

## ORIGINAL ARTICLE

# Exploring the Views of Healthcare Practitioners on Postnatal Mental Illness Screening Among Malaysian Women

Siti Roshaidai Mohd Arifin<sup>1</sup>, Siti Aishah Daud<sup>2</sup>, Nur Liyana Shahmi Ruslan<sup>3</sup>, Khadijah Hasanah Abang Abdullah<sup>4</sup>, Nurul Ain Hidayah Abas<sup>5</sup>, Rohayah Husain<sup>6</sup>, Karimah Hanim Abd Aziz<sup>7</sup>, Ramli Musa<sup>8</sup>, Fathima Begum Syed Mohideen<sup>4</sup>, Asma Perveen<sup>5</sup>, Khairi Che Mat<sup>6</sup>, Izazol Idris<sup>9</sup>

<sup>1</sup> Department of Special Care Nursing, Kulliyah of Nursing, International Islamic University Malaysia, Bandar Indera Mahkota, 25200 Kuantan, Pahang

<sup>2</sup> MY Health Clinic Kuantan, Jalan Dato' Wong Ah Jang, Taman Seng Heng, 25100 Kuantan, Pahang

<sup>3</sup> Hospital Development Centre, UniSZA, Kampus Gong Badak, 21300 Kuala Nerus, Terengganu

<sup>4</sup> Faculty of Medicine and Health Sciences, Universiti Sains Islam Malaysia, Bandar Baru Nilai, 71800 Nilai, Negeri Sembilan

<sup>5</sup> Department of Psychology and Counselling, Faculty of Human Development, Universiti Pendidikan Sultan Idris, 35900 Tanjong Malim, Perak

<sup>6</sup> Psychological Medicine Unit, Faculty of Medicine, Universiti Sultan Zainal Abidin, 21300 Kuala Terengganu, Malaysia.

<sup>7</sup> Department of Community Medicine, Kulliyah of Medicine, International Islamic University Malaysia, Bandar Indera Mahkota, 25200 Kuantan, Pahang

<sup>8</sup> Department of Psychiatry, Kulliyah of Medicine, International Islamic University Malaysia, Bandar Indera Mahkota, 25200 Kuantan, Pahang

<sup>9</sup> Department of Educational Studies, Faculty of Human Development, Universiti Pendidikan Sultan Idris, 35900 Tanjong Malim, Perak.

## ABSTRACT

**Introduction:** Healthcare practitioners involved in the maternity care provision should be equipped with adequate knowledge and skills in the screening of postnatal mental illness. The promotion of a screening tool for this purpose can enhance these skills among the healthcare providers. In Malaysia, there is a lack of fundamental knowledge among healthcare practitioners regarding postnatal mental illness and their perceptions are not fully understood, thus hindering the development of relevant screening tools. This study aimed to explore the views of Malaysian healthcare practitioners on the indicators and potential mechanisms for the screening of postnatal mental illness. **Method:** This qualitative study was conducted using semi-structured interviews involving 28 healthcare practitioners at maternal and child health clinics, psychiatric departments, and obstetrics and gynaecology departments across 18 maternal and child health clinics and six government hospitals in the states of Pahang, Terengganu, Perak, Negeri Sembilan, and Kuala Lumpur. The data were analysed using framework analysis. **Results:** The healthcare practitioners' views on postnatal mental illness were reflected in three themes, namely perceived causes of postnatal mental illness, indicators of postnatal mental illness, as well as screening and intervention mechanisms for postnatal mental illness. According to the respondents, the existing screening tools available within the clinical practice were less sensitive in assessing postnatal mental illness. **Conclusion:** The introduction of a relevant screening tool in addressing the common symptoms of postnatal mental illness can improve its the detection among Malaysian women.

Malaysian Journal of Medicine and Health Sciences (2022) 18(19) 66-72. doi:10.47836/mjmhs18.s19.11

**Keywords:** Postnatal mental illness, Women, Healthcare practitioners, Screening

## Corresponding Author:

Siti Roshaidai Mohd Arifin PhD

Email: roshaidai@iium.edu.my

Tel: +609-5707296

## INTRODUCTION

Postnatal mental illness is one of the major public health concerns worldwide as it leads to significant changes in

women's thoughts, emotions, and/or behaviours within the first year after childbirth. The prevalence of postnatal anxiety ranged between 13% to 40% [1], while the incidence of postnatal psychosis occurred between 0.89 to 5 in 1000 women [3]. Approximately 7 to 27% of women in Malaysia suffer from postnatal depression [3], while other mental illnesses are unknown. Recent evidence revealed that postnatal mental illness is associated with children's behavioural problems and

emotional negativity [4]. It also contributes to increased risk of suicide, suicide attempt, suicidal ideation, and thought of self-harm [5-6]. Despite these negative consequences, postnatal mental illness is largely undetected within clinical practices.

To improve the detection of postnatal mental illness, screening tools should be commonly used within clinical practices. The available screening tools include self-report measures and diagnostic tools. The most common instruments used for the former to identify postnatal depression include Edinburgh Postnatal Depression Scale (EPDS), Patient Health Questionnaire (PHQ), and Center for Epidemiological Studies Depression (CES-D). As for postnatal anxiety, few screening instruments have been identified such as The Depression and Anxiety Stress Scale, The State Anxiety Inventory, and Postpartum Worry Scale [1]. Meanwhile, the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) is widely used to detect postnatal psychosis.

Currently, most of the available screening tools of postnatal mental illness were primarily developed based on the perspectives of western women. A Western-oriented screening tools may not be valid to detect postnatal mental illness among Malaysian women because the experience of postnatal mental illness may not be the same among women across the world [7]. For instance, culture and tradition were consistently reported as the major factors contributing to postnatal mental illness among Asian women, especially when they are not empowered to reject traditional postnatal practices [7-8].

In addition to the application of suitable tools, healthcare practitioners (HCP) involved in the maternity care provision should be equipped with the appropriate knowledge and skills in identifying symptoms related to postnatal mental illness. Such skills can be enhanced via mechanisms that promote the assessment of mental illness in the clinical setting. In the 2016 Malaysian National Health and Morbidity Survey [9], three recommendations on postnatal mental illness screening were suggested. Firstly, the promotion of mental health should be enhanced among postnatal women. Next, the HCP should improve their knowledge of postnatal mental health. Lastly, screening opportunities for postnatal mental illness in the healthcare setting should be explored. To date, there is a lack of fundamental knowledge to support the successful development of such screening mechanisms. This qualitative study aimed to explore the understanding of HCP on postnatal mental illness and to explore the perceived indicators and potential screening mechanisms of postnatal mental illness among Malaysian women.

## **MATERIALS AND METHODS**

The qualitative study was carried out between October

2020 to January 2021 among 28 HCP working at the maternal and child health (MCH) clinics, psychiatric department, and obstetrics and gynaecology departments across 18 MCH clinics and 6 government hospitals in the Malaysian states of Pahang, Terengganu, Perak, Negeri Sembilan, and Kuala Lumpur. This study applied the purposive sampling method. The inclusion criteria for the recruitment of the respondents were HCP (nurse midwives, head nurse, nurse manager, psychiatrist, obstetrician, or family medicine specialist) who have been working in the field for more than 6 months in the MCH clinics, obstetrics and gynaecology department or female psychiatric ward.

A semi-structured interview was conducted individually either in Malay or English using a topic guide. The topic guide consists of five parts which included: i) general knowledge on postnatal mental illness, ii) perceptions and understanding of indicators of postnatal mental illness, iii) how do they differentiate between each postnatal mental illness such as blues, anxiety, stress, depression and psychosis, iv) mechanism to screen or detect postnatal mental illness within the primary care setting, and v) barriers and challenges in detecting and managing women with postnatal mental illness in health care settings.

The permission to conduct this study was approved by the Ethics Committee of Malaysian Medical Research (MREC), Malaysia (NMRR-20-475-52538). The approval for data collection was obtained from the Health Department (Jabatan Kesihatan Negeri Pahang, Terengganu, Perak, Negeri Sembilan, and Kuala Lumpur) and the respective Clinical Research Centre (CRC) at government hospitals. Upon receiving the respective ethical approval, potential participants working at the selected clinics were approached. They were provided with an information sheet comprising of an explanation of the confidentiality of this study prior to signing the consent to participate in this study. All respondents were assured that the information obtained will be confidential solely for academic purposes.

The data were analysed using framework analysis [10]. Upon transcribing the recordings from the interview into verbatim, six transcripts (out of 28) were chosen to develop a thematic framework (Table 1). After a comprehensive review of all datasets, these six transcripts were selected because they were considered to be rich in data about the views and perceptions of HCP towards postnatal mental illness screening. The thematic framework, consisting of initial themes and initial categories, was developed by repeatedly reading and examining the chosen transcripts to extract the information regarding the perceptions, experiences, and senses of the whole scenario among the HCP. The framework was then applied to the remaining 22 transcripts. The connection and similarities between one theme to another were identified by comparing

**Table I: Thematic framework with initial themes and initial categories**

Initial themes	Initial categories
Perceived causes of postnatal mental illness	<ul style="list-style-type: none"> <li>• Hormonal changes</li> <li>• History of psychiatric illness</li> <li>• Genetic</li> <li>• Pregnancy and childbirth (medical issues, birth trauma)</li> <li>• Lack of support (husband, physical-closed family members)</li> <li>• Childcare management</li> <li>• Postnatal taboos</li> <li>• Religion</li> <li>• Body image</li> <li>• Transition to motherhood (adjustment)</li> <li>• Newborn health status</li> <li>• Breastfeeding issues</li> <li>• Adaptation to newborn care</li> <li>• Unwanted pregnancy</li> <li>• Expectation</li> </ul>
Indicators of postnatal mental illness	<ul style="list-style-type: none"> <li>• Behaviour</li> <li>• Emotion and thinking</li> <li>• Somatic</li> <li>• Adjustment issues</li> <li>• Anxiety</li> <li>• Depression</li> <li>• Psychosis</li> </ul>
Screening and interventions	<ul style="list-style-type: none"> <li>• Clinical judgment</li> <li>• Stigma</li> <li>• Professional boundaries</li> <li>• Availability of resources</li> <li>• Health education and awareness</li> <li>• Proper guidelines</li> </ul>

the framework and transcripts. Finally, the dataset was reviewed to analyse the degree of consistency between the phenomenon understudied and the final themes. The final themes were developed within consensus within the research team. The consolidated criteria for reporting qualitative research (COREQ) were used to guide the reporting of qualitative findings [11].

## RESULT

A total of 28 HCP participated in the study consisting of 6 psychiatrists, 4 family medicine specialists, 4 obstetricians, 4 medical officers, 3 nurse managers, 3 head nurses, 3 staff nurses, and 1 clinical psychologist (Table II). All participants were interviewed either in Malay or English. The results of this study were organised into three thematic clusters: (1) perceived causes of postnatal mental illness; (2) indicators of postnatal mental illness; and (3) screening and interventions (Table III).

### Perceived causes of postnatal mental illness

The HCP repeatedly discussed the causes they believed to contribute to postnatal mental illnesses while describing their knowledge on this matter. The causes were categorised into three subthemes namely sociocultural, biophysical, and psychological factors. Comparatively, sociocultural factors were widely discussed by the HCP

**Table II: Demographic characteristics of healthcare practitioners (n=28)**

Demographic characteristics	Frequency (Percentage)
Profession	
Psychiatrist	6 (22%)
Family Medicine Specialist	4 (14%)
Obstetrician	4 (14%)
Clinical Psychologist	1 (4)
Medical Officer	4 (14%)
Nurse	9 (32%)
Level of education	
Diploma	2 (7%)
Advanced diploma	7 (25%)
Bachelor's degree	4 (14%)
Master's degree	15 (54%)
Years of service	
0.5 - 5 years	2 (7%)
6- 10 years	4 (14%)
11-15 years	8 (29%)
16- 20 years	5 (18%)
> 20 years	9 (32%)
Work setting	
Primary healthcare setting (MCH clinic)	12 (43%)
Tertiary healthcare setting (hospital)	16 (57%)
Region of study site	
North (Perak)	4 (14%)
South (Negeri Sembilan)	4 (14%)
Central (Kuala Lumpur)	3 (11%)
East (Pahang and Terengganu)	17 (61%)

**Table III: Finalised study themes**

Themes	Subthemes	Frequency mentioned by participants
Perceived causes of postnatal mental illness	Biophysical Factors	47
	Sociocultural factors	134
	Psychological factors	35
Indicators of postnatal mental illness	General Indicators of postnatal mental illness	86
	Common types of postnatal mental illness	120
Screening and interventions	Limitations to early detection and treatment	41
	Current vs future measures	95

covering the elements of childcare management, lack of support, together with mothers-in-law and postnatal taboos. The lack of support, especially from their spouses could create an inconducive environment, leading to the development of postnatal mental illness:

*Mothers need support. She has been on her own during pregnancy and now (after giving birth), she needs help both physical and emotional support from other people. The one who can help is her husband (Participant 5).*

On the other hand, living together with a strict mother-in-law during the confinement period was also regarded as a contributing factor by the HCP because the women feel that they do not have the freedom to do what they wish to do. Moreover, the traditional postnatal practices or taboos imposed on the women by their strict mothers-in-law were considered as a leading cause of postnatal mental illness:

*If the mother-in-law is too strict, the woman needs to stay at home for a month and they cannot eat certain food. I think this will affect mental health too (Participant 23).*

The biophysical factors mentioned by the HCP included hormonal changes and a history of psychiatric illnesses. According to HCP, there is an association between hormonal imbalance and emotional disturbance:

*Hormonal imbalance causes the health problems and emotional disturbance. So, mothers are prone to depression and stress (Participant 7).*

Moreover, the HCP also explained that prior history of mental illness either before or during pregnancy, as well as during the postnatal period may increase the risk of postnatal mental illness:

*If a patient is a known case of major depressive disorders or had previous history of postnatal blues, depression, or psychosis, the tendency for her to have it during the current pregnancy, current delivery, or post-delivery is high, so we have to be aware of this (Participant 7).*

The HCP also believed that women are more likely to get stressed due to psychological factors such as the changes in body shape upon giving birth:

*Some of them felt stressed because it was hard to reduce weight after giving birth. Those who are concerned with body shape will end up with being stressed (Participant 7).*

Furthermore, the transition to motherhood often comes with issues such as concern about newborn health status, breastfeeding matters, and adaptation to newborn care. These were also seen as important contributing factors of sadness and depression among postnatal women.

### **Indicators of postnatal mental illness**

When the HCP were asked about their experience in detecting postnatal illnesses among women, they described the signs or indicators of such illnesses. The indicators were discussed under two subthemes namely general indicators and common types of postnatal mental illness. Based on their descriptions, general indicators can be further categorised into three cues namely behavioural cues (poor self-care, impaired newborn care, crying, changes in interaction), emotional and thinking cues (lack of interest or anhedonia, and low mood), and somatic cues (changes in sleeping pattern and appetite).

In discussing the common types of postnatal mental illness, some of the HCP discussed postnatal blues, stress, anxiety, depression, and psychosis. However, a few of the HCP did not perceive postnatal blues, stress, and anxiety as mental illness issues, but acknowledged these illnesses as adjustment disorders. Several HCP acknowledged that postnatal blues as changes in mood and sadness lasted less than two weeks. Postnatal stress was described as more likely to be resolved through good stress management and coping mechanisms:

*Stress from taking care of a child is normal, unless if they could not cope then maybe they can develop postnatal blues. Or she had poor stress management (Participant 2).*

Excessive fear, palpitations, overthinking, anxiety, shortness of breath, and tendency to ask the same questions repeatedly were described as symptoms of postnatal anxiety:

*Patients with anxiety will experience excessive fear, for example, if they have certain problems with their conditions, they will ask the same questions repeatedly (Participant 1).*

Some of the HCP also explained that postnatal depressive symptoms included sudden loss of interest, self-isolation, and a lack of motivation:

*Depression is like self-isolation, loss of appetite, sudden loss of interest for things that they love before (Participant 3).*

All HCP mentioned the occurrences of hallucinations and delusions when discussing postnatal psychosis:

*They will experience certain auditory hallucinations, hearing things (Participant 7).*

### **Screening and interventions**

Apart from sharing their understandings and perceived indicators for the common postnatal mental illnesses, the HCP also discussed limitations to early detection, screening measures, and intervention of postnatal mental illnesses. They repeatedly highlighted the clinical judgment (no proper guideline, screening tool, and limitation of the current screening tools), professional boundaries (lack of knowledge and time constraint), and the presence of stigma towards mental illnesses. A majority of the HCP admitted that postnatal mental illness is unnoticeable within their clinical practice due to the absence of standard guidelines and time constraints to assess the mental health status of postnatal women:

*So far, we did not do any screening, except those with known case of mental illness or social problems (Participant 9).*

Furthermore, sometimes the number of patients who come in for their follow-ups outnumber the HCP leading to time constraints to assess the mental health status among postnatal women in detail:

*Patients also have limited time; they have outnumbered*

*us. We do not have time to interview thoroughly* (Participant 3).

The stigma of mental illness was also perceived by HCP to hinder the detection of postnatal mental illness. They linked the stigma and the lack of awareness among the community in refusing any medical treatment or interventions:

*And one more, maybe stigma. It written in the book that they have mental illnesses, so it might be a factor that patients refused to go for counselling and others* (Participant 1).

Based on the abovementioned limitations, the HCP suggested recommendations for future measures which include the availability of resources (direct consultation, counselling approach, community mental health, and emotional support), health education, along with awareness and proper guidelines (self-reported screening tool, research).

## DISCUSSION

The HCP recruited in this study described three common causal explanations for postnatal mental illnesses which included sociocultural, biophysical, and psychological factors. Of the three, the sociocultural factor was viewed as the major cause of postnatal mental illness. Almost all HCP believed that women with poor social support (e.g., from spouses and family) were more likely to develop postnatal mental illnesses. Similarly, previous studies have also reported that social circumstances like an unsupportive environment as a cause of postnatal mental illness [12-13].

The other sociocultural factors highlighted by the HCP were the postnatal taboos or traditional postnatal practices. Although some practices were contradicting with HCP's advice, many postnatal women were left with no choice but to follow the taboos and traditional practices set by the older generations, specifically their strict biological mothers or mothers-in-law. The finding from this study was in line with previous studies where Malaysian women who were forced to practise traditional postnatal practices were subjected to postnatal mental illnesses [7,12].

In Malaysia, the first 30 to 44 days after childbirth is commonly known as the confinement period. During this period, the postnatal women are usually cared for by their mothers or mothers-in-law. Traditional postnatal practices may include special dietary restrictions along with the use of herbs, heat, and massage as means to avoid certain health problems. For instance, newly delivered women are advised to avoid food such as cucumber and cabbage as they are perceived as 'cooling' and may cause blood coagulation and joints problems. In many Asian cultures, the younger generation is expected to be receptive to the restrictions imposed by their older

generation [14]. Thus, some women who disagree with certain restrictions in the confinement diet and traditional practices (such as the avoidance of certain food and staying indoors during confinement) may not feel appropriate to state their preferences. Hence, the bottled-up feeling may lead to emotional changes.

The HCP described blues, stress, anxiety, depression, and psychosis based on the expected signs and symptoms from each mental illness portrayed by each woman. For instance, according to the HCP, self-isolation, demotivation, hopelessness, loss of interest, ignore the child and loss of appetite were symptoms of postnatal depression, whereas the symptoms of postnatal psychosis included auditory and visual hallucinations and delusions. Authors [7] also revealed withdrawal, sadness, and loss of engagement with the child as signs of postnatal depression. In Malaysia, most women perceived postnatal depression as 'emotional disturbance' after childbirth. Among the symptoms reported by the women were 'loss of excitement', 'easily irritated', and 'feeling of not being normal.' Somatic symptoms such as loss of appetite and weight stated in the DSM-V were not widely reported [15]. Meanwhile, Vanderkruik et al. [2] reported that the clinical features of postnatal psychosis were mood-incongruent delusions, hallucinations or delusions of control which were often associated with infant and self-harm.

In addition, the HCP also revealed that there was no proper assessment method to screen for postnatal mental illness. Although the HCP acknowledged that DASS was used for the general population within their clinic, they believed that it was a general tool that was less sensitive for the early detection of postnatal mental illnesses. Although many instruments are available to assess postnatal mental illnesses (e.g., Edinburgh Postnatal Depression Scale, Patient Health Questionnaire, and Centre for Epidemiological Studies Depression), these instruments were developed based on the perspective of Western population with distinctly different sociocultural background from that of the Asian countries [16]. According to McCauley et al. [17], the absence of screening tools within routine maternity care could leave postnatal mental illnesses unnoticed and untreated. Hence, it is highly recommended that postnatal mental illnesses should be managed by introducing a culturally appropriate mental health screening tool to provide comprehensive and holistic maternity care.

The HCP also addressed the stigma of mental illness, consistent with previous studies [18-19]. They claimed that postnatal women were not seeking help due to the stigma in the community, where they are scared of being labelled as crazy or mentally ill if they seek help for their mental health status. Therefore, they choose to obscure their feelings, signs, and symptoms of postnatal mental illnesses to avoid the stigma. Such perceptions on

postnatal mental illnesses could affect their help-seeking and behaviours, especially after giving birth [7]. Thus, it is the prevalence of fear and lack of awareness among the community on mental health that renders early detection and treatment for postnatal mental illnesses to be unsuccessful. Therefore, innovative strategies (e.g., mobile applications) are required to address the stigma and improve postnatal women's readiness to seek help. Digital interventions are not only feasible and acceptable in providing support during the postnatal period, but can also maintain positive maternal emotional wellbeing and prevent depressive symptomatology [20].

### Strengths and limitations

This study aimed to explore the views of Malaysian healthcare practitioners on the indicators and potential mechanisms for the screening of postnatal mental illness. Purposive sampling method (selecting HCP who were likely to have the most experience relating to the postnatal mental illness) applied in this study allowed a rich to be obtained in order to achieve the aim of this study. Findings of this study were produced based on interview of a large number of participants from different position (nurse midwives, head nurse, nurse manager, psychiatrist, obstetrician, or family medicine specialist) from multiple states, covering all four regions of Peninsular Malaysia (Pahang, Terengganu, Perak, Negeri Sembilan, and Kuala Lumpur). Furthermore, the views of HCP working in both primary (MCH clinics), and tertiary (psychiatric department, and obstetrics and gynaecology) healthcare setting were included in this study. The trustworthiness of this qualitative study has been achieved through several strategies. First, the process of data analysis (using framework analysis) was described in detail. Findings were presented with quotations for each category in order to make the interpretation transparent for the reader. The use of purposive sampling, large sample size, multiple study setting and transparent and systematic qualitative analysis have been acknowledged as promoting the trustworthiness in qualitative study [21].

Nonetheless, the limitations of this study should be addressed. This study only included HCP therefore, the findings does not reflect views and experience of women with postnatal mental illness. Furthermore, as this study was conducted in healthcare setting in Malaysia, the findings could not necessarily be generalised to other populations. The perceived causes of postnatal mental illness PND as explained by the HCP in this study do not allow any causal-effect relationships. Nevertheless, the findings added on the explanation of multiple risk factors for PND that derived from HCP who are working directly with postnatal women in the clinical practice.

### CONCLUSION

Based on this qualitative study, sociocultural factors were perceived by the HCPs as the main factor leading

to postnatal mental illnesses. Despite their ability to understand the indicators for each common type of postnatal mental illness (i.e. postnatal blues, stress, anxiety, depression, and psychosis), the HCP admitted that there were several limitations to early detection and treatment for postnatal mental illness among Malaysian women. The most common limitations discussed were the unavailability of a suitable tool, followed by time constraint to properly assess the mental health status of women during routine maternal care. Due to the lack of a relevant assessment tool, HCP appeared to believe that the assessment and detection of postnatal mental illnesses in Malaysia may not be accurate. This study calls for a policy and guideline for a feasible and standard screening programme to be introduced in the provision of holistic maternity care, especially for women at high risk of postnatal mental illness. It could also be valuable to integrate the findings of this study in developing or innovating the screening tool. Therefore, further research to develop and test the new screening tool would be useful.

### ACKNOWLEDGEMENTS

We wish to thank the healthcare practitioners who took the time to participate in this study. This research has received funding from Collaborative Research Initiative Grant (C-RIGS19-006-0012) from International Islamic University Malaysia.

### REFERENCES

1. Field T. Postnatal anxiety prevalence, predictors and effects on development: A narrative review. *Infant Behav Dev.* 2018; 51:24-32.
2. Vanderkruik R, Barreix M, Chou D, Allen T, Say L, Cohen LS; Maternal Morbidity Working Group. The global prevalence of postpartum psychosis: a systematic review. *BMC Psychiatry.* 2017;17(1):272.
3. Arifin SRM, Cheyne H, Maxwell M. Review of the prevalence of postnatal depression across cultures. *AIMS Public Health.* 2018; 5(3):260-295.
4. Netsi E, Pearson RM, Murray L, Cooper P, Craske MG, Stein A. Association of Persistent and Severe Postnatal Depression with Child Outcomes. *JAMA Psychiatry.* 2018;75(3):247-253.
5. Orsolini L, Valchera A, Vecchiotti R, Tomasetti C, Iasevoli F, Fornaro M, De Berardis D, Perna G, Pompili M, Bellantuono C. Suicide during Perinatal Period: Epidemiology, Risk Factors, and Clinical Correlates. *Front Psychiatry.* 2016;7:138.
6. Weng SC, Chang JC, Yeh MK, Wang SM, Chen YH. Factors influencing attempted and completed suicide in postnatal women: A population-based study in Taiwan. *Sci Rep.* 2016;6:25770.
7. Arifin SRM, Cheyne H, Maxwell M. Conceptualisation of postnatal depression in Malaysia: The contribution of critical realism

- in exploring the understanding of women's and healthcare practitioners' perspectives. *Opciyn*, 2020a; 36:1918–1939.
8. Edhborg M, Nasreen HE, Kabir ZN. "I can't stop worrying about everything"—experiences of rural Bangladeshi women during the first postpartum months. *Int J Qual Stud Health Well-being*. 2015;10:26226.
  9. Malaysian National Health and Morbidity Survey. National Health and Morbidity Survey 2016: Maternal and Child Health (MCH). Kementerian Kesihatan Malaysia. 2016;2:276.
  10. Ritchie J, Lewis J. *Qualitative research practice: A guide for social science students and researchers*. 2003; Thousand Oaks, California: Sage.
  11. Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *Int J Qual Health Care*. 2007;19(6):349-357.
  12. Arifin SRM, Cheyne H, Maxwell M. Cross-cultural experience of maternal postnatal depression. *Int J Psychosoc Rehabil*, 2020b; 24(3), 147– 156.
  13. Ongeru L, Wanga V, Otieno P, Mbui J, Juma E, Stoep AV, Mathai M. Demographic, psychosocial and clinical factors associated with postpartum depression in Kenyan women. *BMC Psychiatry*. 2018;18(1):318.
  14. Tang L, Zhu R, Zhang X. Postpartum Depression and Social Support in China: A Cultural Perspective. *J Health Commun*. 2016;21(9):1055-61.
  15. Arifin SRM, Cheyne H, Maxwell M, Yousuf A. The Malaysian Women's Experience of Care and Management of Postnatal Depression. *Clin Pract Epidemiol Ment Health*. 2021;17:10-18.
  16. Ramadas, S., & Kumar, R. Postnatal depression: a narrative review. *Inter J Cult Ment Health*. 2015;9(2),97–107.
  17. McCauley M, Brown A, Ofori B, van den Broek N. "I just wish it becomes part of routine care": healthcare providers' knowledge, attitudes and perceptions of screening for maternal mental health during and after pregnancy: a qualitative study. *BMC Psychiatry*. 2019;19(1):279.
  18. Bell E, Andrew G, Di Pietro N, Chudley AE, Reynolds JN, Racine E. It's a Shame! Stigma Against Fetal Alcohol Spectrum Disorder: Examining the Ethical Implications for Public Health Practices and Policies, *Public Health Ethics*. 2016;9(1):65–77.
  19. Newman TC, Hirst J, Darwin Z. What enables or prevents women with depressive symptoms seeking help in the postnatal period? *Br J Midwifery*. 2019;27 (4):219-227.
  20. Shorey S, Ng ED. Evaluation of a Technology-Based Peer-Support Intervention Program for Preventing Postnatal Depression (Part 2): Qualitative Study. *J Med Internet Res*, 2019;21(8), e12915.
  21. Merriam SB. *Qualitative research: A guide to design and implementation*. 2nd ed. San Francisco: Jossey-Bass. 2009.