described how depressed she was with the difficulties of caring for two disabled children, Manju admitted that she had suicidal thoughts because of her marital problems:

> After I gave birth, I wanted to commit suicide at my house. Because it was very stressful, I said "never mind you [her husband] want to know how much I love you, I'll show you, then when I'm no longer here, you'll know that whatever you want to do you're late". (Manju, PT3, Indian)

The reason underlying Manju's suicidal ideation was more likely related to her feelings of being not an important person after she was left by her husband for another woman. As a consequence, she tried to prove her love through suicide with the purpose of making her husband regret his mistake.

As outlined in the above descriptions, emotional changes can be characterised by feelings of: loss of excitement, getting easily irritated; not being a normal person; and at its worst, suicidal thoughts. The changes in the women's emotional state could contribute to adverse behavioural changes, which are explained in the following subtheme.

4.2.2   Behavioural changes

The emotional changes created feelings of a loss of control which had led the women to the changes in their behaviour. More than half of the women came to realise that something was wrong after their childbirth through their temperamental actions.

4.2.2.1   Temperamental actions

Temperamental actions include unreceptive responses, such as shouting at others, breaking things, and treating the baby harshly. Lin repeatedly spoke of temperamental actions in her descriptions. One of these actions was shouting at her mother:

> Since I get married I had never shouted at my mother. All of a sudden I shouted at her. She was shocked. She was shocked. I can't hold my feelings. (Lin, PT15, Chinese)

Lila also reported an inability to control her anger and an increase in aggressive behaviour:

> I can't control my anger, to the extent I felt like I'm holding grudges, that's why I become aggressive. This is not who I'm before giving birth. After the birth, I can't hold my emotions; I've to express it out. I always have these emotions, getting angry, if I think I want to fight, I've to. I can't keep it. (Lila, PT20, Indian)

Manju explained how she put herself in danger by smashing her wedding photo frame and injuring her hands. She was more aware of her behaviour than her emotions and appeared to be dissociated from her physical pain:

> I didn't realise when I did that but it was not painful, I'm not worry about cutting my hands, I don't know what kind of emotions I had. The blood was coming out "chooo choooo" like this [demonstrating the blood flowing out] and my children said "Aiyyoo mommy!! The blood is coming out". But it's not painful; I don't know what had happened to me at that time. It's not painful at all. (Manju, PT3, Indian)

Some women reported that they noticed the changes when they become harsh in handling their baby, as explained by Raihana:

> When I felt like disturbed, I'll do everything harshly. I become harsh person. Then I wonder, "Why I did so"? I changed the nappy harshly, put him down in improper way, like I want to drop down him. (Raihana, PT7, Malay)

While Manju started to make sense of her aggressive behaviour she experienced when she said: 'I don't know what kind of emotions I had', Raihana tried to make sense her action of harshly treating her baby and asked herself: 'why I did so?' Both explanations indicated that women started to question their behaviour when they reached a certain crisis point.

Another example of behavioural changes is uncontrollable crying. Nearly half of the women's descriptions indicated that they noticed something was wrong when they cried more than usual after their recent childbirth. Lian, a first time mother described her crying as 'crying all the time':

> I was very emotional throughout my postnatal period. There were so much emotional feelings. I was crying all the time. Since I came here [mother in law's house] after the postnatal period, I always cry. I was not the person who always crying. (Lian, PT17, Chinese)

Lian indicated the crying spell that she experienced was an unusual thing for her when she mentioned 'I was not the person who always crying'. Whilst Sheela characterised her crying as 'really cry', Wai reported it as 'cried loudly' and her crying was related to her conflict with her sister. Suhaili echoed both Sheela and Wai's description. Despite being warned by her female family members that excessive crying during the postnatal period could lead to PND, she irrationally cried for any simple thing. Suhaili described and mimicked her crying style:

> I started to cry, it was not just a normal crying, oooo…. [Mimicking her crying style], it was a very loud crying, sometimes it was like, more than that. (Suhaili, PT11, Malay)

Women seemed to recognise something was wrong when they experienced temperamental actions and uncontrollable crying, though the reason for these changes was not fully understandable. In addition to emotional and behavioural changes,

physiological changes were another indicator that women used to explain and understand that something was wrong after their childbirth.

4.2.3   Physiological changes

Physiological changes refer to the disturbed body functions that were being experienced by the women in relation to their emotional distress. The changes include sleep deprivation, loss of appetite, and physical discomfort. As compared to the first two changes, physiological changes were the least reported by the women.

4.2.3.1   Sleep deprivation

Although women related sleep deprivation with their emotional distress, they recognised this as either the consequence of their anxiety or other stressors, such as family and financial problems. Jill, for instance, directly associated her anxiety levels with difficulty to sleep:

> When I've anxiety, I couldn't sleep a wink at night. (Jill, PT8, Chinese)

Wai and Jayanthi explained that their sleep deprivation was due to their family and financial problems:

> I couldn't sleep because I've family problems and financial problems (Wai, PT14, Chinese)

> We've to pay [the debts] but sometimes we've no money. So sometimes I was sad, I was thinking, how to pay this, how to settle that, that's why I couldn't sleep. (Jayanthi, PT27, Indian)

It appeared that although sleep deprivation was mentioned by the women in this study, it was less a sign to the women that something was wrong. Instead, they were perceived more as a reaction to other stressors.

4.2.3.2   Loss of appetite and physical discomfort

Loss of appetite and physical discomfort were other physiological changes mentioned by the women. Zhiang mentioned sleep deprivation and loss of appetite:

> I couldn't sleep well, I couldn't eat well. I couldn't eat. I couldn't eat. I couldn't eat. (Zhiang, PT32, Chinese)

Several women reported headaches as part of their signs of having emotional distress. Maria describes the characteristics of her headache:

> Now, after giving birth I always have headache. There's one time I felt headache like my head was squashed by a big stone. It didn't get any better by using medicated oil. I can't bear the pain, I was crying, calling my husband to massage and put the medicated oil, and then only it works. (Maria, PT2, Malay)

Additionally, Lin experienced skin itchiness whenever she felt distressed. She reported that she did not have the same habit before her last childbirth:

> Sometimes, when I've problems I feel itchy. Why it happens? I don't know either… it will become red, very red. Why it happens? I don't have that habit before. If I felt so stressed, it become like that. There were a lot of scratching marks as well. (Lin, PT15, Chinese)

This first theme revealed that the recognition of the symptoms of PND was mainly described by emotional changes with less explanation of physiological changes. Many descriptions of emotional changes were mentioned by Chinese and Indian women, whereas Malay women were more likely to describe the symptoms based on a combination of emotional and behavioural changes. The perceived causes of these 'changes' are explained in the next theme.

4.3   Theme 2: Causal explanations

Theme 1 discussed the changes that the women experienced in relation to their emotional distress after their recent childbirth. The perceived causes of these changes are explained in this second theme, which has been conceptualised as *causal explanations*. Throughout their pregnancy, labour and delivery, and postnatal period, women have to adapt to various physical, physiological, and psychological changes. The women were not only expected to adjust themselves to these changes, but were also required to resume their existing roles as a wife, daughter, employee, as well as a member of their society. This second theme captures the women's accounts that relate these experiences with their emotional distress.

The perceived causes for emotional distress (PND) were encapsulated through three subthemes: pregnancy-related stressors, transition to motherhood, and sociocultural factors. When the data were analysed across cultural backgrounds, it appeared that the Indian women were more likely to discuss transitions to motherhood as a causal factor for their emotional distress. The Chinese women focused more on sociocultural conflicts, particularly socio-economic factors and cultural practices. Although there was a general tendency for Malay women to discuss sociocultural conflicts more, this pattern was not so differentiated when compared to Chinese women. Regardless of the women's cultural backgrounds, there was less emphasis placed on pregnancy-related stressors.

It should be noted that the following sections follow the sequence of the women's journey to becoming a mother: from the antenatal to the postnatal period, not necessarily representing any priority of the causes. The first subtheme (pregnancy-related stressors) provides an explanation of antenatal issues and how women linked this with their emotional distress. The second subtheme (transition to motherhood) includes the women's descriptions on how they associated emotional distress with motherhood adjustments. The third subtheme (sociocultural conflicts) discusses how the women explained their social circumstance and tradition-modernity conflict as causal factors for their emotional distress.

4.3.1 Pregnancy-related Stressors

This subtheme was identified through women's accounts illustrating how their pregnancy experience was linked with emotional distress during the postnatal period. The experience includes unplanned pregnancy, worry, and anxiety during pregnancy.

4.3.1.1 Unplanned pregnancy

About one third of women reported that they were not planning to have a baby when they first discovered that they were pregnant. This feeling was associated with unreadiness to become a mother, short pregnancy interval, and age factors (too young or too old to become a mother).

Some women appeared to have a sense of unreadiness to become a mother and linked this with their emotional distress. Priyanka exemplified that her unreadiness to become a mother had contributed to her feelings of being burdened with the newborn's demands. She perceived that the birth of the baby had interrupted her personal needs: sleep and career. She said:

> When she was born, I was 26 years old. I don't think that I want to become a mother at that age. I felt stressed when she was crying. I couldn't sleep at night. I was so concerned about my sleeping time and my work. I became stressed when she cried and when she got fever. (Priyanka, PT30, Indian)

This unreadiness not only contributed to irritable moods, but also limited Priyanka's ability to understand the needs of the baby:

> I actually was not ready. Not ready yet. That's why I felt so stressed when she was crying, even she was crying for milk I also felt stressed. I can't understand the needs of the baby that time. (Priyanka, PT30, Indian)

As compared to Priyanka, Sheela, a mother of two described her unreadiness as being 'out of plan'. She shared her unsuccessful family planning:

> Our plan was to have another child when my son is 3 and above. But you know, you can plan but you never know. (Sheela, PT26, Indian)

The age factor was described as another reason for the unreadiness. Women described themselves as either too young or too old to become a mother. Asha reported that she felt unconvinced that she was pregnant as she supposed that she was too young to become a mother. Vijaya, on the other hand, perceived that she was at a too advanced age to get pregnant for the fourth time:

When my baby was born, I was 40 plus, could I look after the baby? (Vijaya, PT25, Indian)

Unplanned pregnancy could also be associated with the women's anxiety during pregnancy. For instance, concerns about the effects of being pregnant at an advanced age of foetal development made women feel anxious and uncertain during pregnancy, which carried on into the postnatal period.

4.3.1.2 Worry and anxiety

The women's worries and anxiety during pregnancy were primarily associated with a sense of uncertainty about the condition of their foetus. Although these are normal concerns for most women (worldwide), the worries and anxiety appeared to be augmented for women because of medication use, unexplained obstetric condition, health problems, and advanced maternal age which came with increased risks.

The word 'scared' was commonly used by the women to express their worries and anxiety about any congenital defect that their baby could have. Sheela described her thoughts of being 'scared' of the baby's deformity when she was on 'strong antibiotics' during the first trimester of pregnancy. This made her become anxious during pregnancy:

> Every time we go for scanning, we asked the doctor to see whether the baby has nose or not. I wanted to check the baby's features during ultrasound. I wanted to make sure everything was okay. That was the stressful part of pregnancy. (Sheela, PT26, Indian)

She added that her anxiousness made her think of terminating the pregnancy:

> There were many times I said that maybe I should terminate my pregnancy but my husband didn't believe in it. (Sheela, PT26, Indian)

Chun also mentioned that she became anxious after being informed that her antenatal bleeding could be associated with the baby's abnormality. Her anxiety increased when nobody could explain the reasons for the antenatal bleeding, which caused her to stay at home throughout her pregnancy to avoid the bleeding:

> That doctor said maybe my baby is abnormal. So arghh!! Don't know what happened. My gynae also don't know, he can't tell me what had happened. So I didn't go outside. For the whole 9 months I just stayed at home. (Chun, PT28, Chinese)

Whilst Raihana was concerned about the potential for her brother's epilepsy genetics to be passed to her baby, Vijaya who had her fourth pregnancy at the aged of 40, worried about Down syndrome:

> ….they said at the aged of 40 plus the baby could have Down syndrome. They said there is some percentage for the baby to have the syndrome, that's made me scared. (Vijaya, PT25, Indian)

Some descriptions suggested that women also had anxiety due to their health problems. For instance, Raihana highlighted that her vaginal infection was a source of her anxiety throughout pregnancy.

> I've anxiety because I got many infections. I was anxious from the first months of my pregnancy till the birth. (Raihana, PT7, Malay)

Another woman, Jill, reported that her friend's experience of foetal death contributed to her anxiety, as she worried that the same incidence could happen to her. With this in mind, she became anxious about her due date, over-concerned about the foetal movement, resulting in frequent clinic visits to check the foetal heart rate.

> I've so much anxiety. When I was pregnant, I was afraid that she could die in the womb. My friend happened to carry her baby for eight months but then the baby was gone because of the cord [problems]. In 8 months! So I was very scared if this could happen to me. (Jill, PT8, Chinese)

The women's explanations of their worries and anxiety during pregnancy demonstrate how difficult it can be to distinguish 'normal' anxiety from an anxiety that could lead to PND. However, what is clear from the women's descriptions above is that their worries and anxiety have contributed to an intention to terminate the pregnancy, limited social activities, and frequent clinic visits. The following subtheme discusses the women's explanations of how their experience of being a mother affected their emotional health.

4.3.2   Transition to motherhood

This subtheme explains the difficulties that women had in adapting to their newly added roles and how these had affected their emotional well-being during the postnatal period. This subtheme encompasses three categories: physical stressors, family management, and roles and identity. Whilst more Malay women appeared to talk about physical stressors, Indian and Chinese women talked more about difficulties in managing family and understanding newborn behaviours.

4.3.2.1 Physical stressors

Physical stressors refer to factors that directly relate to the women's body (after childbirth) and were perceived by the women as connected to their emotional distress. These factors include tiredness and pain associated with childbirth.

Tiredness is one of the stressors leading to emotional distress perceived by the women. The majority of them reported that they became tired due to spending most of their time caring for the newborn baby, which left less time to sleep and rest. Jill and Ai, both reported that they tended to think negatively while experiencing tiredness and lack of sleep:

> When very tired, the negative thoughts tend to attack easily. (Jill, PT8, Chinese)

> I got no time. I felt tired. My physical and mental were really tired. (Chun, PT28, Chinese)

Tiredness was commonly associated with maternal roles, especially breastfeeding and baby's sleeping patterns:

> I don't have time for myself, I don't have energy. I don't have strength because I was so tired of waking up frequently to breastfeed. (Sheela, PT26, Indian)

> It was so stressful. I've to look after him because he didn't sleep at night. Even he slept, he still woke up frequently. (Lin, PT15, Chinese)

Suhani explained how her tiredness and body aching led to emotional imbalance:

> Now I've body aching. I'm not sure whether it is due to inadequate rest. It was like I'm having flu. But I've to stay strong. Sometimes the pain is still there. Like body aching, you know, from the tiredness, our emotions became imbalanced. (Suhani, PT13, Malay)

Jill, a first time mother supposed that she could manage her emotions better if she had enough rest and sleep. However, due to her tiredness, she found it difficult to cope with her new life as a mother:

> So there's a lot of tiredness. I can't cope with the baby. I think if I've enough sleep I can handle better. So that's another factor contributing to that. (Jill, PT8, Chinese)

It appeared that PND was also linked with pain associated with childbirth. Sitara, who had a caesarean delivery repeatedly mentioned her unbearable pain due to her caesarean wound as a cause of her emotional distress:

It's because of the pain. The operation wound was so painful. I can't stand with it. I was the only one who feel it. Nobody knows. *Aiyyo*, I can't stand with it. Not even my husband knew what the pain was like. (Sitara, PT21, Indian)

Raihana, a first time mother who gave birth through vaginal delivery, also associated her perineal pain with emotional distress during the postnatal period. She explained that the pain and its consequence, i.e., restricted mobility, caused her emotional distress. She added that she also had a ruptured episiotomy wound as a result of constipation and therefore needed resuturing of the wound. Despite having a painful and non-fully recovered episiotomy wound, she needed to hold her baby for breastfeeding. This increased her stressful feelings:

I had to breastfeed him frequently. So, I've to hold him up, then my wound, not fully healed, I was stressed. (Raihana, PT7, Malay)

4.3.2.2 Family management

When asked about the sources of their emotional distress, almost all of the women linked this with their difficulty in understanding newborn behaviours, handling other children, managing household chores, and newborn health problems.

Both first time and multiparous mothers described that they had difficulty in understanding a newborn baby. The descriptions of the first time mothers revealed that they had no experience of handling newborn babies and sometimes had no idea of how to handle the baby's crying. Fenfang mentioned:

I didn't know how to take care of him. I struggled in the first three months. I didn't know what I should do, he always crying, even at midnight; I had no idea what to do. (Fenfang, PT16, Chinese)

With their limited knowledge of handling a baby, the first time mothers practiced as much as they know, yet became frustrated when they were unable to handle this. Jill said:

I don't understand the baby. So when he was crying, I tried to check whether he's poo, I tried to check everything, you know, but he was still crying. Then you started to get tension. (Jill, PT8, Chinese)

Compared to primiparous, multiparous mothers were generally believed to have experience in handling newborns. Yet many of them reported that they faced the same problems, even more than the primiparous. This is because they have to handle both their newborn baby and other children. A few women felt that they focused more on their newborn and therefore unfairly treated their other children. Sheela noticed the

situation when her eldest son, who created ways to get her attention, but she had no idea how to handle it. She mentioned:

> And my son also want attention, he felt like all the attention was on one person [his little sister]. So, he was getting a bit like jealous. I was becoming very stressed at that point of time. I cried many times and I don't know how to handle this. Sometimes I feel like I was not giving any attention to the other child, you know. (Sheela, PT26, Indian)

Another woman doubted her ability to balance responsibilities towards her work and family due to her long working hours. Adren said:

> I felt so stressed. I was worried about handling my home. My home, kids and family. Then, I was worried of my working time; I worried if I couldn't do it. Yeah, between my work and my family. I was worried if I couldn't balance it. (Adren, PT23, Malay)

New maternal tasks and commitments limited time for household tasks. Women felt stressed when they were unable to complete the tasks. Such inability could also affect the relationship with their husband. For instance, a woman felt overwhelmed when her husband does not tolerate her inability to do cooking. Anjali reported:

> I've to look after my kids. I can't hold my baby with one hand and at the same time cooking, can I? You need both hands for cooking. He didn't want to understand my feelings. That's all. That's why I felt so stressed. (Anjali, PT34, Indian)

The newborn health problems appeared to increase the new maternal tasks and to be closely tied to the women's emotional distress. A premature baby and neonatal jaundice were the most common health conditions of a baby that resulted in women's worries and distress. In general, a premature baby will be admitted to the neonatal intensive care unit (NICU) or special care nursery for treatment and/or observation. For certain reasons, women were not able to stay with their baby in the hospital. This maternal-newborn separation made the women become uncertain about the baby's progress and made them feel that they were losing their rights over the baby; especially when they had no chance to cuddle the baby since the birth. For Suhaili, her stressful feelings became worse when the baby was attached to medical equipment, limiting mother-baby bonding.

> I felt stressed because of the baby's health. When I saw him last time, he got tubes, wires. I felt stressed when I couldn't touch him, I just can hold his fingers. (Suhaili, PT11, Malay)

Women with a premature baby particularly voiced their concerns about the complications of prematurity, including eye problems, baby's lung infections, and

congenital diseases. Despite having a lot of fears and worries; women had no knowledge about how to handle a premature baby. A mother of three emphasised her worries:

> We don't know what to do for a premature baby; that's why we were worried (Hayana, PT4, Malay)

As women had an expectation of having a healthy baby, they became frustrated when the baby developed health problems. Raihana said:

> I just think to have a healthy baby, healthy, healthy, that's all. When he had jaundice, everything was disturbed. Everything was disturbed. (Raihana, PT7, Malay)

Nisha, a mother of four, two of whom are disabled, felt that if she was acting like a good mother (complying with societal and religious expectations) then she would be fine. However, when she found that her baby was born with a cleft lip and palate, she struggled to accept the baby's congenital problem:

> I felt disappointed because why did God give me this kind of children. When I was pregnant, I guess I've done my best. I bought and ate vegetables, eating well, perform religious practice. I don't know. (Nisha, PT6, Malay)

As they spent most of their time managing children, their family, and household duties, women struggled to find time for their personal needs, resulting in a conflict between their roles and identity.

4.3.2.3 Roles and identity

Women described that their life as a mother was more complicated and difficult compared to being a single woman. They reported that they could no longer spend their spare time on their personal interests, such as watching television, socialising, or enjoying outdoor activities. Commitment to the newborn and breastfeeding were described as the reasons for not meeting up with others. Sheela reported:

> But me myself I hardly have time for anything. I don't think I've met my friends for so long. Yeah! I had never gone out with my friend since the last childbirth. My husband said: "why you don't go?" But, you know, I want to go out with my friends but I've to breastfeed her. She doesn't want to drink from bottle. She only wants direct breastfeeding. I've tried bottle for so many times. It's very hard. So I told my husband, if I want to go out, my friends also will feel like "you want to come and give your daughter milk. What's the use of it?" (Sheela, PT26, Indian)

Some women felt that giving birth to their newborn also changed their physical appearance. Huan complained of the loss of her pre-pregnancy body shape. This made her feel frustrated and she blamed her husband's request to give birth. She said:

> I've had heartache. It was because of the childbirth. I gained weight after giving birth. I couldn't fit into my clothes. It was so hard. I told my husband: "this is your fault, asking me to give birth to this baby". (Huan, PT31, Chinese)

Women reported that they struggled to find time for their personal basic needs, such as bathing, eating, or even going to the toilet. While one woman reported her experience as 'hardly can eat, hardly can bathe', another woman reported that she hardly performs household duties due to child care:

> I feel so stressed. I couldn't go for shower. I couldn't go to the toilet. Not even do household chores because I've to look after my baby. (Anjali, PT34, Indian)

Anjali also reported that the birth of her new baby restricted her religious activities, as well as making her contribute less to her family:

> The worst thing was I couldn't go to temple for praying. I just pray at home because if it is a rainy day, I couldn't bring the baby along. (Anjali, PT34, Indian)

> The sad thing was I couldn't help in cooking and tidying up the house. I've no time for it. (Anjali, PT34, Indian)

Some working mothers felt pressured by staying alone with their children and not being able to work as before. Chun mentioned:

> Stress, I told you that I can't work. It was very stressful…. I don't want to look after them [the children]. I want to work. (Chun, PT28, Chinese)

When they had to stay home managing their child, women felt a sense of losing their identity, as mentioned by Jill:

> It's because I'm a working person so that's why I think it was a sudden change when I've to be at home. (Jill, PT8, Chinese)

In contrast, some working mothers described returning to work after maternity leave as a source of their stress. Working for long hours and difficulty in taking annual leave made women feel guilty as they had limited time with their family. Some of them mentioned their thoughts about child and family management made them less focused, contributing to unwanted errors at their workplace.

> A lot of errors happened actually after I went back to work. I felt so guilty. It was definitely a very big mistake. So I was so stressed. (Priyanka, PT30, Indian)

When asked about the causes of the reduced focus in her work, Priyanka described her multiple roles:

> It's because of my mind. I was thinking about my children, my house, and my family. (Priyanka, PT30, Indian)

Despite their own experiences (pregnancy-related stressors and transition to motherhood), the women also acknowledged the role of social and cultural factors as contributing factors to their emotional distress. The sociocultural factors are explained in the following subtheme.

4.3.3 Sociocultural factors

In the previous sections (4.2.1 and 4.2.2), pregnancy-related stressors and transition to motherhood were identified as the first two causal explanations of PND. In addition to these two factors, sociocultural factors, such as lack of support, financial constraints, and traditional postnatal practices were also described as being related to PND. Regardless of their cultural backgrounds, almost all interviewed women talked about these factors. These factors are presented in two categories: social circumstance and tradition-modernity conflict.

4.3.3.1 Social circumstances

Social circumstances include lack of support, financial constraints, and family problems were commonly associated with emotional distress.

Women mentioned the need for support from their husband after childbirth. Since they preferred their husband's assistance in child care rather than asking help from others, the lack of the husband's support contributed to anger and disappointment for many women. Fang voiced:

> I want to walk away [from him] I want to walk away; I don't want to stay with him anymore. I was blind in seeing him. He is not a good husband. (Fang, PT22, Chinese)

Women required physical support and attention from their husband, especially when they were not in good health and needed some rest. However, it was reported that their husband focused more on their job; were less engaged with them and were not

involved with their child care. This unmet expectation led to negative consequences, creating some level of emotional distress. Jayanthi said:

> The problem is the timing. Because my husband is a taxi driver so depends on his time, sometimes he came late. Sometimes, I wasn't feeling well and need some rest but I've to wait for him. That's why I get stressed. (Jayanthi, PT27, Indian)

Lack of practical support and attention was more significant for women who lived separately from their husband. These women felt that they were struggling alone without their husband's support:

> I feel stressed as my husband is not staying here with me, and I've to handle everything. I thought when we get married, have a baby, my husband will be here with me. So that he can help. But when this thing happened, I've to struggle alone. (Mazleen, PT10, Malay)

For a few women, they needed not only practical assistance, but also validation for their depressive symptoms. Without the husband's understanding, women felt they should not reveal their feelings, as this would further create an argument with their husband. Chun explained:

> When I told my husband that I've depression, he said: "*haiyya*, what is depression?" He asked me like that. Then I thought Okay *lah*. Don't talk *lah*, because it can cause arguments. (Chun, PT28, Chinese)

Lack of support also refers to a lack of a husband's understanding of the women's limitations during the postnatal period. Several women described that their husbands were less understanding of the restrictions that they had during the postnatal period such as not being encouraged to drive and not to perform heavy work. Even when it came to sexual relationships, women expressed their need for their husband's consideration ~ in not having sexual intercourse due to perineal pain. A Chinese woman, Huan, reported that since her last childbirth, she had pain while having sex with her husband (which was caused by her non-healing perineal wound). She refused to have sex, but this then created a conflict in their relationship due to a lack of understanding from her husband, thereby adding more stress.

In addition to husband support, women also expressed their frustration when they received no support from other family members, such as parents, parents-in-law, and sisters. In this situation, women felt that they were left without any help.

> I was alone, there's nobody to help me. All were depending on me. The pressure was there. I felt like no one cares. (Adren, PT23, Malay)

Financial constraints are another perceived cause for PND. The importance of financial constraints as a causal factor for PND, came up in half of the interviews, especially among Chinese women. Unemployed status, unpaid maternity leave, business problems, family debts, and worries about the cost of living expenses were invariably emphasised in relation to emotional distress. Unemployed women felt that they were incapable and dependant on their husband, hoping their husbands would provide them with their personal needs and expenses for the children and family:

> I feel like nothing I can do to help my family. I couldn't work. It was hard for me to buy what I want. I used to work and earned own money before this but, after we've kids, I was unable to work so it was hard for me to buy anything that I want. Everything is depending on my husband. (Suhani, PT13, Malay)

Due to financial constraints, a few women on unpaid maternity leave described how they wished that they could return to work immediately after the postnatal period. Both working and unemployed women reported that the financial problems resulted in emotional distress. Neeya said:

> I always think about that [financial problems]. Those things can make me become more emotional. (Neeya, PT29, Indian)

Some women reported that their family conflicts added more stress. Interruptions from family members in child care, family health problems, and problematic relationships between husband and their own mother were among the conflicts mentioned by the women. Wai described how her sister's interruptions in nurturing her child contributed to her emotional distress:

> I don't like the way she teach my kids, she tried to teach my daughter. She interrupted my way [of nurturing kids]. (Wai, PT14, Chinese)

Wai was also burdened by her mother's illness, thus, felt worried and kept thinking of her problems, which regularly made her cry.

> I'm worried because of these problems. My mom always said that she doesn't want to live anymore because of her health condition. She had sleeping problems. (Wai, PT14, Chinese)

Lin reported that a conflicting relationship between her husband and her mother worried her most of the time:

> But my mom complained everything [about my husband]. When I was in confinement month I don't know why I was too bothered with her complaints. (Lin, PT15, Chinese)

In addition to social issues, cultural practices seemed to be another cause of emotional distress among women in this study. Such practices were not fully accepted by the women, therefore created some level of distress.

4.3.3.2 Tradition-modernity conflict

There was a sense of tradition-modernity conflict between the younger and older generation as presented in the women's accounts. The incongruities of the opinions were particularly prominent in relation to traditional postnatal practices, breastfeeding, and newborn care.

Traditional postnatal practices

Traditional postnatal practices refer to the cultural restrictions that are set up by older generations to be followed by women in the postnatal period. The practices may include, but are not limited to: Malay women being expected to not leave their house for up to 40 days after childbirth; Chinese women not being allowed to wash their hair and use water in their daily activities; and Indian women not being allowed to eat spicy food or have cold drinks, and not to perform prayers for up to 30 days post birth. Despite having different beliefs and types of postnatal practices, women were commonly taken care of by their family in the postnatal period and were told by their female family members that following their respective cultural practices would result in positive benefits for mothers and their babies. The women were warned by their female family members that any disobedience to these practices may threaten both mothers and babies health condition in the future. There were some women who wholeheartedly believed this advice and thus voluntarily followed the practices. In contrast, some women found the practices created more health problems and therefore were more reluctant to follow the practices.

Traditional postnatal practices as the factors contributing to PND were mainly described by the Malay women. Malay women reported that the practice of warm compression and belly binding were tiring and a strict postnatal diet had resulted in harmful consequences, such as constipation.

> My mother-in-law only served me rice and dried fish. I was asked to observe my liquid intake that I could only drink very little. So esyyhhhh... (painful sound) I was thinking of constipation, because I've tear down there, a big tear, it goes to my buttock (anus). So until now I'm still thinking of constipation because recently I didn't take any fruits. When I passed motion, I thought that the stiches were torn. (Raihana, PT7, Malay)

There were several Chinese mothers who described that they could not accept the postnatal restrictions, such as not to use a fan, not to touch water, and not to wash their hair within 40 days after childbirth without any relevant justifications. Women expressed the need for relevant and logical explanations for every single traditional practice, and only then were they persuaded to follow them. However, they did not directly link the restrictions with their emotional distress.

Many Indian women found that traditional postnatal practices brought positive impacts for both mother and baby's health. This became evident when many of them mentioned the practices as promoting women's well-being and preventing babies from getting sick. Traditional massage applied to Indian babies, substances (frankincense) used during bathing the newborn, and consumption of spices and garlic as part of the postnatal diet were perceived to contribute to mother and baby's wellbeing. Almost all Indian women reported having no difficulty in following their traditions. In fact, they were happy with the practices:

> It is definitely very difficult for Indian baby to get flu actually. It's because of the traditional method of handling the baby. (Priyanka, PT30, Indian)

Breastfeeding

Several Chinese women reported that breastfeeding was not well-supported by the older generation. This situation was often heightened if a mother had a reduced production of breast milk at the beginning of the postnatal period and was asked not to proceed with breastfeeding. Despite their willingness to breastfeed their baby, women not only received no support from their family members, but also became stressed by the contradicting views. One Chinese woman mentioned:

> My breast milk wasn't coming out for my first baby. Then my mother-in-law said no need to breastfeed, no need to breastfeed. But I really wanted to breastfeed. (Lin, PT15, Chinese)

Another woman felt depressed because her mother-in-law had different practices in feeding the baby. The baby was assumed to get overfed if the milk was given every two hours. Therefore, he was not fed on demand despite crying for milk. Lian reported:

> I feel stressed because I think my mother-in-law is not capable to look after my baby. My baby used to feed every two hours; she changed it to every three hours. (Lian, PT17, Chinese)

Listening to the baby's crying for milk made Lian get upset, but she felt powerless to argue with her mother in law:

> When my baby was crying for milk, I couldn't hold my feelings, I felt like crying but I can't do anything. I was really sick of her way treating my baby [Pause, crying]. (Lian, PT17, Chinese)

Others reported that they had no support and motivation and were told to stop breastfeeding due to their inexperience and lack of skills in breastfeeding. In the absence of support with breastfeeding, women felt demotivated and frustrated.

Newborn care

Half of the Chinese women described that the older generation's practices of child care were contradicting their preference and knowledge. Whilst the older generation preferred traditional baby care practices, women felt that these were not relevant to their baby. A woman was warned by her mother-in-law to not give any medication to her baby who had a fever. Instead she was advised to apply a mixture of traditional ingredients to treat the fever. Women struggled to negotiate with these practices, however became more disappointed as they were warned that they would be left alone without any help. This conflict was more pronounced for women who were inexperienced and who lived with their family.

In Malay culture, traditional treatment for neonatal jaundice was described as out-of-date and could bring potential harm to the baby. Women were also concerned about the cleanliness of some materials used in the traditional practices. Despite their unwillingness to follow, women had no power to object to the practices. Rather, they kept their objections inside, and barely followed the practices. A first time Malay woman described an outdated treatment for neonatal jaundice:

> My mother-in-law follows the traditional practices strictly. So I was stressed. That's why I was stressed. When my baby had jaundice, she showered him with various types of leaves. I'm not that kind of person. I live in the city for quite some times so I can't follow her way. (Raihana, PT7, Malay)

Theme 2 revealed that the women's causal explanations of their emotional distress were different from one to another, with some women sharing more on a certain factor than others. Although there was a likelihood that women from different cultural backgrounds discussed more on a certain cause of their emotional distress, sociocultural factors were primarily described by almost all women. Traditional postnatal practices were described as a contributing factor for developing PND by Malay women, but they were accepted as promoting maternal and baby's well-being by the Indian women. The conflict of breastfeeding practice and newborn care between the older and younger generation was primarily expressed by Chinese women and this

was seen as contributing to their PND experience. Understanding how women from different cultural backgrounds perceive the causes of their emotional distress is relevant for HCPs, as it could help with managing their emotional distress. As the women viewed the causes of their emotional distress as resulting from various personal experiences and sociocultural factors, the strategies used to cope with the distress mainly depended on a self-help method, rather than seeking professional help. The following theme explains the women's coping strategies and the ways that they seek help.

4.4 Theme 3: Dealing with postnatal depression

This third theme concerns the women's explanation of how they coped with PND, the reasons for seeking or not seeking professional help, and what interventions they perceived would be helpful in the future. Positive actions (positive thinking and seeking help from informal sources) and relaxing measures (receiving support, religious approaches and diversional activities) were described by the women as helping them to manage their emotional distress. Malay women were more likely to acknowledge the effectiveness of religious activities compared to Indian and Chinese women. The women's willingness to seek professional help depended on their feelings about HCPs based on their past experiences in that particular clinic and the way that they perceived the emotional distress to be problematic. Women with negative experiences in the MCH clinics appeared to report that the healthcare setting was not supporting them to seek help. For some women, their distress was not problematic enough to the extent that they needed help from HCPs. Despite acknowledging their own coping strategies, some women suggested that the accessibility of professional support and extended education and assessment would be helpful to improve their emotional well-being in the future. The following sections described the above issues through three subthemes: coping strategies, barriers in seeking help, and desired care.

4.4.1 Surviving strategies

The women's explanations of how they coped with PND could be explained through two main approaches: positive actions and relaxing measures. Positive actions were discussed more by the women compared to relaxing measures.

4.4.1.1 Positive actions

Positive thinking and reaching out for support were two common positive actions adopted by the women to minimise their emotional distress. Women attempted to rationalise their emotions and think positively to control their reactions towards stressors. Fauzana mentioned the importance of controlling emotions through positive thinking, so that she may not be affected by negative thoughts:

> ….there's only one way: we've to think positively. If we're always think negative, always crying, thinking of committing suicide, self-blaming and all that, those negative feelings will come. We've to control our brain and emotion. (Fauzana, PT24, Malay)

As previously discussed in Theme 2 (see Section 4.2.2.1), tiredness was one of the perceived causes for emotional distress. To cope with this, women chose to be optimistic, trusted the ability of their body to deal with the tiredness, and longed for positive changes in the future. Jill described:

> When my son wake up and breastfeed [at] midnight, I always have thoughts like "*aiyoo*… tomorrow must be a tiring day, not enough sleep". So I've to shut down all these voices. I've to believe that my body can adjust. (Jill, PT8, Chinese)

Apart from positive thinking, mental preparedness appeared to be an important coping strategy. Vijaya mentioned:

> So that's why I said this [pointing her head] should be prepared, put in all the data so you can survive. If you think you can't, that could be an issue, your mentality couldn't handle it, it all depend on yourself. (Vijaya, PT25, Indian)

For a woman who had a baby with a congenital deformity (cleft lip and palate), she preferred to stay positive by ignoring negative reactions from her communities, as a means to cope with emotional stressors. Nisha's account illustrated how she tried to become a strong mother, by not paying any attention to the 'negative look' from her society:

> I can't control what others would say, can I? I pretended like I was blind and deaf. I did that. So that I wouldn't hear what people said, when people staring at me, I don't have to bother about them. I assumed that there was only my son and me walking on this universe. (Nisha, PT6, Malay)

Reaching out for physical or emotional support was another positive action that women took to reduce their emotional distress. Women reported that they had an intention to seek HCPs' help, but it was not fully discussed during their visits to the clinic. The reason for this was probably related to their past experiences in the clinics, as will be described in the next category (see Section 4.3.2.2). Instead of seeking professional help, some women reached out for support from other sources: friends, female family members, husband, neighbours, and online resources.

Sharing and learning from their friends or someone with similar experience to them was described as one of the coping strategies for reducing their emotional distress. They preferred a trusted person, especially those who had some level of mothering experience. Sheela stated that she would prefer married rather than single friends to share her mothering difficulties, as they were seen as an understanding and reliable person to provide some advice and support:

> I don't think my single friends will understand. So, I prefer sharing with her. Yeah, she is a married friend. (Sheela, PT26, Indian)

Suhaili indicated that having conversations with mothers who have had the same problems as her (giving birth to a premature baby) resulted in positive feelings and minimised their sense of aloneness:

> We shared about our baby. So I felt relieved. There were other people also have the same experience as mine. (Suhaili, PT11, Malay)

Many women's accounts indicated that the presence of good family or husband/partner support had facilitated their coping ability. Female relatives, including mother, mother in law and sisters were also mentioned as important people who could provide both physical and emotional support.

> I got support from my family, my mother, and my mother in law. They help me to take care of my children. (Chun, PT28, Chinese)

> So I believe with the support from families, I mean positive support, it helps a lot. (Jill, PT8, Chinese)

> Only with husband support, you'll not feel stress. Without his support, it'll be so stressful. (Sitara, PT21, India)

Women who had a weak family relationship or who stayed far from family members found that positive support could come from outsiders such as friends and neighbours. Nisha illustrated this experience:

> When I came back here, many of them came and gave support. All of them, I mean almost all of them in this flat. They came and gave support for me. (Nisha, PT6, Malay)

Another source of support mentioned by the women was seeking information from online resources:

> I went online to search how to reduce stress. They said if you're too stressed, look at blue colour. It will reduce the stress. (Lin, PT15, Chinese)

Lin's description gave an impression that she was in need of help and so she searched for measures to make her feel better, although the effectiveness of the methods is unknown.

Apparently, reaching out for help provided several advantages for the women, such as achieving relief, avoiding burnout, and gaining support from others, which resulted in positive feelings. However, the depth of the shared problems may be limited by the women's concerns that their problems could be bothering others, especially female

family members: Ai mentioned that she had to be careful in sharing her problems with her mother, worrying if the problems could bother her.

> At first, I told my mom, but sometimes I used to think that she is an older person, she might get worried if I keep complaining about my problem to her. So it depends, there's certain things I shared, certain things I won't. (Ai, PT12, Chinese)

Overall, positive thinking was connected to the way women adjust and control their mind and emotions when facing difficulties. Those who were able to eliminate negative thoughts and successfully turned it into positive feelings found this to be a helpful strategy to cope with their emotional distress. The women's social network seemed to be an important source in promoting emotional well-being after childbirth. Other coping strategies mentioned in the women's narratives were a religious approach and diversional methods, classified as relaxing measures.

4.4.1.2   Relaxing measures

Relaxing measures included elements of self-help methods that could lead to feelings of being relaxed and calm for the women. Such methods included religious activities and diversional approaches. Most frequently, Malay women responded well to religious activities, while Indian and Chinese women discussed more about diversional approaches compared to Malay women.

A religious approach was repeatedly described as an effective way to cope with emotional distress by all Malay women, who were Muslim. These women mentioned prayers, reciting the Holy Book (Quran) and remembrance of God as among the relaxation resources for keeping them calm:

> I did *dhikr* [reciting Arabic verse to remember God] and it helped me to relax. That's all I did. (Raihana, PT7, Malay)

Only three Chinese women (one Buddhist, two Christian) mentioned that remembrance of God enabled them to minimise their depressive symptoms. While a Christian Chinese woman adopted advice from the Bible 'live a day at a time' as a saying to help her cope with worry and anxiety in the postnatal period, a Buddhist Chinese woman used the 'son tae jin' term (relax and let it be) to represent the almost similar meaning.

Reading the Bible and singing a religious song were also described as an effective way to reduce stress. Lian, a Christian Chinese woman acknowledged that reading the Bible kept her 'staying near with God', indicating a sense of being protected and relieved:

> When I was reading the book [Bible], I was crying. As if I was telling the God. As if the God was at my side and could understand my situation. (Lian, PT17, Chinese)

An Indian woman stated that a special Hindu's prayer to celebrate the birth of a newborn, conducted on the 30th day after the birth, could keep women happy. The religious song and activities during the prayers (sitting and closing eyes) were believed to have power, enabling Indian women to keep relaxed. Sitara mentioned:

> I felt relaxed a bit. It's because of the power. It has power, hasn't it? (Sitara, PT21, Indian).

Despite being described as an effective method to reduce stress by all Malay women, the majority of Chinese women reported that religious activities were neither applicable to them, nor effective to reduce their emotional distress. There was no clear reason for its non-effectiveness, but it seemed to be related with the deepness of their belief and consistency of their religious practice.

Others mentioned relaxing measures were diversional methods. The women's descriptions revealed that they used various activities to avoid thinking of their problems, which included but were not limited to, playing with children, listening to music, and watching television. These activities seemed to be an effective way to divert their distress. May, a mother of four found that music, watching television and playing with her child were helpful towards reducing her stress:

> I do listening to music, watching TV, playing with my kids, I felt relieved when they laugh. (May, PT18, Chinese)

Listening to music as a diversional method mainly was highlighted by Indian mothers. They reported feelings of being better after listening to the music. Others reported that cooking, eating, walking and exercise, reading books, and browsing the internet also were helpful.

The women's descriptions in this subtheme indicated that they valued self-help methods as ways of coping with emotional distress. The preference of such methods could also be affected by the barriers that the women experienced in seeking professional help. The following subtheme discusses factors impeding the seeking of professional help.

4.4.2 Barriers to seeking help

The women's narratives revealed that they perceived that the alleviation of emotional distress was not part of the HCPs' roles and responsibilities. They also believed that their emotional distress was a personal problem and a less serious emotional condition. Although some women indicated that they needed professional help, their help seeking was inhibited by their past experiences in the healthcare settings.

4.4.2.1 Perceived roles

Perceived roles refer to the women's perceptions of the roles of the HCPs in the clinic. Many women in this study believed that the roles and responsibilities of HCPs' were mainly related to physical health and medical advice, but not emotional health.

> Interviewer: How do you think they can help you in terms of reducing your stress?
>
> PT30: I don't think so. That's why I said they are more on medical line; I don't think they will help in psychology. (Priyanka, PT30, Indian)

Women also believed that the HCPs had sufficiently delivered the healthcare services and thus they should not demand more than this. They were used to following routine care, such as baby's assessment, immunisation, antenatal education, and postnatal physical assessment, thus supposed that they should not request care beyond their routine check-ups:

> I think they've gave us sufficient enough. They taught us about baby's food matters and how to handle the baby. That was sufficient enough. I think everything is okay. Whatever they offer is already sufficient enough so far. (Priyanka, PT30, Indian)
>
> But we thought that we should come for check-up, just follow what we supposed to, right? So it is hard for us to share. (Ai, PT12, Chinese)

With this in mind, women had doubts whether or not their problems were worth discussing as they perceived that it could not be understood by the HCPs. Even if it could be understood, they questioned whether the suggestions given would be applicable. Ai said:

> You can share with them but it doesn't mean they will understand. Some will just listen to you. Some can give you advice but not all are relevant, are they? (Ai, PT12, Chinese)

Emotional or psychological health was also viewed by some women as a personal problem, which required no treatment from the HCPs. This kept them unable to know

that what they experienced was PND. This seemed to be an important barrier to seeking help as women suspected that emotional distress was temporary and would get better in time. Raihana described:

> I think I can handle it. It's just a disturbance. I think it's just a temporary disturbance, a temporary disturbance. I don't think it's very severe. (Raihana, PT7, Malay)

Raihana felt that the emotional distress that she experienced was not at a serious level, therefore it could be handled without HCPs' help. Meanwhile, Jayanthi supposed that hers had resulted from her family problems and therefore she regarded these as personal matters, which required no HCPs' care. Jayanthi said:

> That's not their problem; they can't settle it because that's my family's problem. (Jayanthi, PT27, Indian)

4.4.2.2 Past experiences

The women's desire to seek help for their emotional distress depends on their past experiences in the healthcare settings and their perceptions of HCPs' behaviours. Anjali described that she received brief, simple and unsatisfying advice when she asked her nurse about handling her baby's crying:

> When I told her my baby keep crying, you know, she just said: "see whether your baby got any pain, you need to take care of her, you may want to feed her, right?" That's the only thing she had shared with me. That's it. (Anjali, PT34, Indian)

There were a few women who expressed a sense of loss of confidence in HCPs, due to several incidences such as the nurse's inability to explain the purpose of Hepatitis B vaccination, irrelevant explanation of the baby's position during vaccination, unprofessional attitudes when asked about family planning, negative words, and less focus in their care. Jill's description indicated her loss of confidence in her community nurses:

> Just because of those two nurses, I don't want to go back to that clinic. (Jill, PT8, Chinese)

Anjali's and Jill's explanations indicated that unpleasant experiences and negative perceptions made the women reluctant to discuss their problems with HCPs.

Other women described that the help-seeking process was difficult, particularly when they received no response help. During their routine postnatal visits, women felt that issues related to family planning, breastfeeding, and baby's growth were emphasised.

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Lila described that her nurse gave no particular attention to maternal emotional health; rather, their focus was more on the baby's health.

> At MP [name of the clinic], the nurses didn't ask like: "do you have any problem?" They just ask about my baby's health, and then they asked about family planning, that's all, nothing on emotional things. (Lila, PT20, Indian)

Almost all women reported that neither maternal health nor emotional well-being were highlighted by the doctors or nurses during clinic and home visits.

> I don't think they asked me before, never! I don't remember. (Sheela, PT26, Indian)

> They didn't ask about me, not at all. They only asked about my baby. (Anjali, PT34, Indian)

Although many women seemed to express their frustrations about HCPs' behaviour in treating their emotional distress, there were a small number of women that could accept this as a limitation within the HCPs' roles. For instance, a woman perceived that the HCPs were rushing to finish the consultation session because there were too many mothers attending the clinic, making it difficult to ask about their emotional health:

> They were rushing. They were less talking because of too many patients. It's not easy to ask about that. (May, PT18, Chinese)

It was also mentioned in the women's accounts that the settings and infrastructure in the majority of the clinics was not suitable to talk about their problems. In general, a consultation room was shared by two nurses, however, in the two selected clinics; the consultations were conducted in an open space, where at least 8 nurses performed their consultations with mothers and children.

Overall, the majority of women regarded emotional distress as their personal issues, and alleviation of the distress were not included in the HCPs' job descriptions. Although there were some who wanted to seek help, they reported that they were not given appropriate attention by HCPs, had lost confidence with their care, and experienced a lack of facilities in the clinics.

4.4.3 Desired Care

Desired care refers to the women's views on potential interventions that would be helpful in managing their emotional distress. Professional support and extended health education were described as future interventions that should be available in the clinic.

4.4.3.1 Professional support

Counselling was repeatedly emphasised as a platform to obtain professional support in reducing their emotional distress. A woman expressed the needs for counselling sessions:

> I was thinking of seeing a counsellor. I know I shouldn't be too emotional because I've a baby, and therefore have to think about his future. (Lila, PT20, Indian)

> For the counselling part, I guess they can give us support, motivation, can't they? Suhani, PT13, Malay)

It was suggested that follow-ups and professional support could be conducted through phone call as an alternative choice to the routine visits. This telephone-based intervention was proposed as a means to enable women to share their feelings. Sheela said:

> Maybe by advising, maybe sometimes, you know, maybe giving a call or asking the mother: "how you're doing, how's the baby" right? That would make the mother to share their problems. (Sheela, PT26, Indian)

Another woman emphasised the need to be offered various choices to enable them to talk about their emotional problems:

> It is better for them to visit our home. Mothers could choose because some of them prefer at home, and others prefer one-to-one or phone call, right? It's because sometimes home environment may not suitable, right? I guess so. It's for the sake of mothers' emotional health after childbirth. (Suhani, PT13, Malay)

A woman suggested a nurse led support group intervention as a platform to discuss their problems and to obtain support from the group members. This woman appreciated that HCPs have vast experience of dealing with postnatal mothers and therefore they were qualified to give a relevant opinion in terms of maternal emotions and childcare management.

4.4.3.2 Education and assessment

As narrated in Theme 2 (see Section 4.2.2), transition to motherhood was described as one of the sources for emotional distress. Many of the women reported struggling with child care, and adapting to the new roles and their identity, yet received no support from HCPs. For this reason, they suggested that HCPs should provide extended health education, more than what they were currently practicing. Raihana discussed:

> I hope the nurses or doctors can give more information regarding becoming a first time mother. This is our first baby; we know nothing, do we? It's because sometimes when they advise us it seems that they expect us to know everything. Of course we wish we could be given more information. If they could conduct any seminar for the first time mother, that would be great! Or they can give advice when we visit the clinic for check-ups. We need more and more advice. I wish they can do that. (Raihana, PT7, Malay)

Raihana explained that despite difficulties she had as a first time mother, HCPs were giving general and simple advice, as if they expected her to learn this on her own. In another description, she added that she was looking for professional advice from HCPs regarding maternal psychological health, handling the newborn, and information on basic new maternal life changes. That information, as she suggested, could be delivered through a seminar initiated by the HCPs.

Women also addressed the need for a more thorough assessment from HCPs, which should not be conducted as quickly as the current practice. Adren suggested:

> I guess their advice is okay but maybe should be more details. I mean a longer time with the patients, right? No rushing. (Adren, PT23, Malay)

Theme 3 shows that the primary sources of coping with PND were self-help methods that comprised of positive actions and relaxing measures. Most frequently, Malay women reported that they responded well to religious activities (one of the elements in relaxing measures), but this was not found to be as helpful for the majority of Chinese women. The majority of women did not perceive the removal and/or alleviation of emotional distress as falling within the 'duty' of HCPs. Women observed the roles of the HCPs in the clinic as only caring for physical but not emotional health. With this in mind, they continue to believe that their emotional distress was a personal problem and could be resolved by self-help methods. Despite these perceptions, women still desired HCPs' help in supporting their emotional health, such as through extended professional support and education.

4.5   Theme 4: Perceived impacts

In addition to the aforementioned three themes, women also discussed the results of their PND, termed as *perceived impacts*. Negative parenting styles, such as a harsh response towards their child's behaviour and shouting at their newborn were mentioned by a few women, regardless of their cultural backgrounds. Sheela explained how her stressful feelings, which she suffered due to an unplanned pregnancy, made her furious with her son:

> When I was pregnant for the second child, my morning sickness was very bad. I was always sick. And then, you know, sometimes I felt very stressful and then sometimes I was unreasonably furious at my son. (Sheela, PT26, Indian)

Sheela added that her reaction actually derived from stressful feelings related to handling her children:

> If I was very stressful, I screamed and scolded my son or my daughter. Aaargh!! Or sometime I screamed when they were both crying and I don't know what to do. (Sheela, PT26, Indian)

Chun reported that her stressful feelings had resulted in a harsh reaction towards her daughter:

> I'm very angry already. I didn't shout because everyone sleeps already. So, I, I hold her you know, I hold her like that [acts how she holds her daughter tightly] very, very tight you know. (Chun, PT28, Chinese)

Another woman explained that she tended to show her anger towards her baby and children due to the emotional distress:

> Sometimes when we feel stressed, we were venting it to our kids, you know, when we come back home and the kids do something, we scolded them. (Maria, PT2, Malay)

Chun reported that her emotional distress made her become 'two different people'. This happened when she attempted to hide her problems from others, pretending nothing had happened to her:

> I've to pretend that I was strong. I can't cry. When I went upstairs while others were at downstairs, I was crying. When I was with them, I pretend like nothing had happened. That's what I felt. I felt like I was two different people. I feel like, you know, crazy? (Chun, PT28, Chinese)

Chun felt that she was 'crazy' when she had to keep her 'abnormal life' secret and to pretend that everything was fine in front of others. She added in another description

that the reason she kept her depressive symptoms hidden was because she believed expressing those symptoms could worry others, especially her mother.

As discussed in Theme 1 (see Section 4.1.1.1), 'loss of excitement' was one of the emotional changes indicating something was wrong. The women's little interest or pleasure in doing things resulted in neglecting their child's care. Raihana described a sense of self-centeredness during the first few weeks of the postnatal period, mentioning she was only concerned with her personal needs, but had no interest towards her baby and offered no attention to him. She explained:

> I'm afraid of any kind of wound, even a small wound, so I focus on myself first. At that time I didn't care so much about my baby. I've thought of: "leave it there, leave it there", I felt disturbed. So, when people come and said: "this is your first baby, isn't it?" I guess if you just have your first baby, you would be excited, look at him, and kiss him, wouldn't you? I didn't do that for the first few weeks. I felt quite stressful at that time. (Raihana, PT7, Malay)

4.6 Chapter summary

This chapter has presented the first part of the study findings based on the analysis of interview transcripts of women with postnatal depressive symptoms. The symptoms of PND were reported as being identified through three interrelated symptoms: emotional, behavioural and physiological changes. The majority of women explained that they noticed something was wrong when they had emotional changes (e.g., 'loss of excitement', 'getting easily irritated', and 'being not normal') following childbirth. There was less explanations for the physiological changes. Although sleep deprivation was mentioned by the women as part of the physiological changes, they did not recognise this as the symptoms of PND, but perceived it as a reaction to other stressors (e.g., family or financial problems). There were a few instances where other physiological changes, such as headache and skin itchiness were mentioned, however, these are not symptoms that are associated with PND or depression in the classification systems (e.g., DSM-5 and ICD-10 – as highlighted in Table 1 in section 2.3.1.2). Comparing the symptoms across the cultural backgrounds, it was found that Malay women appeared to recognise the symptoms of PND based on a combination of emotional and behavioural changes; whilst Indian and Chinese women were more likely to identify it from emotional changes.

The main cause for the emotional distress as perceived by the women was sociocultural factors, particularly a lack of support from families and cultural practices. Malay women appeared to view traditional postnatal practices as a contributing factor for PND, but Indian women seemed to accept the practices as promoting maternal and baby's well-being. Chinese women described the conflict of breastfeeding practice and newborn care between the older and younger generation as contributing to their PND experiences. It appeared that the perceived causes mentioned by the women would also apply to other pregnant and postnatal women. Perhaps what made the women link this with their PND experience is when there was more than one factor that came to interact within a specific context, which had increased their distress. This is discussed further in Chapter 6 (Section 6.3).

Despite their ability to recognise the symptoms of their emotional distress, and to link this with the difficulties they had during pregnancy and after childbirth, the majority of women did not perceive the alleviation of emotional distress as falling within the 'duty' of the HCPs. Some of them regarded this emotional distress as their personal issues, which were not included in the HCPs' job descriptions. There were some women who still believed that HCPs should care for their emotional health and wanted to seek help

but they felt that they were not given appropriate attention by the HCPs. However, some women could accept this as a limitation within the HCPs' roles (e.g., there were too many mothers in the clinic).

Without professional support women relied on self-help methods, such as sharing their distress with female relatives and friends. Religious activities were described as an effective method to reduce stress by all Malay, some Indian and a few Chinese women. The majority of Chinese women reported that religious activities were not applicable to them, nor were they effective in reducing their feelings of being stressed. There were no clear reasons for its non-effectiveness, but it seemed to be related to the deepness of their belief and consistency in their religious practice. Women expressed the need for professional support by mentioning counselling, telephone-based interventions, support groups, extended health education and detailed assessments of maternal health by HCPs.

It should be noted that the impacts of PND were not widely spoken about by the women in this study. Nevertheless, a few women mentioned that they were aware of their negative parenting styles and associated this with their emotional distress.

In the next chapter, the second part of the study findings will be presented. This discusses the findings from the interview with the HCPs working in 6 selected MCH clinics and a psychiatric ward in Malaysia.

5 Chapter 5: Healthcare practitioners' knowledge and understandings of postnatal depression

5.1 Introduction

This chapter presents the analysis of findings from the interviews with healthcare practitioners (HCPs) working in six selected maternal and child health (MCH) clinics and a psychiatric ward in Malaysia. It discusses the HCPs' knowledge in relation to postnatal depression (PND), their views on the causes of PND, their explanations of how they cared for women with PND, and potential interventions that they thought might be helpful for women with PND in Malaysia. A total of 18 HCPs interviewed took part: five head nurses, three medical officers, three nurse-midwives, three community nurses, two psychiatric nurses, one psychiatrist, and one registered nurse. It should be noted that in this chapter the head nurses, nurse-midwives, the registered nurse, and community nurses are referred to as 'the nurses'. Table 9 shows the demographic characteristics of the HCPs. Further details of the HCPs' characteristics are available in Appendix 21.

Table 9: The demographic characteristics of the healthcare practitioners

Demographic characteristics	Frequency	Percentage (%)
Age		
21-30	2	11
31-40	13	72
> 40	3	17
Level of education		
Certificate	3	17
Diploma	1	5
Advanced Diploma	10	56
Bachelor degree	3	17
Master's degree	1	5
Years of Services		
0.5 - 5 years	2	11
5.1- 10 years	8	45
10.1-15 years	3	17
15.1- 20 years	4	22
≥ 20 years	1	5
Working settings		
MCH Clinic	15	83
Psychiatric ward	3	17

During the interviews, HCPs were not directly asked about their knowledge of the formal definition of PND. Instead, they were asked about their general understandings of PND, and how they would know that a woman may be experiencing PND. This was followed by asking about their explanations of factors contributing to the women's condition, how they managed and supported the women, what resources related to maternal mental health were available to them or the women they managed, and what preventative strategies and interventions they thought should be offered in the future.

These data were formulated into three themes: *conceptualisation of postnatal depression*, *causal explanations*, and *care and treatment*. Table 10 outlines the main themes, subthemes and categories which emerged from the data.

Table 10: Themes, subthemes and categories from interview data with healthcare practitioners

Themes	Subthemes	Categories
Conceptualisation of postnatal depression	Understanding postnatal depression	Postnatal depression as 'postnatal blues' A rare phenomenon
	Recognising postnatal depression	Behavioural changes Physiological changes
Causal explanations	Personal factors	Biophysical factors Adjustment to motherhood
	Contextual factors	Traditional postnatal practices Cultural background and spiritual belief Socioeconomic factors Healthcare surveillance
Care and treatment	Roles and responsibilities	Recognise and refer Supporting women through routine antenatal and postnatal care
	Challenges in dealing with postnatal depression	Boundaries within professional knowledge and roles Boundaries within healthcare system
	Potential Interventions	Screening strategies Education and awareness Supportive strategies

5.2 Theme 1: Conceptualisation of postnatal depression

In the interviews, HCPs were asked about their general understandings of PND and how they could distinguish it from other forms of maternal distress. They were also asked to give their views on the incidence of PND based on their experience of dealing with postnatal mothers or women in the psychiatric ward. These understandings and views are explained in the first theme, the *conceptualisation of postnatal depression*. This theme has been categorised under two subthemes: *understanding postnatal depression*, and *recognising postnatal depression.*

5.2.1 Understanding postnatal depression

The analysis suggests that all the HCPs, with the exception of a psychiatrist and a medical officer, had limited formal knowledge of PND. In the absence of formal professional knowledge, PND was conceptualised as part of the normal emotional experience of childbirth: the postnatal blues. Forms of PND which went beyond postnatal blues were seen as uncommon.

5.2.1.1 Postnatal depression as 'postnatal blues'

In their explanations of PND, HCPs discussed other aspects of maternal mental health problems, including postnatal blues, postnatal psychosis, and general depression. Since many of the HCPs seemed to talk more about postnatal blues when asked about PND, they were asked whether they considered that both conditions were similar, and how they would differentiate these two types of maternal distress. The analysis showed that the majority of the HCPs in MCH clinics talked about PND as being similar to postnatal blues; three of the HCPs (two psychiatric nurses and one medical officer) reported that they were unsure about the differences, and only two HCPs (a psychiatrist and a medical officer) clearly identified that there were differences between these two types of maternal distress. This finding suggests that many of the HCPs were unable to differentiate between PND and postnatal blues. Using the term 'puerperal blues', a community nurse and a medical officer explained their understanding of PND:

> Puerperal blues is a kind of a pressured state, such as our feelings, our emotions after childbirth. (Haifa, HCP7, Community Nurse)

Blues is more towards feelings of being distressed or depressed but is not that bad. Sometimes women could sense that they were actually having changes in their emotions. She doesn't look happy after childbirth. (Dr Jasmine, HCP8, Medical Officer)

Most of the HCPs showed a sense of uncertainty about how to determine the differences between PND and postnatal blues. Some HCPs believed that PND and postnatal blues were almost the same condition called by different names, while others described the symptoms of these two forms of maternal distress as very similar to each other.

They are more or less the same, aren't they? Postnatal blues is also depression after childbirth, isn't it? (Halina, HCP10, Community Nurse)

I think they are similar. I think so. I think so. I think it is hard. It's hard for me to differentiate. (Lara, HCP15, Head Nurse)

Two psychiatric nurses compared PND with postnatal psychosis and general depression. Rania reasoned that the onset of PND was the only element that made it different from general depression:

Postnatal depression occurs after childbirth, whereas [general] depression is not necessarily so. That's it. (Rania, HCP17, Psychiatric Nurse)

As described above, out of all HCPs only two of them (a psychiatrist and a medical officer) appeared to have a clear understanding of PND. Dr Shana, the medical officer described how she determined whether a woman had PND or postnatal blues based on the duration of the symptoms:

I think the depression basically is when the feeling of sadness, and emotions, right? Post-delivery is usually prolonged. Usually more than two weeks, right? Yeah. Before that it probably is just blues. (Dr Shana, HCP6, Medical Officer)

Dr. Nora added that the timeframe of when depressive symptoms were present was the main indicator to distinguish PND from other maternal mental health problems. She showed her understanding of PND by highlighting PND as different from postnatal blues and postnatal psychosis:

…the difference depends on the onset whether how long ago it was she had the symptoms following childbirth. However, the symptoms are almost similar. I mean if you're talking about postpartum depression, they're fulfilled the depressive symptoms however the onset occurred after childbirth and I think around 6 weeks, the minimum of 6 weeks following the birth of the baby. (Dr Nora, HCP18, Psychiatrist)

Dr Nora explained that PND was hard to be distinguished from other forms of maternal distress due to an assumption that emotional distress after childbirth is a normal condition:

> It is true that many would not be able to differentiate. Maybe think that oh! It's just a mood, mood changes following childbirth due to changes of your roles in your life and suddenly you've these added responsibilities and the changes of the dynamic of the family following the introduction of a new person in the family. (Dr Nora, HCP18, Psychiatrist)

Overall it appeared that all but two HCPs were unsure of the differences between PND and postnatal blues. When talking about their general understanding of PND, the majority of HCPs in MCH clinics compared or linked it with postnatal blues, whereas nurses working in the psychiatric ward referenced their understanding of PND in comparison with puerperal psychosis and general depression. They were able to distinguish PND as being a more severe psychiatric condition while those working in the clinics tended to trivialise it, understanding it as merely postnatal blues.

5.2.1.2 A rare phenomenon

Some HCPs viewed PND as a rare and uncommon maternal health problem in Malaysia. This became evident when they commented that PND was rarely seen in their clinical practice:

> This case is very rare, right, rarely seen. No. [It's] very few. [It's] rare. (Mona, HCP9, Registered Nurse-Midwife)

> Not much postnatal depression cases at Malaysia. Not much. (Halina, HCP10, Community Nurse)

> It's very rare. Not in these two years, I think. There's only one case [but] she was not admitted. (Rania, HCP17, Psychiatric Nurse)

Clinic nurses explained that PND was a rare phenomenon because they believed that women were well-educated and conformed to their advice and that this prevented them from developing PND. This was mentioned by a head nurse:

> The incident was not so high, perhaps [because] the mothers are well educated. They followed our advice. I think so. I think now postnatal blues is very rare. There are very rare cases of mother with postnatal depression. I think no more. (Lara, HCP15, Head Nurse)

Lara seemed to believe that advice provided during routine antenatal and postnatal care was effective in preventing PND when she mentioned: 'they followed our advice'.

Other HCPs including community nurses, the registered nurse and nurse-midwives all believed that women, especially those in urban areas were aware of healthcare issues and searched for information about becoming a mother through online resources or other reading materials and that this protected them from PND. A community nurse mentioned this:

> Interviewer: Have you ever found those kinds of patient (with postnatal depression)?
>
> HCP7: So far no… in the urban area, patients are cleverer than us. She searched all information from internet and only come to us, asking how to handle it. Here, before they become a mother, they learned, get prepared, and get ready of what should they do after childbirth. (Haifa, HCP7, Community Nurse)

Haifa added that there was an improvement in the Malaysian healthcare system, such that emphasis was now given to emotional health and that this resulted in lower cases of PND:

> …..previously we didn't put so much emphasis on emotional supports. Now we already emphasise on how we want to handle those kinds of patients. (Haifa, HCP7, Community Nurse)

Although PND was described as a rare problem, almost half of the HCPs still considered that the existing numbers of those diagnosed with PND in Malaysia did not represent the true scale of the problem. These HCPs believed that there could be many undetected and underreported cases of PND in the community:

> I think there're many [PND cases] but they were detected. Undetected and underreported. (Dahlia, HCP5, Community Nurse)
>
> …..I think the current number of postpartum depression in Malaysia may not represent the actual cases that we have. (Dr Nora, HCP18, Psychiatrist)

The reasons for the underreporting of PND cases could be related to the underdeveloped pathway and guidelines for PND in the Malaysian healthcare system, as suggested by a medical officer:

> I don't think it is well proper taken care of or fully developed yet. I don't think so. I don't know, I think it is not properly developed yet. (Dr Chua, HCP13, Medical Officer)

According to a psychiatric nurse, the focus of current care and treatment was targeted towards more severe cases, leaving women with mild and moderate depressive symptoms undertreated:

> It [PND] was not given any attention. The one that we've seen was psychosis, the severe condition. That's the only time we treat them. We never care for the less severe one. We never treat them, did we? (Hartini, HCP16, Psychiatric Nurse)

Despite having difficulty distinguishing between PND and postnatal blues, the HCPs did have 'cues' that they picked up on in order to alert them to the possibility that a mother may be experiencing PND. The following section discusses the 'cues' as presented in the HCPs' explanations.

5.2.2   Recognising postnatal depression

This subtheme describes the ways that HCPs recognised PND based on the range of 'changes' presented by the women. In Chapter 4, it was reported that the women recognised something was wrong after giving birth through three categories of symptoms or 'changes': emotional, behavioural and physiological. Although emotional changes were described as the most common symptoms of PND as reported by the women, HCPs' explanations did not include such changes. Rather, they appeared to place more emphasis on behavioural changes with less emphasis placed on physiological changes. Although a few HCPs' descriptions (especially those of medical officers and the psychiatrist) showed that they partly adopted classification systems used to diagnose depression such as the Diagnostic and Statistical Manual of Mental Disorders (DSM) in detecting the symptoms of PND, many descriptions, especially by the nurses indicated that they used their working experience and intuitive judgment in detecting PND. Often, women who did not adhere to their healthcare advice were seen as not conforming to HCPs' expectations in looking after themselves or their child; and were described as having PND. In contrast, those who adhered to such advice and acted in ways that were expected of them were considered to have better emotional health. This issue is discussed further in Chapter 6 (see Section 6.2). The following three categories discuss how HCPs detect the symptoms of PND.

5.2.2.1 Behavioural changes

Healthcare practitioners generally thought that they recognised PND from the way that a woman acted or conducted herself, and how she responded to others. Such actions and responses were classified under *behavioural changes*. Their accounts indicated that they did not feel equipped with specific knowledge about PND therefore their approach to identifying those changes was to use their interviewing and observation

skills to detect symptoms of PND. A community nurse explained how such skills enabled the detection of maternal depressed behaviour:

> In addition to our interviews, we can observe them. Depressed mothers seemed to stay her own activities, day dreaming, talking to herself, or self-isolation. (Halina, HCP10, Community Nurse)

Lack of interest in the baby was largely stated by HCPs as a symptom of PND. Many of them observed that women with PND seemed to neglect their baby, respond inappropriately to the baby's crying, refuse to breastfeed, and pay little or no attention to their baby. Mona said:

> ….she doesn't seem to have interest on her baby, not even looking at the baby, not keen to breastfeed when she was asked to. (Mona, HCP9, Nurse-midwife)

For Haifa, a community nurse, loss of interest in the baby was linked with women's perceptions of the baby as a burden:

> Then they supposed that the baby was a burden to her, she said it [handling baby] was difficult. So sometimes she put the baby aside. (Haifa, HCP7, Community Nurse)

A woman with PND was described as isolating herself and living 'in her own world'. A nurse-midwife described an observation of the symptoms:

> In depressed mood, first of all, as what I've mentioned, she didn't take care of the baby; keep in silence, looking down. In whatever circumstances, she didn't bother about her surroundings. (Zetty, HCP12, Nurse-midwife)

As reported by many nurses, self-isolation could be clearly observed during postnatal home visits. Women were described as having 'uncooperative attitudes', 'less focus', 'not responding to any conversation' and being 'less willing to talk to others'.

> She was sad, liked to be alone, and seemed to be dreamy. When we visited her, she wasn't welcoming us. (Lara, HCP15, Head Nurse)

> She ignored us. She did nothing. As if there was no one there. She was, sort of living in her own world, right? Like there was no one around. (Halina, HCP10, Community Nurse)

The majority of new mothers were considered by the HCPs to be attentive to the needs of their baby: responding to the baby's crying, talking to the baby, breastfeeding and checking the nappies. When women appeared to ignore their baby's crying or become easily irritated by the crying, this served as an alert to the HCPs. Two head nurses

commented about how they assessed a woman's reactions towards the baby through their observation. This reaction was described as indicating depressive moods:

> We can see that she didn't seem to have interest on the baby, and she didn't want to breastfeed the baby. This was one of that [symptoms of PND]. (Becky, HCP3, Head Nurse)

> A normal mother will cuddle the baby when he was crying, breastfeed the baby, check his pampers, won't they? But she [depressed mother] was straightaway get angry, shouted, and shouted to the extent that the whole clinic can hear (Henna, HCP11, Head Nurse)

Both head nurses, Becky and Henna seemed to make comparison of 'normal' maternal behaviour, with deviant maternal behaviour based on their personal judgement and working experience. It is through these 'heuristic' assessments that they initially picked up that a woman may be depressed.

Women with PND were also described as refusing to receive any visitors to their house, to have a sense of restlessness, talk to themselves, and demonstrate loss of control. The women were perceived as not only being less attentive to their own personal hygiene, but also more likely to ignore the cleanliness of the house and other family matters.

> They [nurses] visit the women's house and observe how their conditions at home are: the house condition, breastfeeding, and cleanliness of the house. They will report to us in case something is strange. We do understand how does a house looks like when they just giving birth but what I mean is some sort of strangely messy or when the mother was not cheerful or ignoring the baby or the cleanliness of the baby was not taken care of. (Dr Jasmine, HCP8, Medical Officer)

Dr Jasmine's explanation of how the nurses picked up the symptoms of PND during home visits indicated that there was a tendency for the HCPs to label a woman as depressed when she did not conform to societal expectations. In this case, HCPs used their idea of 'proper behaviour' in order to contrast it with the presumed behaviour of a depressed mother.

HCPs also discussed the assessment of non-verbal 'cues' that could be performed during the consultation session as part of assessing the woman's behavioural changes. Whilst a nurse-midwife described an 'unhappy' facial expression as could be a sign of PND, a medical officer explained how a woman's facial expressions enabled her to distinguish a depressed mother from 'normal' mothers:

> She seemed to be very sad. She didn't smile much. It was different from other patients. She didn't talk much. You can't see a smiling, cheerful smile at their face. I mean usually patients having twin, they're happy; they're excited with their pregnancy, don't they? But she was not like that. (Dr Chua, HCP13, Medical Officer)

It appeared that HCPs tended to label a woman as being depressed when she acted differently from the anticipated 'proper behaviour'. In contrast, they seemed to surmise that a woman was not affected by PND based on her adherence to their health advice. This 'conforming behaviour' seemed to be an indicator of good maternal mental health.

5.2.2.2 Physiological changes

Physiological changes refer to the changes in body function that HCPs recognised as indicating that something was wrong with women after childbirth. A psychiatrist asserted that HCPs should be alert to any physiological changes caused by emotional problems:

> We as clinician must be aware it becomes a disorder when a person's function becomes affected. When a person started to show biological changes due to the depressed mood such as lack of sleep and loss of appetite until we get some weight loss (Dr Nora, HCP18, Psychiatrist)

Dr Nora noted that the ability of HCPs to detect signs of PND based on physiological changes seemed to be an essential skill, which should be accomplished by each and every HCP. She highlighted the most common physiological changes as: difficulty in sleeping, loss of appetite, and loss of body weight.

Dr Chua echoed Dr Nora's description, stating that inability to sleep (insomnia) was one of the symptoms of PND:

> ……if someone is having depression they are having insomnia too. (Dr Chua, HCP13, Medical Officer)

A head nurse mentioned that the physiological symptoms could be detected by interviewing the women about their activities of daily living:

> If we find out anything abnormal we will do interview, ask whether or not she had enough sleep, and about her appetite. (Hetty, HCP4, Head Nurse)

Women with PND were also portrayed as 'less drinking and eating', 'could not eat' and 'not eating', indicating their loss of appetite.

Other HCPs reported that they were alerted when women had sudden physiological changes, such as reduction in passing urine and bowel movements, or an increase in blood pressure. These changes encouraged them to conduct further assessment of the women's condition. A community nurse explained:

> When there is increased or decreased in blood pressure, that's the time to ask more. Sometimes that's the stage she'll tell us about her weight loss [was because of] loss of appetite or her busy day. (Haifa, HCP7, Community Nurse)

Haifa's account exemplified that it was not uncommon for the HCPs to link 'abnormal' bio-physiological changes with PND. However, it appeared that they tended to pick up these changes based on their routine assessments as a nurse, such as blood pressure, body weight, dietary intake, appetite, and bladder and bowel movements.

The majority of HCPs appeared to have a lack of informed knowledge about PND, reflected by their misconception that PND is similar to postnatal blues. Underlying reasons for this confusion were that they believed that: the symptoms of postnatal blues were similar to PND, non-severe PND was self-manageable and required no professional help, and that emotional distress after childbirth is a 'normal' condition. There were HCPs who believed that PND was not a common maternal health problem in Malaysia. Due to this perception, their assessment of women's emotional health was superficial, primarily based on their physical health and their ability to carry out maternal tasks, such as breastfeeding. Women were also considered to be aware about healthcare and able to obtain required information from sources such as the internet. Some HCPs believed that there was an improvement in the healthcare system, with emphasis given to women's emotional health, which contributed to a lower rate of PND. In contrast, almost half of the HCPs in this study also stated that PND was underdiagnosed, associating this with a lack of attention given to maternal mental health by the Malaysian healthcare system. Some HCPs reported that more focus was given to severe cases, leaving women with mild and moderate depressive symptoms undertreated. Their accounts also revealed that they tended to draw conclusions about maternal moods, based on general assessment and superficial observation. Hence, they were unable to detect symptoms of PND at the point of early onset.

The most common 'cues' or symptoms of PND, as reported by HCPs, were behavioural changes. Medical officers and the psychiatrist provided more explanation of detection of symptoms of PND compared to the nurses. The nurses tended to

explain the symptoms of PND based on behavioural changes, with less emphasis placed on physiological changes. Nonetheless, the detection of PND, especially by the nurses was not wholly based on classification systems used to diagnose depression. Instead, it was influenced by their personal judgment that was derived from their working experience or expected norms. Often, women could be labelled as emotionally disturbed when they did not conform to advice and/or there had been a deviation from what they presumed to be appropriate behavioural norms. In contrast, those who adhered to their health advice and acted as they were expected to were considered as having good emotional health. Such an approach resulted in unstandardised assessments of PND within which each HCP could have different views of what they considered to be 'normal' and 'abnormal' conditions. Explanations of the causes for the symptoms of PND are provided in the following theme.

5.3   Theme 2: Causal explanations

As discussed in the first theme, HCPs appeared to describe the symptoms of PND based on a range of the 'changes' as presented by women. Explanations of the causes for the 'changes' are provided in this second theme. The analysis of the HCPs' interviews described two interrelated causal explanations of PND: (i) personal factors (bio-physical factors and adjustment to motherhood) and (ii) contextual factors (traditional postnatal practices, cultural backgrounds and spiritual belief, socioeconomic factors, and healthcare surveillance). Although it was expected that HCPs' explanations would include biomedical factors, this was not widely mentioned in their accounts. Rather, they appeared to discuss more about contextual or structural factors, especially social and cultural issues.

5.3.1   Personal factors

This subtheme concerns the HCPs' descriptions of how the women's past experience and their personal identity as a new mother affected the development of PND. In this subtheme, HCPs' explanations of bio-physical factors and adjustment to motherhood were included. For instance, physiological factors may include hormonal changes and postnatal complications, while adjustment to motherhood may include unplanned pregnancy and difficulties in managing their new-born and other children.

5.3.1.1   Biophysical factors

In this category, the accounts of how PND was linked with biological and physical conditions are presented. This includes hormonal changes, genetic inheritance, underlying mental illness, and postnatal complications. Although these factors were not explained in detail, they were repeatedly mentioned by almost half of the HCPs. A head nurse stated that hormonal imbalance after childbirth may predispose postnatal women developing PND.

> …..I always tell them, after childbirth, our hormone is imbalanced. Once the placenta was out, hormone is definitely imbalanced. (Lara, HCP15, Head Nurse)

Postnatal depression was also linked with genetic inheritance. Based on HCPs' descriptions, the perception of a genetic risk factor for PND was more significant in rural areas compared to urban areas. However, as socio-economic conditions improve,

genetic risk factors were seen as potentially reducing as a result. This became evident when a registered nurse said:

> Genetics inheritance, isn't it? There will be rumours about it right? They will talk about it. But when we're in urban area there were not many cases, right? As people get updated, not many people talk about it. (Asma, HCP2, Registered Nurse)

Almost half of the HCPs believed underlying mental illness to be a contributing factor for PND. The presence of the mental illness prior to or during pregnancy was believed to contribute to the development of PND:

> We can talk about underlying mental illness; the person may have underlying depression even prior to pregnancy or even during the pregnancy and has been untreated. (Dr Nora, HCP18, Psychiatrist)

Pain after childbirth was considered to create stressful feelings for postnatal women, as described by a head nurse:

> They get stressed. I think they get stressed due to the pain. They get stressed due to unhealed episiotomy wound. (Lara, HCP15, Head Nurse)

Postnatal health problems, such as constipation and haemorrhoids, were also linked with PND. For a community nurse, the postnatal period was described as an exhausting state for postnatal mothers, due to blood loss and loss of energy during labour and delivery exposing them to PND:

> In the postnatal, they just recently lost of a lot of energy and blood. They're exhausted and all that, it get worse with the stresses and all that. Then it could lead to a severe stress, severe depression (Haifa, HCP7, Community Nurse)

5.3.1.2   Adjustment to motherhood

This category includes HCPs' explanations of how the women's difficulties in the journey of becoming a mother affected the development of PND. This journey begins at conception and continues after childbirth. Throughout this period, women have to adapt to various types of physical, physiological and psychological changes. Healthcare practitioners believed that women were at risk of developing PND when they faced difficulties in adapting to those changes. What was clear from their explanations is that HCPs believed that women with specific criteria would have more difficulties, and therefore were at greater risk of developing PND compared to others. The criteria mentioned by the HCPs were: women who were unprepared for

pregnancy, were pregnant for the first time, and those who have had difficulty in managing their new-born and other children.

Unplanned pregnancy

Half of the HCPs suggested that women who were not prepared to become a mother were more likely to develop PND. Unpreparedness was linked with the status of being a single mother, teenage pregnancy, and unplanned pregnancy. In general, these three issues were explained as interrelated to each other. Healthcare practitioners explained that teenage, single, and unmarried mothers had an increased likelihood of having an unplanned pregnancy. These mothers were viewed as hardly accepting their pregnancy and the birth of the baby, therefore being at risk of developing PND. This perception was linked with the incidence of 'baby dumping', which was commonly viewed by the HCPs as committed by young and unmarried mothers. Two HCPs explained this issue based on their observation of society:

> Normally mothers who get depressed are those who did not accept that baby right? That's why they can get postnatal depression. Sometimes they weren't ready for the pregnancy or get pregnant outside marriage, right? (Halina, HCP10, Community Nurse).

> Those kinds of mothers [single mothers] that we've to focus on more because we worried if they abandon their baby. That's the risk. We worried of that. I think these mothers tend to get depression too. (Lara, HCP15, Head Nurse)

Not only unprepared for their pregnancy, single or unmarried mothers were also described as receiving lack of support from family members, placing them at a greater risk of developing PND. Lara explained this:

> They stressed because they were unexpectedly get pregnant. They are still young yet get pregnant without a father. And then their parents no longer care about them. (Lara, HCP15, Head Nurse)

Lack of social support for unmarried mothers was described as being a result of stigma towards unmarried pregnancy. In general, mothers who became pregnant outside of marriage were considered as being not socially supported. This was mentioned by a psychiatrist:

> We've an emerging number of single mothers as well in Malaysia where in our culture it is not supported. They receive less support and they are also stigmatised. So I think those are amongst the caught, stressors that could perpetuate or even precipitate the presence or development of depression in these young mothers. (Dr Nora, HCP18, Psychiatrist)

However, according to a nurse-midwife, it was not only single mothers who were at risk of PND. She stated that highly educated mothers commonly prioritised their career demands and thus may not be ready to have a baby:

> Like I've said just now, the executive level like lawyer and high level group, who focus more on their career but have had unplanned pregnancy, or her husband want the baby but she didn't. She felt stressed as she thinks her husband is the one who caused the pain she had. (Zetty, HCP12, Nurse-midwife)

Unplanned pregnancy was described as quite common among newly married women who were not ready to become a mother:

> But, sometimes, it's more likely [to happen] among those who were not ready to have a baby. That's what I can see from my experience. She couldn't accept it. The reason was they newly married couple. Like, she doesn't have any planning. Not ready to have a baby. But when she gets [pregnant] she felt like a burden especially when she was too young. (Zaida, HCP14, Head Nurse)

A medical officer explained that woman with certain social circumstance, such as single mothers, may not be able to cope well during the transition to motherhood because they not only have to face social challenges but also experience biological imbalances after childbirth. It was these perceptions that made her conclude that these women are at greater risk for PND.

First time mothers

Some HCPs' accounts indicated that being a first time mother somehow exposed a woman to developing PND. First time mothers were described as becoming more easily distressed due to inexperience of motherhood challenges. Compared to multiparous women, the first time mothers were regarded as having a lack of knowledge and experience of child care and breastfeeding.

> It's because she has no experience, it was her first child so she didn't have experience yet. Maybe that time she didn't have enough knowledge. She was kind of anxious to handle the baby, so she wasn't so confident. Para 2 [mother of two] have their experience before, so they were more confident. (Mona, HCP9, Nurse-midwife)

> It [PND] is more common among the first time mothers, primigravida. The reason is because that's her first experience. She might feel stress because of pain and all that and then worries how she wants to breastfeed the baby. (Haifa, HCP7, Community Nurse)

Mona and Haifa appeared to believe that in the absence of knowledge and experience, the first time mothers felt unconfident to carry out their maternal responsibilities. Such new added responsibilities were also suggested another HCP as disrupting the woman's focus on herself, creating conflict of roles and identity:

> Because young mothers compared to the para 3, 4, 5 there is big change in their perceptions of life. Self-identity: who they are. They are no longer a person who can be free, individual who doesn't have any added responsibility. When you become a mother, suddenly you realise that you've another person who is going to be with you for the rest of your life and you've to be responsible for them until they die. (Dr Nora, HCP18, Psychiatrist)

Breastfeeding problems, and in particular lack of breastfeeding skills among first time mothers were repeatedly mentioned by the HCPs as a risk factor for developing PND. Not uncommonly, they said, first time mothers complained of not having enough milk, leading to them giving up breastfeeding. Dr Shana shared her personal experience after her first childbirth:

> …the first thing when the baby is crying will be like, oh!! You know, not enough milk, there was not enough breast milk, so you already stressed, you wanted to breastfeed but then they said all this, ooh! It's not enough, and then you know, that distresses you as well, right? (Dr Shana, HCP6, Medical Officer)

Difficulties with new-born and other child care

In addition to the experience of having an unplanned pregnancy and being a first time mother, demands of new-born care and management of other children were described by the HCPs as equally challenging for many mothers. They believed that the management of new-born and other children was more challenging for working mothers because they have more responsibilities compared to housewives:

> Sometimes she returned home with the small children, and then she had difficulty to sleep and all that. She felt stressed because of these [problems], and then the baby was crying for 24 hours, she eventually felt that her children were a burden to her. (Haifa, HCP7, Community Nurse)

Haifa believed that working mothers were more likely to be exhausted with their working hours and dealing with their child's temperament. Such situations made them view their children as an extra burden.

Others mentioned that some mothers with a short pregnancy interval struggled to meet the needs of every child simultaneously, therefore creating some level of distress:

> Or sometimes I think she get stressed because of the [child] age were too close to each other. It's because the [elder] child was too young yet got a little sister. So sometimes, she didn't have time for each child, that's why she gets stressed. (Lara, HCP15, Head Nurse)

Managing a new-born was illustrated as becoming more difficult when the baby had health problems. Neonatal jaundice, for instance, was mentioned as a contributing factor for maternal distress. A head nurse observed this based on their experience:

> Another one, even if the baby gets jaundice they get stressed. That's what I think will affect their stress. (Lara, HCP15, Head Nurse)

Other HCPs mentioned that giving birth to a baby with a congenital abnormality could be associated with the occurrence of PND. In this situation, the women seemed to be overprotective and anxious about the baby's health outcome. Some mothers were described as having difficulty letting others know about the baby's abnormality, resulting in social isolation:

> I've seen one case with disabled baby. She refused to get out from her house. Her child was a hydrocephalus baby, the one with a lot of water in the head, right? She closed all the windows of her house. No one was allowed to get into [the house]. She sort of isolated herself [from other people] until the child became 4 years. (Dahlia, HCP5, Community Nurse)

Despite acknowledging the women's personal factors, HCPs provided more explanation of how contextual factors, such as social and cultural factors contributed to PND. Details of these factors are described in the following subtheme.

5.3.2   Contextual factors

Contextual factors concern the characteristics of the cultural influences and social circumstances that are related to the development of PND. Analysis of the HCPs' explanations indicated that they regarded traditional postnatal practices, cultural backgrounds and spiritual belief, socioeconomic factors, and healthcare surveillance as contributing to PND. Traditional postnatal practices were the major issue discussed by the HCPs, although there were mixed views whether such practices could be a causative or protective factor. Some HCPs appeared to believe that cultural backgrounds may increase the women's susceptibility to PND, although there was mixed opinions on this issue. Apart from these cultural issues, PND was also linked with the socioeconomic factors, such as a lack of social support and financial problems. Healthcare surveillance, especially among women who experienced medical problems during the antenatal and postnatal period, was also described as contributing

towards development of PND. The following four categories provide further explanations of how HCPs view the association between PND and these contextual factors.

5.3.2.1 Traditional postnatal practices

Almost half of the HCPs discussed disadvantages of traditional postnatal practices and explained how these could lead to PND. The most common element mentioned was postnatal diet. This practice was described as restricting new mothers to consuming various types of vegetables and fruits, as well as limiting the amount of water they intake. These were seen as contributing to other consequences, such as constipation and reduced breast milk production. A head nurse reported:

> ….to me if they still practice the traditional ways, they'll get stressed. I think they'll get stressed, especially when they experienced constipation. [When] they were talking about constipation, constipation, I asked, "Why? Did you limit your water intake? Don't you eat vegetables?" And they said: "no, my mom said I can't eat them and need to limit water intake." (Lara, HCP15, Head Nurse)

Healthcare practitioners reported that certain cultures did not allow women to sleep during the daytime, while others emphasised that newly delivered mothers had to practice warm compression (*bertungku*) and belly binding (*bengkung*) to promote recovery from labour and birth. They mentioned that the women were advised to carry out the warm compression while the baby was sleeping, leaving no space for them to rest and sleep. A community nurse explained:

> It's because for some family, like those in north region, new mothers were not allowed to sleep at daytime. The mothers didn't get enough sleep at night either. She took care of the baby [at night time] yet not allowed to sleep at daytime. And then they were only allowed to drink very small amount of water. Some of them were very strict, new mothers have to practice warm compression (*bertungku*) and traditional massage. Those modern mothers get stressed with these. They didn't like that, especially belly binding (*bengkung*), right? (Halina, HCP10, Community Nurse)

Based on Halina's account, the practices that were suggested by the older family members were assumed to be outdated by some women and therefore it was hard for them to accept the advice. Such perceptions reflected the tradition-modernity conflict between these two generations.

While the majority of HCPs regarded postnatal traditional practices as contributing to PND, one head nurse argued that the practice could prevent PND.

It prevents [postnatal depression]. For example, some people talk about *batu merian* [G-spot], right? If they didn't practice warm compression and all that, [it'll get swollen]. This is public opinion, I mean older people. But I still follow them for certain things. They've more experience so that we've to listen to them. We've to do warm compression, make sure all postnatal bleeding is clear, right? The reason is to allow the recovery of the womb. That's the reason. It's to avoid postnatal depression. (Zaida, HCP14, Head Nurse)

According to Zaida, in traditional Malay culture, it is believed that the swelling of the *batu merian* [G-spot] could cause PND. The term of *batu merian* [G-spot] is referred to as an erogenous area of the vagina. The practice of warm compression (*bertungku*) is supposed to prevent the swelling of this area and promote recovery of the womb thereby preventing PND.

A psychiatrist stated that whether or not traditional postnatal practices contribute towards development of PND, that this was dependent on the woman's personal approach and the way she accepts the practices.

Postnatal confinement means that you're not supposed to go out of the house, you're supposed to lie down on the bed most of the time. There are lot of restrictions in terms of food, how you dress and so forth. And I think for some people, it's okay. But for some people who has like really extrovert personality who like to go out and are not really into this confinement thing then they will find it quite stressful. That's my opinion. I think in other cultures, they have their own rules when they are doing their confinement too. I'm not sure how much that would contribute to depression but in general it may cause added stress to some people, to some people only. (Dr Nora, HCP18, Psychiatrist)

Dr Nora explained that for some women, especially those with an 'extrovert' personality, it could be hard for them to adhere to the traditional prescription of postnatal confinement, therefore adding some level of distress during the postnatal period. Also, not all women develop PND although they are exposed to the same traditional practices.

Dahlia echoed Dr Nora's explanation. According to her, although the women seemed to disagree with the advice from their mother/mother-in-law, they were incapable of contending with this. The resultant conflict contributed to concealed sadness:

She was stressed. She did it [traditional practices] in force. Although she can follow her mother-in-law's advice, she seemed to be stressed during clinic visit, sort of getting angry when we ask them. (Dahlia, HCP5, Community Nurse)

An example described by Dahlia allows an interpretation that a woman is more likely to become distressed when the practices are contradictory to personal preference, and where they felt that they were powerless to reject the rituals.

In addition to traditional postnatal practices, the presence of mothers-in-law and/or biological mothers during the postnatal period was also described as a source of emotional distress, mainly because of their different views in certain issues. The most common issue was breastfeeding. While women had a high desire to fully breastfeed, some mothers-in-law suggested bottle feeding. This created confusion for many women, as mentioned by Lara:

> Sometimes we already promoted breastfeeding at our clinic but some mothers said they were definitely keen to breastfeed but their mother-in-law or their own mother couldn't stand with their granddaughter's crying. So the mother-in-law told her: "it's no need for breast milk. Yes, the nurses asked you to give it but it is very slow. Just give bottle [feeding]". So the mother was stressed. (Lara, HCP15, Head Nurse)

Apart from the conflicting views, unsatisfactory relationships between daughter and mother-in-law were also emphasised in the HCPs' accounts. They reported that some women considered themselves as an 'outsider', hence they may not have been able to always understand and accept their mother-in-law's opinion. This different way of thinking could lead to ineffective communication in their relationship. Dr Shana addressed her own experience, indicating that the relationship with her mother-in-law was not as open as she had encountered with her own mother:

> Basically first law of the postnatal confinement was going to my mother-in-law's house, because my mom works, right? So my first baby I supposed is like... I don't know, I supposed you can't be as open as you normally would with your parent, right? (Dr Shana, HCP6, Medical Officer)

Some mothers-in-law were described as being completely powerful at enforcing traditional rules, which ultimately brought harm to the baby. Giving an example of how a mother-in-law treated a new mother with her jaundiced baby, Becky explained:

> Then she said: "my mother-in-law asked me leave the baby sleep. But the baby was having jaundice". We asked her to breastfeed hourly, right? Then she said her mother-in-law told her don't feed the baby. She asked her to let him sleep. If the baby keep sleeping that means the jaundice level was high and could lead to brain impairment. Then she started the tension already. That's one of the factors. (Becky, HCP3, Head Nurse)

Becky's account indicated that women became confused when they found contradictions between the HCPs' and their mother-in-law's advice. The situation could

become difficult when they could foresee the harmful effects of following the traditional advice. In addition to traditional postnatal practices, the cultural backgrounds and spiritual beliefs of the woman were also described as being associated with developing PND.

5.3.2.2   Cultural backgrounds and spiritual beliefs

Some HCPs considered that there was a relationship between PND experience and cultural backgrounds, although they had a mixed view on which cultural background was more susceptible than another. Of all HCPs who discussed this issue, the majority believed Malay women to be more likely to develop PND compared to Indian or Chinese women. Rania described this based on her nine years' experience working in a psychiatric setting:

> But most of the time, the majority were Malay. I had never seen Chinese with postpartum depression throughout 9 years here. I had never seen Indian with postpartum depression, none! The majority were Malay. (Rania, HCP17, Psychiatric Nurse)

Rania felt that almost all PND cases involved Malay women. In contrast, nurse-midwife Zetty argued that Chinese women were at a higher risk than others. She made this comment based on her ten years working experience in a maternity ward:

> As for the cultural backgrounds, the Chinese seems to be more problematic. In most cases they'll get depression earlier than others. (Zetty, HCP12, Nurse-midwife)

She went on to justify her opinion, specifying the concern about body shape as a contributing factor for developing PND among Chinese women, while emphasising that religious practice was a protective factor for Malays and Indians:

> Indians and Malays so far okay. They have their own faith and religion. Malays are less stressed. I did find Malay who felt stressed, but their mother normally advised them as a Muslim she has to stay calm and perform *dhikr* [remembrance of God]. When we stay with our faith, it helps a lot. (Zetty, HCP12, Nurse-midwife)

There were HCPs' accounts that explained the influence of spiritual practice and belief, such as esoteric elements of 'dirty blood' and 'bad spirit' in the development of PND. A nurse-midwife talked about how the myth of 'dirty blood' during the postnatal period was perceived as a source of PND across three main cultural backgrounds: Malay, Indian and Chinese communities:

> We had a 'dirty blood' after giving birth so that it's easily get affected by negative factors. Maybe they're correct. Malay and Chinese also have the same taboo. Chinese said "those who just giving birth have *banyak soi* (bad luck)". There're various faiths on that. The same thing goes to Indians. So, they believe on that, there are a lot of negative factors. (Zetty, HCP12, Nurse-midwife)

Zetty explained that in the Malaysian cultures, the perception of vaginal blood loss during the postnatal period was associated with the increased vulnerability to PND. Comparable to Zetty, Mona shared the same belief that she learnt from Chinese mothers in her clinic. The mothers were described as having faith in the esoteric element of vaginal blood loss during the postnatal period. The blood loss was considered as 'dirty' and was associated with a 'bad spirit', therefore influencing negative emotions during the postnatal period:

> Perhaps it's the reason why the mothers more likely to have [postnatal] blues or anything else. The older people believe on invisible things. So they supposed that postnatal mothers were like dirty you know, for Chinese. It's because we've the postnatal blood loss and all that. So it was from there. The bad spirit was more likely to get into dirty body. That's what they believe. (Mona, HCP9, Nurse-midwife)

In another description, Mona added that Chinese women were not allowed to leave their house for up to one month after childbirth. She suggested that this cultural concept seemed to be related with mysterious elements which could bring harm to postnatal women. Mona also explained that Malay women were not allowed to perform prayers while having vaginal blood loss. She added that since performing prayers was seen by the women as a protective factor from 'bad spirit', inability to do this was perceived as exposing Malay postnatal women to negative emotions. Showing a sense of approval of this belief, Mona said:

> Like our religion, it's true that in the postnatal period, there were bad spirits because we couldn't perform prayers. That's why we can simply get upset. It just comes on the spot. If we couldn't control our feelings, we can get depressed, a severe ones. I guess they're right. (Mona, HCP9, Nurse-midwife)

5.3.2.3 Socioeconomic factors

Apart from the above factors, HCPs also talked about lack of social support and financial problems as risk factors for PND. In Chapter 4, women reported that a lack of social support after childbirth had contributed to a sense of anger, disappointment, frustration, and struggling alone. Many HCPs descriptions appeared to agree with the women's explanations, indicating an association between lack of social support and PND. A community nurse explained that without social support women were left alone with uncertainty, especially when they had neither experience nor knowledge about child care:

> So no support from anyone, she's on her own without any experience, no knowledge, so these made her stressed. (Haifa, HCP7, Community Nurse)

Lack of support from husband/partner and family was recurrently mentioned by many HCPs. In the absence of support, women felt burdened with multiple maternal roles, especially when the baby got sick:

> Her husband was not there. She had to do it alone, right? She had to look after other children. She had to manage it. Plus with the little baby and was admitted, get jaundice, gets sick. She's the only one, so she definitely found it was stressful. (Henna, HCP11, Head Nurse)

Some of the HCPs associated PND with financial problems. They believed that the women's financial problems were also related to difficult marital relationships and increased living costs.

> I'd one case. She gave birth to a baby with Down syndrome and her husband married another woman. I asked her to tell me her problems. She had financial problems as well. She was depressed. As her breast milk was not well-produced, she had to buy milk for her baby but had no money. There were many problems. She has many children. She needed money to send them to school, you know cost of living in KL (Kuala Lumpur). (Ratna, HCP1, Nurse-midwife)

> And now due to pressures of life as well, pressures of life, living cost, isn't it? That's part of the contributing factors [for] depression. Nowadays, all are advanced. Living cost increased. If the mother is working, and has many children, she has to pay for the babysitter. (Zetty, HCP12, Nurse-midwife)

In the last three sections (see Section 5.3.2.1, 5.3.2.2 and 5.3.2.3) HCPs' explanations of social and cultural factors were presented. The following section discusses how they felt that the practice of monitoring of women's health in the healthcare system could influence the development of PND.

5.3.2.4 Healthcare surveillance

Women who had medical problems during pregnancy were described as more likely to develop stress and anxiety compared to other women. Healthcare practitioners associated frequent hospital visits and tests for the medical problem (that required women to attend a follow up clinic more frequently than for the usual pregnancy visits) with increased stress for the women. Their description indicated that healthcare surveillance added some level of stress for the women, as explained by Hetty:

> It [PND] happened when there was high blood sugar level. She started to [become] stressed. She was required to come for sugar blood test for every 2 weeks. She had to come, she had to come frequently. She was referred to hospital, and then she had to go to the hospital. She had to go for eye test also. Frequent blood test made her stressed. (Hetty, HCP4, Head Nurse)

Hetty acknowledged that healthcare surveillance could contribute to maternal distress when she mentioned 'frequent blood test made her stressed'. Working mothers were described as having greater difficulty in adhering to the schedule of tests and visits because they were constrained with the requirements of the workplace. Such scrutiny was described as not only contributing to maternal distress during the antenatal period, but as also possibly leading to the women having feelings of being under pressure postnatally. This was thought to occur when the medical problem persisted until after childbirth and required a hospital stay longer than a 'normal mother' is supposed to have. Haifa explained:

> There was a slight pressure there. The pressure was due to long hospital stay and she was injected because her high blood pressure. (Haifa, HCP7, Community Nurse)

Haifa went on to add that the longer hospital stay due to maternal medical illness could lead to maternal-baby separation when the baby was discharged earlier than the mother. In the absence of her baby, the mother tended to have feelings of being incomplete and often misunderstood the reasons for the separation. Haifa described:

> Then when the blood pressure was high she can't go home so the baby went back home [without the mother]. She felt like we took away her baby. She anxiously wants to go home anyway. (Haifa, HCP7, Community Nurse)

Even after they were discharged from the hospital, women who had a medical illness were required to regularly attend follow up visits in the hospital for the purpose of monitoring their health progress. This raised the issue of child care arrangements, as expressed in the following descriptions:

....they tend to think that there are so many pressures. They're thinking of child management, who will take care of them at home, and then she had to go to the hospital, she couldn't bear with the pain due to injection, go for blood test and all that. They don't want all that kind of things. (Haifa, HCP7, Community Nurse)

This second theme explains how HCPs view the causes of PND, conceptualised by a combination of the women's personal factors and contextual factors. Compared to the women's causal explanations as presented in Chapter 4, HCPs placed more emphasis on contextual factors rather than the women's personal factors.

Explanations of how personal factors could contribute to the development of PND were largely conceptualised in relation to adjustment to motherhood, such as unplanned pregnancy and being a first-time mother. Whilst unplanned pregnancy was associated with single mothers who were described as not well supported by society, the first-time mothers were described as having lack of knowledge about and inexperience of motherhood challenges, and therefore they were thought to be unconfident in performing maternal tasks.

The contextual factors were regarded as important factors contributing to PND with traditional postnatal practices being the major issue discussed by the HCPs. There was mixed views as to whether the practices could be causative or protective depending on the woman's personal approach or forbearance. The presence of the mother-in-law during the postnatal period was seen by the HCPs as adding stress for many women due to conflicting views between the younger and older generation, as reflected in the conflict in breastfeeding practice where the women felt unable to disagree with their mother-in-law. The women were believed to become more distressed when they found that there was a mismatch between the HCPs and their mother-in-law's advice and foreseeing the harmful effects of the traditional advice/rituals. There was a debate about which cultural background was more susceptible to PND. While HCPs in MCH clinics viewed that Chinese women were more likely to develop PND, HCPs in the psychiatric ward reported that all depressed women referred to her ward were Malay. Esoteric elements of 'dirty blood' and 'bad spirit' were described to be associated with PND and this was reported as equally believed by Malay, Indian and Chinese communities. Lack of social support, especially among inexperienced mothers and financial problems were also described as a contributing factor to PND. Healthcare practitioners believed that healthcare surveillance, such as frequent blood tests, scheduled follow up visits to clinic or

hospital, and longer hospital stays after childbirth could contribute to developing PND among mothers who had medical problems during the antenatal or the postnatal period. Their explanations suggest an inference that medical problems during and after pregnancy expose a woman to distress due to their working commitments and/or responsibilities for child care, which made it difficult for them to adhere to the frequent follow up schedule.

5.4 Theme 3: Care and treatment

The main concerns of this third theme are HCPs' explanations of their roles and responsibilities in managing PND, their views or experience of psychiatric referral, and potential interventions that they felt should be available in the future. The strategies used by the HCPs to manage PND did not fully depend on how they explained the causes of PND experience. This means that although they believed that PND could be explained by both bio-physical and sociocultural factors, their main focus in care and treatment was on physical health. Such a focus resulted from their role boundaries within the healthcare system, wherein physical health was considered as 'core businesses' for them. The following three subthemes provide HCPs accounts on their roles and responsibilities and challenges in managing women with PND. It is these perceptions of roles and existing challenges that formulate HCPs' suggestions for potential intervention.

5.4.1 Roles and responsibilities

When they were asked how they managed PND in their healthcare settings, HCPs primarily talked about: recognising the symptoms and making a referral, maintaining good women-HCPs relationships, and involving family in management strategies. Almost all HCPs believed delivering routine antenatal and postnatal care was an effective way to prevent and manage PND.

5.4.1.1 Recognise and refer

Detecting symptoms of PND and making a referral were described by almost all HCPs, as their main roles in the management of PND. The nurses spoke of their roles in referring any woman that they suspected to have some level of emotional distress after childbirth; primarily a referral to a medical officer where a more appropriate assessment of the condition would be made. Mona appeared to be aware of the steps that she should stick to when managing women with symptoms of PND:

> Based on the symptoms we'll inform the doctor and ask the woman to come [to the clinic]. The doctor will see her. The doctor will then assess the level of the depression. If let's say the cause [of depression] is breastfeeding, the doctor will only monitor. If let's say she was hearing voices, the psychiatrist should get involved [therefore] the doctor will refer her [to psychiatrist]. That's the first thing we do. (Mona, HCP9, Nurse-midwife)

Mona explained that it was the nurses' role to refer women with PND to the medical officer and it was the medical officer's duty to make further referral to a psychiatrist. She added that in certain circumstances, when the woman's condition is perceived as not being really severe, watchful waiting was applied. In this case, such an approach meant that the medical officer allowed some time before making any referral for further treatment. The nurses' ability to recognise the symptoms was acknowledged by medical officers. Dr Chua believed that the nurses were capable of detecting and referring a woman when she seemed to be depressed:

> I think they are quite alert. During home visits if they noted the mother has a little bit of change or a little bit of mood swings, they will refer to us. So at the time we will screen back. (Dr Chua, HCP13, Medical Officer)

To optimise the recognition of the symptoms, HCPs believed that a good women-HCP rapport needed to be maintained. Such a relationship was believed to be one of the determinants for completeness of the information obtained, as mentioned by Lara:

> Sometimes a different nurse doing the interview, a different story they'll get. When she [woman] feels comfortable with the nurse, she'll have confidence in her. She'll explain everything. We'll know her problems from there. (Lara, HCP15, Head Nurse)

One way to promote good rapport was thought to be through personalised care. Dr Shana described how personalised care could facilitate the identification of the symptoms:

> So that's why, the good thing that we got here is called a personalised care system. It's like one nurse to one patient, right? So she just follows up that patient from booking right to the delivery. So, you've the rapport. So anything that nurse will pick up…some of them could pick up stuff like changes in patients, they're sad, and all that. So, they could refer to us. That's why I said, once rapport is there, its bit easier, right? (Dr Shana, HCP6, Medical Officer)

Dr Shana described personalised care as 'one nurse for one area', (which generally consists of a group of residential areas), and that 'a woman was managed by the same nurse from their antenatal booking until after childbirth'. She felt that personalised care facilitates good rapport and builds trust between nurses and women, enhances the detection of symptoms of PND, and helps the HCPs to initiate early referral.

Healthcare practitioners' core values were regarded as a factor influencing women's willingness to share their emotional health problems. The values described as: being considerate, the ability to control anger, and having a sense of empathy. The feeling of

empathy was seen by the HCPs as important to promote a good relationships with mothers, create mutual connections, thus increased the chance of problem sharing:

> As I said we should have empathy, we've to support her. We should put our self in her shoes. Only then she will be okay with us. Her stress would be reduced. Sometimes some of the nurses said: "it's up to you, nothing to do with me." That's not the way! When we do that, patient may say: "I couldn't tell them [nurses]", She is afraid to talk. So she'll never let us know her problems or if she feels stressed or anything, no, she never tells us. (Haifa, HCP7, Community Nurse)

Haifa explained about empathy by stating we 'put our self in their shoes'. She was certain that a woman would not seek a professional help without having any confidence in HCPs. Another HCP stated that problem sharing may not be taking place effectively unless HCPs have an approachable attitude, and personality that inspires trust.

> It's because we're always with patients, we'll detect if we know. But if staff keep in silence, never ask, never talk, we'll never know. We've to stay close to patients. (Henna, HCP11, Head Nurse)

Healthcare practitioners appeared to believe that the recognition of PND symptoms could be optimised when women have trust and confidence in them. Another role and responsibility mentioned by the HCP was supporting women through routine antenatal and postnatal care.

5.4.1.2 Supporting women through routine antenatal and postnatal care

Despite acknowledging the contribution of social and cultural factors in the development of PND, HCPs' accounts revealed that the management of PND primarily involved physical and practical care. Healthcare practitioners in MCH clinics tended to explain the strategies used to manage PND based on their routine roles in the community setting and to include what they thought relevant to the management of PND. The strategies mentioned were commonly delivered through routine antenatal and postnatal care.

Antenatal care

Healthcare practitioners' explanations indicated that PND could be managed through antenatal care, education, and postnatal home visits. The analysis of their descriptions showed that almost half of them, especially those in MCH clinics considered existing

antenatal care and education was one of the important elements to prevent maternal distress:

> In our clinic we provide health education during pregnancy. For instance, breast engorgement may also cause stress. I mean we teach [breast] pumping techniques, ways to do compression when they have breast pain and wound care techniques. Painful [perineal] wound site can cause stress, right? We teach them all of these during their pregnancy. (Henna, HCP11, Head Nurse)

In the aforementioned description, existing antenatal education was seen by the head nurse as helpful to prevent PND by addressing its causes, such as problems with breastfeeding and perineal pain after childbirth.

Scheduled antenatal visits were also seen to allow HCPs to monitor the presence of any problems indicating a risk of developing PND:

> That's why they've to come for a check-up, usually when they come to our clinic we also check for other problems, in addition to [routine] maternal and child health care. We ask whether they've any problem. We ask if they've any problem and all that, right. (Becky, HCP3, Head Nurse)

HCPs reported that they also provide advice on childbirth, as well as postnatal preparation. They considered that PND could be prevented by educating pregnant women on practical aspects, such as breastfeeding, rest and sleep, baby's cord care, detecting neonatal jaundice, and family planning:

> Then we teach them how to bathe their baby after childbirth, how to clean the cord, and how to detect jaundice and how to breastfeed. So they'll have knowledge about that. So she'll be like: "it's okay, it's quite easy" or if she feels confused at that time she'll ask us there and then. So they'll get ready after childbirth, they'll no longer be stressed. (Haifa, HCP7, Community Nurse)

> The most important thing is family planning. Actually we've to determine our family's happiness. A planned family, right? That's why we need to ensure the woman gets pregnant after two years, with family planning….Wouldn't you get depressed if you've all young children? That's one of the reasons. You'll get depressed with them. (Becky, HCP3, Head Nurse)

Apart from antenatal education, postnatal care was also regarded as an important element in managing PND.

Postnatal home visits

Although postnatal home visits were also discussed by other HCPs, it was discussed more by the nurses. The visit was seen as allowing the nurses to provide professional advice, observe women's emotional status, recognise any abnormal behaviour and listen to women's complaints:

> When they [nurses] go for postnatal visits, we [head nurses] ask them to advise and to see, to observe the mother and her emotions. Any complaint or abnormal behaviour and all that. (Lara, HCP15, Head Nurse)

In Theme 2 (see Section 5.3.1.2), HCPs explained that a lack of experience in breastfeeding was one of the risk factors for a woman developing PND. Based on this understanding, they believed that home visiting allowed the nurses to observe breastfeeding practices and to provide appropriate advice. By doing this, they could identify any difficulties the women was experiencing, offer immediate advice and take appropriate action.

> At that time [home visits] we'll assess and ask about her condition, for any problems and all that. If she complains of: "it's hard for me to breastfeed" or breast engorgement and all that, we provide her with solution. Sometimes she just observes and reads [about breastfeeding problems], but she didn't experience it. When facing the problems she felt it was difficult and different. So she thought she knew and followed it [the advice] but it's not working. So now she has baby. Most of the time breastfeeding could be hard for the first time mothers. She never experiences it. Sometimes [it can be] cracked nipple, breast engagement and all that. At that time [home visits] we teach her. We ask her to cradle her baby and all that. When her baby can breastfeed she is no longer stressed. (Haifa, HCP7, Community Nurse)

For women with a diagnosis of PND, home visiting was also regarded as part of continuous monitoring and promoting recovery.

> Or even having the midwife to visit patients regularly at home to monitor the patient's condition, the patient's mental health would be very important I think in helping the patients towards the recovery. (Dr Nora, HCP18, Psychiatrist)

> If the mother has any problem, we go for home visits every day. We take care of her, check her progress, check whether she take her medicine, and check the baby. She wants our attention. If there is someone takes care of her, she gets recovered faster. (Zetty, HCP12, Nurse-midwife)

Nurses in the psychiatric ward believed that the data obtained from the home visits enhanced the referral to the psychiatric unit:

I mean there would be postnatal home visits after childbirth, wouldn't there? Maybe they can detect from there. They could refer to us. (Hartini, HCP16, Psychiatric Nurse)

Dr Shana emphasised that postnatal home visiting allowed for the assessment of family support for newly delivered women:

So the nurse will go and do home visits. Usually they will assess the situation at the house, they can gather information from there, the family support, and all that, right? So, it's a good thing... That's [what] we have, postnatal visits. We've to assess family support, right? (Dr Shana, HCP6, Medical Officer)

Family involvement

Despite acknowledging their roles in managing and preventing PND through antenatal and postnatal care, HCPs believed that family involvement in the management and prevention was essential. To encourage family support, HCPs discussed a woman's health condition with her husband/partner. This was regarded as central to improving the woman's mood:

So the best thing, the nearest person should support the mother. The mother should have a good support from her husband so that it prevents them from postnatal depression. (Lara, HCP15, Head Nurse)

Since family involvement was seen by HCPs as a strong support for the women, living with family members was described as providing some advantages for them. It is the presence of the family members that enhanced the recovery process, as explained by Hetty:

Her siblings were very good, she was well supported. The other postnatal mother was also well supported by her mother although her husband was not there. The other one had suicidal [ideation] and also has depression, she isolated herself, we asked her mother and her family to support and she recovered quickly. (Hetty, HCP4, Head Nurse)

A psychiatric nurse stressed that without family support, PND could recur:

But the majority of our patients received lack of support from the family. The medicine was given while she was in the ward but when she went back with the family problems, family ignored it. That's why it relapsed (Hartini, HCP16, Psychiatric Nurse).

Despite vast descriptions on the roles and responsibilities that HCPs perceived as being helpful in managing and preventing PND, they also discussed the challenges they experienced in the existing care and treatment. The following section discusses these challenges, as presented in the HCPs' explanations.

5.4.2　Challenges in dealing with postnatal depression

HCPs explained that there were several challenges that they had in providing care for women with PND. The challenges mainly came from boundaries within their professional knowledge and roles, with some descriptions mentioned about boundaries in the healthcare system.

5.4.2.1　Boundaries within professional knowledge and roles

It appeared that HCPs' roles and responsibilities in managing PND were limited by their knowledge about PND and affected by how they perceived their professional roles in the clinical settings. Healthcare practitioners in MCH clinics revealed that there was little attention given to identifying women with PND and that they associated this with the limited resources to manage PND at their professional level. They also believed that they needed to focus more on physical health, as this was seen as their 'core businesses'. Explanations from HCPs in MCH clinics revealed that the severe form of PND was seen as a psychiatric domain, while mild forms of PND were seen as self-manageable. However, explanations from HCPs in the psychiatric ward show that they believed that HCPs in MCH clinics were 'front liners' in detecting and alleviating the symptoms of PND. The explanations suggest that there was a mismatch of opinions and expectations between HCPs in MCH clinics and psychiatric wards regarding the management of PND. At the same time, HCPs in MCH clinics also indicated that their willingness to make a psychiatric referral for women with PND was influenced by the perceptions of women and society towards such a referral.

When describing their roles in managing PND, HCPs' explanations indicated that their ability to recognise and refer a woman with PND depended on the severity of the symptoms. When the symptoms were obvious, the action they needed to take also seemed to be clearer.

> Sometimes if the symptoms are severe, we can detect them. We inform the doctor and she will usually refer the woman to a psychiatrist. (Henna, HCP11, Head Nurse)

While acknowledging their own roles, HCPs also described how they viewed others' roles in managing PND. A medical officer seemed to differentiate the nurses' and medical officers' role in delivering emotional care. She perceived emotional health to be part of the nurses' concern, but believed that they had a lack of knowledge on counselling and therefore may not be able to cover maternal emotional needs:

> Sometimes nurses also don't know much how to counsel patients. Maybe they could only talk about emotional health through their experience. We're more on physical [health]. (Dr Jasmine, HCP8, Medical Officer)

Dr Jasmine seemed convinced that it was generally known that the medical officers' concern was more on physical health when she mentioned 'we're more on physical'. The word 'we' in her sentence was referring to the medical officers. Dr Chua, another medical officer accepted her role in managing PND, but felt that it did not extend beyond advising the woman. In fact, she stated that it was beyond her control to make sure the woman accepted the referral to a psychiatric unit:

> We can just advise them. Nothing we can do anymore. I mean it is their decision whether to see P.S.Y. [psychiatrist] or not. (Dr Chua, HCP13, Medical Officer)

All three interviewed medical officers felt that there was not much they could offer in the clinics except performing further assessment of the symptoms. Depending on their assessment, the woman would be either monitored or referred to the Family Medicine Specialist (FMS). They revealed that they felt it was FMS's responsibility to prescribe antidepressants or refer the woman to the psychiatric unit:

> We look at the major and minor symptoms and all that. So, what we usually do is refer to our specialist [FMS] immediately. But at our level, we don't start medication. We don't start. But the specialist starts medication and I think X [name of health clinic] has a psychiatric clinic as well. Yeah. So, they can start there. And then we usually refer to the hospital as well. So for us, it is just basically the ability to recognise and refer. (Dr Shana, HCP6, Medical Officer)

The nurses appeared to agree with their medical officers that it was part of their role to provide emotional support. This could be seen clearly when they described their roles in managing PND by associating this with providing emotional support. In fact, almost all descriptions of emotional care were contributed by the nurses rather than other HCPs. Although there was no clear indication of when and how the emotional support was delivered, and how well they were aware of a postnatal woman's risk of developing PND while providing the support, a community nurse recognised her role in reassuring postnatal women:

> So we as nurses have to slow talk with them. We need to give emotional support to them; we tell them this is normal at the beginning [of postnatal]. (Haifa, HCP7, Community Nurse)

However, as discussed previously, they tended to refer to a medical officer when the symptoms became severe, because they regarded the medical officer as the authorised personnel to decide on further treatment for the woman.

When comparing explanations of their roles in managing PND from HCPs in MCH clinics and those in the psychiatric ward, there was a mismatch of opinions and expectations between them. Healthcare practitioners in the psychiatric ward regarded HCPs in MCH clinics as 'front liners' in identifying symptoms of PND and made necessary referrals without being expected to prescribe antidepressants.

> I mean we do not expect them [HCPs in MCH clinics] to give patient pharmacological intervention but being able to talk to the patient, understand where they are coming from, try to elicit the symptoms, and also being able to recognise the, the emergence of suicidal ideation or plan, that's very important. (Dr Nora, HCP18, Psychiatrist)

A psychiatrist mentioned four important roles of HCPs in MCH clinics prior to making any referral: i) being able to consult the woman, ii) determine the women's sociocultural background, iii) being able to minimise the symptoms, and iv) being able to recognise any suicidal ideation.

On the other hand, HCPs in MCH clinics believed that PND should be treated by an expert and that they should not take any risk by treating the women in the community. Therefore, they would prefer a referral to a psychiatric unit due to the vulnerability of the postnatal mother and risk of maternal death, as described by Dr Jasmine:

> We can't take any risk, can we? It's because there are so many things in postnatal. If you got any [maternal] death, all need to be audited. So we'll refer. (Dr Jasmine, HCP8, Medical Officer)

Although they recognised the importance of psychiatric referral, the HCPs keenness to refer was influenced by the women and society's acceptance of psychiatric care and treatment.

Analysis of HCPs' accounts allows an interpretation that PND was generally seen as a domain of psychiatric care, which was mainly delivered by the psychiatric unit in tertiary hospital. Unfortunately they disclosed that such care is often perceived as unsuitable for women with PND and that the treatment is stigmatised by society. In response, they believed that this could affect the women's intention to seek help and accept referral to the hospital or for a counsellor.

> Some people might consider herself as a crazy woman when she was referred to a counsellor. The stigma of 'being crazy' makes her feel stressed. (Zetty, HCP12, Nurse-midwife)

Zetty explained that referral to a counsellor was stigmatised as a treatment for 'crazy women'. She presumed that it is due to these perceptions that make a woman with PND not go for counselling despite being referred.

A psychiatric nurse reported that the word 'psychiatric ward' was also commonly stigmatised by the majority of the Malaysian public. This word could be misunderstood to mean that a woman has a severe mental illness.

The stigma and misconception were described as a reason why hospital admission was not preferred as a treatment option for the women, therefore they were rarely compliant with referral to a psychiatrist:

> It is very hard for them to accept that they need psychiatric advice or referral. Even you give them a referral they won't go. (Dr Chua, HCP13, Medical Officer)

Dr Chua added that there was also stigma towards antidepressants. In fact, this stigma was described as worse than the stigma associated with the 'counselling' word:

> Even if you ask them to go for counselling, maybe some they will go but a lot of them, they default, especially if you ask them to take medication. It's worse. (Dr Chua, HCP13, Medical Officer)

Healthcare practitioners reported that although PND is less severe than psychotic problems, both of these mental health problems were viewed as the same by society.

> As far as I'm concerned the public will stigmatise them. They might think postnatal depression is similar to schizophrenia although it actually can be controlled. (Dahlia, HCP5, Community Nurse)

Compared to urban communities, rural communities were perceived as 'conservative' and 'not so much educated', therefore seeking help for PND seemed not so important for them. This was described by Dr Chua who has two years' experience of working in health clinics in rural area:

> Maybe in rural area people are not so much educated. And they are more conservative. In terms of their culture, they are, even we say they have depression also they just keep it into themselves and walk with it. This is what I think. They are conservative. They are not really open to it yet. (Dr Chua, HCP13, Medical Officer)

Women and society were regarded as not being aware of PND and its treatment. This was viewed by the HCPs as resulting in traditional instead of professional treatment.

They reported that only when the traditional treatment failed, the women may come to seek professional advice:

> ……they will go and send the patient to traditional healers and seek treatment elsewhere or when it's failed or it's not effective then only they come and see us. By that time it is a little bit too late when earlier intervention can be given to the patient. (Dr Nora, HCP18, Psychiatrist)

A head nurse believed that lack of awareness about PND made a woman remain in silence without any treatment:

> In case of depression, the woman keep the problem too long, she can't even differentiate the reality and fantasy. All are mixed up. (Zetty, HCP12, Nurse-midwife)

5.4.2.2 Boundaries within the healthcare system

Healthcare practitioners recognised that there was disparity between physical and emotional care in the healthcare system, with more emphasis given to physical health.

> I think it is imbalance because we give more attention to the physical, right? We give less attention to emotions. (Zaida, HCP14, Head Nurse)

> We tend to give physical care. Less focus on emotional. [We do give] many things that could support them but not comprehensive emotional care. (Dr Jasmine, HCP8, Medical Officer)

As mentioned by Dr Jasmine, focus given to emotional health was not comprehensive. Dr Jasmine went on to compare HCPs' focus on physical and emotional health:

> It's because we tend to forget, we focus more on our core business like physical health, like, assess the mother for high blood pressure. So we tend to forget about emotional health. (Dr Jasmine, HCP8, Medical Officer)

Dr Jasmine regarded physical health as their 'core businesses' and more important than emotional health when she mentioned 'we focus more on our core business like physical health'. The recognition of physical health as the main concern in the healthcare system resulted in overlooking emotional health, especially when HCPs in MCH clinics were burdened with high numbers of women attending the clinics every day:

> …usually we see patient also very fast, right? We've to do the postnatal assessment. We've to advise them for family planning and ask them about their breastfeeding, whether they are breast feeding well or not. If they are getting on well then we don't perceive much because there is a lot of patients. (Dr Chua, HCP13, Medical Officer)

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Dr Chua's description indicated that restricted consultation time made her prioritise what she considered important and what was emphasised by the local authority and guidelines, such as family planning and breastfeeding. Women were not assessed for emotional health when they seemed physically well and were able to perform maternal tasks such as breastfeeding, although HCPs agreed that general assessment and observations may not be helpful in detecting symptoms of PND:

> Or even mothers also they seem to you they look very cheerful, right? But deep down them I'm not sure how they feel sometimes. (Dr Chua, HCP13, Medical Officer)

> When we see a patient is a normal person, it is not necessarily so (Dr Jasmine, HCP8, Medical Officer)

The perceptions of physical health as more important than emotional health in MCH clinics seemed to be relevant when HCPs disclosed that there were less resources available to facilitate their care for maternal mental health. The resources mentioned were applicability of the screening method, availability of a clear pathway for managing PND, and accessibility of a specialist (counsellor or clinical psychologist).

HCPs reported that there was no specific screening method for PND in their clinic. The only screening method available was the Depression Anxiety Stress Scale (DASS). This instrument was regarded as consisting of too many questions and was applied for general populations, but had never been used among antenatal and postnatal women. This became evident when the following HCPs commented:

> We do have a screening tool which is called "DASS- Minda Sihat" (*DASS-healthy mind*). So we can actually use the questionnaire as well. And that one basically diagnoses like depression, anxiety or stress……I think it's a very general one. (Dr Shana, HCP6, Medical Officer)

> There's a questionnaire. It's for elderly, adult and teenagers. [It's] for health screening. We do it regularly. The questionnaire is too long. (Hetty, HCP4, Head Nurse)

Dr Jasmine believed that questionnaires seemed to be reliable for identifying the symptoms of PND, yet there was no guideline available to be relied upon in adopting this instrument:

> It would be better if we've the screening tools. Like questionnaire, it's not too hard. Just tick it, check it, right? But it was not a compulsory thing now. (Dr Jasmine, HCP8, Medical Officer)

In addition to screening tools, there was a concern about the lack of a specialist in psychological health, including counsellors and clinical psychologists:

> Unfortunately in Malaysia we don't have many counsellors, we're lacking in terms of a clinical psychologist too. So we're aware of the demand for the services. (Dr Nora, HCP18, Psychiatrist)

Inaccessibility to the psychological health specialist in the healthcare system made HCPs uncertain about making a referral:

> …. but in Malaysia it is also very hard to get a counsellor. Quite hard I think. I'm not sure also until now if you ask me to refer for counselling I mean I really don't know where to get them. (Dr Chua, HCP13, Medical Officer)

Dr Chua felt that a sense of uncertainty in making a referral was due to an unclear pathway in the management of PND:

> But in healthcare [MCH clinics], I'm not sure where to refer actually. Maybe I need to ask sister [head nurse] where to refer. (Dr Chua, HCP13, Medical Officer)

It appeared that inaccessibility of the specialist in caring for PND has resulted in the overuse of a psychiatric unit in the hospital. The management of PND was primarily covered by psychiatric staff without any active involvement from maternity staff, as described by a psychiatrist:

> Right now there is no active involvement from the psychiatry department with the women's mental health, women reproductive I mean the O and G (Obstetrics and Gynaecology) team. What we usually get is referral. (Dr Nora, HCP18, Psychiatrist)

Dr Nora's descriptions indicated that there was a gap between the primary and tertiary healthcare system pertaining to care and treatment for PND. While HCPs in MCH clinics (primary settings) stated there were several limitations for them in identifying PND and to make referrals, HCPs in the psychiatric ward (tertiary settings) viewed that there was lack of involvement from HCPs in the clinics in caring for maternal mental health.

HCPs' explanations presented in this section indicated that there were various challenges in managing women with PND, such as unavailability of the screening tools, lack of knowledge in detecting the symptoms, misconceptions about psychiatric referral among women and their society, and inaccessibility to experts in the community setting. It is based on these challenges that HCPs proposed potential interventions that they perceived would be helpful in the future.

5.4.3   Potential interventions

There were a number of interventions suggested including: to apply screening tools for high risk women; to improve HCPs' understanding of PND through training and continuous education; to increase awareness among women and society about PND through antenatal and psychoeducation; and to support women through availability of both peer and professional support. These suggestions were classified into three categories: screening strategies, education and awareness, and supportive strategies. Education and awareness was more likely to be discussed by the HCPs compared to the other interventions. Whilst head nurses, psychiatric nurses, medical officers and the psychiatrist appeared to discuss all of the interventions, community nurses, the registered nurse, and nurse-midwives spoke less about screening and supportive strategies.

5.4.3.1   Screening strategies

Screening for postnatal depressive symptoms was repeatedly expressed as a means to optimise the detection of PND. The proposed timescale for the screening varied from as early as the antenatal period up to a few months after the birth. Whilst early postnatal screening was suggested to provide a baseline data for comparison in the later stages of the postnatal period, risk assessment during the early antenatal period was seen as beneficial in order to plan for further care:

> It could be done during early pregnancy, [I mean] during booking. So if we've the questionnaire, we could give it to them. Maybe we could know her level [of depression] and whether or not she is ready to become a mother. So we could plan for the next action to reduce her depression from there. (Zaida, HCP14, Head Nurse)

Some HCPs emphasised that screening should be prioritised to high risk women, such as women with a history of mental distress, single mothers, and women who had experienced major life events during pregnancy:

> …may be it should be done for those who have had some form of mental or psychiatric illness before pregnancy, or those like single parents, may be divorced women, or those with experience of major life events during pregnancy. I think those are at high risk because, you know, with the hormonal changes post-delivery; the stress is probably too overwhelming for them. So may be those kinds of patients that we've to concentrate more on. (Dr Shana, HCP6, Medical Officer)

It is based on the screening and risk assessment that HCPs could make an immediate referral and provide support for high risk mothers, as suggested by Dr Nora:

> Patient safety is most important. So if they know that the patient is at high risk then you know maybe they can be given a way or mechanism that they can refer immediately to the mental health professionals and that would be a good way to assist these mothers. (Dr Nora, HCP18, Psychiatrist)

5.4.3.2 Education and awareness

Recognising their limitations in detection and management of PND, HCPs, especially those in MCH clinics believed that proper training and continuous learning is required. Formal training was seen by HCPs as important to make the detection become clearer and to enhance their decision making in managing PND. The training was suggested to include the pathway for screening, detection, and referral of PND:

> Then we should educate our staff more. More on how to detect postnatal depression, what should they do. Then we'll assess and manage accordingly or should we refer or [do] anything required. (Dr Jasmine, HCP8, Medical Officer)

Dr Jasmine reported that HCPs need more information about detection of PND and its management. Another medical officer suggested that conducting scheduled talks or seminars on maternal mental health would create continuous learning environments among HCPs, thereby facilitating the training process. Such programmes were not only seen as a good start for the establishment of maternal mental health care, but also as a platform to refresh and update HCPs' knowledge about PND:

> I mean as medical personnel, we've to improve our knowledge as well. So in that sense we can move forward and start forward. (Dr Chua, HCP13, Medical Officer)

Dr Chua showed her readiness to improve her knowledge through training or education programmes and seemed to be optimistic about the effectiveness of the education programme when she said: 'we can move forward and start forward'.

In addition to HCPs' training, and creating awareness among future mothers appeared to be a fundamental component of promoting maternal mental health. Pre-pregnancy classes were suggested as a medium to create a sense of preparedness to become a mother, thus eliminating one of the risk factors for PND. Among the elements suggested in the class were: optimum timing of pregnancy, parenting skills, family planning, and 'towards happy family'. A head nurse commented:

> Maybe we can conduct family talks to create awareness. Then we talk about family planning to get them ready for the gap between first and second child so that they'll not stressed. That's what I think. What is the family, [and] what is happy living family life. We've to tell them so that they'll be ready. (Lara, HCP15, Head Nurse)

A nurse-midwife illustrated that antenatal education is an appropriate opportunity to expose women to various types of challenges they could have after childbirth. The knowledge that they gained from antenatal education could help them to cope with these challenges. Mona emphasised that information about PND should be offered as early as the antenatal period:

> I think whatever it is; it should be started from antenatal. We've to prepare the mothers adequately from antenatal. It's because depression may come suddenly. We couldn't expect when it'll come. It's so sudden. So we've to prepare the mothers during antenatal. (Mona, HCP9, Nurse-midwife)

Healthcare practitioners' roles in transferring accurate information seemed to be an important strategy for creating public awareness about PND. Without HCPs' involvement, women in rural communities continue to rely on the older generation's beliefs, whereas urban communities seemed to assume PND did not exist. This was explained by a medical officer:

> They only know about postnatal depression through their mothers, right? Those in rural areas believe in it [postnatal depression]. Perhaps those in urban areas think that they're modern people. I don't know. Perhaps they're too modern so they do not believe in it although it [postnatal depression] is there. (Dr Jasmine, HCP8, Medical Officer)

It was suggested that HCPs have to play their role in breaking up the stigma in relation for developing PND. Dr Nora said:

> I think that there is a lot more that still can be done. I think not only in terms of awareness but I guess mental illness in Malaysia has a lot of stigma. We've to break that stigma and that requires a lot more work from our part. (Dr Nora, HCP18, Psychiatrist)

A head nurse proposed health education on stress management as a relevant course to be started during the antenatal period. This could be supported with various health promotion strategies either face to face or online education programmes. Others mentioned the responsibility of maternal mental health campaigns through the media, and collaboration between government and a private healthcare system to maximise the outcome of health education. All in all, the aims of creating awareness are to develop a sense of ability to differentiate normal and abnormal changes after childbirth, as well as to provide a clear pathway for help-seeking:

So when the patients themselves are aware of those symptoms you know, they will know where they can get help from. I guess sometimes we have the symptoms but we do not know that it is a disorder, we do not know that it is treatable and sometimes we know there is something wrong with us but we do not know to whom we shall go. (Dr Nora, HCP18, Psychiatrist).

There was an account that highlighted that PND was a very small topic in the midwifery curriculum. It was suggested that the topic should be extended to provide a clear understanding of PND among future nurse-midwives:

I mean a specific curriculum for depression. Maybe 1-2 hours specifically for depression. I think that's enough. At least we've an idea during clinical posting. Otherwise, we only learn about it if the case is there. (Mona, HCP9, nurse-midwife)

5.4.3.3 Supportive strategies

The postnatal support group was repeatedly mentioned by almost half of the HCPs. This idea was mainly adopted from breastfeeding support groups which currently operate in the MCH clinics.

Maybe we should have a group, right? Like what we've for breastfeeding. So that the mothers can share their problems, right? …. I mean sharing feelings is another way to express yourself right? So I think it does help. It's like getting in a group like postnatal [support] group for depressed mothers. (Dr Chua, HCP13, Medical Officer)

Dr Chua believed that a postnatal support group would enable the women to express their feelings and share their problems. A psychiatric nurse appeared to have a similar idea. Her idea was adapted from the support group in her psychiatric ward, known as 'family link'. This type of support comes from patients with a history of mental illness who were fully recovered.

The postnatal support group was considered to be an appropriate medium to seek help through informal resources, especially for women who were reluctant to speak about emotional health problems to HCPs. Availability of this group was not only seen as a talking therapy, but also as facilitating peer support and learning from others. This was explained by a nurse-midwife:

Sometimes the patient might not listen to our advice. But they may accept the other women's opinion or from somebody who has similar experiences as they have had. I mean those with the same level of experience. They may feel that the nurses do not have the same problem. That's their assumption. [So] we [should] encourage women to support each other. (Zetty, HCP12, Nurse-Midwife)

Accessibility to expert care was believed to add more value to supportive strategies. It was reported that there was almost no mental health experts in the community settings, be it clinical psychologist, counsellor, or psychiatrist. A medical officer acknowledged the need for psychologists in MCH clinics:

> ….we need specialists in emotional health. Perhaps we need a team. I mean a position for psychologist and place them in KK [community health clinic]; we do have this in hospital, don't we? (Dr. Jasmine, HCP8, Medical Officer)

Others suggested collaboration between maternity and psychiatric staff, upgrading physical facilities in the MCH clinics, the establishment of policy and funding, and involvement of other government agencies to strengthen support for women with PND.

This third theme discussed HCPs' descriptions of current management and strategies for prevention of PND, limitations in managing maternal mental health in the healthcare system, and potential interventions for PND.

Healthcare practitioners' explanations indicated that they believed that routine antenatal and postnatal care, such as antenatal follow ups, postnatal preparation, and home visiting were helpful approaches to prevent PND, although none of these specifically addressed maternal mental health. Such perceptions revealed that in the absence of a specific intervention, HCPs appeared to justify that their routine care for antenatal and postnatal women could be useful for the management of PND. It could also be associated with a lack of informed knowledge about PND and its management.

It appeared that there was no clear guideline stating whose responsibility it was to manage PND. Healthcare practitioners in a psychiatric setting expected their colleagues in the MCH clinics not only to identify the symptoms of PND and make necessary referrals, but also to be able to consult the woman and to minimise the symptoms. On the other hand, the medical officers in MCH clinics considered their main roles to be focussed on physical health. They believed that the nurses were closer to patients, hence expected them to recognise and refer women with emotional problems accordingly. The management of PND, especially in MCH clinics could be more challenging when there was no screening tool, experts, or clear guidelines for managing PND. Medical officers in particular, stated that their keenness to make a psychiatric referral was restrained by the stigma about psychiatric treatment dominated by the women and their society, associating this with a lack of knowledge and awareness within society. Explanations from HCPs in MCH clinics indicated that their care for maternal mental health was also limited by the nature of existing healthcare

systems that put more weight on physical health. It could be this physical-oriented focus that led to their lack of formal knowledge about PND and its management.

Having discussed the challenges that they have, HCPs proposed several interventions that they perceived to be advantageous in preventing and managing PND. For example, screening for symptoms of PND, training programmes for HCPs and supporting women with PND.

5.5 Chapter summary

This chapter has shown that there was a lack of informed knowledge about PND among HCPs reflected in the misconception of the term 'postnatal depression' with 'postnatal blues'. They appeared to believe that the symptoms of these two forms of maternal distress are similar, no professional help is needed for non-severe PND because it is self-manageable, and emotional distress after childbirth is a 'normal' condition. Generally, PND was seen as an uncommon maternal health problem in Malaysia. Women were seen as having good emotional health when they were able to perform their maternal tasks. They were considered as being aware about healthcare and managed to get required information from other sources, such as the internet. Despite the perception that PND was an uncommon maternal health problem, almost half of the HCPs described PND as underdiagnosed, associating this with a lack of attention given to maternal mental health by the Malaysian healthcare system; no focus was given to mild and moderate depressive symptoms, and the failure to detect symptoms of PND at the point of the early onset.

The HCPs' ability to detect PND was based on 'cues' or symptoms presented by the women. This includes behavioural and physiological changes. Although physiological changes were recognised as part of the postnatal depressive symptoms, the most common symptoms reported by HCPs were behavioural changes. Compared to the women's explanations of the signs of PND, HCPs did not discuss emotional changes. The 'cues' for PND mentioned by the HCPs were not fully based on classification systems used to diagnose depression such as the DSM-5, especially in the case of the nurses. Instead, it was based on their personal judgement, wherein a woman who did not conform to a 'proper norm' could be perceived as having maternal distress. Whereas those who adhered to their health advice and acted as expected were considered as having good emotional health. There was clearly a lack of informed knowledge regarding signs and symptoms of PND, especially among nurses, and as reflected in their unstandardised ways of detecting PND. Discussion on these issues is presented in Chapter 6 (see Section 6.2).

The causal explanations of PND were explained using a combination of two overarching concepts; the women's personal and contextual factors. However, more emphasis was given to contextual factors. Adjustment to motherhood, such as unplanned pregnancy and first time mothers, largely constituted the explanation of women's personal factors. In contextual factors, HCPs primarily discussed traditional

postnatal practice, although there was mixed views as to whether the practices could be a causative or protective factor, depending on the woman's personal approach or forbearance. Healthcare practitioners acknowledged the influence of esoteric elements of 'dirty blood' and 'bad spirit' in the development of PND across three main cultural backgrounds in Malaysia: Malay, Indian and Chinese communities. Socioeconomic factors, such as a lack of social support and financial problems were also described as a contributing factor to developing PND. The healthcare surveillance for the women with medical problems has been also associated with the development of PND. Despite acknowledging the women's contextual factors in developing PND, the HCPs explanations show that their main focus was on physical health. Antenatal follow ups, postnatal preparation, and home visiting were described as helpful approaches to prevent PND. However, none of these interventions specifically addressed PND. The HCPs in MCH clinics tended to talk about routine care as preventing PND, with this influenced by the unavailability of any specific intervention for PND in their clinical practice and because they had a lack of informed knowledge about PND and its management.

The HCPs' explanation indicated that there was a lack of professional ownership for managing PND among HCPs in MCH clinics, which has led to a mismatch in expectations between them and their colleagues in the psychiatric ward. In MCH clinics, HCPs reported that their ability to manage PND was challenged by the unavailability of a screening method, physical-oriented healthcare system, stigmatised treatment, unclear guidelines, and lack of resources. With these limitations, they continue to believe that PND should be primarily managed in the psychiatric setting, although they recognised that psychiatric care and treatment were frequently stigmatised by both women and their society. For instance, the word 'counselling', 'psychiatric ward', and 'antidepressants' were reported by the HCPs as stigmatised and could be misunderstood to mean that a woman has a severe mental illness or was 'crazy'. Nonetheless, HCPs in a psychiatric ward believed that HCPs in MCH clinics should be able not only to recognise and refer but also to identify the stressor and alleviate the symptoms of PND at their level.

HCPs suggested several potential interventions that could be implemented in the future. Whilst screening for symptoms of PND was described as beneficial to avoid PND being underdiagnosed in clinical practice, a training programme for HCPs was suggested as a good start to increase awareness about PND among the community.

The postnatal support group and accessibility to expert support in the community were proposed in order to support women with PND.

6   Chapter 6: Discussion

6.1   Introduction

This study was driven by a lack of evidence on women's experiences of postnatal depression (PND) across different cultures. This gap has created uncertainty as to whether approaches to care developed in one setting are appropriate and transferrable to women from different cultural backgrounds. Moreover, there was a lack of research on how healthcare practitioners' (HCPs) perceive, identify, and manage PND in Malaysia. Previous studies suggest that interventions for PND should consider perspectives of both women and HCPs (Heneghan et al. 2007; Almond 2013). The need for research to bridge understandings of PND from women's experiences and the HCP's views and perceptions was therefore the main driver for this study.

The studies presented in this thesis have investigated the understanding and knowledge of PND from the perspectives of women and HCPs in Malaysia. The first study (Chapter 4) explored the experience of PND among Malaysian women, addressing questions about what are the experiences of PND among Malaysian women, what are the women's perceptions and causal explanations of PND, how they experienced their care and what they perceived may help them to manage their symptoms, and what types of interventions might women find potentially helpful to address maternal mental well-being. The second study (Chapter 5) reported on the knowledge and perceptions of HCPs about PND. The research questions asked: what are the knowledge and perceptions of HCPs towards PND in Malaysia, how are women who have experienced PND supported in the Malaysian healthcare system, what are the resources available in the healthcare system for women with PND and what types of interventions do they think might be helpful for women with PND.

In this chapter, findings are discussed in relation to the research questions, existing literature and relevant theories. The findings are also reflected upon against a background of the critical realist perspective employed in this thesis. The critical realist perspective does not view that PND is entirely socially constructed and therefore does not exist as a real illness as suggested by the social constructionist (Lewis-Beck et al. 2004), but allows that PND can be partly socially constructed. For instance, in this study, women described their actual feelings and experiences of PND, such as loss of excitement, neglecting their baby, and suicidal thoughts, indicating that the symptoms of PND are experienced as a real psychological distress. However, the majority of

HCPs in maternal and child health (MCH) clinics could also label a mother as potentially postnatally depressed because she was not behaving as other mothers did and not in a way they expected. This suggests that PND could also be socially constructed, based on expected and (un)acceptable social norms. The critical realist perspective allows for the real distress experienced by the women, but at the same time acknowledges that the 'diagnosis' of PND can be subjective rather than objectively defined. It is this subjectivity that gives rise to the potential for different constructs of PND to emerge, and ones which include some form of social judgement or 'labeling'.

The findings of these studies contribute to the literature on PND through five important findings:

i.   The women and the HCPs had distinct ways of conceptualising the symptoms of PND, and these conceptualisations did not wholly reflect current diagnostic criteria for depressive disorders.

ii.   There were different causal explanations within the women's viewpoints and between women and HCPs, although they shared many common causal explanations of PND. Within women's perspectives, traditional postnatal practices were described as contributing to PND by some Malay women, but were accepted as promoting maternal and baby's well-being by the majority of Indian women. The conflict of breastfeeding practice and newborn care between the older and younger generation was primarily spoken of by the Chinese women, and this was seen as contributing to their PND experience. Whilst women generally talked more about personal factors, such as worries and anxiety during pregnancy, HCPs tended to link PND with contextual factors, such as interference of the mother-in-law during the postnatal period and traditional rituals.

iii.   The majority of women in this study did not perceive the alleviation of emotional distress as falling within the 'duty' of the HCPs, although there were some women who believed that it was the role of the HCPs to ask them about psychological health. Some women's explanations indicated that they felt that they were not given appropriate attention by HCPs, hence discouraged their help seeking. These perceptions made them fully dependent on self-help care rather than professional help. Nonetheless, such care could differ from one cultural background to another, since religious activities were reported as an

effective strategy for the Malay women, while this was not the case in the majority of Chinese women.

iv.   There was a lack of professional ownership for managing PND among HCPs in MCH clinics, which has led to a mismatch of expectations between them and their colleagues in the psychiatric ward. Whilst HCPs in the clinics believed that PND should be predominantly managed within the psychiatric setting, HCPs in the psychiatric ward believed that HCPs in MCH clinics should be able not only to recognise and refer, but also to identify the stressor and alleviate the symptoms of PND at their level. Healthcare practitioners' explanations also indicated that the care and treatment for women with PND was challenging when a psychiatric referral and care was commonly stigmatised by the women and their family.

v.   There is potential to prevent PND and to educate and support women with PND through community-based interventions, as described by both women and HCPs in this study.

The following sections discuss the above findings in relation to existing literature concerning the experience and understanding of PND. This is followed by a discussion of the implications of this study, calling for an establishment of a set of referral strategies, and the development of culturally appropriate care. Finally, the methodological issues and the limitations of this study are discussed before moving on to the conclusions.

6.2 Conceptualisation of postnatal depression by women and healthcare practitioners

The first finding of this study shows that the women and the HCPs had distinct ways of conceptualising the symptoms of PND, and these conceptualisations did not wholly reflect current diagnostic criteria for depressive disorders.

When the women's accounts were analysed across cultures, it was found that many descriptions of emotional changes were mentioned by Chinese and Indian women. Malay women were more likely to describe the symptoms based on a combination of emotional and behavioural changes. Comparing and contrasting the women's and the HCPs' understanding of each category of 'the changes' (symptoms of PND) identifies that there are several similarities, and also significant differences. The similarities lie in their shared concept of behavioural changes, the differences are evident in the way they discussed the emotional and physiological changes. Behavioural, emotional and physiological changes were all discussed by the women, while HCPs only included behavioural and physiological changes in their explanations.

The above findings could be linked to principles of critical realism in two ways. First, the women and the HCPs' explanations of the symptoms of PND (e.g., loss of excitement and suicidal thoughts) indicated that PND experience is real and does not only exist as a socially constructed phenomenon. It is because of this 'reality' that the manifestations or symptoms of PND can be experienced by the women and/or observed by the HCPs. Second, the complexity of the conceptualisation of PND within and between the women and the HCPs could be explained by the influence of the interpretive lens (Walsh and Evans 2014). Critical realism acknowledges that this interpretive lens is influenced by individual and social factors. It is this influence that explains why the conceptualisation of PND differed from one to another culture and why the women and the HCPs have or observe the same condition (PND), but view the symptoms of PND and relate it in different ways. For example, the women and the HCPs recognised that a lack of interest in the baby, isolating oneself, and irritable moods were part of behavioural changes indicating PND. However, the women also added other symptoms in this category, such as shouting at others, breaking things, and harsh actions towards the baby. The HCPs' explanations of behavioural changes were limited to what they could observe from the women's facial expressions and what the women reported to them, including having unhappy feelings and feeling low or down. Both women and HCPs acknowledged the symptoms of difficulty in sleeping and

loss of appetite. In addition to these two symptoms, the women associated physical discomfort symptoms, such as headache and skin itchiness with their emotional distress. Such symptoms were not highlighted by the HCPs. Instead, they described other symptoms, which were not spoken of by the women, such as loss of body weight, reduction in passing urine and bowel movements, and increased blood pressure.

Despite their ability to recognise the above symptoms, conceptualisation of PND by both women and HCPs were not wholly based on current diagnostic criteria for depressive disorders. For instance, the symptoms of having headaches as reported by the women; and being less attentive to personal hygiene and the cleanliness of the house, reduction in passing urine and bowel movements, and increase in blood pressure as reported by the HCPs, are not included in DSM-5. These findings correspond with the findings of Place et al. (2015) who reported that the symptoms of emotional distress explained by the HCPs in their study not only referred to PND, but also included other maternal emotional difficulties, such as long-standing distress and postnatal blues. However, the conceptualisation of PND by the HCPs in this study was mainly related to the absence of adequate knowledge about PND.

The majority of HCPs in this study, including the nurses and medical officers appeared to have a lack of formal knowledge of PND and often confused PND with postnatal blues, thereby minimising the symptoms of PND. Their explanations indicated that they believed that the symptoms of 'postnatal depression' and 'postnatal blues' were similar, no professional help was needed for non-severe PND because it was self-manageable, and emotional distress after childbirth was a 'normal' condition. In the model of mental health literacy, Jorm (2000) stated that HCPs developed their expert knowledge about mental disorders based on scientific evidence and expert consensus. In the absence of such professional knowledge, HCPs in this study tended to minimise the condition of PND describing it as a mild category of depression, a self-manageable condition not requiring any professional intervention. Without adequate knowledge about PND, HCPs failed to regard PND as a serious maternal mental health problem as evidenced by the following two remarks.

Firstly, HCPs, especially those in the MCH clinics, often reported that the women attending their clinics were viewed as not having any distress if they were able to cope with child care and had good physical health. For instance, a woman who did not conform to a 'proper norm' could be perceived as having maternal distress. Those who adhered to their health advice and acted as they were expected to were considered as

having good emotional health. This generally reflects the ideal images of motherhood as constructed by the media, such as well-dressed, smiling, and beautiful individual with clean and happy children (Hollins Martin 2012). These images are then generally accepted as the social norm. Nicolson et al. (2010) examined issues surrounding the pregnant and postnatal body across three generations by exploring women's accounts of how far subtle changes in the 'culture(s)' of pregnancy and childbirth might have been influential; and the experience being/becoming a mother across different historical and cultural generations. They compared their study with two re-analysed existing data sets of in-depth interviews from three generations of mothers. As a result, they argued that the character of acceptable behaviours 'for motherhood' is reinforced by the media and HCPs regulate and shape this image through their antenatal and postnatal care. Analyses of HCPs accounts in this present study shows that women were asked to conform to the HCPs' advice to maintain their own health and were 'controlled' by frequent medical tests throughout their visits to the MCH clinics. The standard image and behaviour of a mother as presented by the media and generally seen as acceptable in their culture, was perceived by the HCPs as being the margin between normal and depressed women.

Secondly, many HCPs considered that their advice on physical health given during routine antenatal and postnatal care was effective in preventing PND. Again, Jorm (2000) argued that a person who has no specific knowledge about depression tends to draw on their general belief system about health. This would mean that when confronted by PND, a condition that they know little about, the HCPs tended to explain this as caused by lifestyle and suggested that it could be prevented by adopting natural remedies and lifestyle changes. Such remedies, they believed, have been delivered through routine care for antenatal and postnatal women in their clinical practices.

6.3   The perceived causes of postnatal depression

The second finding of this study is that there were different causal explanations within the women's explanations and between the women and HCPs, although they shared many common causal explanations of PND, such as motherhood experiences and contextual and cultural influences. Within women's perspectives, traditional postnatal practices were described as contributing to PND by some Malay women, but were accepted as promoting maternal and baby's well-being by the majority of Indian women. The conflict of breastfeeding practice and newborn care between the older and younger generation was seen by Chinese women as contributing to their PND experience. Women generally talked more about their motherhood experience, whereas HCPs tended to link PND with contextual and cultural factors (e.g., the presence of the mother-in-law during the postnatal period and traditional rituals). Certain perceived causes such as anxiety during pregnancy and pain associated with childbirth were only spoken of by the women, whereas the role of esoteric elements ('dirty blood' and 'bad spirit') and medical problems were primarily described by the HCPs. These findings could be linked to principles of critical realism in two ways.

First, the finding suggests that the women and the HCP's explanations of the causes of PND derived from motherhood experiences, contextual and cultural influences, and interplay between the two. Motherhood experiences concern the women's life, emotions and experience that contribute to PND (e.g., anxiety during pregnancy, psychological unreadiness for parenthood, and roles and identity of being a mother). Contextual factors refer to the characteristics of the women's environment that impacted on the development of PND (traditional postnatal practices, cultural background and esoteric factors, family management, lack of social support, and financial constraints). Although these perceived causes would also apply to other postnatal women, they appeared to be augmented for women in this study. This finding supports the critical realism argument that PND is caused by a certain combination of underlying causal factors that come to interact within a specific context (Clark et al. 2008). These factors remain latent until they are activated in specific contexts or circumstances. In other words, without the right combination between these factors and a proper context, the presence of underlying causal factors may not result in PND. This is also the reason why critical realism holds that individual and social practices cannot be studied in isolation (Walsh and Evans 2014).

Second, this finding supports the critical realist perspective that the causal mechanism of a phenomenon is never fully explanatory because different people have their own interpretive lens to filter the information that they receive and respond to accordingly (Easton 2010). Nevertheless, this interpretive lens is influenced by personal or contextual factors (Walsh and Evans 2014), which explains why women and HCPs have different ways of viewing the causes of PND. Similarly, the interpretive lens also made the women interpret the same experience in contrasting ways. Consistent with these findings, previous studies suggest that women from different cultures and countries understand PND in their own ways. Therefore, it was not surprising that traditional postnatal practices somehow protect women from developing PND in some cultures, but are associated with developing PND in another community (Rahman 2007; Edwards and Timmons 2005; Oates et al. 2004; Rodrigues et al. 2003).

6.4 The women's experience of care and managing their symptoms

The third finding of this study is that the women's accounts indicated that they perceived PND as a personal problem, and a temporary and a less serious emotional condition, and therefore considered that this would not require any professional treatment. Although there were some who wanted to seek help and believed that it was still the duty of the HCPs to ask them about psychological health, they felt that they were not given appropriate attention by HCPs. These underlying perceptions appeared to contribute to the adoption of self-help care rather than seeking professional help. Uniquely, such strategies could differ from one cultural background to another. For example, religious activities were reported as an effective strategy for the Malay women, but not for the majority of Chinese women. This finding can be clarified by the following explanations.

The nature of women's experience of seeking help within the healthcare service can be explained by understanding the women's expectations of the services. Williams et al. (1998) suggested that the concept of 'expectations' have a relationship with the concept of 'perceived duty' and 'culpability'.

The concept of 'perceived duty' can be classified as a form of expectations which represents individual perceptions about what are and what are not the roles and obligations of the service (what they 'should' and 'should not' do) (Williams et al. 1998). The majority of women in this study did not perceive the removal and/or alleviation of emotional distress as falling within the 'duty' of the HCPs. These women did not regard the lack of care for emotional distress as a negative experience, or that it reflected a limitation of the HCPs or healthcare service. In fact, they did not expect this care. However, there were some women who believed that it was the duty of the HCPs to ask them about psychological health. This expectation then made them view the help seeking process as difficult when they found that the HCPs' focus was more on family planning, breastfeeding and baby's growth; leaving their psychological health unattended.

The concept of 'culpability' refers to whether or not the service is to 'blame' if it fails to undertake their roles or obligations or does things out of their duty (Williams et al. 1998). In this present study, there were women who appeared to believe that the HCPs' behaviour had produced a negative experience for them and implied that this should not have happened. For instance, a few women reported that they wanted to seek help, but felt that they were not emotionally attended by the HCPs and therefore

were not keen to reveal their depressive symptoms. Conversely, there were women who did not blame the HCPs or healthcare services despite not receiving relevant care for their emotional distress. These women seemed to accept that there were limitations that could explain the HCPs' failure to address or ask about their psychological health during clinical consultation. For instance woman felt that there were too many mothers in the clinic that limited the HCPs' care and they believed that they had received what they expected from the healthcare services (e.g., baby's immunisation and postnatal physical assessment).

It is through the women's reflection of the current limits of the roles and obligations of the HCPs and some constraints of healthcare services that made them adopt self-help care as their main coping strategy. What is important and unique in this study is that religious activities were primarily mentioned by all of the Malay women as a form of coping strategy for their distress, which was not the case in the majority of Chinese women. A prospective cohort study that recruited 344 pregnant women in an obstetric setting and followed them up to 6 weeks postpartum suggested that religious participation was found to protect women from depressive symptoms, specifically by assisting them in handling the challenges of early motherhood (Mann et al. 2008). There were no clear reasons for perceived non-helpfulness of religious activities among Chinese women in the current study, however, this may have been related to their religiosity. Results from randomised clinical trials have shown that interventions that utilise the religious/spiritual beliefs were effective in reducing depressive symptoms (Bonelli et al. 2012), but this tended to be more effective for religious patients and those with high religiosity (Berk et al. 2015; Pearce et al. 2015).

6.5 The perceptions of the healthcare practitioners in managing women with postnatal depression

The explanations from the HCPs in the clinics showed that their care and treatment was limited by the absence of policy and guidelines for managing PND, that they could refer to. They reported that a specific screening method for postnatal distress was not available, the accessibility of a specialist (counsellor and clinical psychologist) was difficult, and a pathway for managing and referring PND was not clear. The absence of such guidelines had also resulted in an unclear job scope about whose role it was to manage PND. While HCPs in the psychiatric ward expected the HCPs in the clinics to be able to consult women with PND and minimise the symptoms, the HCPs (especially medical officers) in the clinics considered that their main roles were more on physical health. With this in mind, the medical officers tended to focus more on issues that they thought important and prioritised by the Ministry of Health (MOH) such as family planning and breastfeeding. They expected the nurses to recognise and refer women with emotional problems accordingly, although they acknowledged that the nurses have a lack of knowledge and experience of the management of PND. Ultimately, the lack of professional ownership for assessing and managing PND left the symptoms largely unnoticed. Yelland et al. (2007) also suggested that the demand to assess physical health made clinical practice become a less conducive environment to deal with complex psychosocial issues. The absence of policy regarding management of PND has been reported by previous studies as limiting the management of PND (Heneghan et al. 2007; Teng et al. 2007; Chew-Graham et al. 2008; Mivsek et al. 2008; Place et al. 2012; Agapidaki et al. 2014). In contrast, availability of strategies to promote maternal mental health (e.g., self-education, screening tools, and additional consultations) had been reported as promoting HCPs' confidence in dealing with PND (Rush 2012; Belle and Willis 2013).

Healthcare practitioners' explanations also indicated that the care and treatment for women with PND were challenging when a psychiatric referral and care was commonly stigmatised by the women and their family. The word 'counselling', 'psychiatric ward', and 'antidepressants' were reported by the HCPs as stigmatising and could be misunderstood to mean that a woman has a severe mental illness or that she was 'crazy'. The stigma of psychiatric treatment has been widely recorded in the literature (Link and Phelan 2001; Corrigan 2004; Schomerus et al. 2009). For instance, Boath et al. (2004) reported that the stigma associated with antidepressants remained an important consideration for many mothers since they did not want to be labeled as a

''tablet taker''. A report of qualitative systematic review by Dennis and Chung-Lee (2006) showed that stigmatisation and lack of knowledge related to PND and treatment resulted in reluctance to seek help and refusal of treatment. The unique finding of this study was that women and their society were described by the HCPs as preferring traditional treatment and would only come to them when the traditional treatment failed. Such preference withdrew the HCPs' keenness to make a psychiatric referral. They also presumed that women would neither accept their professional help nor the referral they had made. There were no clear explanations by the HCPs of which cultural background appeared to be affected by such stigmatisation. However, they explained this as associated with a lack of awareness about professional treatment as well as the 'conservativeness' of women in the rural communities.

6.6 The potential interventions for women with postnatal depression in Malaysia

The final finding of this study is that there is potential to prevent PND and to educate and support women with PND through community-based interventions. There were three potential interventions proposed by the participants in this study: screening programmes, an education and awareness campaign, and supportive strategies.

Detection of PND through screening was widely discussed by the HCPs. They suggested that the priority for screening would be given to a high risk group such as women with a history of mental distress, single mothers, and women who experienced major life events during pregnancy. Such suggestions were consistent with the findings of previous studies, which recommended that interventions to prevent PND were more likely to be successful if they targeted high risk women (Dennis 2005; Dennis et al. 2009). Moreover, screening for all postnatal women does not seem to be cost effective, especially when women were incorrectly diagnosed with PND and were being managed in the healthcare system (Paulden et al. 2009). Prior to the screening, a training programme on the pathways of the referral system and the procedure for using a screening tool was suggested. To enhance the training process, scheduled talks or seminars on maternal mental health were described by the HCPs in this study as supporting their understanding of the screening purpose. In their two-stage controlled study, Jardri et al. (2010) found that training on a PND screening programme not only improved the midwives' ability to detect women with PND with a screening tool but also increased their sensitivity to at-risk women who were not detected by the tool.

Another proposed intervention by the participants in this study was an education and awareness programme. The women in this study suggested that an extended health education seminar could be conducted by the HCPs, focusing on maternal psychological health, handling new-born babies and basic new maternal life changes. The need for this information was also highlighted in another study (Yelland et al. 2007). Again, the target of high risk women in this education programme (which begins in pregnancy and continues to the postpartum period) is likely to be the most cost-effective prevention intervention (O'Hara 2009). The HCPs in this present study believed that mobilising healthcare support through psychoeducation could assist them in reducing the stigma towards PND. Studies have shown that postnatal psychoeducation programme was effective in improving maternal outcomes,

thus may help women identify their symptoms and seek help before symptoms become severe (Shorey et al. 2015; Farr et al. 2014; Heh and Fu 2003).

To improve the screening of PND and to optimise the education and awareness programme, the availability of supportive strategies within the community was seen by the HCPs as important future interventions. This included the availability of experts in the community, home-based interventions and postnatal support groups.

Accessibility to experts on maternal mental health in the community was perceived by the HCPs as an important element of supportive strategies. Counselling services were repeatedly emphasised by the women as a platform to obtain professional support in alleviating their negative emotions. Therefore, the availability of a psychological expert, such as a clinical psychologist or psychiatric nurse in MCH clinics or in the community clinics was recommended. Previous researchers suggested that on-site mental health services, even on a part time basis is desirable to ease barriers to referral and support the transition between tertiary and primary healthcare settings (Guy et al. 2014).

Although it was not mentioned by any HCPs, home-based interventions were seen by the women in this study as a potential intervention for PND. They acknowledged the home as a more appropriate place to discuss emotional problems because it provides more privacy compared to the clinic. The women not only proposed professional consultations during home visiting, but also suggested that follow ups and professional supports could be conducted through phone calls. This suggestion seemed to be relevant as a telephone-based intervention was found to be effective in preventing PND among high risk women (Dennis et al. 2009).

The postnatal support group was mentioned by almost half of the HCPs as promoting maternal emotional well-being. A nurse led support group was also suggested by the women as a reliable platform to discuss their problems, and to obtain professional as well as members support. This means the group was expected not only to offer a talking therapy, but also a means to learn from others and be led by experts. Anderson (2013) found that condition-specific support groups were the most helpful for women with PND because in a general mother' support group, women did not tend to disclose their PND experience until others had and this setting would create a safe environment for that disclosure.

6.7   Application of theories used to understanding illness behaviour

In Chapter 2 (Section 2.2), models/ theories used to understand illness behaviour are presented. Although there is no absolute model/ theory that can entirely explain the experience of PND, there are some ways that the models/ theories can be linked with the findings of this study.

Some findings somewhat support the concept of illness representations discussed in the Leventhal's self-regulatory model of illness behaviour. As previously described in Chapter 4 (Section 4.1), the women's perceptions and understandings of PND were summarised under 4 themes: i) the changes (the manifestations of emotional distress after childbirth); ii) causal explanation (how they explained their perceived causes of PND); iii) dealing with PND (how they dealt with the distress); and iv) perceived impacts (what were the perceived impacts of PND on their daily life). Similarly, Leventhal et al. (1980) suggested that individuals with an illness construct a representation of the problem through 5 dimensions: i) identity (the label given to the diagnosis and the symptoms experienced); ii) the perceived cause of the illness (biological and/or psychosocial factors); iii) time line (beliefs about how long an illness will last); iv) consequences (the patient's perceptions of the possible effects of the illness on his or her life); and v) curability and controllability (the patient's beliefs about whether their illness can be treated and cured, and the extent to which its outcome is controllable).

The element of identity, perceived cause, and consequences were clearly highlighted in both Leventhal's model and this study. Findings of this study do not explicitly discuss the two element of Leventhal's model (time line, and curability and controllability). Nevertheless, some women viewed PND as a less serious and temporary condition, and therefore did not seek professional help, indicating that the two elements were embedded within the women's explanations. This finding may also be linked to the concept of perceived severity in the health belief model as previously discussed. Again, as women regarded PND as a less serious condition, they appeared to believe that no professional help was required, and therefore left the symptoms of PND unnoticed and untreated.

Although Klienman's explanatory model (Kleinman 1980) has clearly proposed shared information between patients and HCPs, yet there was no evidence that this model was applied by the participants in this study. This finding supports the views by Bhui and Bhugra (2002), who stated that the process to elicit the explanatory models, and to

maximise collaboration and communication between patient and professional is relatively rare within clinical practice. A possible explanation is that HCPs are predominantly biomedically orientated, and are not commonly equipped with a social science background. This results in hesitation in adopting social science methods into routine clinical practice. As described by the majority of HCPs in this study (Section 5.4.2.1), their main concern within clinical practice was physical health. If the explanatory models were to be adopted, the socio-anthropological framework of participant observation and open-ended conversation should be applied by the HCPs, and this may embrace the authentic view of the patient's world. Such an approach may not be seen as helpful by the HCPs in carrying out their 'perceived main duty', which is physical health.

The Theory of Planned Behaviour (TPB) (Ajzen, 1985, 1991) helps to understand that there are some underlying reasons that could explain the women's help seeking style, particularly where intentions do not appear to result in behaviour. For example, findings of this study show that a few women intended to seek help, but their intention were hindered by the lack of knowledge and resources regarding maternal mental.

6.8   Implications of the study

The current study findings have implications for policy and guidelines, healthcare practice, education, future research and nursing/ midwifery practice in Malaysia.

6.8.1   Policy and guidelines

This study firstly calls for a policy and guideline for the management of PND within the Malaysian healthcare system to improve a sense of professional ownership for the management of PND. Secondly, a screening programme, especially for women at high risk of PND is required to assist detection and consequent management of PND.

A system-based enhanced PND care is essential to ensure appropriate treatment and follow-up. For this reason, a guideline is required to specify the roles of HCPs in the management of PND at their level (e.g., nurses, medical officers, psychiatrists). It is thought that this guideline could also emphasise that the women's emotional well-being within the HCPs' routine practices is also as important as physical health. Along with this guideline, a referral pathway is needed in order to encourage the coordination/integration between the MCH clinics and the psychiatric ward. The availability of such a guideline could then be used by the local authorities to initiate the implementation of other interventions regarding the management of maternal mental health (e.g., psychoeducation courses, training for HCPs).

The screening programme should only be initiated once a clear pathway of the management of PND in the clinical setting is well-established. A combination of a screening tool and system-based enhanced depression care is essential to assure appropriate treatment and follow-up (Gjerdingen and Yawn 2007). Such a system should include the availability of diagnostic tools and a collaboration between HCPs in the community and those in the psychiatric ward. To improve the detection, women with a high risk of PND should be identified and provided with knowledge on signs and symptoms of PND. Beck (2001) asserted that the first step in preventing PND is the identification of the high risk group. The example of high risk group of women as reported by this present study were: first time mothers, single mothers, unmarried mothers, mothers who have had health problems during their pregnancy, mothers with unplanned pregnancy, and mothers who have had difficulties to adhere to traditional postnatal practices. It is through the identification of these risk factors that HCPs may be enabled to target appropriate interventions to prevent PND. This could potentially save healthcare costs as addressed in the literature (Nylen et al. 2005).

The implementation of the screening tool in the clinical practice however, would require careful consideration. Such a screening tool would need to reflect a broader range of emotional, behavioural and physiological changes as addressed by the women in this study, tested and validated among Malaysian population, and not merely based on the existing instrument. To maximise the utilisation of the screening tool and improve the detection of the PND, there should be a consideration given on the length and time spent to complete the screening because if it were long and time consuming this could potentially receive less attention from both women and HCPs.

Upon a positive screening result, the confirmation should be carried out by a clinical interview. Adopting a clinical interview before making a diagnosis is cost effective compared to diagnosing without one (Paulden et al. 2009). Should the symptoms not meet the PND diagnosis, rescreening should be conducted within a certain period of time. In cases where the diagnosis is confirmed, an appropriate treatment should be started by a mental health specialist in the clinic.

6.8.2   Healthcare practice

Within clinical practice, findings of this study indicated that there should be:

(i)   An acknowledgment of the women's beliefs about the perceived causes of PND in any healthcare intervention.

(ii)   An initiation of culturally appropriate care for PND within the healthcare system (which considers the cultural preference regarding traditional postnatal practices throughout pregnancy and promotes an appropriate plan following childbirth).

(iii)   An involvement of husband/partner and family in professional interventions such as pre-pregnancy classes and antenatal education.

(iv)   A consideration for the community-based/ home-based and psychological approach, including the establishment of postnatal support groups and midwife-led interventions should be introduced in addition to psychiatric referral or medical intervention.

(v)   A consideration of specialised inpatient psychiatric facilities of joint mother-baby units for treatment of PND.

It is important for the HCPs to acknowledge the women's belief about the perceived causes of PND in the healthcare intervention. The knowledge about the women's causal explanation of PND could be used by the HCPs to offer effective treatment options. Considering the women's belief about the perceived causes in healthcare interventions could enhance their compliance with the treatment plan and make them more likely to benefit from the treatment provided (Jorm's 2000).

A culturally appropriate care seemed to be relevant within the healthcare practice. Healthcare practitioners should understand that culture is reenacted by the woman and that the woman's response and reaction towards certain stressors (e.g., traditional postnatal practices) could be varied from one culture to another. Here, there is a need for HCPs, especially those in the MCH clinics to take into account culturally appropriate care and health education for both antenatal and postnatal women. The culturally appropriate care could mean that the women's preference/rejection of their traditional postnatal practices is considered at an earlier stage (e.g., antenatal period). This information could then be used by the HCPs to plan an appropriate intervention following childbirth. For instance, when women are less likely to practice their cultural rituals during the postnatal period, HCPs could ensure that this is discussed with the family members thereby reducing the possibility of developing PND.

The involvement of husband/partner and family in the professional interventions (e.g., pre-pregnancy classes, antenatal care and education) are seen as one of the effective strategies and provides social support for the women. It is based on their involvement that the HCPs could assist women and their families to plan for anticipated assistance following the birth of a baby. One of the strategies to involve husband/partner and family is through maternal mental health first aid training for the public as suggested in the literature (Kitchener and Jorm 2008). Such training should include information about the signs and symptoms of PND, risk factors and an action plan that should be implemented when assistance is required. This may not only help women to become more vigilant in monitoring their emotional health but also create awareness within their social network, hence make them alert for any changes indicating PND.

The community-based/home-based and psychological approach, including the establishment of postnatal support groups and midwife-led discussions should be introduced in addition to psychiatric referral or medical intervention. Addressing the issues of motherhood challenges and anxiety management in the support group and discussion has the advantage of putting women with similar experience in touch with each other (Brockington 2004). Given the women's preference of home based-intervention, risk assessment for PND could be integrated with the existing home visits schedule. For this reason, experts on maternal mental health in the community should be made accessible.

Findings of this study lend credibility to specialised inpatient psychiatric facilities of joint mother-baby units for treatment of PND within the Malaysian healthcare system. The National Institute of Healthcare and Excellence (2014) have emphasised the management of maternal mental health problems requires a different approach from other psychiatric disorders due to the nature of the motherhood life stage, potential complications of the condition, and the impact of the treatment on the woman and the baby. Such specialised inpatient psychiatric facilities of joint mother-baby units for treatment PND are being practiced in Australia, Belgium, France, Germany, New Zealand and The Netherlands, the United Kingdom, and other parts of Europe (Bardon et al. 1968; Isserlis et al. 1980; Kumar et al. 1995; Oates 1996; Milgrom et al. 1998; Howard 2000).

6.8.3 Education

The findings of this study have two important implications for education within the healthcare system. First, the revision of current healthcare education seems to be relevant as the majority of the HCPs, especially those in the clinics, considered that their main roles were more on physical health. What is evident from these findings is that current healthcare systems was directed by the medical model, which focuses on clinical outcomes and give less attention on psychological health. Therefore, the curriculum for the trainings of the HCPs (especially medical, nursing and midwifery education) should be revised to ensure that both physical and emotional well-being are equally emphasised. It is this education system that could initiate the changes within the healthcare system.

Second, an initiation of a training course on PND among the HCPs would be beneficial. One of the objectives of this course is to ensure that the HCPs have a sense of psychological awareness when dealing with postnatal mothers and are capable of reassuring them. This psychological approach, however, rely on appropriate training and the HCPs' natural predisposition as a counsellor (Wylie et al. 2011). Therefore, a few selected HCPs could be trained to deliver a psychologically informed intervention as this professional support was found to be beneficial in the literature (Dennis 2005; Morrell et al. 2009). It is through such a course that the HCPs would be occupied with updated knowledge about PND and could transfer the informed knowledge to colleagues and women within their clinical practice.

6.8.4 Future research

Future studies with strong methodologies should explore and evaluate the recommendations made above. First and foremost, a study should be conducted in developing guidelines for the management of PND. The involvement of multifaceted stakeholders (e.g., from community nurses to specialists and from administrators to the policy makers) in the study process is recommended to initiate alertness towards the implementation of the new guidelines, hence potentially increase the adherence to the guidelines.

As suggested earlier, there is a need for a screening instrument within the clinical practice to improve the detection of PND. Although there were existing instruments available and have been validated in a Malay version, such instruments do not fully address the symptoms of PND as experienced by the Malaysian women. Since

universal screening for PND can be taxing on a healthcare system (Boyd et al. 2011), a revision of the existing screening instruments would be beneficial to improve the relevance of the questions asked. Upon its revision, a study to validate the scale is required.

The effectiveness of the proposed preventative and supportive interventions suggested earlier (e.g., community-based/home-based and postnatal support groups) could be determined by collecting the prospective evidence within randomised controlled trial.

Prior to the involvement of husband/partner and family members in the professional intervention, it would be beneficial to conduct a study to understand how husband/partner and family perceive PND, and what kind of support they would be able to provide. This study serves as a better understanding about the availability of future social support.

There is a need for future studies that could help to improve detection and recognition for other symptoms of postnatal disorders such as anxiety disorders and post-traumatic stress disorder (PTSD) (Coates et al. 2015). Such studies seemed to be important because some of the symptoms reported by the women in this present study do not fully fit with the criteria of PND as highlighted by the DSM-5. Therefore, future study should consider a broader spectrum of postnatal disorders and not limited to the concept of PND.

6.8.5   Recommendation for midwifery/ nursing practice in Malaysia

As discussed in Section 6.7.1, a guideline is required to specify the roles of HCPs in the management of PND at their level (e.g., community nurses, nurse-midwives, medical officers, psychiatrists). This guideline needs to specify the roles of each level of the HCPs, especially those in the MCH clinics, in detecting and managing PND. The suggested guideline is outlined in Table 11. This guideline corresponds with the recommendation by National Institute of Healthcare and Excellence (NICE) (2014). The NICE's pathways for 'Postnatal care' includes the prediction of mental disorders, detection of mental disorders, and referral and initial care. The guideline in Table 11 was modified from the 'Health Visiting Programme: Pathway to Support Professional Practice and Deliver New Service Offer: Maternal Mental Health Pathway 3' in the UK (Department of Health 2012a). Within the guideline, a screening tool that could reflect a broader range of emotional, behavioural, and physiological changes as addressed by the women in this study is required. Again, such a tool should be first tested and

validated among Malaysian population, and not merely based on the existing instrument.

Table 11: Suggested collaborative timeline for the nurses and medical officers in MCH clinics

When	Birth visit to 10-20 days	4-6 weeks	8 weeks	3-4 months	8-12 months
Who	Nurse-Midwife (NM)/ Community Nurses (CN)	NM/ Medical Doctors (MO)	NM/CN	NM/CN	NM/CN
Where	Home	MCH clinics	MCH clinics	MCH clinics	MCH clinics
Proposed interventions for management of maternal mental health during postnatal period	1st screening for maternal mental status (e.g., EPDS)	2nd screening for maternal mental status (e.g., EPDS) if required.	To include a general review of the mothers' mental wellbeing and clinical judgement to assess maternal mood.	3rd screening for maternal mental status (e.g., EPDS)	4th screening for maternal mental status (e.g., EPDS)
	Assessment of the risk factor for PND/ perinatal mood disorders.	Prompt referral to MO/ Family Medicine Specialist for further assessment if required.	Re-assessment of the risk factor for PND/ perinatal mood disorders if required.	Prompt referral to MO/ Family Medicine Specialist for further assessment if required.	Prompt referral to MO/ Family Medicine Specialist for further assessment if required.
	Assessment of partner/family support.	MO to make diagnosis using DSM-V criteria if required. Face to face interview with the woman is needed.			

	Prompt referral to MO for further assessment if required (e.g., EPDS score ≥ 12).	Referral to counsellor/ psychiatrist - if required.	Referral to counsellor/ psychiatrist - if required.	Referral to counsellor/ psychiatrist - if required.	Referral to counsellor/ psychiatrist - if required.
	Immediate referral to Psychiatry Services (puerperal psychosis).	Immediate referral to Psychiatry Services (puerperal psychosis).	Immediate referral to Psychiatry Services (puerperal psychosis).	Immediate referral to Psychiatry Services (puerperal psychosis).	Immediate referral to Psychiatry Services (puerperal psychosis).
Health education (examples)	• Breastfeeding. • Perineal/caesarean wound care. • Safe infant feeding information. • Parent and baby mental health/attachment. • Postnatal exercise. • Detecting neonatal jaundice. • Neonatal development and growth. • Importance of father and wider family involvement. • Family planning. • Child immunisation.	• Breastfeeding. • Safe infant feeding information. • Parent and baby mental health/attachment. • Neonatal development and growth. • Importance of father and wider family involvement. • Family planning. • Child immunisation.	• Breastfeeding. • Safe infant feeding information. • Parent and baby mental health/attachment. • Neonatal development and growth. • Importance of father and wider family involvement. • Family planning. • Child immunisation.	• Breastfeeding. • Safe infant feeding information. • Parent and baby mental health/attachment. • Neonatal development and growth. • Importance of father and wider family involvement. • Family planning. • Child immunisation.	• Breastfeeding. • Safe infant feeding information. • Parent and baby mental health/attachment. • Neonatal development and growth. • Importance of father and wider family involvement. • Family planning. • Child immunisation.

(Sources: Department of Health, 2012a)

In addition to the aforementioned suggestions, a training package/ course for the HCPs is also recommended. This should include the following components:

(i) Seminars on the understanding PND and how it differs from other form of perinatal mood disorders.

(ii) Workshops on the detection and management of PND. These workshops can include the introduction of care pathway for referral to counsellors or psychiatric unit, and when and how to use a screening tool (e.g., EPDS) to identify woman with PND.

(iii) Continuous medical education on maternal mental health issues.

6.9 Evaluation of methodology

It was argued earlier (see Section 2.2.3 and 3.3) that taking a critical realist approach would offer a helpful view to understand the reality of PND and its multiple factors within its complexity concept. Critical realism was considered as not only recognising the biomedical reality but also respects the sociocultural relativism that constructs the experience of PND. It is evident that the symptoms of PND, as explained by the women and the HCPs did not fit exactly to the current diagnostic criteria for depressive disorders. Whilst the symptoms were variably reported by the women, HCPs also integrated different styles of detection strategies, mainly based on their unstandardised judgment. What is evident from this study is that PND is a real phenomenon and each woman constructs their understandings of PND based on their own language but it could not be measured and proven to be existing by using only a diagnostic criterion. Recognising the women's perceptions of PND, bringing the HCPs' perceptions of PND, and negotiating the care and treatment of this condition would be a helpful approach to improve its detection and management.

This study has been conducted across three different and unique cultures among participants who have diverse experiences. The combination of women from three different cultures and HCPs' views under one study has provided multiple sources of data and added a new approach in the realm of PND. Not only does it compare and contrast the women's experience of PND between the cultures, this study also adds to the similarities and differences between the women's understanding and HCPs' knowledge and perceptions of PND. Such a process of analysis allows deeper understandings about how PND was uniquely experienced by the women from different cultural backgrounds and ultimately serves a fundamental concept to develop a culturally appropriate care for PND.

Conducting research in multiple study sites provides an in-depth look at the understanding and perceptions of PND across the study settings. This study purposively recruited women from six MCH clinics; and HCPs working in the clinics (in primary care) and psychiatric ward (in tertiary care). Such recruitment not only provides multiple sources of data but also allows an investigation of the nature of care and management and identifies any gap between these two levels of care. Miles and Huberman (1994) asserted that selecting multiple sites for study enhances trustworthiness of a qualitative study. Although a qualitative research does not allow

generalisation of the findings to the population but the recruitment of HCPs from different healthcare settings have widened and strengthened the sources of data.

In analysing the data of this study, the participants' accounts were maintained in their original language (either Malay or English). Only when it is included to represent the participants' voice in this thesis, the Malay quotes were translated into English. However, the patterns of their speaking language were maintained as original as possible. The rationale of this approach is to stay as close as possible to the original narratives, ensure transparent interpretations, and to avoid any loss of meaning in the translation as recommended by the previous study (Van Nes et al. 2010). The translation was conducted by the interviewer with some discussion with a professional translator. The translated quotes were then discussed with the PhD supervisor to ensure they were clear and understandable. As suggested by Van Nes et al. (2010), the intended meaning and its context in the sources language were discussed with the translator in order to closely examine subtle meaning differences thereby deciding on the best translation.

The application of framework analysis helps to improve the credibility of data analysis, and provide an audit trail. Continuous support from both PhD supervisors and two post-doctoral Malaysian researchers (that have experience in conducting qualitative studies) increases the trustworthiness of the study findings. Whilst reflexivity practices help the expression of thoughts and feelings, prolonged engagement with the participants was also established to increase trustworthiness of the study (Merriam 2009).

6.10   Limitations of the study

The limitations of this study should be addressed. Firstly, during the fieldwork, this qualitative study required women to come forward and share their experience of postnatal distress. The existing stigma and the link between postnatal distress and psychiatric illness could make some of them reluctant to participate. Some of the interviewed women may describe what they think is their ideal of how a mother should feel, avoiding any link to psychiatric illness. This could limit the exploration of their experience. However, it was considered that maximum efforts have been made to ensure the thoroughness of the participants' response such as anonymity, and prolonged engagement.

Secondly, research with people of different culture should look for cultural matching between researcher and participants (Shah 2004). This has been challenged in this study. Despite including women from three different cultural backgrounds (Malay, Chinese and Indian) interviews were conducted by a Malay researcher. Interviewers with 'insider' status are believed to be better equipped in creating a comfortable environment compared to those with 'outsider' status (Shah 2004). However, many efforts have been made to create cultural bridges, following recommendations for cross-cultural qualitative research interviewing. These include providing clear interview outlines prior to the interview, offering a choice where the interview is to be held, and identifying commonalities and building upon them in the course of interview (Sands et al. 2007). Having experience of working and frequent interactions with the Chinese and Indian before, I am familiar with these cultural backgrounds; therefore clearly understand their cultural rules. Dwyer and Buckle (2009) believed that holding an insider status does not denote complete sameness within the group, whereas holding an outsider status does not denote complete difference.

Thirdly, this interview was conducted in either Malay or English language. Although Malay language is the official/formal language in Malaysia, neither Malay nor English is a native language for all Chinese and Indian women in this study. It could be more interesting if the participants were freely describing their understanding of PND using their native language. Therefore, future research could consider the use of an interpreter in the interview to allow new insights to emerge from the 'original' language of the interviewed woman. Having a translator could enhance the understanding of the complexity of the participants' response and help in filtering the answer in a culturally and politically acceptable way (Rubin and Rubin 2012).

Fourthly, the findings could not necessarily be generalised to other populations. The perceived causes for PND as explained by the participants in this study do not allow any causal-effect relationships. However, this study enriched the understanding of women's experiences of PND within a multicultural community and adds to the simultaneous use of multiple risk factors for PND. At least, the findings would be applicable to other populations with similar cultural backgrounds.

Finally, data in this study were only collected from women and HCPs. It does not include the perspectives from the women's social network such as husband/partner, mother and mother in law. These aspects, and a wider societal perspective, were not considered because of the complexity of the ethical approval should be obtained, given the fact that this study was only funded for three year period.

6.11 Conclusion

This qualitative study shows that the conceptualisation of the symptoms of PND, by both women and the HCPs did not wholly reflect current diagnostic criteria for depressive disorders. Despite agreeing on several symptoms of PND, there were significant differences in their perceptions of other symptoms as being reflected in the different ways of explaining emotional, behaviour and physiological changes. Although the existing model of literacy (Jorm 2000) suggests that HCPs gained knowledge about mental disorders based on scientific evidence, the majority of HCPs in this study, especially the nurses appeared to lack formal knowledge about PND. They were found as not only confused between the terms 'postnatal depression' with 'postnatal blues' but also failed to regard PND as a serious maternal health problems.

The explanations of the perceived causes of PND by the women and the HCPs appeared to support the principle of critical realism that different people have their own interpretive lens to filter the information they received (Easton 2010; Walsh and Evans 2014). The perceived causes of PND in this study appeared to derive from motherhood experiences, contextual and cultural influences and the interplay between the two. Whilst the women talked more about their motherhood experiences and feelings; HCPs tended to link PND with contextual and cultural influences. The women's causal explanations of PND were considerably different from one culture to another. For instance, traditional postnatal practices were recognised as a contributing factor for PND among Malay women but were accepted as promoting maternal and baby's well-being by the Indian women.

The majority of women recognised PND as a personal problem and a less serious emotional condition, therefore believed that seeking professional help is not necessary. Although some women viewed that the alleviation of symptoms of PND falls within the 'duty' of the HCPs, they reported that the HCPs behaviour and lack of focus given on maternal mental health had discouraged their intention to seeking help. Nevertheless, there was a small group of women who seemed to accept the limitations within the MCH clinics. These women did not blame the HCPs for not being emotionally attended. In the absence of professional help, self-help measures were recognised as the major coping strategy by all women although certain self-help methods may only work for women with a specific cultural background. Religious activities were found to be one of the coping strategies for Malay but not for the majority of Chinese women.

It is evidenced by the HCP's explanations that the absence of a policy and guideline in the management of PND within the Malaysian healthcare system has resulted in a lack of professional ownership in the management of PND, especially among HCPs in MCH clinics. They reported that there was no screening method available for PND, the accessibility to the psychological health specialist was difficult, and the pathway for the management of PND was not clear. Such limitations became more complex by the stigmatisation of PND perceived by women (e.g., a referral to psychiatric/psychological unit was viewed as being 'crazy').

Based on the above findings, this study calls for a policy and guideline in the management of PND within the Malaysian healthcare system. A system-based enhanced PND care with an appropriate screening programme is recommended. A clear description of the roles of HCPs at every position is also suggested. Within clinical practice, it is proposed that: there should be an acknowledgment of the women's beliefs about the perceived causes of PND; husband/partner and family involvement in the professional interventions; a culturally appropriate care and community-based/ home-based interventions for PND; and a consideration of a joint mother-baby unit for the treatment of PND. This study also suggests that there should be a revision of the current education system for the HCPs. Such a revision should be followed by continuous education and training courses. It is through this education and training that a sense of psychological awareness could be created, the accuracy of the information delivered to the women could be ensured, and the support system within the clinical practice could be mobilised.

REFERENCES

Aalsma, M.C., Brown, J.R., Holloway, E.D. and Ott, M.A. (2014) Connection to mental health care upon community reentry for detained youth: a qualitative study. *BMC Public Health,* 14 (117). Available: http://bmcpublichealth.biomedcentral.com/articles/10.1186/1471-2458-14-117 [Accessed: 21 January 2016].

Abbott, M.W. and Williams, M.M. (2006) Postnatal depressive symptoms among Pacific mothers in Auckland: Prevalence and risk factors. *Australian and New Zealand Journal of Psychiatry,* 40 (3), pp. 230-238.

Abrams, L.S. and Curran, L. (2009) 'And you're telling me not to stress?' A grounded theory study of postpartum depression symptoms among low-income mothers. *Psychology of Women Quarterly,* 33 (3), pp. 351-362.

Abrams, L.S., Dornig, K. and Curran, L. (2009) Barriers to service use for postpartum depression symptoms among low-income ethnic minority mothers in the United States. *Qualitative Health Research,* 19 (4), pp. 535-551.

Agapidaki, E., Souliotis, K., Jackson, S.F., Benetou, V., Christogiorgos, S., Dimitrakaki, C. and Tountas, Y. (2014) Pediatricians' and health visitors' views towards detection and management of maternal depression in the context of a weak primary health care system: a qualitative study. *BMC Psychiatry,* 14 (108), Available: http://bmcpsychiatry.biomedcentral.com/articles/10.1186/1471-244X-14-108 [Accessed: 8 February 2016].

Ajzen, I. (1985) From intentions to actions: a theory of planned behaviour. *Action control.* Springer, pp. 11-39.

Ajzen, I. (1991) The theory of planned behaviour. *Organizational Behaviour and Human Decision Processes,* 50 (2), pp. 179-211.

Akmal, S., Darus, M., Bakri, R. and Jeganathan, R. (2015) *Traditional Postnatal Care in Restoring Women's Physical and Mental Health*, Health Technology Assessment Section (Mahtas) Medical Development Division Ministry Of Health Malaysia Report. No 004/2015. Available: http://www.moh.gov.my/index.php/database_stores/attach_download/348/267 [Accessed 2 December 2015].

Almond, P. (2013) A scoping study of the provision, access and uptake of health visiting postnatal depression services for minority ethnic women. *Working Papers in Health Sciences,* 1 (4), pp. 1-8.

Amankwaa, L.C. (2005) Maternal postpartum role collapse as a theory of postpartum depression. *The Qualitative Report,* 10 (1), pp. 21-38.

American Psychiatric Association (2013) *Diagnostic and Statistical Manual of Mental Disorders (DSM)*, Available: http://psy-gradaran.narod.ru/lib/clinical/DSM5.pdf [Accessed: 14 December 2015].

Anderson, L.N. (2013) Functions of support group communication for women with postpartum depression: how support groups silence and encourage voices of motherhood. *Journal of Community Psychology,* 41 (6), pp. 709-724.

Appleton, J.V. and King, L. (2002) Journeying from the philosophical contemplation of constructivism to the methodological pragmatics of health services research. *Journal of Advanced Nursing,* 40 (6), pp. 641-648.

Archer, M.S. (1995) *Realist social theory: The morphogenetic approach.* Cambridge: Cambridge University Press.

Austin, M.V., Hadzi-Pavlovic, D., Priest, S.R., Reilly, N., Wilhelm, K., Saint, K. and Parker, G. (2010) Depressive and anxiety disorders in the postpartum period: how prevalent are they and can we improve their detection? *Archives of Women's Mental Health,* 13 (5), pp. 395-401.

Azidah, A.K., Shaiful, B.I., Rusli, N. and Jamil, M.Y. (2006) Postnatal depression and socio-cultural practices among postnatal mothers in Kota Bahru, Kelantan, Malaysia. *Medical Journal of Malaysia,* 61 (1), pp. 76-83.

BabyCenter (2014a) *Confinement Practices: an Overview.* Available: http://www.babycenter.com.my/a1021145/confinementpractices-an-overview [Accessed16 January 2014].

BabyCenter (2014b) *Indian Confinement Practices.* Available: http://www.babycenter.com.my/a1042118/indian-confinement-practices [Accessed16 January 2014].

BabyCenter (2015) *Antenatal care at government clinics,* Available: http://www.babycenter.com.my/a1049800/antenatal-care-at-government-clinics [Accessed: 16 August 2016].

Bardon, D., Glaser, Y.I., Prothero, D. and Weston, D.H. (1968) Mother and baby unit: psychiatric survey of 115 cases. *British Medical Journal,* 2 (5607), pp. 755-758.

Barolia, R.I, Clark A.M., and Higginbottom. (2013) Protocol for a qualitative study on promoting dietary change and positive food choices for poor people with low income who experience cardiovascular disease in Pakistan, *British Medical Journal Open,* 2013 (3), e004176. Available: http://bmjopen.bmj.com/content/3/12/e004176.full [Accessed: 6 May 2015].

Beck, C.T. (1993) Teetering on the edge: A substantive theory of postpartum depression. *Nursing Research,* 42 (1), pp. 42-48.

Beck, C.T. (2001) Predictors of postpartum depression: an update. *Nursing Research,* 50 (5), pp. 275-285.

Becker, M.H., Maiman, L.A., Kirscht, J.P., Haefner, D.P. and Drachman, R.H. (1977) The Health Belief Model and prediction of dietary compliance: a field experiment. *Journal of Health and Social Behaviour*, pp. 348-366.

Belle, M.J. and Willis, K. (2013) Professional practice in contested territory: child health nurses and maternal sadness. *Contemporary Nurse,* 43 (2), pp. 152-161.

Bergin, M., Wells, J.S. and Owen, S. (2008) Critical realism: a philosophical framework for the study of gender and mental health. *Nursing Philosophy: An International Journal for Healthcare Professionals,* 9 (3), pp. 169-179.

Bergin, M., Wells, J.S. and Owen, S. (2010) Relating realist metatheory to issues of gender and mental health. *Journal of Psychiatric and Mental Health Nursing,* 17 (5), pp. 442-451.

Berk, L.S., Bellinger, D.L., Koenig, H.G., Daher, N., Pearce, M.J., Robins, C.J., Nelson, B., Shaw, S.F., Cohen, H.J. and King, M.B. (2015) Effects of religious vs. conventional cognitive-behavioural therapy on inflammatory markers and stress hormones in major depression and chronic medical illness: A randomized clinical trial. *Open Journal of Psychiatry,* 5 (3), pp. 238-259.

Bhaskar, R. (1978) On the possibility of social scientific knowledge and the limits of naturalism. *Journal for the Theory of Social Behaviour,* 8 (1), pp. 1-28.

Bhaskar, R. (1998) *The Possibility of Naturalism: A Philosophical Critique of the Contemporary Human Sciences.* 3rd ed. London: Routledge.

Bhui, K. and Bhugra, D. (2002) Explanatory models for mental distress: implications for clinical practice and research. *The British Journal of Psychiatry: The Journal of Mental Science,* 181, pp. 6-7.

Bilszta, J., Ericksen, J., Buist, A. and Milgrom, J. (2010a) A qualitative study of health professionals involved in the care and treatment of women with postnatal emotional distress. *International Journal of Mental Health Promotion,* 12 (3), pp. 5-13.

Bilszta, J., Ericksen, J., Buist, A. and Milgrom, J. (2010b) Women's experience of postnatal depression -- beliefs and attitudes as barriers to care. *Australian Journal of Advanced Nursing,* 27 (3), pp. 44-54.

Boath E. H., Pryce A. J. and Cox J. L. (1998) Postnatal depression: The impact on the family. *Journal of Reproductive and Infant Psychology*, 16 (2-3), pp. 199-203.

Boath, E., Bradley, E. and Henshaw, C. (2004) Women's views of antidepressants in the treatment of postnatal depression. *Journal of Psychosomatic Obstetrics & Gynecology,* 25 (3-4), pp. 221-233.

Boblin, S.L., Ireland, S., Kirkpatrick, H. and Robertson, K. (2013) Using Stake's qualitative case study approach to explore implementation of evidence-based practice. *Qualitative Health Research,* 23 (9), pp. 1267-1275.

Bolak Boratav, H., Toker, O. and Kuey, L. (2015) Postpartum depression and its psychosocial correlates: A longitudinal study among a group of women in Turkey. *Women & Health,* pp. 1-20.

Bonelli, R., Dew, R.E., Koenig, H.G., Rosmarin, D.H. and Vasegh, S. (2012) Religious and spiritual factors in depression: review and integration of the research. *Depression Research and Treatment,* 2012, 962860. Available: http://www.hindawi.com/journals/drt/2012/962860/ [Accessed: 6 March 2016].

Bonnington, O. and Rose, D. (2014) Exploring stigmatisation among people diagnosed with either bipolar disorder or borderline personality disorder: a critical realist analysis. *Social Science & Medicine,* 123, pp. 7-17.

Boyd, R.C., Le, H. and Somberg, R. (2005) Review of screening instruments for postpartum depression. *Archives of women's Mental Health,* 8 (3), pp. 141-153.

Boyd, R.C., Mogul, M., Newman, D., and Coyne, J.C. (2011) Screening and referral for postpartum depression among low-income women: A qualitative perspective from community health workers. *Depression Research and Treatment,* 2011, 320605. Available: http://www.hindawi.com/journals/drt/2011/320605/ [Accessed: 15 August 2015].

Braun, V. and Clarke, V. (2006) Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), pp. 77-101.

Brett, K., Barfield, W., Williams, C. (2008) Prevalence of self-reported postpartum depressive symptom -17 States, 2004-2005. *Centre for disease control and prevention*, 57(14), pp. 361-366.

Brockington, I. (2004) Postpartum psychiatric disorders. *The Lancet,* 363 (9405), pp. 303-310.

Brooks, J., Nathan, E., Speelman, C., Swalm, D., Jacques, A. and Doherty, D. (2009) Tailoring screening protocols for perinatal depression: Prevalence of high risk across obstetric services in Western Australia. *Archives of Women's Mental Health,* 12 (2), pp. 105-112.

Brown, H. and Bacigalupo, R. (2006) Health visitors and postnatal depression: identification and practice. *Community Practitioner,* 79 (2), pp. 49-52.

Brummelte, S. and Galea, L.A.M. (2016) Postpartum depression: Etiology, treatment and consequences for maternal care. *Hormones and Behavior,* 77, pp. 153-166.

Bryne, C., Pape, B., Ivask, A., Kuczynski, L., Brown, G., Rae-Grant, N. and Ashford, Y. (2001) Service needs of families where one parent has an affective illness: Implications for service, education and policy, *Canadian Journal of Community Mental Health* 20, pp. 107-21.

Buultjens, M. and Liamputtong, P. (2007) When giving life starts to take the life out of you: women's experiences of depression after childbirth. *Midwifery,* 23 (1), pp. 77-91.

Caelli, K., Ray, L. and Mill, J. (2003) 'Clear as mud': toward greater clarity in generic qualitative research. *International Journal of Qualitative Methods,* 2 (2), pp. 1-13.

Callan, A. and Littlewood, R. (1998) Patient satisfaction: ethnic origin or explanatory model? *The International Journal of Social Psychiatry,* 44 (1), pp. 1-11.

Callister, L.C., Beckstrand, R.L. and Corbett, C. (2011) Postpartum depression and help-seeking behaviours in immigrant Hispanic women. *Journal of Obstetric, Gynecologic, & Neonatal Nursing: Clinical Scholarship for the Care of Women, Childbearing Families, & Newborns,* 40 (4), pp. 440-449.

Canadian Mental Health Association (2012) *Postpartum Depression*, Available: http://www.cmha.ca/mental_health/postpartum-depression/#.VvkbJtIrLcs [Accessed: 26 November 2015].

Chan, S.W., Levy, V., Chung, T.K. and Lee, D. (2002) A qualitative study of the experiences of a group of Hong Kong Chinese women diagnosed with postnatal depression. *Journal of Advanced Nursing,* 39 (6), pp. 571-579.

Charmaz, K. (1990) 'Discovering' chronic illness: Using grounded theory. *Social Science & Medicine,* 30 (11), pp. 1161-1172.

Chee, C.Y.I., Lee, D.T.S., Chong, Y.S., Tan, L.K., Ng, T.P. and Fones, C.S.L. (2005) Confinement and other psychosocial factors in perinatal depression: A transcultural study in Singapore. *Journal of Affective Disorders,* 89 (1-3), pp. 157-166.

Chen, C.H., Wang, S.Y., Chung, U.L., Tseng, Y.F. and Chou, F.H. (2006) Being reborn: the recovery process of postpartum depression in Taiwanese women. *Journal of Advanced Nursing,* 54 (4), pp. 450-456.

Chew-Graham, C., Chamberlain, E., Turner, K., Folkes, L., Caulfield, L. and Sharp, D. (2008) GPs' and health visitors' views on the diagnosis and management of postnatal depression: a qualitative study. *The British Journal of General Practice: The Journal of the Royal College of General Practitioners,* 58 (548), pp. 169-176.

Chew-Graham, C., Sharp, D., Chamberlain, E., Folkes, L. and Turner, K.M. (2009) Disclosure of symptoms of postnatal depression, the perspectives of health professionals and women: a qualitative study. *BMC Family Practice,* 10 (7). Available: http://bmcfampract.biomedcentral.com/articles/10.1186/1471-2296-10-7 [Accessed: 22 January 2014].

Chong, S.T., Mohamad, M.S. and Er, A.C. (2013) The mental health development in Malaysia: History, current issue and future development. *Asian Social Science,* 9 (6), pp. 1-8.

Clark, A.M., Lissel, S.L. and Davis, C. (2008) Complex critical realism: tenets and application in nursing research. *Advances in Nursing Science,* 31 (4), pp. E67-79.

Coates, R., Ayers, S. and de Visser, R. (2014) Women's experiences of postnatal distress: a qualitative study. *BMC Pregnancy and Childbirth,* 14 (359). Available: http://bmcpregnancychildbirth.biomedcentral.com/articles/10.1186/1471-2393-14-359 [Accessed: 12 January 2016].

Coates, R., de Visser, R. and Ayers, S. (2015) Not identifying with postnatal depression: a qualitative study of women's postnatal symptoms of distress and need for support. *Journal of Psychosomatic Obstetrics & Gynecology,* 36 (3), pp. 114-121.

Collier, A. (1994) *Critical realism: an introduction to Roy Bhaskar's philosophy.* Verso: London.

Conner, M. and Norman, P. (2005) *Predicting health behaviour.* United Kingdom: McGraw-Hill Education.

Corrigan, P. (2004) How stigma interferes with mental health care. *American Psychologist,* 59 (7), pp. 614-625.

Country Report: Malaysia (2006) *4th ASEAN & Japan High Level Officials Meeting on Caring Societies: Support to Vulnerable People in Welfare and Medical Services.* Available: http://www.mhlw.go.jp/bunya/kokusaigyomu/asean/asean/kokusai/siryou/dl/h18_malaysia1.pdf [Accessed: 4 December 2013].

Cox, J.L., Holden, J.M. and Sagovsky, R. (1987) Detection of postnatal depression. Development of the 10-item Edinburgh Postnatal Depression Scale. *The British Journal of Psychiatry: The Journal of Mental Science,* 150, pp. 782-786.

Coyne, I. T. (1997) Sampling in qualitative research: purposeful and theoretical sampling, merging or clear boundaries? *Journal of Advanced Nursing*, 26 (3), pp. 623-630.

Crabtree, S. A. and Chong, G., (2001) Standing at the crossroads: mental health in Malaysia since independence. *In:* Haque, A., ed. *Mental Health Issues in Malaysia, Issues and Concerns.* Kuala Lumpur: University of Malaya Press.

Creswell, J.W. (2007) *Qualitative inquiry and research design: Choosing among five approaches.* 2nd ed. Thousand Oaks, California: Sage.

Creswell, J.W. (2013) *Qualitative inquiry and research design: Choosing among five approaches.* 3rd ed. Thousand Oaks, California: Sage.

Danermark, B., Ekstrom, M. and Jakobsen, L. (2002) *Explaining society: an introduction to critical realism in the social sciences.* London: Routledge.

Data Protection Act (1998) *The official home of revised enacted UK legislation*: The National Archives.

Deng, A.W., Xiong, R.B., Jiang, T.T., Luo, Y.P. and Chen, W.Z. (2014) Prevalence and risk factors of postpartum depression in a population-based sample of women in Tangxia Community, Guangzhou. *Asian Pacific Journal of Tropical Medicine,* 7 (3), pp. 244-249.

Dennis C. L. and Chung-Lee L. (2006) Postpartum depression help-seeking barriers and maternal treatment preferences: A qualitative systematic review. *Birth*, 33 (4), pp. 323–331.

Dennis, C., Fung, K., Grigoriadis, S., Robinson, G.E., Romans, S. and Ross, L. (2007) Traditional postpartum practices and rituals: a qualitative systematic review. *Women's Health*, 3 (4), pp. 487-502.

Dennis, C.L. (2005) Psychosocial and psychological interventions for prevention of postnatal depression: systematic review. *BMJ (Clinical Research Ed.),* 331 (7507), pp. 15.

Dennis, C.L., Hodnett, E., Kenton, L., Weston, J., Zupancic, J., Stewart, D.E. and Kiss, A. (2009) Effect of peer support on prevention of postnatal depression among high risk women: multisite randomised controlled trial. *BMJ (Clinical Research Ed.),* 338, a3064. Available: http://www.bmj.com/content/338/bmj.a3064 [Accessed: 14 March 2016].

Dennis, T.R. and Moloney, M.F. (2009) Surviving postpartum depression and choosing to be a mother. *Southern Online Journal of Nursing Research,* 9 (4). Available: http://www.resourcenter.net/images/snrs/files/sojnr_articles2/Vol09Num04Art06.html [Accessed: 24 June 2015].

Denzin, N.K. and Lincoln, Y.S. (2005) *The Sage handbook of qualitative research*, 3rd edn. Thousand Oaks, California: Sage.

Department of Health (2012a) *Maternal Mental Health Pathway*, Available: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/212906/Maternal-mental-health-pathway-090812.pdf [Accessed: 16 August 2016].

Department of Health (2012b) *Postnatal Anxiety and Depression*, Available: http://www.health.wa.gov.au/docreg/Education/Population/Womens_Health/HP3073_pnatal_depression.pdf [Accessed: 18 January 2016].

Department of Statistics Malaysia (2010) *Population distribution and basic demographic characteristic report*: Malaysian Government. Available: https://www.statistics.gov.my/index.php?r=column/ctheme&menu_id=L0pheU43NWJwRWVSZklWdzQ4TlhUUT09&bul_id=MDMxdHZjWTk1SjFzTzNkRXYzcVZjdz09 [Accessed: 18 March 2014].

Deva, M.P. (2006) Depressive illness--the need for a paradigm shift in its understanding and management. *The Medical Journal of Malaysia,* 61 (1), pp. 4-6.

Dixon-Woods, M. (2011) Using framework-based synthesis for conducting reviews of qualitative studies. *BMC Medicine,* 9 (1). Available: http://bmcmedicine.biomedcentral.com/articles/10.1186/1741-7015-9-39 [Accessed: 25 April 2015].

Donaldson-Myles, F. (2012) Can hormones in breastfeeding protect against postnatal depression? *British Journal of Midwifery,* 20 (2), pp. 88-93.

Dwyer, S.C. and Buckle, J.L. (2009) The space between: On being an insider-outsider in qualitative research. *International Journal of Qualitative Methods,* 8 (1), pp. 54-63.

Easton, G. (2010) Critical realism in case study research. *Industrial Marketing Management,* 39 (1), pp. 118-128.

Eastwood, J.G., Kemp, L.A. and Jalaludin, B.B. (2015) Being alone and expectations lost: a critical realist study of maternal depression in South Western Sydney. *Springerplus,* 4 (*7*00). Available: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4646882/ [Accessed: 7 February 2016].

Eberhard-Gran, M., Eskild, A., Tambs, K., Samuelsen, S. and Opjordsmoen, S. (2002) Depression in postpartum and non-postpartum women: Prevalence and risk factors. *Acta Psychiatrica Scandinavica,* 106 (6), pp. 426-433.

Edhborg, M., Nasreen, H.E. and Kabir, Z.N. (2015) "I can't stop worrying about everything"-experiences of rural Bangladeshi women during the first postpartum months. *International Journal of Qualitative Studies on Health and Well-being,* 10, 26226. Available: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4297274/ [Accessed: 22 January 2016].

Edwards, E. and Timmons, S. (2005) A qualitative study of stigma among women suffering postnatal illness. *Journal of Mental Health,* 14 (5), pp. 471-481.

Escriba-Aguir, V. and Artazcoz, L. (2011) Gender differences in postpartum depression: a longitudinal cohort study. *Journal of Epidemiology and Community Health,* 65 (4), pp. 320-326.

Farr, S.L., Denk, C.E., Dahms, E.W. and Dietz, P.M. (2014) Evaluating universal education and screening for postpartum depression using population-based data. *Journal of Women's Health,* 23 (8), pp. 657-663.

Ferber, S.G. Feldman, R. and Makhoul I.R. (2008) The development of maternal touch across the first year of life. *Early Human Development,* 84 (5), pp. 363–370.

Finlay, L. (2002) "Outing" the researcher: the provenance, process, and practice of reflexivity. *Qualitative Health Research,* 12 (4), pp. 531-545.

Fishbein, M., and Ajzen I. (1975) Belief, Attitude, intention, and Behaviour: an introduction to theory and Research. Reading, MA: Addison-Wesley.

Fisher, J.R.W., Morrow, M.M., Ngoc, N.T.N. and Anh, L.T.H. (2004) Prevalence, nature, severity and correlates of postpartum depressive symptoms in Vietnam. *BJOG: An International Journal of Obstetrics and Gynaecology,* 111 (12), pp. 1353-1360.

Freedom of Information (Scotland) Act (2002) *Model Publication Scheme for Scottish Higher Education Institutions.* Available: http://www.slainte.org.uk/files/pdf/foi/HEIMPS.pdf [Accessed: 22 April 2014].

Furber, C. (2010) Framework analysis: a method for analysing qualitative data. *African Journal of Midwifery & Women's Health,* 4 (2), pp. 97-100.

Gao, L., Chan, S.W., You, L. and Li, X. (2010) Experiences of postpartum depression among first-time mothers in mainland China. *Journal of Advanced Nursing,* 66 (2), pp. 303-312.

Gaynes, B.N, Gavin, N., Meltzer-Brody, S., Lohr, K.N., Swinson, T., Gartlehner, G., Brody, S. and Miller, W. C. (2005) *Agency for Healthcare Research and Quality (AHRQ) evidences report summaries.* United States: Agency for Healthcare Research and Quality. Available: 119, No. 05-E006-2, http://archive.ahrq.gov/downloads/pub/evidence/pdf/peridepr/peridep.pdf [Accessed: 4 May 2015].

Gerrish K. and Lacey A. (2010) *The research process in nursing*, 6th ed. Oxford: Blackwell Publishing.

Gibson, J. McKenzie-McHarg K., Shakespeare, J. Price J. and Gray R. (2009) A systematic review of studies validating the Edinburgh Postnatal Depression Scale in antepartum and postpartum women, *Acta Psychiatrica Scandinavica*, 119 (5), pp. 350–364.

Gillard, S., White, R., Miller, S. and Turner, K. (2015) Open access support groups for people experiencing personality disorders: do group members' experiences reflect the theoretical foundations of the SUN project? *Psychology and Psychotherapy,* 88 (1), pp. 87-104.

Gjerdingen, D.K. and Yawn, B.P. (2007) Postpartum depression screening: importance, methods, barriers, and recommendations for practice. *Journal of the American Board of Family Medicine: JABFM,* 20 (3), pp. 280-288.

Gjerdingen, D., Crow, S., McGovern, P., Miner, M. and Center, B. (2011) Changes in depressive symptoms over 0–9 months postpartum. *Journal of Women's Health,* 20 (3), pp. 381-386.

Glanz, K., Rimer, B.K. and Viswanath, K. (2008) *Health behaviour and health education: theory, research, and practice.* San Francisco: John Wiley & Sons.

Goodman, P., Mackey, M.C. and Tavakoli, A.S. (2004) Factors related to childbirth satisfaction. *Journal of advanced nursing,* 46 (2), pp. 212-219.

Goodson, L. and Vassar, M. (2011) An overview of ethnography in healthcare and medical education research. *Journal of Educational Evaluation for Health Professions,* 8 (4). Available: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3100516/ [Accessed: 22 June 2015].

Grace, J., Lee, K.K., Ballard, C. and Herbert, M. (2001) The relationship between post-natal depression, somatization and behaviour in Malaysian women. *Transcultural Psychiatry,* 38 (1), pp. 27-34.

Green, J. and Thorogood, N. (2014) *Qualitative methods for health research.* 3rd ed. Thousand Oaks, California: Sage.

Grigoriadis, S., Robinson, G.E., Fung, K., Ross, L.E., Chee, C., Dennis, C. and Romans, S. (2009) Traditional postpartum practices and rituals: clinical implications. *Canadian Journal of Psychiatry,* 54 (12), pp. 834-840.

Guba, E.G. and Lincoln, Y.S. (1994) Competing paradigms in qualitative research. In: Denzin, N. K. and Lincoln, Y. S, eds. *Handbook of Qualitative Research,* Thousand Oaks, California: Sage, pp. 105-117.

Guest, G. Bunce, A. and Johnson, L. (2006) How many interviews are enough? An experiment with data saturation and variability. *Field Methods*, 18 (1). 59-82.

Guo, N., Bindt, C., Te Bonle, M., Appiah-Poku, J., Hinz, R., Barthel, D., Koffi, M., Posdzich, S., Deymann, S., Barkmann, C., Schlüter, L., Jaeger, A., Blay Nguah, S., Eberhardt, K.A., N'Goran, E., Tagbor, H. and Ehrhardt, S. (2013) Association of antepartum and postpartum depression in Ghanaian and Ivorian women with febrile illness in their offspring: a prospective birth cohort study. *American Journal of Epidemiology,* 178 (9), pp. 1394-1402.

Gupta, S., Kishore, J., Mala, Y.M., Ramji, S. and Aggarwal, R. (2013) Postpartum depression in north Indian women: prevalence and risk factors. *Journal of Obstetrics and Gynaecology of India,* 63 (4), pp. 223-229.

Guy, S., Sterling, B.S., Walker, L.O. and Harrison, T.C. (2014) Mental health literacy and postpartum depression: a qualitative description of views of lower income women. *Archives of Psychiatric Nursing,* 28 (4), pp. 256-262.

Halbreich, U. and Karkun, S. (2006) Cross-cultural and social diversity of prevalence of PPD and depressive symptoms. *Journal of Affective Disorders*, 91 (2-3), pp. 97-111.

Hammersley, M. (2008) *Questioning qualitative inquiry: Critical essays.* Thousand Oaks, California: Sage.

Hanley, J. and Long, B. (2006) A study of Welsh mothers' experiences of postnatal depression. *Midwifery,* 22 (2), pp. 147-157.

Harrington, F.J. and Turner, G.H. (2001) *Interpreting interpreting: Studies and reflections on sign language interpreting.* Douglas McLean.

Heh, S. and Fu, Y. (2003) Effectiveness of informational support in reducing the severity of postnatal depression in Taiwan. *Journal of Advanced Nursing,* 42 (1), pp. 30-36.

Helman, C.G. (2001) *Culture, health and illness.*4th ed. Oxford University Press: London.

Hendrick, V., Altshuler, L., Strouse, T. and Grosser, S. (2000) Postpartum and nonpostpartum depression: differences in presentation and response to pharmacologic treatment. *Depression and Anxiety,* 11 (2), pp. 66-72.

Heneghan, A.M., Morton, S. and DeLeone, N.L. (2007) Paediatricians' attitudes about discussing maternal depression during a paediatric primary care visit. *Child: Care, Health and Development,* 33 (3), pp. 333-339.

Hollins Martin, C. J. (2012) Personality disorders. In: C. R. Martin, eds. *Perinatal Mental Health: A Clinical Guide.* London: M & K Publishing, pp. 43-57.

Hollins Martin, C.J. (2009) Editorial: Mental health and midwifery. *Midwifery Matters,* 120.

Homewood, E., Tweed, A., Cree, M. and Crossley, J. (2009) Becoming occluded: The transition to motherhood of women with postnatal depression. *Qualitative Research in Psychology,* 6 (4), pp. 313-329.

Horkheimer, M. (1993) *Between Philosophy and Social Science: Selected Early.* MIT Press.

Howard, L. (2000) The separation of mothers and babies in the treatment of postpartum psychotic disorders in Britain 1900–1960. *Archives of Women's Mental Health,* 3 (1), pp. 1-5.

ICD-10 (2016) Puerperal psychosis, Available: http://www.icd10data.com/ICD10CM/Codes/F01-F99/F50-F59/F53-/F53 [Accessed: 14 August 2016].

Ishak, M. (2009) Cultural and religious tolerance: the Malaysian experience. *International Conference on Migration, Citizenship and Intercultural Relations*, 19-20 November. Deakin University, Australia.

Isserlis, C., Valleur, M., Dingli, D. and Grasset, A. (1980) Mother-child hospitalization. *Annales Medico-Psychologiques,* 138 (8), pp. 985-992.

Jaafar, S., Suhaili, M., Mohd Noh, K., Ehsan, F. and Lee, F. (2007) Malaysia: Primary health care key to intersectoral action for health and equity. *World Health Organization and Public Health Agency of Canada.* Available: http://www.who.int/social_determinants/resources/isa_primary_care_mys.pdf [Accessed: 5 May 2014].

Jamaiyah, H. (2000) Community mental health in Malaysia: Marriage of psychiatry and public health. *Jurnal Kesihatan Masyarakat,* 6, pp. 155-166.

Jardri, R., Maron, M., Pelta, J., Thomas, P., Codaccioni, X., Goudemand, M. and Delion, P. (2010) Impact of midwives' training on postnatal depression screening in the first week post-delivery: a quality improvement report. *Midwifery,* 26 (6), pp. 622-629.

Johnson, A.R., Edwin, S., Joachim, N., Mathew, G., Ajay, S. and Joseph, B. (2015) Postnatal depression among women availing maternal health services in a rural hospital in South India. *Pakistan Journal of Medical Sciences,* 31 (2), pp. 408-413.

Jomeen, J. (2004) The importance of assessing psychological status during pregnancy, childbirth and the postnatal period as a multidimensional construct: A literature review. *Clinical Effectiveness in Nursing,* 8 (3-4), pp. 143-155.

Jorm, A.F. (2000) Mental health literacy: Public knowledge and beliefs about mental disorders, *The British Journal of Psychiatry*, 177 (5), pp. 396–401.

Josefsson, A., Angelsiöö, L., Berg, G., Ekström, C., Gunnervik, C., Nordin, C. and Sydsjö, G. (2002) Obstetric, somatic, and demographic risk factors for postpartum depressive symptoms. *Obstetrics & Gynecology,* 99 (2), pp. 223-228.

Junior, S., Oliveira, H.P., Rosa Gualda, D.M., Fátima Araújo Silveira, M. and Hall, W.A. (2013) Postpartum depression: the (in) experience of Brazilian primary healthcare professionals. *Journal of Advanced Nursing ,*69 (6), pp. 1248-1258.

Kadir, A.A., Daud, M.N.M., Yaacob, M.J. and Hussain, N.H.N. (2009) Relationship between obstetric risk factors and postnatal depression in Malaysian women. *International Medical Journal,* 16 (2), pp. 101-106.

Kadir, A.A., Nordin, R., Ismail, S.B., Yaacob, M.J. and Mustapha, Wan Mohd Rushidi Wan. (2004) Validation of the Malay version of Edinburgh Postnatal Depression Scale for postnatal women in Kelantan, Malaysia. *Asia Pacific Family Medicine,* 3 (1-2), pp. 9-18.

Kathree, T. and Petersen, I. (2012) South African Indian women screened for postpartum depression: A multiple case study of postpartum experiences. *South African Journal of Psychology,* 42 (1), pp. 37-50.

Kathree, T., Selohilwe, O.M., Bhana, A. and Petersen, I. (2014) Perceptions of postnatal depression and health care needs in a South African sample: the 'mental' in maternal health care. *BMC Women's Health,* 14 (1), pp. 140-140.

Kaur, J. and Singh, H. (2011) Maternal health in Malaysia: A review. WebmedCentral Public Health 2(12), Available: https://www.webmedcentral.com/article_view/2599 [Accessed: 10 August 2016].

Kendall-Tackett, K.A. (2007) A new paradigm for postpartum depression: The central role of inflammation and how breastfeeding and anti-inflammatory treatments decrease risk. *International Breastfeeding Journal, 2* (6). Available: http://internationalbreastfeedingjournal.biomedcentral.com/articles/10.1186/1746-4358-2-6 [Accessed: 17 August 2015].

Kendell, R.E., Chalmers, J.C. and Platz, C. (1987) Epidemiology of puerperal psychoses. *The British Journal of Psychiatry,* 150, pp. 662-673.

Keng, S.L. (2005) Malaysian midwives' views on postnatal depression. *British Journal of Midwifery,* 13 (2), pp. 78-86.

Khader, F.R. (2012) The Malaysian experience in developing national identity, multicultural tolerance and understanding through teaching curricula: Lessons learned and possible applications in the Jordanian context. *International Journal of Humanities and Social Science,* 2 (1), pp. 270-288.

Khan, N., Bower, P. and Rogers, A. (2007) Guided self-help in primary care mental health: meta-synthesis of qualitative studies of patient experience. *The British Journal of Psychiatry: The Journal of Mental Science,* 191, pp. 206-211.

Kit, L. K., Janet, G. and Jegasothy, R. (1997) Incidence of postnatal depression in Malaysian women. Asia-Oceania Journal of Obstetrics and Gynaecology, 23 (1), pp. 85-89.

Kitchener, B.A. and Jorm, A.F. (2008) Mental health first aid: an international programme for early intervention. *Early Intervention in Psychiatry,* 2 (1), pp. 55-61.

Klainin, P. and Arthur, D.G. (2009) Postpartum depression in Asian cultures: A literature review. *International Journal of Nursing Studies,* 46 (10), pp. 1355-1373.

Kleinman, A. (1980) *Patients and healers in the context of culture: An exploration of the borderland between anthropology, medicine, and psychiatry.* Berkeley: University of California Press.

Knudson-Martin, C. and Silverstein, R. (2009) Suffering in silence: a qualitative meta-data-analysis of postpartum depression. *Journal of Marital and Family Therapy,* 35 (2), pp. 145-158.

Kroenke, K., Spitzer, R.L. and Williams, J.B. (2001) The PHQ-9: Validity of a brief depression severity measure. *Journal of General Internal Medicine,* 16 (9), pp. 606-613.

Kroenke, K., Spitzer, R.L. and Williams, J.B. (2003) The Patient Health Questionnaire-2: validity of a two-item depression screener. *Medical Care,* 41 (11), pp. 1284-1292.

Kumar, R., Marks, M., Platz, C. and Yoshida, K. (1995) Clinical survey of a psychiatric mother and baby unit: characteristics of 100 consecutive admissions. *Journal of Affective Disorders,* 33 (1), pp. 11-22.

Lambrinoudaki, I., Rizos, D., Armeni, E., Pliatsika, P., Leonardou, A., Sygelou, A., Argeitis, J., Spentzou, G., Hasiakos, D. and Zervas, I. (2010) Thyroid function and postpartum mood disturbances in Greek women. *Journal of Affective Disorders,* 121 (3), pp. 278-282.

Lawson, T. (1997) Critical issues in economics as realist social theory. *Ekonomia,* 1 (2), pp. 75-117.

Leahy-Warren, P., McCarthy, G. and Corcoran, P. (2011) Postnatal depression in first-time mothers: prevalence and relationships between functional and structural social support at 6 and 12 weeks postpartum. *Archives of Psychiatric Nursing,* 25 (3), pp. 174-184.

Le, H., Perry, D.F. and Ortiz, G. (2010) The postpartum depression screening scale-spanish version: examining the psychometric properties and prevalence of risk for postpartum depression. *Journal of Immigrant & Minority Health,* 12 (2), pp. 249-258.

Lee, D.T. and Chung, T.K. (2007) Postnatal depression: an update. *Best Practice & Research Clinical Obstetrics & Gynaecology,* 21 (2), pp. 183-191.

Lee, D.T., Yip, A.S., Leung, T.Y. and Chung, T.K. (2004) Ethnoepidemiology of postnatal depression. Prospective multivariate study of sociocultural risk factors in a Chinese population in Hong Kong. *The British Journal of Psychiatry: The Journal of Mental Science,* 184, pp. 34-40.

Leff, J.P. (1973) Culture and the differentiation of emotional states. *The British Journal of Psychiatry: The Journal of Mental Science,* 123 (574), pp. 299-306.

Leventhal, H. and Nerenz, D. (1985) The assessment of illness cognition. *Measurement Strategies in Health Psychology*, pp. 517-554.

Leventhal, H., Meyer, D. and Nerenz, D. (1980) The common sense representation of illness danger. *Contributions to Medical Psychology,* 2, pp. 7-30.

Lewis-Beck, M., Bryman, A.E. and Liao, T.F. (2004) *The Sage encyclopedia of social science research methods.* Thousand Oaks, California. Sage.

Lewis, G. (1981) Cultural influences on illness behaviour: a medical anthropological approach. *The relevance of social science for medicine.* Springer, pp. 151-162.

Link, B.G. and Phelan, J.C. (2001) Conceptualizing stigma. *Annual Review of Sociology,* pp. 363-385.

Lloyd, B. and Hawe, P. (2003) Solutions forgone? How health professionals frame the problem of postnatal depression. *Social Science & Medicine,* 57 (10), pp. 1783-1795.

Loffe, H. and Yardley, L. (2004) Content and systematic analysis. In: Marks, D.F., Yardsley L. eds. *Research Methods for Clinical and Health Psychology*, Thousand Oals, California: Sage, pp. 56-69.

Malaysia Nursing Board (2015) *Nursing Board Malaysia Code of Professional Conduct for Nurses,* Available: http://nursing.moh.gov.my/about-us/midwives-board/ [Accessed: 21 July 2016].

Malaysian Psychiatric Association (2010) *Let's talk about postnatal depression*, Available: http://www.psychiatry-malaysia.org/article.php?aid=1251 [Accessed: 10 October 2015].

Manap, M.A. (1975) The role of midwives and traditional birth attendants in maternal and child health and family planning in Malaysia. *ICM/USAID Project West Asia Working Party*, 17-25 October. Kuala Lumpur, Malaysia.

Mancini, F., Carlson, C. and Albers, L. (2007) Use of the postpartum depression screening scale in a collaborative obstetric practice. *Journal of Midwifery and Womens Health,* 52 (5), pp. 429-434.

Mann, J., McKeown, R., Bacon, J., Vesselinov, R. and Bush, F. (2008) Religiosity, spirituality and antenatal anxiety in Southern US women. *Archives of Women's Mental Health,* 11 (1), pp. 19-26.

Marsella, A. (1980). Depressive experience and disorder across cultures. In Triadis, H. and Draguns, J. eds. *Handbook of Cross Cultural Psychology*, Boston: Allyn and Bacon, pp. 237-289.

Maxwell, J.A. (2013) *Qualitative research design: An interactive approach: An interactive approach.* 3rd ed. Thousand Oaks, California: Sage.

Mays, N. and Pope, C. (2000) Qualitative research in health care. Assessing quality in qualitative research. *British Medical Journal (Clinical Research Ed.),* 320 (7226), pp. 50-52.

McCarthy, M. and McMahon, C. (2008) Acceptance and experience of treatment for postnatal depression in a community mental health setting. *Health Care for Women International,* 29 (6), pp. 618-637.

McConnell, J., Baker, M. and Marks, L. (2005) Experiencing a dilemma--accounts of working with PND. *Community Practitioner: The Journal of the Community Practitioners' & Health Visitors' Association,* 78 (7), pp. 251-254.

McEvoy, P. and Richards, D. (2007) Gatekeeping access to community mental health teams: a qualitative study. *International Journal of Nursing Studies,* 44 (3), pp. 387-395.

McGarry, J., Kim, H., Sheng, X., Egger, M., and Baksh, L. (2009) Postpartum depression and help-seeking behaviour. *Journal of Midwifery & Women's Health,* 54 (1), pp. 50–56.

McGhee, G., Marland, G.R. and Atkinson, J. (2007) Grounded theory research: literature reviewing and reflexivity. *Journal of Advanced Nursing,* 60 (3), pp. 334-342.

Merriam, S. B. (2009). *Qualitative research: A guide to design and implementation.* 2nd ed. San Francisco: Jossey-Bass.

Miles M.B., Huberman A.M. (1994) *Qualitative Data Analysis: An Expanded Sourcebook*, 2nd ed., Thousand Oaks, California: Sage.

Milgrom, J., Burrows, G.D., Snellen, M., Stamboulakis, W. and Burrows, K. (1998) Psychiatric illness in women: a review of the function of a specialist mother-baby unit. *The Australian and New Zealand Journal of Psychiatry,* 32 (5), pp. 680-686.

Milgrom, J., Schembri, C., Ericksen, J., Ross, J. and Gemmill, A.W. (2011) Towards parenthood: An antenatal intervention to reduce depression, anxiety and parenting difficulties. *Journal of Affective Disorders,* 130 (3), pp. 385-394.

Miller, L.J. (2002) Postpartum depression. *The Journal of the American Medical Association*, 287 (6), pp. 762-765.

Mingers, J. (2002) "Real-izing Information Systems: Critical Realism as an Underpinning Philosophy for Information Systems." *International Conference on Information Systems (ICIS)*, 15-18 December. Barcelona, Spain.

Ministry of Health Malaysia (2007) *Clinical Practice Guidelines. Management of Major Depressive Disorder.* Putrajaya: Ministry of Health Malaysia. Available: http://www.moh.gov.my/attachments/3897.pdf [Accessed: 3 February 2016].

Ministry of Health Malaysia (2008) The Kuala Lumpur declaration on primary health care 2008. *National Conference on Primary Health Care Kuala Lumpur, Malaysia*, 14-16 April. Kuala Lumpur, Malaysia.

Ministry of Health Malaysia (2011) *Psychiatric and mental health services operational policy.* Putrajaya: Ministry of Health Malaysia. Available: http://www.moh.gov.my/images/gallery/Polisi/PSYCHIATRY_OPERATIONAL_POLICY.pdf [Accessed: 23 January 2016].

Ministry of Health Malaysia (2012) *Health Facts 2012*. Putrajaya: Ministry of Health Malaysia. Available: http://www.moh.gov.my/images/gallery/stats/heal_fact/health_fact_2012_page_by_page.pdf [Accessed: 3 February 2016].

Ministry of Health Malaysia (2013) *Midwives Board Malaysia: The code of professional conduct and practice of a midwife*, Available: http://www.moh.gov.my/index.php/pages/view/1202 [Accessed: 10 August 2016].

Ministry of Health Malaysia (2014) *Guideline on Malay postnatal care, Traditional Complementary Medicine in Malaysia.* Putrajaya: Ministry of Health Malaysia. Available: http://tcm.moh.gov.my/v4/pdf/handbook.pdf [Accessed: 10 February 2016].

Mitchell, A.J., Yadegarfar, M., Gill, J. and Stubbs, B. (2016) Case finding and screening clinical utility of the Patient Health Questionnaire (PHQ-9 and PHQ-2) for depression in primary care: a diagnostic meta-analysis of 40 studies. *British Journal of Psychiatry Open,* 2 (2), pp. 127-138.

Mivsek, A., Hundley, V. and Kiger, A. (2008) Slovenian midwives' and nurses' views on post-natal depression: an exploratory study. *International Nursing Review,* 55 (3), pp. 320-326.

Mohamad Yusuff, A.S., Tang, L., Binns, C.W. and Lee, A.H. (2015) Prevalence and risk factors for postnatal depression in Sabah, Malaysia: a cohort study. *Women & Birth,* 28 (1), pp. 25-29.

Monzon, C., di Scalea, T.L. and Pearlstein, T. (2014) Postpartum psychosis: updates and clinical issues. *Psychiatric Times,* 31 (1), pp. 26-26.

Mori, T., Tsuchiya, K.J., Matsumoto, K., Suzuki, K., Mori, N., Takei, N. and HBC Study Team. (2011) Psychosocial risk factors for postpartum depression and their relation to timing of onset: The Hamamatsu Birth Cohort (HBC) Study. *Journal of Affective Disorders,* 135 (1), pp. 341-346.

Morrell, C.J., Slade, P., Warner, R., Paley, G., Dixon, S., Walters, S.J., Brugha, T., Barkham, M., Parry, G.J. and Nicholl, J. (2009) Clinical effectiveness of health visitor training in psychologically informed approaches for depression in postnatal women: pragmatic cluster randomised trial in primary care. *BMJ (Clinical Research Ed.),* 338, a3045. Available: http://www.bmj.com/content/338/bmj.a3045 [Accessed: 18 July 2015].

Morris-Rush, J.K., Freda, M.C. and Bernstein, P.S. (2003) Screening for postpartum depression in an inner-city population. *American Journal of Obstetrics and Gynecology,* 188 (5), pp. 1217-1219.

Morrow, M., Smith, J.E., Lai, Y. and Jaswal, S. (2008) Shifting landscapes: immigrant women and postpartum depression. *Health Care for Women International,* 29 (6), pp. 593-617.

Morse, J. M., and Richards, L. (2002) *Readme first for a user's guide to qualitative methods*. Thousand Oaks, California: Sage.

Mukhtar, F. and Oei, T.P.S (2011) A review on assessment and treatment for depression in malaysia. *Depression Research and Treatment,* 2011, pp. 123642.

Mustapha, F.I., Omar, Z.A., Mihat, O., Noh, K.M., Hassan, N., Bakar, R.A., Manan, A.A., Ismail, F., Jabbar, N.A. and Muhamad, Y. (2014) Addressing non-communicable diseases in Malaysia: an integrative process of systems and community. *BMC Public Health,* 14 (2). Available: http://bmcpublichealth.biomedcentral.com/articles/10.1186/1471-2458-14-S2-S4 [Accessed: 25 January 2016].

National Institute of Mental Health (2013) *Depression.* Bethesda: U.S. Department of Health and Human Services National Institutes of Health. Available: http://www.nimh.nih.gov/health/topics/depression/index.shtml?utm_content=buffera397a&utm_source=buffer&utm_medium=twitter&utm_campaign=Buffer [Accessed: 06 January 2014].

National Institute of Mental Health (2016) *Postpartum depression facts.* No. 13-8000. Bethesda: U.S. Department of Health and Human Services National Institutes of Health. Available: http://www.nimh.nih.gov/health/publications/postpartum-depression-facts/index.shtml [Accessed: 6 March 2016].

National Institute of Healthcare and Excellence (2014) *Antenatal and postnatal mental health: clinical management and service guidance*. Manchester: National Institute for Health and Care Excellence. Available: https://www.nice.org.uk/guidance/cg192/chapter/introduction [Accessed: 3 November 2015].

Nedhari, A. (2011) Case Study Examining Postpartum Depression Symptoms and Treatment. *Student Pulse,* 3 (8), Available: http://www.inquiriesjournal.com/articles/558/case-study-examining-postpartum-depression-symptoms-and-treatment [Accessed: 10 August 2016].

Ng, C.G. (2014) A review of depression research in Malaysia. *The Medical Journal of Malaysia,* 69, pp. 42-45.

Nicolson, P., Fox, R., and Heffernan, K. (2010) Constructions of pregnant and postnatal embodiment across three generations: Mothers, daughters and others experiences of the transition to motherhood. *Journal of Health Psychology,* 15 (4), pp. 575-585.

Norhayati, M., Hazlina, N.N., Asrenee, A. and Emilin, W.W. (2015) Magnitude and risk factors for postpartum symptoms: A literature review. *Journal of Affective Disorders,* 175, pp. 34-52.

Nylen, K. J., Segre, L. S., & O'Hara, M. W. (2005) Public health implications of postpartum depression. Psychiatric Annals, 35, 599-609.

Oei, T.P. and Mukhtar, F. (2008) Exploratory and confirmatory factor validation and psychometric properties of the Automatic Thoughts Questionnaire for Malays (ATQ-Malay) in Malaysia. *Hong Kong Journal of Psychiatry,* 18 (3), pp. 92-101.

O'Hara, M.W. (2009) Postpartum depression: what we know. *Journal of Clinical Psychology*, 65 (12). pp 1258–1269.

O'Hara, M.W. and Swain, A.M. (1996) Rates and risk of postpartum depression—a meta-analysis. *International Review of Psychiatry,* 8 (1), pp. 37-54.

O'Hara, M.W. and Wisner, K.L. (2014) Perinatal mental illness: definition, description and aetiology. *Best Practice and Research Clinical Obstetrics and Gynaecology,* 28 (1), pp. 3-12.

Oates, M. (1996) Psychiatric services for women following childbirth. *International Review of Psychiatry,* 8 (1), pp. 87-98.

Oates, M.R., Cox, J.L., Neema, S., Asten, P., Glangeaud-Freudenthal, N., Figueiredo, B., Gorman, L.L., Hacking, S., Hirst, E. and Kammerer, M.H. (2004) Postnatal depression across countries and cultures: a qualitative study. *The British Journal of Psychiatry,* 184 (46), pp. s10-s16.

O'Mahony, J.M., Donnelly, T.T., Raffin Bouchal, S. and Este, D. (2012) Barriers and facilitators of social supports for immigrant and refugee women coping with postpartum depression. *Advances in Nursing Science,* 35 (3), pp. E42-56.

O'Mahony, J., Donnelly, T., Raffin Bouchal, S. and Este, D. (2013) Cultural background and socioeconomic influence of immigrant and refugee women coping with postpartum depression. *Journal of Immigrant & Minority Health,* 15 (2), pp. 300-314.

Orb, A., Eisenhauer, L. and Wynaden, D. (2001) Ethics in qualitative research. *Journal of Nursing Scholarship,* 33 (1), pp. 93-96.

Ormston, R., Spencer, L., Barnard, M. and Snape, D. (2014) The foundations of qualitative research. In: Ritchie, J., Lewis, J., Nicholls, C.M. and Ormston, R. eds. *Qualitative research practice: A guide for social science students and researchers.* London: Sage, pp. 1-12.

Outhwaite, W. (1987) *New philosophies of social science: Realism, hermeneutics, and critical theory*. Palgrave Macmillan: New York.

Pallant, J.F., Miller, R.L. and Tennant, A. (2006) Evaluation of the Edinburgh Post Natal Depression Scale using Rasch analysis. *BMC Psychiatry,* 6 (28). Available: http://bmcpsychiatry.biomedcentral.com/articles/10.1186/1471-244X-6-28 [Accessed: 25 January 2016].

Parahoo, K. (2006) *Nursing Research: Principles. Process and Issues,* 2nd ed. New York: Plagrave McMillan.

Patton, M.Q. (2002) Designing qualitative studies. *Qualitative Research and Evaluation Methods,* 3, pp. 230-246.

Paulden, M., Palmer, S., Hewitt, C. and Gilbody, S. (2009) Screening for postnatal depression in primary care: cost effectiveness analysis. *BMJ (Clinical Research Ed.),* 339, b5203. Available: http://www.bmj.com/content/339/bmj.b5203 [Accessed: 24 April 2015].

Pearce, M.J., Koenig, H.G., Robins, C.J., Nelson, B., Shaw, S.F., Cohen, H.J. and King, M.B. (2015) Religiously integrated cognitive behavioural therapy: A new method of treatment for major depression in patients with chronic medical illness. *Psychotherapy,* 52 (1), pp. 56-66.

Peters, M., Godfrey, C., McInerney, P., Soares, C., Hanan, K. and Parker, D. (2015) *The Joanna Briggs Institute reviewers' manual 2015: Methodology for JBI scoping reviews.* Available: http://joannabriggs.org/assets/docs/sumari/Reviewers-Manual_Methodology-for-JBI-Scoping-Reviews_2015_v2.pdf [Accessed: 12 February 2016].

Pilgrim, D. (2013) The failure of diagnostic psychiatry and some prospects of scientific progress offered by critical realism. *Journal of Critical Realism,* 12 (3), pp. 336-358.

Pilgrim, D. and Bentall, R. (1999) The medicalisation of misery: a critical realist analysis of the concept of depression. *Journal of Mental Health,* 8 (3), pp. 261-274.

Pitanupong, J., LIabsuetrakul, T. and Vittayanont, A. (2007) Validation of the Thai Edinburgh Postnatal Depression Scale for screening PPD. *Psychiatry research,* 149 (1–3), pp. 253-259.

Place, J.M.S., Billings, D.L., Blake, C.E., Frongillo, E.A., Mann, J.R. and deCastro, F. (2015) Conceptualizations of Postpartum Depression by Public-Sector Health Care Providers in Mexico. *Qualitative Health Research,* 25 (4), pp. 551-568.

Polit, D. F. and Beck, C.T. (2006) *Essentials of nursing research: Methods, appraisal, and utilization.* 6th ed. Philadelphia: Lippincott Williams & Wilkins.

Posmontier, B. and Waite, R., (2011) Social energy exchange theory for postpartum depression. *Journal of Transcultural Nursing,* 22 (1), pp. 15-21.

Public Health Resource Unit (2006). *The Critical Skills Appraisal Programme: making sense of evidence.* Public Health Resource Unit, England. Available: http://www.casp-uk.net/ [Accessed: 23 January 2014].

Rahman, A. (2007) Challenges and opportunities in developing a psychological intervention for perinatal depression in rural Pakistan--a multi-method study. *Archives of Women's Mental Health,* 10 (5), pp. 211-219.

Rahman, A., Iqbal, Z. and Harrington, R. (2003) Life events, social support and depression in childbirth: perspectives from a rural community in the developing world. *Psychological Medicine,* 33 (7), pp. 1161-1167.

Razali, S. and Hasanah, C. (1999) Cost-effectiveness of cyclic antidepressants in a developing country. *Australian and New Zealand Journal of Psychiatry,* 33 (2), pp. 283-284.

Ritchie, J. and Spencer, L. (2002) Qualitative data analysis for applied policy research. *The Qualitative researcher's Companion,* 573, pp. 305-329.

Ritchie, J., and Lewis, J. (2003) *Qualitative research practice: A guide for social science students and researchers.* Thousand Oaks, California: Sage.

Roberts, T. (2009) Understanding ethnography. *British Journal of Midwifery,* 17 (5), pp. 291-294.

Robertson, E., Celasun, N., and Stewart, D.E. (2003) Risk factors for postpartum depression. In Stewart, D.E., Robertson, E., Dennis, C.-L., Grace, S.L., and Wallington, T. (2003) *Postpartum depression: Literature review of risk factors and interventions.* Available: http://www.who.int/mental_health/prevention/suicide/mmh%26chd_chapter_1.pdf [Accessed: 23 March 2014].

Robson C. (2002) *Real World Research*, 2nd ed. Oxford: Blackwell Publishing.

Rodrigues, M., Patel, V., Jaswal, S. and de Souza, N. (2003) Listening to mothers: qualitative studies on motherhood and depression from Goa, India. *Social Science & Medicine,* 57 (10), pp. 1797-1806.

Rogers, A. and Pilgrim, D. (2005) *A sociology of mental illness.* McGraw-Hill Education: Open University Press.

Royal College of Psychiatrists (2016) *Postnatal Depression*, Available: http://www.rcpsych.ac.uk/healthadvice/problemsdisorders/postnataldepression.aspx [Accessed: 28 February 2016].

Rubin, H.J. and Rubin, I.S. (2012) *Qualitative Interviewing: The Art of Hearing Data* .Thousand Oaks, California: Sage.

Rush, P. (2012) The experience of maternal and child health nurses responding to women with postpartum depression. *Maternal and Child Health Journal,* 16 (2), pp. 322-327.

Sands, R.G., Bourjolly, J. and Roer-Strier, D. (2007) Crossing cultural barriers in research interviewing. *Qualitative Social Work,* 6 (3), pp. 353-372.

Saunders, M., Lewis, P. and Thornhill, A. (2012) *Research Methods for business students*, 6th ed, England: Pearson Education Limited.

Sayer, A. (2000) *Realism and social science.* Thousand Oaks, California: Sage.

Sayer, A. (2010) *Method in social science,* 2nd ed. London: Routledge.

Schomerus, G., Matschinger, H. and Angermeyer, M.C. (2009) The stigma of psychiatric treatment and help-seeking intentions for depression. *European Archives of Psychiatry and Clinical Neuroscience,* 259 (5), pp. 298-306.

Schuermans, N. (2013) Towards rigour in qualitative research. *Human Geography PhD Research Seminar, Leuven.* Available: https://www.academia.edu/3068584/Schuermans_2013_Towards_rigour_in_qualitative_research [Accessed: 5 May 2015].

Scottish Intercollegiate Guidelines Network (2012) *Management of perinatal mood disorders: a national clinical guideline.* SIGN guideline. No 127. Edinburgh: Scottish Intercollegiate Guidelines Network. Available: http://www.sign.ac.uk/pdf/sign127.pdf [Accessed: 6 April 2014].

Shafiei, T., Small, R., McLachlan, H. (2015) Immigrant Afghan women's emotional well-being after birth and use of health services in Melbourne, Australia. 2015. *Midwifery,* 31 (7), pp. 671-677.

Shah, S. (2004) The researcher/interviewer in intercultural context: a social intruder! *British Educational Research Journal,* 30 (4), pp. 549-575.

Shakespeare, J., Blake, F. and Garcia, J. (2006) How do women with postnatal depression experience listening visits in primary care? A qualitative interview study. *Journal of Reproductive & Infant Psychology,* 24 (2), pp. 149-162.

Sharma, V., Burt, V.K. and Ritchie, H.L. (2009) Bipolar II postpartum depression: detection, diagnosis, and treatment. *American Journal of Psychiatry,* 166, pp. 1217–1221.

Shenton, A.K. (2004) Strategies for ensuring trustworthiness in qualitative research projects. *Education for Information,* 22 (2), pp. 63-75.

Sherina, M.S., Arroll, B. and Goodyear-Smith, F. (2012) Criterion validity of the PHQ-9 (Malay version) in a primary care clinic in Malaysia. *The Medical Journal of Malaysia,* 67 (3), pp. 309-315.

Shorey, S., Chan, S.W., Chong, Y.S. and He, H.G. (2015) A randomized controlled trial of the effectiveness of a postnatal psychoeducation programme on self-efficacy, social support and postnatal depression among primiparas. *Journal of Advanced Nursing,* 71 (6), pp. 1260-1273.

Sichel, D. and Driscoll, J.W. (1999) *Women's moods: What every woman must know about hormones, the brain, and emotional health.* New York: William Morrow and Company.

Silverman, D. (2013) *Doing qualitative research: A practical handbook.* 4th ed. Thousand Oaks, California: Sage.

Simpson, J.A., Rholes, W.S., Campbell, L., Tran, S. and Wilson, C.L. (2003) Adult attachment, the transition to parenthood, and depressive symptoms. *Journal of Personality and Social Psychology,* 84 (6), pp. 1172-1187.

Sit, D., Rothschild, A.J. and Wisner, K.L. (2006) A review of postpartum psychosis. *Journal of Women's Health,* 15 (4), pp. 352-368.

Siti R.M.A, Aini. A, Rasnah A. R. Loh, Chong, H. S., Ng. G. (2014) Postpartum depression in Malaysian women: the association with the timing of pregnancy and sense of personal control during childbirth. *International Journal of Academic Research,* 6, pp. 143-149.

Slade, P., Morrell, C.J., Rigby, A., Ricci, K., Spittlehouse, J. and Brugha, T.S. (2010) Postnatal women's experiences of management of depressive symptoms: a qualitative study. *The British Journal of General Practice: The Journal of the Royal College of General Practitioners,* 60 (580), pp. e440-448.

Smith, J. and Firth, J. (2011) Qualitative data analysis: the framework approach. *Nurse Researcher,* 18 (2), pp. 52-62.

Sparker, A. *(*2005) Narrative analysis: exploring the what's and how's of personal stories*.* In: Holloway, I. eds. *Qualitative Research in Health Care.* Berkshire*:* Open University Press, pp. 191–208*.*

Spitzer, R.L., Kroenke, K., Williams, J.B. and Patient Health Questionnaire Primary Care Study Group. (1999) Validation and utility of a self-report version of PRIME-MD: the PHQ primary care study. Journal of the American Medical Association*,* 282 (18), pp. 1737-1744.

Srivastava, A. and Thomson, S.B. (2009) Framework analysis: a qualitative methodology for applied policy research. *Journal of Administration & Governance,* 4 (2), pp. 72-79.

Stahl, S.M. (2000) *Essential psychopharmacology of depression and bipolar disorder.* United Kingdom: Cambridge university press.

Stellenberg, E.L. and Abrahams, J.M. (2015) Prevalence of and factors influencing postnatal depression in a rural community in South Africa. *African Journal of Primary Health Care & Family Medicine,* 7 (1), pp. E1-E8.

Stern, G. and Kruckman, L. (1983) Multi-disciplinary perspectives on post-partum depression: an anthropological critique. *Social Science & Medicine,* 17 (15), pp. 1027-1041.

Stewart, D.E., Robertson, E., Dennis, C., Grace, S.L. and Wallington, T. (2003) Postpartum depression: Literature review of risk factors and interventions. *Toronto: University Health Network Women's Health Program for Toronto Public Health.* Available: http://www.who.int/mental_health/prevention/suicide/lit_review_postpartum_depression.pdf [Accessed: 22 November 2013].

Sword, W., Busser, D., Ganann, R., McMillan, T. and Swinton, M. (2008) Women's care-seeking experiences after referral for postpartum depression. *Qualitative Health Research,* 18 (9), pp. 1161-1173.

Sword, W., Clark, A.M., Hegadoren, K., Brooks, S. and Kingston, D. (2012) The complexity of postpartum mental health and illness: a critical realist study. *Nursing Inquiry,* 19 (1), pp. 51-62.

Temple, B. and Young, A. (2004) Qualitative research and translation dilemmas. *Qualitative Research,* 4 (2), pp. 161-178.

Teng, L., Robertson B. E. and Stewart, D.E. (2007) Healthcare worker's perceptions of barriers to care by immigrant women with postpartum depression: An exploratory qualitative study. *Archives of Women's Mental Health,* 10 (3), pp. 93-101.

Thomas, J. and Harden, A. (2008) Methods for the thematic synthesis of qualitative research in systematic reviews. *BMC Medical Research Methodology,* 8 (1). Available: http://eprints.ncrm.ac.uk/468/1/1007_JTAHthematic_synthesis.pdf [Accessed: 25 January 2016].

Tierney, S., Elwers, H., Sange, C., Mamas, M., Rutter, M.K., Gibson, M., Neyses, L. and Deaton, C. (2011) What influences physical activity in people with heart failure? A qualitative study. *International Journal of Nursing Studies,* 48 (10), pp. 1234-1243.

Tong, J. and Chamberlain, M. (1999) Postpartum depression: a midwife's perspective. *Birth Issues,* 8 (4), pp. 138-144 7p.

United Nations (2015) *The Millennium Development Goals Report 2015.* Available: http://www.un.org/millenniumgoals/2015_MDG_Report/pdf/MDG%202015%20rev%20(July%201).pdf [Accessed: 5 February 2016].

Van Nes, F., Abma, T., Jonsson, H. and Deeg, D. (2010) Language differences in qualitative research: is meaning lost in translation? *European Journal of Ageing,* 7 (4), pp. 313-316.

Vik, K. and Hafting, M. (2012) 'Smile through it!' Keeping up the facade while suffering from postnatal depressive symptoms and feelings of loss: Findings of a qualitative study. *Psychology,* 3 (9), pp. 810-817.

Walsh, D. and Evans, K. (2014) Critical realism: an important theoretical perspective for midwifery research. *Midwifery*, 30 (2014), pp. e1-e6.

Wan Mohd Rushidi, W. M., Rashidi, M. S., Sobariah, A. A., Noriah, B., Hayati, M.R., Baizuri, B., Mahmood, N.M, and Amir, A. (2006) Depression after delivery among Malay women in Malaysia: The role of social support and traditional postpartum practices. *Malaysian Journal of Psychiatry*. Available: http://www.psychiatry-malaysia.org/article.php?aid=469 [Accessed: 2 March 2014].

Wan Mohd Rushidi, W. M., Shakinah, S., and Jamil, M. Y. (2002) Postpartum depression: a survey of the incidence and associated risk factors among Malay women in Beris Kubor Besar, Bachok, Kelantan. *Malaysian Journal of Medical Sciences,* 9 (1), pp. 41-48.

Wan Mohd Rushidi, W. M., Amir A. and Mahmood Nazar, M. (2003) Revalidation of the Malay version of the Edinburgh Postnatal Depression Scale (EPDS) among Malay postpartum women attending the Bakar Bata Health Center in Alor Setar, Kedah, Northwest of Peninsular Malaysia. *Malaysian Journal of Medical Science*s, 10 (2), pp. 71-75.

Ward, D.J., Furber, C., Tierney, S. and Swallow, V. (2013) Using framework analysis in nursing research: a worked example. *Journal of Advanced Nursing,* 69 (11), pp. 2423-2431.

Warren, C., (2002) Qualitative Interviewing. *In:* Gubrium, J., and Holstein, J., eds., (2002) *Handbook of Interview Research: Context and Method.* Thousand Oaks, California: Sage.

WHO (1992) *The ICD-10 Classification of Mental and Behavioural Disorders Clinical descriptions and diagnostic guidelines.* Available: http://apps.who.int/iris/bitstream/10665/37958/8/9241544228_eng.pdf [Accessed 8 January 2016].

WHO *(*2008*) Maternal mental health and child development in low and middle income countries.* Available: www.who.int/mental_health/prevention/suicide/mmh_jan08_meeting_report.pdf [Accessed: 18 November 2014].

WHO (2016) *International Classification of Diseases (ICD),* Available: http://www.who.int/classifications/icd/en/ [Accessed: 15 March 2016].

Williams, B. (2007) Understanding medicine taking: models and explanations In: Dowell J. Williams, B. and Snadden D, eds. *Patient-Centred Prescribing Seeking Concordance In Practice*, United Kingdom: Radcliffe publishing LTD, pp. 44-62.

Williams, B. and Healy, D. (2001) Perceptions of illness causation among new referrals to a community mental health team: "explanatory model" or "exploratory map"? *Social Science & Medicine,* 53 (4), pp. 465-476.

Williams, B., Coyle, J. and Healy, D. (1998) The meaning of patient satisfaction: an explanation of high reported levels. *Social Science & Medicine,* 47 (9), pp. 1351-1359.

Williamson, V. and McCutcheon, H. (2007) The experiences of Australian women diagnosed with postnatal depression who received health professional intervention. *Singapore Nursing Journal,* 34 (3), pp. 39-44.

Wisner, K.L., Parry, B. L. and Piontek, C.M. (2002) Postpartum depression, *The New England Journal of Medicine*, 347, pp.194-199.

Wisner, K.L., Peindl, K. and Hanusa, B.H. (1994) Symptomatology of affective and psychotic llnesses related to childbearing. *Journal of Affective Disorders,* 30 (2), pp. 77-87.

Wittkowski, A., Zumla, A., Glendenning, S. and Fox, J.R.E. (2012) The experience of postnatal depression in South Asian mothers living in Great Britain: a qualitative study. *Journal of Reproductive & Infant Psychology,* 30 (5), pp. 480-492.

Wu, M., Li, X., Feng, B., Wu, H., Qiu, C. and Zhang, W. (2014) Poor sleep quality of third-trimester pregnancy is a risk factor for postpartum depression. *Medical Science Monitor: International Medical Journal of Experimental and Clinical Research,* 20, pp. 2740-2745.

Wylie, L., Hollins Martin, C. J., Marland, G., Martin, C.R. and Rankin, J. (2011) The enigma of post-natal depression: an update. *Journal of Psychiatric & Mental Health Nursing,* 18 (1), pp. 48-58 11p.

Yawn, B.P., Dietrich, A.J., Wollan, P., Bertram, S., Graham, D., Huff, J., Kurland, M., Madison, S., Pace, W.D. and TRIPPD practices. (2012) TRIPPD: a practice-based network effectiveness study of postpartum depression screening and management. *Annals of Family Medicine,* 10 (4), pp. 320-329.

Yelland, J., McLachlan, H., Forster, D., Rayner, J. and Lumley, J. (2007) How is maternal psychosocial health assessed and promoted in the early postnatal period? Findings from a review of hospital postnatal care in Victoria, Australia. *Midwifery,* 23 (3), pp. 287-297.

Yim, I.S., Stapleton, L.R.T., Guardino, C.M., Hahn-Holbrook, J. and Schetter, C.D. (2015) Biological and psychosocial predictors of postpartum depression: systematic review and call for integration. *Clinical Psychology,* 11 (1), pp. 99.

Yonkers, K.A., Wisner, K.L., Stowe, Z., Leibenluft, E., Cohen, L., Miller, L., Manber, R., Viguera, A., Suppes, T. and Altshuler, L. (2004) Management of bipolar disorder during pregnancy and the postpartum period. *American Journal of Psychiatry*, 161(4):608-20.

Yusuff, A.S.M., Tang, L., Binns, C.W. and Lee, A.H. (2015) Prevalence and risk factors for postnatal depression in Sabah, Malaysia: a cohort study. *Women and Birth,* 28 (1), pp. 25-29.

Zainal, N.Z., Kaka, A.S., Ng, C.G., Jawan, R. and Singh Gill, J. (2012) Prevalence of postpartum depression in a hospital setting among Malaysian mothers. *Asia-Pacific Psychiatry,* 4 (2), pp. 144-149.

Zelkowitz, P. and Millet, T.H. (2001) The course of postpartum psychiatric disorders in women and their partners. *Journal of Nervous and Mental Disease*, 189 (9), pp. 575-82.

Appendix 1: Studies on prevalence of postnatal depression

Region/ Country	Authors	Instruments	Sample size (postnatal women)	Time of assessment (after delivery)	Study design	Study setting	Prevalence (%)
America							
US	Levine et al. (2015)	ICD-9-CM	161,454	8 weeks, 1 year	Retrospective cohort	Information from the Registry	16.2
	Stone et al. (2015)	PHQ-2	5,395	2, 6 months	Surveys (secondary analysis)	Massachusetts Pregnancy Risk Assessment Monitoring System (MA-PRAMS) 2007–2010 data	14.9
	Lynch and Prasad (2014)	PRAMS questionnaire .	40,337	2 -4 months	Cross-sectional (secondary analysis)	Population-based national data from PRAMS	13.3
	Sidebottom et al. (2014)	PHQ-9≥10	594	≥ 4 weeks	Prospective	Community health centres	6
	Abbasi et al. (2013)	EPDS ≥12	2972	1 month	Prospective cohort	Hospitals, obstetricians' Offices and clinics, and targeted mailings	5.1
	Dolbier et al. (2013)	EPDS ≥10	299	1, 6 months	Cohort	Community child health network	17.5, 17.4
	Pooler et al. (2013)	(PHQ-2	75,234	2–6 months	Surveys (secondary analysis)	Pregnancy Risk Assessment Monitoring System (PRAMS) data	13.8

	Schachman and Lindsey (2013)	PDSS ≥14	71	8 weeks	Comparative descriptive	Military immunization clinic	50.7
	Sweeney et al. (2013)	EPDS ≥ 12	46	2 months	Prospective cohort	Obstetrics and Gynaecology offices and midwifery offices	10.9
	Wisner et al. (2013)	EPDS ≥ 10	10 000	4-6 weeks	Sequential case series	Obstetric Hospital	14.0
	Dagher et al. (2012)	EPDS (cut off point not mentioned)	526	8 weeks	Prospective cohort	Home interview	6.5
	Gress-Smith et al. (2012)	CES-D ≥24	132	5, 9 months	Longitudinal	Hospital	33, 38
	Kornfeld et al. (2012)	US Preventive Services Task Force	39 38 31	2 months 4 months 6 months	Retrospective (secondary analysis)	Academic-based paediatric primary care clinic (New Mothers Survey data)	15 29 26
	Beck et al. (2011)	PDSS-Short Form≥14 PHQ-2	1566	1-12 months	National survey	Hospital	63
	Gjerdingen et al. (2011)	PHQ-9≥10	464 459 455 472	2 months 4 months 6 months 9 months	Prospective cohort	Family medicine residency clinics and private paediatric clinics	7.1 7.0 5.0 10.2

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	Wang et al. (2011)	*CES-D≥16*	*1364 families*	1 6 months	Longitudinal	Hospitals	25.6 16.3
	Murphy et al. (2010)	EPDS≥10	97	4-6 weeks	Cohort	Postpartum clinic	12
	Le et al. (2010)	PDSS ≥ 60	220	6-8 weeks	Longitudinal	Clinics	63.9
	Sorenson et al. (2010)	BDI-II	71	6-7 months	An exploratory investigation	Daily newspaper listing parent(s) name and city of residence	15.7
	McGrath et al. (2008)	*EPDS≥13*	*139*	*2, 6 months*	*Longitudinal design*	Care provider's offices	*11, 15*
Argentina	Mathisen et al. (2013)	EPDS ≥10	86	4-12 weeks	Cross sectional	Private health care centre	37.2
Brazil	Rebelo et al. (2016)	EPDS ≥11	177	30–45 days	Prospective cohort	Antenatal care unit	16.9
	Matijasevich et al. (2015)	EPDS ≥11	3332	3, 12 months	Cohort	Maternity hospitals	34.8, 40.9
	Melo et al. (2012)	*EPDS≥12*	*555*	*4–6 weeks*	*Cross-sectional*	*Prenatal clinic of two* *Public reference centres*	*10.8*
	Lobato et al. (2011)	*EPDS≥12*	*811*	*46–75 days* *76–105 days* *106–135 days*	*Cross-sectional*	*Primary health care units*	*21.8* *37.5* *24.5*

	Pinheiro et al. (2011)	EPDS ≥10	397 366	9–12 weeks , 12 months	Cohort	Brazilian National System of Public Health	22.7 24.6
Canada	Verreault et al. (2014)	EPDS ≥10	226	3 months	Cohort	Health centre and ultrasound department	16.4
	Dennis et al. (2012)	*EPDS≥13*	*6421*	*12 weeks*	*Cross-sectional survey*	*Data from the Maternity Experiences Survey of the Canadian Perinatal Surveillance System*	*8*
Greenland	*Motzfeldt et al. (2013)*	*EPDS≥13*	*174*	*3 months*	*Cross-sectional*	*Primary health care*	*8.6*
Mexico	Lara et al. (2015)	Structured Clinical Interview (SCID-I; PHQ ≥10	210	6 weeks, 6 months	Longitudinal	Hospital and community centre	11.4, 9.0
Africa							
Ghana and Ivory	Guo et al. (2013)	PHQ-9≥10	654	3 and 12 months	Cohort	Hospital	11.8, 16.1 and 8.9, 7.2
Morocco	*Alami et al. (2006)*	*EPDS≥13* *M.I.N.I.*	*100*	*From the first trimester of pregnancy to 9 months after delivery.*	*Prospective cohort study*	Primary healthcare setting	*17*
Nigeria	*Abiodun (2006)*	*EPDS≥9*	*360*	*6 weeks postnatal*	*Cross sectional*	Primary health care	*18.6*

South Africa	Stellenberg and Abrahams (2015)	EPDS (cut off point not mentioned)	159	6, 10 or 14 weeks	Cross-sectional	Primary health care clinics	50.3
Sudan	Khalifa et al. (2015)	EPDS≥12	238	3 months	Cross-sectional	Antenatal clinic public tertiary hospitals	9.2
Europe							
England	*Leahy-Warren et al. (2011)*	*EPDS≥12*	*410, 367*	*6,12 weeks*	*Longitudinal*	*Community sample*	*13.2,9.8*
France	Gaillard et al. (2014)	EPDS≥12	264	6, 8 weeks	Prospective	Public maternity unit	16.7
Greece	Lambrinoudaki et al. (2010)	EPDS ≥11	57	6 weeks	Cross-sectional	University Hospital.	22.81
	Koutra et al. (2014)	EPDS≥13	438	8 weeks	Prospective cohort	Maternity clinics	13
	Leonardou et al. (2009)	*GHQ, BDI and WHOQOL scores*	*81*	*2 months*	*Prospective cohort study*	*Maternity hospitals*	*12.4*
Germany	Goecke et al. (2012)	EPDS ≥ 9 mild EPDS ≥ 12 medium to severe	159	6 months	Prospective	Obstetrics and Gynaecology clinic	10.1, 1.9
	Zaers et al. (2008)	*EPDS≥13*	*47*	*6 weeks, 6 months*	*Prospective longitudinal study*	*Hospital*	*22, 21.3*

Hungary	Kozinszky et al. (2011)	Leverton questionnaire (LQ) score of ≥12	Year 1996: 2,333 Year 2006: 1,619	6-10 weeks	Longitudinal	Pregnancy-care centres	15.0 17.4
Italy	Elisei et al. (2013)	EPDS≥13	85	3 months	Cohort	Obstetrics and Gynaecology clinic	16.7
	Giardinelli et al. (2012)	*EPDS≥10*	*590*	*3 months*	*Prospective cohort*	*Obstetrics and Gynaecology clinic*	*13.2*
	Banti et al. (2011)	*EPDS≥13 SCI DSM-IV*	*1066*	*1,3,6,9,12 months*	*Longitudinal*	*Hospital*	*9.6*
Netherlands	Meijer et al. (2014)	EPDS ≥10	1276	4–7 months	Prospective cohort	Obstetric care	8.5
	Meltzer-Brody et al. (2013)	*EPDS≥12*	*682*	*4-12, 12 weeks*	*Large cohort study*	*Subjects were from the Netherlands Study of Depression and Anxiety (NESDA).*	*13, 10*
Norway	*Glavin et al. (2009)*	*EPDS≥10*	*2227*	*6 weeks after delivery*	*Cross-sectional study*	*Well baby clinics*	*10.1*
Portugal	Figueiredo and Conde (2011)	EPDS≥10	260 couples (260 women)	10-14 weeks	Cohort	Obstetrics and Gynaecology clinic	11.1
	Maia et al. (2011)	*BDI-II≥11, PDSS≥63*	*386*	*3-months*	*Longitudinal*	*Local Health Medical Centres*	*13.0, 16.8*

	Marques et al. (2011)	Diagnostic Interview for Genetic Studies (DIGS), BDI-II	382	3 months	Cross-sectional	Mother's local medical centre or homes.	11.5, 16.6
Poland	Dudek et al. (2014)	EPDS≥12	344	6, 12 weeks	Cross-sectional	Obstetrics and Gynaecology clinic	16
Serbia	Dmitrovic et al. (2014)	EPDS ≥12 Hamilton Depression Rating Scale	195	6-8 weeks	Cross-sectional	Obstetrics and Gynaecology clinic	11
Spain	Escrib`a-Ag¨uir and Artazcoz (2011)	EPDS ≥11	420	3, 12 months	Longitudinal cohort	Primary care centres	9.3, 4.4
Sweden	Agnafors et al. (2012)	EPDS ≥10	1,707	3 months	Cohort	Child welfare centres	12.0
	Kerstis et al. (2012)	EPDS ≥10	305 couples	3 months	Cohort	Child Health Centres	16.5
11 study sites (Belgium, Germany, Italy,	*Grote et al. (2010)*	*EPDS≥13*	*929*	*2,3,6 months postnatal*	*Cohort study*	*11 study sites in five countries (specific study setting was not mentioned)*	*6-8 (Germany and Spain) 13-16*

Poland and Spain)							*(Belgium, Poland and Italy)*
Australia and New Zealand							
Australia	McMahon et al. (2015)	M.I.N.I	434	4 months	Prospective cohort	Assisted reproductive technology (art) clinics	8.3
	Woolhouse et al. (2014)	EPDS ≥13	1507	3, 6, 12 months	Cohort	Public hospital	16.1
	Wynter et al. (2013)	EPDS ≥ 9	172 couples	6 months	Cross sectional	Local government areas	12.2
	McMahon et al. (2011)	M.I.N.I	541	4 months	Prospective cohort	Assisted reproductive technology (art) clinics	7.9
	Austin et al. (2010)	*EPDS score≥13* *CIDI*	*235*	*2, 4, 6–8 months*	*Prospective*	*Obstetric hospital*	*24.4, 32.8*
	Brooks et al. (2009)	*EPDS≥13*	*4838*	*4,8,12,16,20,24 weeks*	*Large cohort and prospective longitudinal design*	*Obstetric sites*	*6.0- 9.0*
	Bilszta et al. (2008)	*EPDS≥13*	*1958 urban* *908 rural*	*6th week postnatal*	*Cohort study*	*Perinatal health services*	*Urban: 6.6* *Rural 8.5*
	Milgrom et al. (2008)	*EPDS≥13*	*12,361*	*6th week postnatal*	*A large prospective cohort study*	*Maternity hospital antenatal clinics*	*7.5*

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New Zealand	Abbott and Williams (2006)	EPDS≥13	1376	6 weeks	Cross-sectional	Hospital and home visits	Samoans: 7.6 Tongans: 30.9
Asia							
Armenia	Petrosyan et al. (2011)	EPDS≥12	437	1–3 months	Case–control	Primary health care	14.4
Bahrain	Al-Dallal et al. (2012)	EPDS≥12	237	8 weeks	Cross-sectional	primary health care centres	37.1
Bangladesh	Edhborg et al. (2011)	EPDS ≥10	672	2–3 months	Cohort	Community setting	11
	Gausia et al. (2009)	EPDS≥10	346	6–8 weeks	A community-based cohort study	Matlab subdistrict of rural Bangladesh	22
China	Deng et al. (2014)	EPDS ≥10	1823	4 weeks	Cross-sectional	Tangxia community	27.4
	Wu et al. (2014)	EPDS ≥ 11	223	3 months	Longitudinal	Obstetrics and Gynaecology outpatient ward	9.4
	Mao et al. (2011)	EPDS ≥13	376	6-8 weeks	Cross-sectional	Postpartum clinics	14.9
Hong Kong	Ngai et al. (2015)	GHQ≥5	200	6 months	Longitudinal	Regional hospital	11.5
	Lau et al. (2010)	EPDS ≥10 EPDS ≥15	610	6 weeks	Longitudinal	Obstetric Outpatient Clinics	31.6 8.7

India	Bodhare et al. (2015)	PHQ-9	274	6-8 weeks	Cross-sectional	Obstetrics and Gynaecology clinic of a teaching hospital	39.8
	Johnson et al. (2015)	EPDS ≥13	123	6-8 weeks	Cross-sectional	Maternity hospital	46.9
	Shivalli and Gururaj (2015)	EPDS ≥13	102	4-10 weeks	Cross-sectional	Obstetrics and Gynaecology clinic	31.4
	Gupta et al. (2013)	PRIME MD Today (PRIMary care evaluation of mental disorders)	202	6 weeks	Cross sectional	Postnatal clinic	15.8
Iran	Abdollahi et al. (2016)	EPDS≥13	1910	3 months	Longitudinal cohort	Primary health centres	19
	Hosseni et al. (2015)	EPDS ≥13	400	6 to 12 weeks	Cross-sectional	Health centres	40.4
	Abbasi et al. (2014)	EPDS≥13	416	3 months	Prospective longitudinal	Teaching university hospitals	34.1
	Sadat et al. (2014)	EPDS ≥13	300	2 months and 4 months	Prospective	health centres	22.3 15.7
	Goshtasebi et al. (2013)	EPDS ≥13	254	4-6 weeks	Prospective study	Hospital	5.5

	Taherifard et al. (2013)	*EPDS ≥13*	*179*	*6-8 weeks*	*Cross-sectional*	*Obstetrics & Gynaecology clinics*	*34.8*
	Rouhi et al. (2012)	EPDS ≥13	436	8 weeks	Cross-sectional	Health care centres	36.3
	Kheirabadi et al. (2010)	EPDS ≥13	1898	6 to 8	Prospective cohort	Health centres	26.3
Israel	Alfayumi et al. (2015)	EPDS ≥10	564	4 weeks-7 months	Cross-sectional	Maternal and child health clinics	31
	Glasser et al. (2012)	EPDS ≥10	2,326	6 weeks	Prospective cohort	Maternal and child health clinics	16.3
Japan	Shimizu et al. (2015)	EPDS ≥9	65	1, 4 months	Prospective cohort	obstetrics clinics	16.9, 7.7
	Matsumoto et al. (2011)	EPDS ≥9	675	≥3 months	Cohort	University Hospital and Maternity Clinic	14.8
	Miyake et al. (2011)	*EPDS ≥9*	*771*	*3-4 months*	*Prospective cohort*	*Municipality of the domicile of the conception*	*13.8*
	Mori et al. (2011)	EPDS ≥9	675	5–7, 8–12 weeks	Cohort	University Hospital	4
Jordan	*Mohammad et al. (2011)*	*EPDS ≥13*	*353*	*6-8 weeks* *6 months*	*Prospective cross-sectional*	*Teaching hospital and health clinics*	*22.1, 21.2*
Korea	Park et al. (2015)	EPDS≥10	153	4 weeks	Longitudinal	Maternity clinics	42.5

Lebanon	El-Hachem et al. (2014)	EPDS ≥12	149	30-40 postpartum	Cohort	Hospital	12.8
Malaysia	Mohamad Yusuff et al. (2015)	EPDS≥12	979	1, 3, 6 months	Prospective cohort	Maternal and child health clinics	14.3
	Zainal et al. (2012)	*M.I.N.I*	*411*	*6-8 weeks*	*Cross-sectional*	*Postnatal clinic, university hospital*	*6.8*
	Kadir et al. (2009)	*EPDS≥12*	*293*	*4- 6 weeks*	*Cross sectional study*	*Postnatal clinic, hospital*	*27.3*
	Azidah et al. (2006)	*EPDS≥12*	*421*	*4-6 weeks*	*Cross sectional study*	*Maternal and Child Health clinics*	*20.7*
	Wan Mohd Rushdi et al. (2006)	*EPDS≥12* *BDI-II≥10* *CIDI HDRS* *ICD-I0*	*354*	*4-12 weeks*	*A two-stage population survey*	*Health centres*	*16.38*
Mongolia	*Pollock et al. (2009)*	*WHO Self Reporting Questionnaire*	*1044*	*5 to 9 weeks postnatal*	*Cross-sectional*	*Hospital/ home visit*	*9.1*
Nepal	Giri et al. (2015)	EPDS ≥10	346	6, 10 weeks	Cross-sectional	Maternity and women's hospital	30
	Budhathoki et al. (2012)	EPDS ≥13	72	6, 10 weeks	Prospective cohort study	Teaching hospital and district hospital	19.4, 22.2

	Ho-Yen et al. (2006)	EPDS≥13	426	5 -10 weeks postnatal	Cross-sectional structured interview study	Hospital's postnatal clinic, rural health posts, wards	4.9
Oman	Al Hinai and Al Hinai (2014)	EPDS ≥13	282	8 weeks	Prospective cohort	Primary healthcare facilities	10.6
Pakistan	Hussain et al. (2011)	EPDS≥12	763	≥3 months	Cohort study	Maternity and child care centre	38.3
	Muneer et al. (2009)	EPDS≥12	154	6 weeks postnatal	Cross sectional study.	Outpatient sample	33.1
Qatar	Bener et al. (2012)	EPDS ≥12	1379	6 months	Prospective cross-sectional study	Primary healthcare centres	17.6
Saudi Arabia	Alasoom and Koura (2014)	EPDS ≥10	450	2–6 months	Cross-sectional	Primary healthcare centres	17.8
Taiwan	Tsao et al. (2015)	EPDS ≥13	162	6 weeks	Longitudinal cohort	Postnatal clinic at regional hospitals	24.1
	Lee et al. (2011)	BDI-II ≥14	60	5-8 weeks	Cross-sectional	Infertility treatment centre	25
Turkey	Bolak Boratav et al. (2015)	EPDS ≥12	87	3–6 months	Longitudinal	Obstetrics and Gynaecology clinic	48.3
	Cankorur et al. (2015)	EPDS≥13	578	2, 6 months	Cohort	Mother and child centres	26.1
	Kirkan et al. (2015)	EPDS ≥13	360	6 weeks	Prospective	City centre	13.3

	Turkcapar et al. (2015)	EPDS ≥14	540	6-8 weeks	Prospective	Specialized tertiary obstetrics and gynaecology hospital	15.4
	Annagur et al. (2013)	EPDS≥13	197	6 weeks	Prospective	University hospital	14.2
	Poçan et al. (2013)	EPDS ≥13	187	4-6 weeks	Cross-sectional	University hospital	28.9
	Kirpinar et al. (2010)	*EPDS ≥13*	*479*	*6 weeks*	Prospective	*Primary heath care centres*	*14*
	Akyuz et al. (2010)	PDSS ≥ 65	156	4-6 weeks	Cohort	Hospitals	19.9
	Dindar and Erdogan (2007)	*EPDS≥12*	*679 mothers*	*1-12 months*	*Descriptive design*	Public health centres	*25.6*
UAE	Hamdan and Tamim (2011)	EPDS ≥10, MINI	137	2 months	Prospective	Maternal and child health centre	5.9, 10.1
	Green et al. (2006)	*EPDS≥13*	*86, 56*	*3, 6 months*	*Longitudinal study*	Government maternity hospital	*22, 12.5*
Vietnam	Murray et al. (2015)	EPDS ≥13	431	1-6 months	Cross-sectional	Commune health centre	18.1

Italic: from initial review only

☐ : duplicates (both in initial and updated review)

Appendix 2: Characteristics of included studies (Women's experiences of PND)

Country	Authors	Objectives	Research design	Data collection	Qualitative analysis
USA	Goyal et al. (2015)	To explore Asian Indian mothers' perspectives of PND and mental health help-seeking behaviour.	Qualitative exploratory design	Semi-structured interviews: 12 Asian Indian mothers self-reported as having PND.	Content analysis
	Callister et al. (2011)	To describe perceptions of immigrant Hispanic women experiencing symptoms of PND To identify barriers to seeking mental health services.	Qualitative approach	Semi structured Interviews: 20 immigrant Hispanic women scoring positive for symptoms of PND.	Qualitative analysis
	Abrams and Curran (2009)	To examine low-income mothers' experience and understandings of their postnatal depressive symptoms.	Grounded theory	Open ended-interviews: 19 low-income mothers with postnatal depressive symptoms.	Grounded theory analysis
	Dennis and Moloney (2009)	To examine the experience of PND among women in a rural setting.	Phenomenology	Open ended-interviews: Five white women with experience of PND.	Qualitative analysis

Canada	O'Mahony and Donnelly (2013)	To explore how cultural, social, political, historical and economic factors intersect with race, gender and class to influence the ways in which immigrant and refugee women seek help to manage PND.	Critical ethnography	Semi structured interviews: 30 immigrant and refugee women. (9 with a formal diagnosis of PND, 21 at high risk of PND).	Qualitative analysis
	O'Mahony et al. (2012)	To find out what factors influenced them in seeking postpartum care and what strategies would be helpful in prevention and treatment of PND.	Critical ethnography	Semi structured interviews: 30 immigrant and refugee women (9 with a formal diagnosis of PND, 21 at high risk of PND).	Qualitative analysis
	Morrow et al. (2008)	To explore the experiences of three groups of first-generation Punjabi-speaking, Cantonese-speaking, and Mandarin-speaking immigrant women with depression after childbirth.	Ethnographic narrative	Semi structured interviews: 18 interviews with first generation immigrant women. 1 interview with a second-generation Punjabi-speaking immigrant woman.	Ethnographic narrative
	Sword et al. (2008)	To explore care seeking among women after public health nurse referral for probable PND.	Qualitative approach	Semi-structured telephone interviews: 18 women who scored 12 or above in EPDS and/or positive on the item related to self-harm.	Content analysis
South Africa	Kathree et al. (2014)	To understand the explanatory models of illness held by women with maternal depression with the view to informing the development of an appropriate counselling intervention using a task sharing	Focused ethnographic qualitative research approach	Semi structured interviews and observations of participants in the home environment: 20 mothers from a poor socio-economic who were diagnosed with depression.	Thematic analysis

		approach.		Follow-up interviews: 10 participants.	
	Kathree and Petersen (2012)	To understand the experiences of South African Indian women screened for postnatal depressive symptoms.	Multiple case study	Semi structured interviews: 10 low-income women scoring 12 and higher on the EPDS.	Thematic analysis
UK	Slade et al. (2010)	To provide the first integrated in-depth exploration of postnatal women's experiences of the identification and management of symptoms of depression and the offer and acceptance of postnatal care by health visitors taking part in the PoNDER trial.	Qualitative approach	Semi structured interviews: 30 women participating in the PoNDER trial scoring ≥18 in EPDS.	'Template' approach to data analysis
	Chew-Graham et al. (2009)	To explore general practitioners' (GPs), health visitors' and women's views on the disclosure of symptoms that may indicate PND in primary care.	Qualitative approach	In-depth interviews: 28 women with a diagnosis of PND. Also included: 19 GPs, 14 health visitors.	Thematic analysis
	Homewood et al. (2009)	To develop a psychological account of the transition to motherhood of women who had received diagnoses of PND.	Grounded theory	Semi structured interviews: 9 women who had received a psychiatric diagnosis of PND.	Grounded theory analysis
UK	Coates et al. (2014)	To explore how women experienced and made sense of the range of emotional distress	Qualitative study	Semi structured interviews: 17 women (in person 15, telephone 12) who	Interpretative Phenomenological

		states in the first year postnatal.		experienced psychological problems in the first year after having a baby.	Analysis
	Wittkowski et al. (2011)	To examine understanding of PND in South Asian mothers living in Great Britain.	Grounded theory	In-depth interview: 10 South Asian mothers scored above 12 on the EPDS.	Constant comparative method
	Hall (2006)	To explore the thoughts and feelings held by mothers who suffered PND in order to promote understanding of the condition.	Qualitative approach	Unstructured interviews: 10 new mothers who had experienced PND with impaired daily functioning.	Interpretative Phenomenol ogical Analysis
	Shakespeare et al. (2006)	To explore the experiences of women who have received listening visits for PND.	Qualitative approach	In-depth interview: 39 postnatal women from 22 general practices who had attended counselling interventions by health visitors as a treatments for PND.	Thematic analysis
	Hanley and Long (2006)	To examine the experiences of Welsh mothers diagnosed with PND.	Case-study method	Semi-structured interviews: 10 mothers with one or more children and were diagnosed with PND.	Content analysis
Norway	Vik and Hafting (2012)	To present analysis of new mothers' descriptions of loss related to childbirth and PND/S.	Phenomenology	In-depth interviews: 15 mothers with PND and/or depressive symptoms and their experiences of loss in the early period following childbirth.	Immersion/cr ystallisation analysing approach and Thematic networks

Australia	Shafiei et al. (2015)	To investigate immigrant Afghan women's emotional well-being and experiences of PND after childbirth and their use of health services.	Mixed methods design - qualitative data were drawn both from the telephone interview open-ended questions and face to face interviews.	Semi-structured telephone interviews: 39 immigrant women who were born in Afghanistan scored 13 or more in the EPDS. Follow up face to face interviews: 10 of the women.	Thematic analysis
	Bilszta et al. (2010)	To collect qualitative insights into women's perceptions of their PND experience.	Qualitative approach	Focus group sessions: 40 women experiencing PND and either receiving treatment or attending support groups.	Interpretative phenomenol ogical analysis
	Williamson and McCutcheon (2007)	To explore women's experiences of PND, and their experience of health practitioners interventions for their PND.	Hermeneutic phenomenology	In-depth interviews: 12 women who had received a diagnosis of PND.	Qualitative analysis
	Buultjens and Liamputtong (2007)	To capture the missing voices of mothers who are suffering PND.	Qualitative approach	In-depth interviews: 10 women with a diagnosis PND and admitted to a large hospital mother and baby unit.	Thematic analysis

New Zealand	McCarthy and McMahon (2008)	To explore the acceptance and experience of treatment for PND.	Grounded theory	Open ended interviews: 15 women with a diagnosis of PND.	Modified analytic induction (grounded theory)
China	Gao et al. (2010)	To explore the experience of PND among first-time mothers in mainland China.	Phenomenology	In-depth interviews: 15 first-time mothers who scored 13 or above on the Edinburgh PND Scale.	Qualitative analysis - Van Manen's approach
Taiwan	Chen et al. (2006)	To describe the process of recovery from PND in Taiwanese women.	Grounded theory	In-depth interviews: 23 postnatal women who scored higher than 16 in the Beck Depression Inventory.	Constant comparative method
Banglade sh	Edhborg et al. (2015)	To explore and describe the experiences and concerns during the first 3-9 months following childbirth of those mothers who showed depressive symptoms 2-3 months postpartum, in a rural area in Bangladesh.	Qualitative study part of longitudinal, cohort study	Open narrative interviews: 21 mothers from a sample of mothers identified as having depressive symptoms 2-3 months postpartum in the longitudinal study, scored 10 or more on the EPDS.	Content analysis

Appendix 3: Quality appraisal outcome (WOMEN) using the critical appraisal skills programme (CASP)

Authors (Year)	Was there a clear statement of the aims of the research?	Is a qualitative methodology appropriate?	Was the research design appropriate to address the aims of the research?	Was the recruitment strategy appropriate to the aims of the research?	Was the data collected in a way that addressed the research issue?	Has the relationship between the researcher and participants been adequately considered?	Have ethical issues been taken into consideration?	Was the data analysis sufficiently rigorous?	Is there a clear statement of findings?	How valuable is the research?	Quality rating Meets all the criteria/ Meets most/ Meets few
Goyal et al. (2015)	Yes	Yes	Yes	Yes	Yes	No	Can't Tell	Can't Tell	Yes	Yes	Most
Callister et al (2011)	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Most
Abrams and Curran (2009)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	All
Dennis and Moloney (2009)	Yes	Yes	Yes	Yes	Yes	No	Can't Tell	No	Yes	No	Most
O'Mahony and Donnelly (2013)	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Most
O'Mahony et al. (2012)	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Most
Morrow et al. (2008)	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Most
Sword et al. (2008)	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Most
Kathree et al. (2014)	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Most
Kathree and Petersen (2012)	Yes	Yes	Yes	Can't Tell	Yes	No	Yes	Yes	Yes	Yes	Most
Slade et al. (2010)	Yes	Yes	Yes	Yes	Yes	No	Can't Tell	Yes	Yes	Yes	Most
Chew-Graham et al. (2009)	Yes	Yes	Yes	Yes	Yes	No	Can't Tell	Yes	Yes	Yes	Most
Homewood et al. (2009)	Yes	Yes	Yes	Yes	Yes	Yes	Can't Tell	Yes	Yes	Yes	Most
Coates et al. (2014)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	All
Wittkowski et al. (2011)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	All

Hall (2006)	Yes	Yes	Yes	Yes	Yes	No	Can't Tell	Yes	Yes	Yes	Most
Shakespeare et al. (2006)	Yes	Yes	Can't Tell	Yes	Yes	No	Can't Tell	Yes	Yes	Yes	Most
Hanley and Long (2006)	Yes	Yes	Yes	Yes	Yes	Can't Tell	Yes	Yes	Yes	Yes	Most
Vik and Hafting (2012)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	All
Shafiei et al. (2015)	Yes	Yes	Can't Tell	Yes	Yes	No	Yes	Yes	Yes	Yes	Most
Bilszta et al. (2010)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	All
Williamson and McCutcheon (2007)	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Can't Tell	Yes	Most
Buultjens and Liamputtong (2007)	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Most
McCarthy and McMahon (2008)	Yes	Yes	Yes	Yes	Yes	Can't Tell	Can't Tell	Yes	Yes	Yes	Most
Gao et al. (2010)	Yes	Yes	Yes	Yes	Yes	Can't Tell	Yes	Yes	Yes	Yes	Most
Chen et al. (2006)	Yes	Yes	Can't Tell	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Most
Edhborg et al. (2015)	Yes	Yes	Can't tell	Yes	Yes	No	Can't Tell	Yes	Yes	Yes	Most

Appendix 4: Characteristics of included studies (HCPs' perceptions of PND)

Country	Authors	Objectives	Research design	Data collection	Qualitative analysis
USA	Heneghan et al. (2007)	To assess paediatricians' beliefs about discussing maternal depressive symptoms during a paediatric visit, and methods paediatricians use to identify mothers with depressive symptoms.	Qualitative approach	Open-ended interviews with 10 nurses and 7 physicians, observations, and field diary records.	Inductive content analysis
	Abrams et al. (2009)	To investigate barriers to formal help seeking for PPD symptoms Among Low-Income Ethnic Minority Mothers in the United States.	Grounded theory Approach	Two focus groups: 12 medical setting service providers and social workers (also involved focus groups and individual interviews with 14 mothers with PPD symptoms and 11 community key informants)	Constant comparison
Brazil	Junior et al. (2013)	To explore experiences of Brazilian physicians and nurses caring for women with postpartum depression in primary healthcare settings.	Qualitative approach	Semi-structured telephone interviews: 18 participants.	Content analysis

Canada	Teng et al. (2007)	To identify potential barriers to care that recent immigrant women may encounter as perceived by healthcare workers; and) to identify challenges healthcare workers felt that they faced as providers of care to this population.	Qualitative approach	Semi structured interview: 16 key informants from various disciplines employed by health-care agencies providing care to postpartum immigrant women in Toronto.	Constant comparison
Mexico	Place et al. (2015)	To describe the knowledge frameworks to conceptualize postpartum depression.	Grounded theory	Semi structured interviews: 61 physicians, nurses, social workers, and psychologists from five public-sector health care facilities.	Grounded theory analysis
UK	McConnel (2005)	To examine how health visitors understand and make sense of PND.	Qualitative approach	Semi structured interviews: 8 health visitors.	Grounded theory analysis
	Brown and Ruth (2006)	To determine how health visitors identify PND and the implications this may have for practice.	Qualitative approach	Semi structured interviews: 6 health visitors.	Thematic analysis
	Chew-Graham et al (2008)	To explore the views of GPs and health visitors on the diagnosis and management of PND.	A qualitative study nested within a multicentre randomised controlled trial	In-depth interviews: 19 GPs and 14 health visitors in 9 primary care trusts in Bristol, Manchester, and London.	Qualitative analysis

Greek	Agapidaki et al. (2014)	To investigate, identify and interpret the views of paediatric primary healthcare providers on the recognition and management of maternal depression in the context of a weak primary healthcare system.	Qualitative approach	Face to face in-depth interviews: 26 paediatricians and health visitors.	Framework analysis
Slovenia	Mivšek et al. (2008)	This study explored Slovenian midwives' and nurses' knowledge of, and attitudes towards, post-natal mood disorders.	Qualitative approach	Two focus groups: 10 HCPs working in the maternity hospital and in the community centre.	Qualitative analysis
Australia	Tong and Chamberlain (1999)	To investigate the midwife's knowledge of PND and awareness of risk factors.	Phenomenology	Semi structured interviews: 7 midwives.	Colaizzi's phenomenol ogical approach
	Lloyd and Hawe (2003)	To investigate the different ways in which PND is framed and to give clues to alternative approaches to solving the problem of PND.	Qualitative approach	A series of one-to-one semi structured interviews were conducted among 10 professionals who were academics, clinicians and bureaucrats in two Australian cities.	Framing analysis
	Bilszta (2010)	To gain insight into the experiences, beliefs, attitudes and personal views of postnatal emotional distress, from the perspective of the HCPs.	Qualitative approach	2 focus groups: 16 HCPs.	Qualitative analysis

	Rush (2012)	To improve understanding of the experience of MCH nurses responding to women at risk of PPD.	Phenomenology	Interview: 8 MCH nurses (two were sought from each of the four councils).	Phenomenol ogical method
	Belle and Willis (2013)	To explore the extent to which Child and Family Health Nurses (CHNs) exercise autonomy as specialist HCPs within community health setting.	Qualitative approach	Semi structured interviews: 10 Community Nurses.	Thematic analysis

Appendix 5: Quality appraisal outcome (HCPs) using Critical Appraisal Skills Programme

Authors (Year)	Was there a clear statement of the aims of the research?	Is a qualitative methodology appropriate?	Was the research design appropriate to address the aims of the research?	Was the recruitment strategy appropriate to the aims of the research?	Was the data collected in a way that addressed the research issue?	Has the relationship between the researcher and participants been adequately considered?	Have ethical issues been taken into consideration?	Was the data analysis sufficiently rigorous?	Is there a clear statement of findings?	How valuable is the research?	Quality rating Meets all the criteria/ Meets most/ Meets few
Tong and Chamberlain (1999)	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Most
Lloyd and Hawe (2003)	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Can't Tell	Most
Bilszta (2010)	Yes	Yes	Can't tell	Yes	Yes	No	Yes	Yes	Yes	Yes	Most
Rush (2012)	Yes	Yes	Yes	Yes	Can't tell	No	Yes	Yes	Yes	Yes	Most
Belle and Willis (2013)	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Most
McConnel (2005)	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Can't tell	Most
Brown and Ruth (2006)	Yes	Yes	Yes	Yes	Yes	No	Yes	Can't tell	Can't tell	Yes	Most
Chew-Graham et al (2008)	Yes	Yes	Can't tell	Yes	Yes	No	No	Yes	Yes	Yes	Most
Heneghan et al. (2007)	Yes	Yes	Can't tell	Yes	Yes	No	Yes	Yes	Yes	Yes	Most
Abrams et al. (2009)	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Most
Junior et al.(2013)	Yes	Yes	Yes	Yes	Yes	Can't tell	Yes	Yes	Yes	Yes	Most
Teng et al. (2007)	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Most
Agapidaki et al. (2014)	Yes	Yes	Can't tell	Yes	Yes	No	Can't tell	Yes	Yes	Yes	Most
Place et al. (2015)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	All
Mivšek et al. (2008)	Yes	Yes	Yes	Yes	Can't tell	No	Yes	Can't tell	Yes	Yes	Most

Appendix 6 (Version 2. 17/06/2014)

Patient information sheet – screening stage

Study Title: Postnatal Emotional Well-Being: an Understanding from Malaysian Perspectives.

Dear Madam,

I would like to invite you to take part in a research study. Before you decide, it is important for you to understand the reason for this study and what taking part will involve. Please read the information below about the study. Feel free to ask questions about the information and if you need more information you can contact me at the below given contact number.

What is the purpose of the study?

The aim of this study is to assess your emotional well-being after your last childbirth.

Why have I been invited to take part?

You have been invited to take part because you are a Malaysian postnatal mother and you/your baby are/is currently receiving postnatal/child health care in this clinic. The researcher is highly interested to know whether or not you are having some emotional changes after your last childbirth.

Your decision to take part, do I have to take part?

Your participation in this study is completely voluntary. This means that you may choose whether or not you want to be involved in this study.

What if I change my mind about taking part?

You have the right to withdraw at any point of this study WITHOUT giving any reason. Your decision and participation will not affect your care in any way.

What happens next?

If you agree to participate, please complete the questionnaire that is attached with this information sheet. The questionnaire is about emotional changes after your last childbirth. It will take approximately 5 minutes to be completed. Please return the questionnaire sealed in the envelope given to the researcher by hand or put it in the provided box located next to the registration counter in this clinic. The researcher will let you know the result as soon as you have completed the questionnaire. If you are eligible, the researcher will invite you for the next stage of the study that is interview session. Please provide your contact number in the space provided in the first page of questionnaire set.

Will I benefit from taking part?

This screening process may help you to know whether you are having some level of emotional changes after you last childbirth. In case you are experiencing this difficulty, you may have chance to talk to your nurse or doctor in this clinic. You may benefit from the further assessment and any related referral by the healthcare professionals.

Are there any risks involved in taking part?

There are no serious risks anticipated by taking part in this study. However, if you feel upset by answering the questionnaire, you may take a break or stop to answer at any time. As you are registered with the maternal and child health clinic, any additional support that you may need is available as quickly as you need it. You may also contact Counselling Psychology Unit Department of Health Federal Territory of Kuala Lumpur and Putrajaya at this number: 03 - 22687260 if you feel that you would require a counselling session to discuss your feelings.

Will I be able to be identified from the results?

All information that you give will be kept as private and confidential. Your name will be not revealed and not identified at any stage of the study. Data will only be shared with PhD supervisors for the purpose of thesis writing. All data will be kept in a locked storage and the digital data will be saved in a computer protected with password that only can be reached by the researcher. Once the data analysed and the study completed, it will be destroyed.

What will happen to the results of the study?

The result of this study will be shared in the form of research reporting and will be published in the academic journal. Your name would not be revealed.

Who is organising and funding the research?

The study is a postgraduate research student project which is supervised by Prof. Helen Cheyne and Prof. Margaret Maxwell, from the Nursing, Midwifery and Allied Health Professionals (NMAHP) Research Unit, School of Nursing, Midwifery and Health at University of Stirling in United Kingdom. This project is funded by the Ministry of Education Malaysia.

Who has approved the research?

This study has been approved by the School Research Ethics Committee (SREC) in the School of Nursing, Midwifery and Health, University of Stirling and the Malaysian Research Ethics Committee (MREC) and Ministry of Health Malaysia.

Thank you for taking time to read this information sheet and thinking about participation in the study.

For further information please contact one of the researchers below:

Researcher Name: Siti Roshaidai Binti Mohd Arifin
Contact Number: +6019 9884261
Principal Supervisor: Prof Helen Cheyne
Email address: h.l.cheyne@stir.ac.uk
Dean, Kulliyyah of Nursing: Asst Prof Dr Salizar Mohamed Ludin
Phone number: +609-5706011

Appendix 7 (Version 2. 17/06/2014)

Screening Tools: The Edinburgh Postnatal Depression Scale (EPDS) and the Patient Health Questionnaire (PHQ-2)

UNIVERSITY OF STIRLING

SCHOOL OF
NURSING, MIDWIFERY
AND HEALTH

*Name : _____

*Age   : _____

*Weeks/ month after your last childbirth: _____

*Nationality: _____

*Race : _____

Phone number : _____

*To be fill up by the researcher upon reviewing the available medical record in the clinic.

Have you been staying in Malaysia after your last childbirth until today?
- [ ] YES
- [ ] NO

Please choose the answer that comes closest to how you have felt after your last childbirth, not just how you feel today. Please answer all questions. For each question, please put a tick in the box next to the answer that best matches your own experience.

1. I have been able to laugh and see the funny side of things.
   - [ ] $_0$ As much as I always could
   - [ ] $_1$ Not quite so much now
   - [ ] $_2$ Definitely not so much now
   - [ ] $_3$ Not at all

2. I have looked forward with enjoyment to things.
   - [ ] $_0$ As much as I ever did
   - [ ] $_1$ Rather less than I used to
   - [ ] $_2$ Definitely less than I used to
   - [ ] $_3$ Hardly at all

3. I have blamed myself unnecessarily when things went wrong.
   - [ ] $_3$ Yes, most of the time
   - [ ] $_2$ Yes, some of the time
   - [ ] $_1$ Not very often
   - [ ] $_0$ No, never

4. I have been anxious or worried for no good reason.
   - [ ] $_0$ No, not at all
   - [ ] $_1$ Hardly ever
   - [ ] $_2$ Yes, sometimes
   - [ ] $_3$ Yes, very often

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5. I have felt scared or panicky for not very good reason.
- ☐ 3 Yes, quite a lot
- ☐ 2 Yes, sometimes
- ☐ 1 No, not much
- ☐ 0 No, not at all

6. Things have been getting on top of me.
- ☐ 3 Yes, most of the time I haven't been able to cope at all
- ☐ 2 Yes, sometimes I haven't been coping as well as usual
- ☐ 1 No, most of the time I have coped quite well
- ☐ 0 No, I have been coping as well as ever

7. I have been so unhappy that I have had difficulty sleeping.
- ☐ 3 Yes, most of the time
- ☐ 2 Yes, sometimes
- ☐ 1 Not very often
- ☐ 0 No, not at all

8. I have felt sad or miserable.
- ☐ 3 Yes, most of the time
- ☐ 2 Yes, quite often
- ☐ 1 Not very often
- ☐ 0 No, not at all

9. I have been so unhappy that I have been crying.
- ☐ 3 Yes, most of the time
- ☐ 2 Yes, quite often
- ☐ 1 Only occasionally
- ☐ 0 No, never

10. The thought of harming myself has occurred to me.
- ☐ 3 Yes, quite often
- ☐ 2 Sometimes
- ☐ 1 Hardly ever
- ☐ 0 Never

After your last childbirth, how often have you been bothered by any of the following problems?

11. Little interest or pleasure in doing things.
- ☐ 3 Nearly every day
- ☐ 2 More than half the days
- ☐ 1 Several days
- ☐ 0 Not at all

12. Feeling down, depressed or hopeless.
- ☐ 3 Nearly every day
- ☐ 2 More than half the days
- ☐ 1 Several days
- ☐ 0 Not at all

**Thank you for taking time to fill in the questionnaire.
Please return the questionnaire in the given envelope to the researcher OR you
may put it in the provided box next to registration counter.**

Appendix 8 (Version 2. 17/06/2014)

Invitation Letter (for Women with Postnatal Depression– interview stage)

UNIVERSITY OF
STIRLING

SCHOOL OF
NURSING, MIDWIFERY
AND HEALTH

Study Title: Postnatal Emotional Well-Being: an Understanding from Malaysian Perspectives.

Dear Madam,

My name is Siti Roshaidai Binti Mohd Arifin, Research Postgraduate student at the School of Nursing, Midwifery and Health, University of Stirling, Scotland.

I would like to invite you to take part in my research project as stated above. This study is funded by Ministry of Education Malaysia. You have been chosen to take part because you have indicated of experiencing some level of emotional changes following the birth of your baby. The purpose of this study is to understand more about the ways that emotional changes after childbirth may affect women in Malaysia. Therefore, I would like to ask about your experience of having emotional changes, and how it has affected you.

Before you decide to take part, it is important that you understand the purpose of the study and what taking part will involve. Please take time to read the attached information about this study. Talk to others about the study if you wish.

Should you have any questions, please do not hesitate to contact me through the telephone number or e-mail address stated in the information sheet enclosed.

Thank you.

Yours faithfully,

Siti Roshaidai Binti Mohd Arifin
Research Postgraduate Student
School of Nursing, Midwifery and Health,
University of Stirling, Scotland.

Appendix 9 (Version 2. 17/06/2014)

Patient's information sheet (for Women with Postnatal Depression– interview stage)

Study Title: Postnatal Emotional Well-Being: an Understanding from Malaysian Perspectives.

Dear Madam,

I would like to invite you to take part in a research study. Before you decide, it is important for you to understand the reason for this study and what taking part will involve. Please read the information below about the study. Feel free to ask questions about the information and if you need more information you can contact me at the below given contact number.

What is the purpose of the study?
The aim of this study is to understand more about the experiences of women who have had emotional changes after childbirth.

Why have I been invited to take part?
You have been invited to take part because you have indicated that you experience some level of emotional changes following the birth of your baby. The researcher is highly interested to know more about these experiences and about the healthcare you may have received.

Your decision to take part, do I have to take part?
Your participation in this study is completely voluntary. This means that you may choose whether or not you want to be involved in this study.

What if I change my mind about taking part?
You have the right to withdraw at any point of this study WITHOUT giving any reason. Your decision and participation will not affect your care in any way.

What happens next?
If you agree to participate, the researcher will contact you and arrange for you to take part in an interview session. The interview would last for about 40 to 60 minutes in the private and quiet room in this clinic. You also can request to be interviewed at your home. This interview will be audio recorded for the purpose of the report writing.

Will I benefit from taking part?
There will be no direct benefit to you from taking part in this study. The information that you will give will be used by the researcher to develop appropriate strategies to help women to have emotional well-being after childbirth and to improve the health care system in the future. This means you are contributing towards better health care quality in Malaysia by participating in this study.

Are there any risks involved in taking part?

There are no serious risks anticipated by taking part in this study. However, if you feel upset by talking about your experiences, you may take a break or stop the interview at any time. As you are registered with the maternal and child health clinic, any additional support that you may need is available as quickly as you need it. You may also contact Puan Yusfaiza Binti Abdul Halim, Senior Assistant Director Counselling Psychology Unit Department of Health Federal Territory of Kuala Lumpur and Putrajaya at this number: 03 - 22687260 if you feel that you would require a counselling session to discuss your feelings. In case the researcher found the disclosed information might indicate serious concern and safety issue, the medical officer in the respective clinic will be informed.

Will I be able to be identified from the results?

All information that you give will be kept as private and confidential. Your name will be not revealed and not identified at any stage of the study. Data will only be shared with PhD supervisors for the purpose of thesis writing. The tape and transcripts will be kept in a locked storage and the digital data will be saved in a computer protected with password that only can be reached by the researcher. Once the data analysed and the study completed, it will be destroyed.

What will happen to the results of the study?

The result of this study will be shared in the form of research reporting and will be published in the academic journal. Your name would not be revealed.

Who is organising and funding the research?

The study is a postgraduate research student project which is supervised by Prof. Helen Cheyne and Prof. Margaret Maxwell, from the Nursing, Midwifery and Allied Health Professionals (NMAHP) Research Unit, School of Nursing, Midwifery and Health at University of Stirling in United Kingdom. This project is funded by the Ministry of Education Malaysia.

Who has approved the research?

This study has been approved by the School Research Ethics Committee (SREC) in the School of Nursing, Midwifery and Health, University of Stirling and the Malaysian Research Ethics Committee (MREC) and Ministry of Health Malaysia.

Thank you for taking time to read this information sheet and thinking about participation in the study.

For further information please contact one of the researchers below:

Researcher Name: Siti Roshaidai Binti Mohd Arifin
Contact Number: +6019 9884261
Principal Supervisor: Prof Helen Cheyne
Email address: h.l.cheyne@stir.ac.uk
Dean Kulliyyah of Nursing: Asst Prof Dr Salizar Mohamed Ludin
Phone number: +609-5706011

Appendix 10 (Version 2. 17/06/2014)

Informed Consent Form (for Women with Postnatal Depression)

UNIVERSITY OF STIRLING

SCHOOL OF
NURSING, MIDWIFERY
AND HEALTH

Participant identification number: _____

Study Title: Postnatal Emotional Well-Being: an Understanding from Malaysian Perspectives.

Researcher Name: Siti Roshaidai Binti Mohd Arifin

☐ I have read and understand the study information sheet and this consent form

☐ I have had an opportunity to ask questions about my participation.

☐ I understand that I am under no obligation to take part in this study.

☐ I understand that if the information that I give might indicate serious concern and safety issue, the medical officer in the respective clinic will be informed.

☐ I understand that I have the right to withdraw from this study at any stage without giving any reason.

☐ I agree to participate in this study.

☐ I agree that the interview session will be recorded for the purpose of data analysis.

Name of Participant   : _____

Signature of Participant : _____

Signature of Researcher : _____

Date   : _____

Contact details of the researcher

Name: Siti Roshaidai Binti Mohd Arifin
Address: Kulliyyah of Nursing, International Islamic University Malaysia, Jalan Hospital Campus, 25100 Kuantan Pahang, Malaysia.
Telephone Number: +6019 9884261
Email: s.b.mohdarifin@stir.ac.uk
Dean Kulliyyah of Nursing: Asst Prof Dr Salizar Mohamed Ludin
Phone number: +609-5706011
Reference: University of Stirling Research Ethics Committee. Informed consent. Available from: http://www.goodresearchpractice.stir.ac.uk/documents/Chapter6.pdf

Appendix 11 (Version 2. 17/06/2014)

Recruitment Log for Women with Postnatal Depression

ID	Pseudonym	Age	Parity	Contact number	Date of recruitment	Date of interview	Location

Appendix 12 (Version 2. 17/06/2014)

Topic Guide for Women with Postnatal Depression

- General background questions
  - How many children, family situation and cultural background.

- Postnatal practices
  - Culturally relevant practices and traditions.

- Influences on postnatal practices.

- Expectations of birth and motherhood.

- Perceptions of well-being, exploration of current emotional status and what influences emotional well-being.

- Help seeking behaviour.

- Perceptions of what might help in emotional well-being.
  - i.e. emotional support, support group, education and new skills for postnatal women.

Appendix 13 (Version 2. 17/06/2014)

Invitation Letter (for the Healthcare Practitioners)

UNIVERSITY OF
STIRLING

SCHOOL OF
NURSING, MIDWIFERY
AND HEALTH

Study Title: Postnatal Emotional Well-Being: an Understanding from Malaysian Perspectives.

Dear Dr/Sir/Madam,

My name is Siti Roshaidai Binti Mohd Arifin, Research Postgraduate student at the School of Nursing, Midwifery and Health, University of Stirling, Scotland.

I would like to invite you to take part in my research project as stated above. This study is funded by Ministry of Education Malaysia. The purpose of this research is to gain more understanding of postnatal emotional well-being in Malaysia. As part of the study, I aim to explore healthcare professional's experiences of caring for women with postnatal depression, and to identify their strategies to help the women.

Before you decide to take part, you need to understand why this research is being done and what it would involve you if you take part in this research project. Please take time to read the information carefully. Talk to others about the study if you wish.

Should you have any enquiries, please do not hesitate to contact me through the telephone number or e-mail address stated in the information sheet enclosed.

Thank you.

Yours faithfully,

Siti Roshaidai Binti Mohd Arifin
Research Postgraduate Student
School of Nursing, Midwifery and Health,
University of Stirling, Scotland.

Appendix 14 (Version 2. 17/06/2014)

Participant information sheet (Healthcare Practitioners)

UNIVERSITY OF
STIRLING

SCHOOL OF
NURSING, MIDWIFERY
AND HEALTH

Study Title: Postnatal Emotional Well-Being: an Understanding from Malaysian Perspectives.

Dear Participants,

I would like to invite you to take part in a research study. Before you decide, it is important for you to understand the reason for this study and what taking part will involve. Please read the information below about the study. Feel free to ask questions about the information and if you need more information you can contact me at the below given contact number.

What is the purpose of the study?

The purpose of this research is to gain more understanding of postnatal emotional well-being in Malaysia. As part of the study, I aim to explore the knowledge and perception of Malaysian healthcare professionals on postnatal depression, to explore their experiences of caring for women with postnatal depression, and to identify their strategies to help women who have postnatal depression.

Why have I been invited to take part?

You have been invited to take part because you are considered to have experience in caring for postnatal women in this clinic. The researcher is highly interested to know more about your experience of caring for postnatal women especially if you have any experience of caring for women with postnatal depression, opinions towards the healthcare that you have delivered or any limitations in performing the care towards women who have depression after childbirth.

Your decision to take part, do I have to take part?

Your participation in this study is completely voluntary. This means that you may choose whether or not you want to be involved in this study.

What if I change my mind about taking part?

You have the right to withdraw at any point of this study WITHOUT giving any reason. Your decision would not affect your current or future employment in any way.

What happens next?

If you agree to participate, the researcher will contact you and arrange for you to take part in an interview session. The interview would last for about 40 to 60 minutes in the quiet room in this clinic. This interview will be audio recorded for the purpose of the report writing.

Will I benefit from taking part?

There will be no direct benefit to you from taking part in this study. The information that you will give will be used by the researcher to develop appropriate strategies to help women who experience postnatal depression and to improve the health care system in the future. This means you are contributing towards better health care quality in Malaysia by participating in this study.

Are there any risks involved in taking part?

There are no serious risks anticipated by taking part in this study, however, it is possible that you may feel upset by talking about your experiences. If so you may take a break or stop the interview at any time. You may contact Counselling Psychology Unit Department of Health Federal Territory of Kuala Lumpur and Putrajaya at this number: 03 - 22687260 if you feel that you would require a counselling session to discuss your feelings. If harmful practices were disclosed during an interview, the researcher would have a duty of care to inform the relevant clinical manager.

Will I be able to be identified from the results?

All information that you give will be kept as private and confidential. Your name will be not revealed and not identified at any stage of the study. Data will only be shared with PhD supervisors for the purpose of thesis writing. The tape and transcripts will be kept in a locked storage and the digital data will be saved in a computer protected with password that only can be reached by the researcher. Once the data analysed and the study completed, it will be destroyed.

What will happen to the results of the research study?

The result of this study will be shared in the form of research reporting and will be published in the academic journal. Your name would not be revealed.

Who is organising and funding the research?

The study is a post graduate research student project which is supervised by Prof. Helen Cheyne and Prof. Margaret Maxwell, from the Nursing, Midwifery and Allied Health Professionals (NMAHP) Research Unit, School of Nursing, Midwifery and Health at University of Stirling in United Kingdom. This project is funded by the Ministry of Education Malaysia.

Who has approved the research?

This study has been approved by the School Research Ethics Committee (SREC) in the School of Nursing, Midwifery and Health, University of Stirling, the Malaysian Research Ethics Committee (MREC) and Ministry of Health Malaysia.

Thank you for taking time to read this information sheet and thinking about participation in the study.

For further information please contact one of the researchers below:

Project Investigator: Siti Roshaidai Binti Mohd Arifin
Contact Number: +6019 9884261
Principal Supervisor: Prof Helen Cheyne
Dean Kulliyyah of Nursing: Asst Prof Dr Salizar Mohamed Ludin
Phone number: +609-5706011

Informed Consent Form (for Healthcare Practitioners)

UNIVERSITY OF STIRLING

SCHOOL OF
NURSING, MIDWIFERY
AND HEALTH

Participant identification number: _____
Study Title: Postnatal Emotional Well-Being: an Understanding from Malaysian Perspectives.
Researcher Name: Siti Roshaidai Binti Mohd Arifin

☐ I have read and understand the study information sheet and this consent form

☐ I have had an opportunity to ask questions about my participation.

☐ I understand that I am under no obligation to take part in this study.

☐ I understand that I have the right to withdraw from this study at any stage without giving any reason.

☐ I agree to participate in this study.

☐ I agree that the interview session will be recorded for the purpose of data analysis.

Name of Participant   : _____
Signature of Participant : _____
Signature of Researcher   : _____
Date   : _____

Contact details of the researcher
Name: Siti Roshaidai Binti Mohd Arifin
Address: Kulliyyah of Nursing, International Islamic University Malaysia, Jalan Hospital Campus, 25100 Kuantan Pahang, Malaysia.
Telephone Number: +6019 9884261
Email: s.b.mohdarifin@stir.ac.uk
Dean Kulliyyah of Nursing: Asst Prof Dr Salizar Mohamed Ludin
Phone number: +609-5706011
Reference:
University of Stirling Research Ethics Committee. Informed consent. Available from:
http://www.goodresearchpractice.stir.ac.uk/documents/Chapter6.pdf

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Appendix 16 (Version 2. 17/06/2014)

Recruitment Log for Healthcare Practitioners

ID	Pseudonym	Position	Working experience (Years)	Language Used during Interview	Date of Interview

Appendix 17 (Version 2. 17/06/2014)

Topic guide for healthcare practitioners

Sources: Huang and Mathers, 2008; Callister *et al.* 2011; Mamisachvili *et al.* 2013; Davy and Ehiobuche, 2013.

- Knowledge
    - o Professional background and experience.
    - o General knowledge of PND.

- Perceptions on PND
    - o Manifestations of PND among Malaysian women.
    - o Malaysian community views on PND.

- Cultural difference and PND
    - o Stigma towards PND in Malaysia.
    - o Issues in relation to different cultural background in Malaysia.

- Current intervention for PND
    - o Diagnosis and treatment for PND in Malaysia.

- Potential intervention for PND
    - o i.e. emotional support, support group, education and new skills for postnatal women.
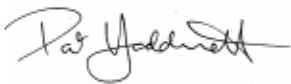
Appendix 18

The characteristics of women with postnatal depression

ID	Cultural background	Age	Education	Occupation	Parity	Duration after childbirth (months)	PHQ-2 score (/6)	EPDS score (/30)	Place of the Interview	Language Used	Remarks
PT2	Malay	33	High School	Salesgirl	4	4	2	12	Clinic	Malay	
PT3	Indian	30	High School	Driver	3	9	3	17	Home	English	
PT4	Malay	34	High School	Housewife	3	1	2	8	Home	Malay	Referred
PT5	Chinese	39	High School	Store assistant	2	10	1	15	Home	Malay	
PT6	Malay	29	High School	Housewife	4	11	3	12	Home	Malay	
PT7	Malay	28	University	Housewife	1	2	2	13	Clinic	Malay	Referred
PT8	Chinese	35	University	Purchaser	1	2	1	14	Workplace	English	
PT9	Indian	24	High School	Housewife	3	12	3	19	Home	Malay	
PT10	Malay	28	High School	Housewife	1	9	4	11	Home	Malay	
PT11	Malay	36	High School	Housewife	3	2	-	7	Clinic	Malay	Referred
PT12	Chinese	31	High School	Admin Staff	3	2	3	11	Clinic	Malay	
PT13	Malay	33	University	Housewife	3	3	2	14	Clinic	Malay	
PT14	Chinese	42	High School	Housewife	4	12	3	11	Preferred location	Malay	
PT15	Chinese	31	High School	Businesswoman	2	5	2	15	Home	Malay	
PT16	Chinese	30	High School	Housewife	1	5	2	13	Clinic	Malay	
PT17	Chinese	26	High School	Policeman	1	2	6	12	Preferred location	Malay	

ID	Cultural background	Age		Employment status	Parity	Duration after childbirth (months)	PHQ-2 score (/6)	EPDS score (/30)	Place of the Interview	Language Used	Remarks
PT18	Chinese	25	High School	Clinic Assistant	4	5	4	16	Home	Malay	
PT19	Malay	23	High School	Housewife	3	11	3	11	Clinic	Malay	
PT20	Indian	28	High School	Housewife	1	4	2	13	Home	Malay	
PT21	Indian	34	High School	Housewife	2	3	4	12	Home	Malay	
PT22	Chinese	24	High School	Housewife	1	7	3	11	Home	Malay	
PT23	Malay	34	University	IT Executive	2	3	3	18	Home	Malay	
PT24	Malay	33	High School	Housewife	4	4	2	12	Home	Malay	
PT25	Indian	41	High School	Housewife	5	5	3	10	Home	Malay	
PT26	Indian	28	University	Housewife	2	7	2	10	Preferred location	English	Self-defined
PT27	Indian	25	High School	Admin staff	1	12	1	16	Clinic	English	
PT28	Chinese	34	High School	Businesswoman	2	3	2	13	Clinic	English	
PT29	Indian	29	High School	Housewife	1	6	0	12	Home	Malay	
PT30	Indian	30	University	Bank Officer	2	6	3	15	Home	English	
PT31	Chinese	29	High School	Admin staff	2	12	1	14	Home	Malay	
PT32	Chinese	26	University	Housewife	1	6	3	16	Clinic	Malay	
PT33	Indian	21	High School	Housewife	1	1	3	9	Home	Malay	
PT34	Indian	33	High School	Health Assistant	2	10	0	5	Workplace	Malay	Self-defined

Appendix 19

Ethical approval from School Research Ethics Committee (SREC)

PH/SG

20 June 2014

UNIVERSITY OF
STIRLING

SCHOOL OF
**NURSING, MIDWIFERY
AND HEALTH**

Siti Arifin
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Web: http://www.stir.ac.uk/nmhealth/research/ethics/

Professor Pat Hoddinott
Chair
School Research Ethics Committee

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Email: nm.research@stir.ac.uk

Dear Siti

Project name: Postnatal Depression: An Understanding From Malaysian Perspectives

SREC reference / number of amendment: (SREC 14/15) (Paper No 8)

Thank you for your SREC application, which was considered at the meeting on 11 June 2014 and responding to queries and clarifications.

I can now confirm the study has now been approved.

May I take this opportunity to remind you that a site-file of *all* documents related to the research should be maintained throughout the life of the project, and kept up to date at all times. The site file template can be found on the SREC page of the School's website. Please bear in mind that your study could be audited for adherence to research governance and research ethics protocols.

Ref: (SREC 14/15) (Paper No 8)	Please quote this number on all correspondence

Yours sincerely

PROF. PAT HODDINOTT
(Chair)
School of Nursing, Midwifery and Health Research Ethics Committee

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Appendix 20

Ethical Approval from Medical Research and Ethics Committee (MREC)

JAWATANKUASA ETIKA & PENYELIDIKAN PERUBATAN
(Medical Research & Ethics Committee)
KEMENTERIAN KESIHATAN MALAYSIA
d/a Institut Pengurusan Kesihatan
Jalan Rumah Sakit, Bangsar   Tel   : 03 2282 0491
59000 Kuala Lumpur   Faks : 03 2282 8072 / 03 2282 0015

Ruj. Kami : (5)KKM/NIHSEC/P14-982
Tarikh   : 20 Oktober 2014

Siti Roshaidai binti Mohd Arifin
Kulliyah Kejururawatan
Universiti Islam Antarabangsa, Malaysia

Puan,

<u>NMRR-14-598-20853</u>
Postnatal depression: an Understanding from Malaysian Perspectives

Lokasi Projek: Klinik Kesihatan Ibu dan Anak Cheras /Klinik Kesihatan Ibu Dan Anak Desa Pandan/ Klinik Kesihatan Ibu Dan Anak Jalan Raja Abdullah/ Klinik Kesihatan Ibu dan Anak Metro Prim/ Klinik Kesihatan Ibu dan Anak Taman Tun Dr Ismail/ Hospital Kuala Lumpur

Dengan hormatnya perkara di atas adalah dirujuk.

2.   Jawatankuasa Etika & Penyelidikan Perubatan (JEPP), Kementerian Kesihatan Malaysia (KKM) mengambil maklum bahawa projek tersebut adalah untuk memenuhi keperluan akademik program Doktor Falsafah, University of Stirling, United Kingdom.

3.   Sehubungan dengan ini, dimaklumkan bahawa pihak JEPP KKM tiada halangan, dari segi etika, ke atas pelaksanaan projek tersebut. JEPP mengambil maklum bahawa kajian ini tidak melibatkan sebarang intervensi terhadap subjek dan hanya melibatkan temuramah dan soal selidik dalam pengumpulan data kajian. Segala rekod dan data adalah **SULIT** dan hanya digunakan untuk tujuan kajian dan semua isu serta prosedur mengenai *data confidentiality* mesti dipatuhi. Kebenaran daripada Pengarah Hospital/ Jabatan Kesihatan Negeri di mana kajian akan dijalankan mesti diperolehi terlebih dahulu sebelum kajian dijalankan. Puan perlu akur dan mematuhi keputusan tersebut.

4.   Adalah dimaklumkan bahawa kelulusan ini adalah sah sehingga **20 Oktober 2015**. Puan perlu menghantar 'Continuing Review Form' selewat-lewatnya 2 bulan sebelum tamat tempoh kelulusan ini bagi memperbaharui kelulusan etika. Pihak Puan juga perlu mengemukakan laporan tamat kajian dan juga laporan mengenai "All adverse events, both serious and unexpected" kepada Jawatankuasa Etika & Penyelidikan Perubatan, KKM jika berkenaan. Borang-borang berkaitan boleh dimuat turun daripada laman web MREC (http://www.nih.gov.my/mrec)

Sekian terima kasih.

BERKHIDMAT UNTUK NEGARA

Saya yang menurut perintah,

(DATO' DR CHANG KIAN MENG)
Pengerusi
Jawatankuasa Etika & Penyelidikan Perubatan
Kementerian Kesihatan Malaysia

Sk : Pengarah Hospital Kuala Lumpur
      Pengarah Jabatan Kesihatan Wilayah Persekutuan
      CRC Hospital Kuala Lumpur

Appendix 21

The characteristics of healthcare practitioners

ID	Pseudonym	Position	Working Experience (years)	Language Used during Interview
HCP1	Ratna	Nurse-Midwife	12	Malay
HCP2	Asma	Nurse	10	Malay
HCP3	Becky	Head Nurse	16	Malay
HCP4	Hetty	Head Nurse	18	Malay
HCP5	Dahlia	Community Nurse	10	Malay
HCP6	Shana	Medical Officer	10	English
HCP7	Haifa	Community Nurse	4	Malay
HCP8	Jasmine	Medical Officer	7	Malay
HCP9	Mona	Nurse-Midwife	9	Malay
HCP10	Halina	Community Nurse	20	Malay
HCP11	Hena	Head Nurse	13	Malay
HCP12	Zetty	Nurse-Midwife	13	Malay
HCP13	Chua	Medical Officer	4	English
HCP14	Zaida	Head Nurse	17	Malay
HCP15	Lara	Head Nurse	30	Malay
HCP16	Hartini	Psychiatric Nurse	9	Malay
HCP17	Rania	Psychiatric Nurse	9	Malay
HCP18	Nora	Psychiatrist	8	English