DEMOGRAPHIC AND PSYCHOSOCIAL FACTORS ASSOSIATED WITH POSTPARTUM DEPRESSION IN PRIMARY CARE FACILITIES

Nurhalina Sari[1,2], Kemal N. Siregar[1], Indri Hapsari Susilowati[1]
[1]University of Indonesia
[2]University of Malahayati
**nurhalinasari@malahayati.ac.id*

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ABSTRACT
The prevalence of postpartum depression (PDD) in Indonesia is higher (20-40%) compared to the prevalence in the world (13%). PPD is a public health problem that causes a variety of health risks, but it is often undetectable in postpartum mothers, especially in primary care facilities. The research aimed to analyze demographic and psychosocial factors associated with PPD in primary care facilities. This study used a cross-sectional design, that used 251 women giving birth in the delivery range between 2-8 weeks postpartum from six practicing midwife clinic partners in Bandar Lampung City. Data was collected from February to August 2023 using a purposive sampling technique. The instrument used to measure PPD was the EPDS (Edinburgh Postnatal Depression Scale) questionnaire. The demographic variables measured were age of childbearing, parity, ethnicity, education, and employment status, while psychosocial variables included length of marriage, economic status, history of depression, history of abortion, husband support, and family. The data analysis used chi square test and multiple logistic regression tests. The prevalence of PPD in Bandar Lampung City was 12%. The risk factor associated with PPD is a history of abortion which has a risk of 2.9 times (p: 0.019; 95%CI: 1.2-6.9) after being controlled by education, employment status, family income, and husband support. Independent variables that were not related to the incidence of PPD, were age of childbearing, ethnicity, parity, education, and length of marriage. There is a need for a holistic approach in primary care facilities by considering demographic and psychosocial factors in the initial screening of PPD. Intervention recommendations are aimed at improving the understanding of health workers about psychosocial risks so that they can improve the achievement of comprehensive screening and handling of mental health problems for postpartum mothers as well as more optimal preventive efforts at the primary service level.

Keywords*: postpartum depression; abortion; EPDS.*

ABSTRAK
Prevalensi depresi pascapersalinan (PDD) di Indonesia lebih tinggi (20-40%) dibandingkan dengan prevalensi di dunia (13%). PPD merupakan masalah kesehatan masyarakat yang menimbulkan berbagai risiko kesehatan, namun seringkali tidak terdeteksi pada ibu pascapersalinan, terutama di fasilitas perawatan primer. Penelitian bertujuan menganalisis faktor demografi dan psikososial yang berhubungan dengan PPD di fasilitas perawatan primer.

Penelitian ini menggunakan desain cross-sectional, yaitu menggunakan 251 ibu melahirkan pada rentang persalinan antara 2-8 minggu pascapersalinan dari enam mitra klinik bidan praktik di Kota Bandar Lampung. Pengumpulan data dilakukan pada bulan Februari sampai dengan Agustus 2023 dengan menggunakan teknik purposive sampling. Instrumen yang digunakan untuk mengukur PPD adalah kuesioner EPDS (Edinburgh Postnatal Depression Scale). Variabel demografi yang diukur adalah usia subur, paritas, suku bangsa, pendidikan, dan status pekerjaan, sedangkan variabel psikososial meliputi lama menikah, status ekonomi, riwayat depresi, riwayat aborsi, dukungan suami, dan keluarga. Analisis data menggunakan uji chi square dan uji regresi logistik ganda. Prevalensi PPD di Kota Bandar Lampung sebesar 12%. Faktor risiko yang berhubungan dengan PPD adalah riwayat abortus yang memiliki risiko sebesar 2,9 kali (p: 0,019; 95%CI: 1,2-6,9) setelah dikontrol oleh pendidikan, status pekerjaan, pendapatan keluarga, dan dukungan suami. Variabel bebas yang tidak berhubungan dengan kejadian PPD adalah usia subur, suku bangsa, paritas, pendidikan, dan lama menikah. Perlu adanya pendekatan holistik di fasilitas pelayanan primer dengan mempertimbangkan faktor demografi dan psikososial dalam skrining awal PPD. Rekomendasi intervensi ditujukan untuk meningkatkan pemahaman tenaga kesehatan tentang risiko psikososial sehingga dapat meningkatkan capaian skrining dan penanganan masalah kesehatan jiwa ibu nifas secara komprehensif serta upaya preventif yang lebih optimal di tingkat pelayanan primer.

***Kata kunci**: depresi pascapersalinan; abortus; EPDS.*

INTRODUCTION

The postpartum period is one of the phases of developing mental health diseases in women in the form of anxiety to depression. Postpartum depression (PPD) is one of the public health problems that causes various postpartum health risks to suicide (Aswathi *et al.*, 2015) and also contributes to the high maternal mortality rate. In a maternal mental health report, the World Health Organization (WHO) reported that the prevalence of postpartum depression worldwide is estimated to be around 13% in women who have just given birth, while in developing countries the figure is higher at around 19.8% (World Health Organization, 2021). In Indonesia itself, in the last five years, the prevalence of postpartum depression has been higher when compared to the prevalence in the world, which is in the range of 10-40% (Kusuma *et al.*, 2019; Nurbaeti, Deoisres and Hengudomsub, 2019; Sari, 2020; Handini and Puspitasari, 2021; Nuryati and Amir, 2022; Nurbaeti, Lestari and Syafii, 2023).

Since 2016, WHO has recommended a screening program for anxiety and depression symptoms as one of the essential services in routine perinatal services (antenatal and postnatal) (WHO, 2016). The implementation of this screening is not optimal, especially in low- and middle-income countries, and only 10-20% receive treatment in health facilities (Baron, et al., 2016; Heyningen et al., 2018; Littlewood, et al, 2016). The Indonesian government has realized the

importance of mental health services in FKTPs (first-level health facilities), including women (Ministry of Health, 2020). However, many challenges are faced in the development of this mental health service program where the perinatal mental health system has not been a priority in Indonesia, so Indonesia does not have instruments and protocols for screening symptoms of anxiety and depression in perinatal services. In addition, the cultural barrier where women who experience depression is still considered stigmatized in society and the low availability of paramedics to be able to help carry out early detection in women.

The prevalence rate of postpartum depression varies around the world and in Indonesia due to differences in the type of screening methods used, study design, differences in geographical location, differences in socioeconomic status, the limit value of screening instruments as well as various risk factors and predictions related to the development of PPD in the study. Risk factors for postpartum depression are influenced by demographic and psychosocial factors, including the childbearing age of women who are less than 20 years old and over 35 years old (Muraca and Joseph, 2014; Ogbo *et al.*, 2018)Parity (Martínez-Galiano *et al.*, 2019), history of abortion (Ghaedrahmati *et al.*, 2017), history of depression (Silverman *et al.*, 2017; Ogbo *et al.*, 2018), and economic status (Ogbo *et al.*, 2018). In addition, the support factor of husband and family also plays an important role in preventing postpartum depression (Yim *et al.*, 2015; Ghaedrahmati *et al.*, 2017; Hutchens and Kearney, 2020).

One of the instruments for measuring women's mental health that has been widely adapted by various countries is *Edinburgh Postnatal Depression Scale* (EPDS). EPDS is a questionnaire that evaluates the risk of postpartum depression that has been used by many countries, including Indonesia, with quite good validity and reliability values and varies in the value range of 70-90% (Cox and Holden, 2003; Department of Health Government of Western Australia, 2006; Asriani, 2017; Paramita, Faradiba and Febrayosi, 2018; Slomian *et al.*, 2019; Sari *et al.*, 2021). The instrument is in demand because it is easy to manage, including over the phone, has uncomplicated interpretations, can be easily incorporated into the routine practice of healthcare workers, and high female acceptance has been reported by many researchers around the world. Therefore, this study aims to analyze demographic and psychosocial factors related to postpartum depression in primary care facilities.

METHOD

Design and Respondents

The research uses a cross-sectional design. The study population is women who give birth at primary care facilities in Bandar Lampung City. After considering the prevalence of PPD in Indonesia in the previous study of 40.8% (Syam *et al.*, 2020), precision of 5%, and confidence interval of 95%, then the calculation of the minimum number of samples for research using https://wnarifin.github.io/ssc/ss2prop.html were 165 women who gave birth. This study used 251 women who gave birth in the range of 2-8 weeks postpartum from six midwifery clinics in Bandar Lampung City, Lampung Province, Indonesia. The data on women was obtained from patient data in the clinic where the selected women were then contacted by phone to get approval to be visited as research respondents. After that, the researcher will visit the respondent's home to be interviewed directly. Data was collected from February to August 2023.

The measurement of postpartum depression used a validated Indonesian version of the EPDS (Edinburgh Postnatal Depression Scale) questionnaire consisting of 10 questions on a Likert scale of 0-3 to measure the psychological state of postpartum women over the last 7 days. Total score in the value range of 0-30 and women who are indicated to be depressed, if they have a score of more than 10 (Department of Health Government of Western Australia, 2006). Other questionnaires contain questions on demographic factors (age of childbirth, parity, ethnicity, last education, and employment status) and psychosocial factors (length of marriage, family income, history of depression, history of abortion, husband and family support). In the measurement of psychosocial factors, the husband support variable used a questionnaire consisting of 10 questions on the Likert scale of 1-4 with a score range of 0-40, while the family support variable consisted of 16 questions on the Liker-4 scale with a score range of 0-64 which had been construct-validated with a correlation value of >0.64 and a value of 0.64 *cronbach alpha* >0.7.

The data analysis used included univariable to describe the frequency distribution of demographic and psychosocial characteristics, bivariate analysis using the chi square test used to establish the relationship between the dependent variable and each independent variable, and multivariate analysis using multiple logistic regression test to predict risk factors and determine the most influential variables in postpartum depression after control other variables. The data analysis device used is SPSS 24 licensed from the Faculty of Public Health, University of Indonesia. This research has obtained research ethics feasibility issued by the Health Research Ethics Committee of Malahayati University with number 3047/EC/KEP-UNMAL/I/2023, Bandar Lampung City, Lampung Province, Indonesia.

RESULTS AND DISCUSSION

Table 1. Frequency distribution of demographic and psychosocial factors towards postpartum depression

Variable	Not Depression (n=221), n (%)	Depression (n=30), n (%)	COR
Demographics			
Childbearing age			
No risk	178 (87.7%)	25 (12.3%)	1
Risky	43 (89.6%)	5 (10.4%)	0.8
Suku			
Non Jawa	61 (89.7%)	7 (10.3%)	1
Jawa	160 (87.4%)	23 (12.6%)	1.3
Parity			
≤2 children	148 (88.1%)	20 (11.9%)	1
>2 children	73 (88%)	10 (12%)	1
Education			
Higher	34 (89.5%)	4 (10.5%)	1
Primary-middle	187 (87.8%)	26 (12.2%)	1.2
Employment status			
Not working	186 (88.6%)	24 (11.4%)	1
Work	35 (85.4%)	6 (14.6%)	1.3
Psychosocial			
Lenght of marriage			
>5 years	114 (87.7%)	16 (12.3%)	1
≤5 years	107 (88.4%)	14 (11.6%)	0.9
Family income			
More than UMR	59 (90.8%)	6 (9.2%)	1
Less than/equal to UMR	162 (87.1%)	24 (12.9%)	1.5
History of depression			
No	217 (88.6%)	28 (11.4%)	1
Ya	4 (66.7%)	2 (33.3%)	3.9
History of abortion			

Variable	Not Depression (n=221), n (%)	Depression (n=30), n (%)	COR
No	192 (90.1%)	21 (9.9%)	1
Ya	29 (76.3%)	9 (23.7)	**2.8***
Husband's support			
Ya	140 (89.2%)	17 (10.8%)	1
No	81 (86.2%)	13 (13.8%)	1.3
Family support			
Ya	122 (91%)	12 (9%)	1
No	99 (84.6%)	18 (15.4%)	1.8

**p <0.05 based on chi-square test, COR: crude odd rasio*

Based on the measurement of postpartum depression using the EPDS instrument, the results were obtained that 30 women (12%) experienced depression. The distribution of women who give birth is dominated by 80.9% of the childbearing age is not at risk in the range of 18-43 years, 72.9% are Javanese, 57.4% have secondary education, 66.9% have the maximum number of children two, 84.8% do not have a history of abortion, 97.6% do not have a history of depression, 83.7% as housewives, 74.1% have a family income at a level less than or equal to the Bandar Lampung UMR of Rp 2,991,349 (Provinsi Lampung, 2022), 82.5% received the support of the husband, and 52.6% received the support of the family. In the bivariate analysis above, only the statistically significant abortion variable (p=0.026, 95%IK 1.2-6.8) affected postpartum depression with odds ratio of 2.8 (table 1).

Table 2. Multivariate analysis of risk factors for postpartum depression

Variables	AOR	95% CI
Education (primary-middle)	1.3	0.4-4.5
Novel abortus (ya)	**2.9***	1.2-6.9
Employment status (not working)	1.6	0.5-4.9
Family income (less than/equal to UMR)	1.5	0.5-4.2
Husband's support (no)	1.5	0.7-3.3

**p <0.05 based on multivariable ; AOR: adjusted odd rasio; CI: Confidence Interval*

In the bivariate analysis using *the chi square test* , the results were obtained that only the abortion history variable was statistically related to postpartum depression. The overall percentage of modeling using selected independent variables to predict risk factors for postpartum depression was 88%. The results of the multivariate analysis stated that women with a history of abortion had a risk of postpartum depression of 2.9 times (P= 0.019; 95% CI= 1.2-6.9) after being controlled by variables such as education, employment status, family income, and husband support. Meanwhile, the variables of education, employment status, family income, and husband support are the disruptive variables for the incidence of postpartum depression (table 2).

This study aims to determine the risk factors for postpartum depression in women using the EPDS instrument. Research shows that the prevalence of postpartum depression (women with an EPDS score of more than 9) has a lower value compared to similar studies in Indonesia that also use EPDS instruments, such as in Jakarta which was reported at 19.9% (Nurbaeti, Deoisres and Hengudomsub, 2019), in West Java by 35.96% (Nurbaeti, Lestari and Syafii, 2023) and in Malang by 43% (Solikhah *et al.*, 2022). The difference in prevalence values lies in the variation of the sample criteria where in this study the criteria for women taken were women who had given birth for a duration of 2 to 6 weeks postpartum, while other studies were conducted up to a duration of 4 weeks to 1 year postpartum. The prevalence of postpartum depression is also in line with the prevalence in other Southeast Asian countries which ranges from 4.4% to 57.7% (Hong and Buntup, 2023).

Only a statistically significant history of abortion was associated with postpartum depression ($p<0.001$) (table 1). The results of the multivariate analysis from this study found that the variables directly related to postpartum depression were abortion history ($p<0.001$) with odds ratio of 2.9, while the variables of education, work status, family income, and husband support were the variables of bullying (table 2). Women who had a history of abortion or miscarriage were 2.9 times more likely to be diagnosed with depression. These results are consistent with previous studies that have shown a strong link between abortion records and the onset of postpartum depression.

Pregnancy loss, regardless of type or timing, may cause great psychological stress for women. How a loss, whether or not the woman identifies it as a stress, impacts her emotional well-being following the birth of a future child is essentially unknown. Repeated miscarriages and losses can have an emotionally detrimental effect on a woman's mental health and preparation, which can result in emotions of fear and anxiety. It is easy to imagine that some women may have conflicting emotions in the postpartum period following a live birth when they have a history of

previous loss. History of abortion falls under the category *stressful life events* experienced by women who cause trauma in their lives. In line with the research that *stresful life event* increased 2.7 times (95%IK 1.3-5.3) of depression after being controlled by the variables of husband support and method of childbirth (Al Nasr *et al.*, 2020).

Independent variables that were not related to the incidence of postpartum depression in women were age of delivery, ethnicity, parity, last education, and length of marriage. Previous research revealed that women who give birth over 35 years old are at high risk of depression (Muraca and Joseph, 2014). This study is in line with research in Nigeria which found that childbearing age, education, women's employment status, family income were not related to PPD, only husband support was related (AOR 2.6, 95%CI 1.2-5.8) (EO *et al.*, 2020). Therefore, the health ministry recommends that the age of pregnancy and childbirth for women be in the range of 20-35 years. However, the results of this study are different from several other studies that show a relationship between postpartum depression and childbearing age because being married under the age of 20 or over 35 years makes individuals vulnerable to emotional instability so that they are more susceptible to depression (Nurcahyani *et al.*, 2023).

The results of this study also contradict recent findings that found a substantial correlation between parity and the incidence of postpartum depression. The results of this study did not show a relationship between parity and the incidence of postpartum depression. Because of the potential for emotional instability that can increase the risk of complications during childbirth, thus giving rise to feelings of fear, anxiety, and even depression, women who are expecting their first child and those who have given birth more than three times are particularly vulnerable to postpartum depression. (Martínez-Galiano *et al.*, 2019; Amna and Khairani, 2024). For women who have previously suffered from depression, they are more likely to be diagnosed with postpartum depression. Previous depression may be treated with counseling, medication, or a combination of both. Brain stimulation therapy, such as electroconvulsive therapy, may be considered if conventional treatment does not reduce symptoms.

Scientific research has proven that the onset of depression can be avoided with good and positive emotional support from family and society (Ongeri *et al.*, 2018). Family support and care are essential for the well-being of patients who experience physical trauma, chronic illnesses, and some physiological complications in life in mothers with depression. A study suggests focusing more on the benefits of partner support rather than therapeutic interventions in patients who are under pressure or prone to depression (Benazon and Coyne, 2000). Therefore, life partners play

an important role in preventing the onset or worsening of depression or any psychological manifestations that may arise during or after childbirth. The stages of life during pregnancy in general and postpartum in particular need to be handled carefully by the relevant family members. A supportive partner is essential to prevent unwanted events that could harm the mother or child. A supportive husband and a marriage relationship with less friction play a role in improving a strong social support system for mothers. The constant perceived pressure from economic pressures has been shown to increase cortisol levels and therefore contribute to the susceptibility to depression (Benazon and Coyne, 2000; Misri *et al.*, 2000). It has been found that couples who participate in daily activities, parenting behaviors, and help with regular follow-ups in the hospital can reduce the onset of depression or eliminate depression among their partners. A much higher proportion of depression was found in this study in mothers who had unsupportive life partners (Misri *et al.*, 2000). Therefore, it is important to socialize the importance of the couple's behavior and attitude towards the mother during and after pregnancy through community counseling, health counseling and increasing family ties.

The finding that nearly one in five women reported significant postpartum depressive symptoms in this study suggests the need for postpartum depression screening. However, screening programmes are recommended only in circumstances where women who test positive have access to further interventions. The research of Rahman et al. (2013), conducted a systematic review of the evidence regarding the effectiveness of interventions to address perinatal mental disorders common in low- and middle-income countries (Rahman *et al.*, 2013). Our results highlight the targeted interventions that are important in reducing the burden of postpartum depression in women in Indonesia.

CONCLUSION

The prevalence of PPD in Bandar Lampung is quite high, especially for women with a history of abortion. A history of abortion has trauma for women when preparing for the next pregnancy. It is important to screen mothers at high risk for PPD during and after pregnancy and refer detected cases to primary health facilities for early management and prevention of psychosocial disorders in the family. In addition, strategies must be developed by health care authorities to design recommendations and actions to prevent the occurrence of postpartum depression. Prevention of PPD is not only important for the well-being of mothers but also important for providing a conducive atmosphere for newborns.

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REFERENCES

Amna, Z. and Khairani, M. (2024) 'The Risk Factors for Depression in Postpartum Moms', *Jurnal Ilmu Keluarga dan Konsumen*, 17(1), pp. 28–40. Available at: https://doi.org/10.24156/jikk.2024.17.1.28.

Asriani, D. (2017) 'Being Mother: Comparative Study of the Contested Motherhood between South Korea and Indonesia', *International Journal of Management, Entrepreneurship, Social Science and Humanities*, 1(1), pp. 15–23. Available at: https://doi.org/10.31098/ijmesh.v1i1.5.

Aswathi, A. *et al.* (2015) 'High serum testosterone levels during postpartum period are associated with postpartum depression', *Asian Journal of Psychiatry*, 17, pp. 85–88. Available at: https://doi.org/10.1016/j.ajp.2015.08.008.

Benazon, N.R. and Coyne, J.C. (2000) 'Living with a depressed spouse.', *Journal of Family Psychology*, 14(1), pp. 71–79. Available at: https://doi.org/10.1037/0893-3200.14.1.71.

Cox, J. and Holden, J. (2003) *Perinatal mental health: A guide to the Edinburgh Postnatal Depression Scale (EPDS)*. Royal College of Psychiatrists.

Department of Health Government of Western Australia (2006) *Edinburgh Postnatal Depression Scale (EPDS): Translated versions – validated*. Perth: State Perinatal Mental Health Reference Group.

EO, A. *et al.* (2020) 'Prevalence and predictors of postpartum depression among postnatal women in Lagos, Nigeria', *African Health Sciences*, 20(4), pp. 1943–54. Available at: https://doi.org/10.4314/ahs.v20i4.53.

Ghaedrahmati, M. *et al.* (2017) 'Postpartum depression risk factors: A narrative review.', *Journal of education and health promotion*, 6, p. 60. Available at: https://doi.org/10.4103/jehp.jehp_9_16.

Handini, T.S. and Puspitasari, N. (2021) 'Differences in Postpartum Maternal Depression Levels Based on Characteristics of Maternal Age and Husband Support', *The Indonesian Journal of Public Health*, 16(1), p. 124. Available at: https://doi.org/10.20473/ijph.v16i1.2021.124-133.

Hong, S.A. and Buntup, D. (2023) 'Maternal Depression during Pregnancy and Postpartum Period among the Association of Southeast Asian Nations (ASEAN) Countries: A Scoping Review', *International Journal of Environmental Research and Public Health*, 20(6), p. 5023. Available at: https://doi.org/10.3390/ijerph20065023.

Hutchens, B.F. and Kearney, J. (2020) 'Risk Factors for Postpartum Depression: An Umbrella Review', *Journal of Midwifery & Women's Health*, 65(1), pp. 96–108. Available at: https://doi.org/10.1111/jmwh.13067.

Kusuma, R. *et al.* (2019) 'The Ratu's Model: A prevention model of postpartum depression', *Enfermería Clínica*, 29, pp. 70–73. Available at: https://doi.org/10.1016/j.enfcli.2018.11.023.

Martínez-Galiano, J.M. *et al.* (2019) 'Relationship between parity and the problems that appear in the postpartum period', *Scientific Reports*, 9(1), p. 11763. Available at: https://doi.org/10.1038/s41598-019-47881-3.

Misri, S. *et al.* (2000) 'The Impact of Partner Support in the Treatment of Postpartum Depression', *The Canadian Journal of Psychiatry*, 45(6), pp. 554–558. Available at: https://doi.org/10.1177/070674370004500607.

Muraca, G.M. and Joseph, K.S. (2014) 'The Association Between Maternal Age and Depression', *Journal of Obstetrics and Gynaecology Canada*, 36(9), pp. 803–810. Available at: https://doi.org/10.1016/S1701-2163(15)30482-5.

Al Nasr, R.S. *et al.* (2020) 'Prevalence and predictors of postpartum depression in Riyadh, Saudi Arabia: A cross sectional study', *PLOS ONE*. Edited by M. Mazza, 15(2), p. e0228666. Available at: https://doi.org/10.1371/journal.pone.0228666.

Nurbaeti, I., Deoisres, W. and Hengudomsub, P. (2019) 'Association between psychosocial factors and postpartum depression in South Jakarta, Indonesia', *Sexual & Reproductive Healthcare*, 20, pp. 72–76. Available at: https://doi.org/10.1016/j.srhc.2019.02.004.

Nurbaeti, I., Lestari, K.B. and Syafii, M. (2023) 'Association between Islamic religiosity, social support, marriage satisfaction, and postpartum depression in teenage mothers in West Java, Indonesia: A cross-sectional study', *Belitung Nursing Journal*, 9(4), pp. 313–321. Available at: https://doi.org/10.33546/bnj.2661.

Nurcahyani, L. *et al.* (2023) 'Effects of Using an Application for Postpartum Contraceptive Use in Family Planning Counseling During Pregnancy', *Kesmas: Jurnal Kesehatan Masyarakat Nasional*, 18(2), p. 137. Available at: https://doi.org/10.21109/kesmas.v18i2.6860.

Nuryati, T. and Amir, Y. (2022) 'Mental Health Problems of Pregnant Women, The Causes, And The Need for Social Support', *Jurnal Biometrika dan Kependudukan*, 11(1), pp. 80–88.

Available at: https://doi.org/10.20473/jbk.v11i1.2022.80-88.
Ogbo, F.A. *et al.* (2018) 'Determinants of antenatal depression and postnatal depression in Australia', pp. 1–11. Available at: https://doi.org/10.1186/s12888-018-1598-x.
Ongeri, L. *et al.* (2018) 'Demographic, psychosocial and clinical factors associated with postpartum depression in Kenyan women', *BMC Psychiatry*, 18(1), p. 318. Available at: https://doi.org/10.1186/s12888-018-1904-7.
Paramita, A.D., Faradiba, A.T. and Febrayosi, P. (2018) 'Edinburgh Postpartum Depression Scale: Psychometric Evaluation of the Indonesian Version', in *Proceedings of the 3rd International Conference on Psychology in Health, Educational, Social, and Organizational Settings*. SCITEPRESS - Science and Technology Publications, pp. 410–414. Available at: https://doi.org/10.5220/0008590204100414.
Provinsi Lampung (2022) 'Keputusan Gubernur No. G/744/V.08/HK/2022 Tahun 2022 Tentang Penetapan Upah Minimum Kota Bandar Lampung Tahun 2023'. Bandar Lampung: Provinsi Lampung, pp. 1–2.
Rahman, A. *et al.* (2013) 'Interventions for common perinatal mental disorders in women in low- and middle-income countries: a systematic review and meta-analysis', *Bulletin of the World Health Organization*, 91(8), pp. 593-601I. Available at: https://doi.org/10.2471/BLT.12.109819.
Sari, D.N. *et al.* (2021) 'Adaptation of the Edinburgh Postnatal Depression Scale in the Indonesian Version: Self-reported Anxiety and Depression Symptoms in Pregnant Women', *Open Access Macedonian Journal of Medical Sciences*, 9(B), pp. 1654–1659. Available at: https://doi.org/10.3889/oamjms.2021.7783.
Sari, R.A. (2020) 'Literature Review: Postpartum Depression', *Jurnal Kesehatan*, 11(1), p. 1.
Silverman, M.E. *et al.* (2017) 'The risk factors for postpartum depression: A population-based study', *Depression and Anxiety*, 34(2), pp. 178–187. Available at: https://doi.org/10.1002/da.22597.
Slomian, J. *et al.* (2019) 'Consequences of maternal postpartum depression: A systematic review of maternal and infant outcomes', *Women's Health*, 15, p. 174550651984404. Available at: https://doi.org/10.1177/1745506519844044.
Solikhah, F.K. *et al.* (2022) 'Determination of factors affecting post-partum depression in primary healthcare during the COVID-19 pandemic', *Journal of Public Health in Africa*, 13(s2). Available at: https://doi.org/10.4081/jphia.2022.2408.

Syam, A. *et al.* (2020) 'Identifying risk factors of prenatal depression among mothers in Indonesia', *Enfermería Clínica*, 30, pp. 550–554. Available at: https://doi.org/10.1016/j.enfcli.2019.07.158.
World Health Organization (2021) *World Mental Health Day 2021*, *World Health Organization*.
Yim, I.S. *et al.* (2015) 'Biological and Psychosocial Predictors of Postpartum Depression: Systematic Review and Call for Integration', *Annual Review of Clinical Psychology*, 11(1), pp. 99–137. Available at: https://doi.org/10.1146/annurev-clinpsy-101414-020426.