



## Psychosocial Study on the Incidence of Postpartum Blues

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### ABSTRACT

The transition to motherhood is difficult because of changes in psychological, social and physiological aspects and an increase in the risk of mental illness and postpartum blues. This study aims to determine the incidence and the most influential factors of postpartum blues in light of the psychosocial aspect in the Majalengka District. This was a quantitative study with a cross-sectional design. The study subjects were normal postpartum women on days 5-14. The study samples involved 91 women who were selected using consecutive sampling techniques. The study was conducted in 14 Community Health Centers located in the work area of the Majalengka District Health Office on October 12 - November 11, 2020. Data were collected using the Edinburgh Postnatal Depression Scale (EPDS) and the husband support questionnaire. Data were analyzed using the chi-square statistical test and logistic regression. The results showed that there was a significant relationship between age ( $p = 0.008$ ), income ( $p = 0.030$ ), parity ( $p = 0.011$ ), and husband support ( $p = 0.009$ ) with the incidence of postpartum blues. The analysis of the dominant factor for the incidence of postpartum blues showed that postpartum women aged <20->35 years had 5 times the chance (OR= 5.524) to have postpartum blues compared to postpartum women aged 20-≤35 years. Healthcare workers must be able to detect and diagnose the signs and symptoms of postpartum blues as early as possible and take immediate follow-up to reduce the risk factors for this condition.

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### Kata kunci:

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### ABSTRAK

Transisi menjadi ibu adalah kondisi masa sulit karena adanya perubahan pada aspek psikologis, sosial dan fisiologis serta meningkatkan risiko penyakit mental terjadinya postpartum blues. Penelitian ini bertujuan untuk mengetahui kajian psikososial postpartum blues dan faktor yang paling berpengaruh di Kabupaten Majalengka. Studi ini merupakan penelitian kuantitatif dengan desain crosssectional. Subjek penelitian adalah ibu nifas normal hari ke 5-14 dengan sampel sebanyak 91 menggunakan teknik pengambilan sampel consecutive sampling. Penelitian dilakukan di 14 puskesmas yang berada di wilayah Dinas Kesehatan Kabupaten Majalengka pada tanggal 12 Oktober-11 November 2020. Pengumpulan data menggunakan kuesioner Edinburgh Postnatal Depression Scale (EPDS) dan kuesioner dukungan suami. Analisis data menggunakan uji statistik chi-square dan regresi logistik. Hasil penelitian menunjukkan bahwa terdapat hubungan yang signifikan antara faktor usia  $p = 0,008$ , faktor penghasilan  $p = 0,030$ , faktor paritas  $p = 0,011$  dan faktor dukungan suami  $p = 0,009$  dengan kejadian postpartum blues. Faktor dominan terhadap kejadian postpartum blues menunjukkan bahwa ibu nifas dengan usia <20->35 tahun mempunyai peluang 5 kali (OR= 5,524) terjadinya postpartum blues dibandingkan ibu nifas dengan usia  $\geq 20-\leq 35$  tahun. Petugas kesehatan harus dapat mendeteksi dan mendiagnosis sedini mungkin terkait tanda dan gejala postpartum blues dan melakukan tindak lanjut segera untuk mengurangi faktor risiko kejadian ini.

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## INTRODUCTION

The postpartum period is commonly associated with physical and psychological changes that may cause anxiety and mood disorders (Manjunath et al., 2011). This period is a risk factor for psychological disorders as a sign of depression (Hale Bolak Baratav, 2016). The postpartum period is a crisis condition for women, husbands and families because of changes that occur physically, psychologically and family members also require an adaptation process (Stapleton et al., 2012). Pregnancy and childbirth are physiological events experienced by women and the process of psychological adaptation has begun since pregnancy. However, most women experience psychological/postpartum stress. The feeling of sadness experienced by the women is related to her baby and this condition is called the postpartum blues or baby blues (Corrigan et al., 2015).

Postpartum blues is a mood disorder due to adaptation to the birth of a baby that appears on the second to third day after the delivery process with peak symptoms on the fifth day which will automatically heal within two weeks after the onset of symptoms (Balaram & Marwaha, 2022). Postpartum blues show signs of mild depression experienced by women such as easy crying, irritability, anxiety, feelings of loss due to responsibility, fatigue, mood swings and decreased concentration power. Women become irritable and have eating and sleeping disorders (Putri & Putri, 2022).

Postpartum blues are estimated to occur in about 50% or more of women in the first few weeks after delivery (Howard et al., 2014). Around 50-70% of the incidence of postpartum blues in Indonesia shows early symptoms that come on the third to sixth day after delivery and gradually the symptoms will disappear due to the adaptation process and good family support (Fatmawati, 2015). With a poor management, postpartum blues will become postpartum depression and the most severe condition is postpartum psychosis. Psychological changes in the postpartum period usually consist of three forms, namely postpartum blues, postpartum depression and postpartum psychosis, but in general psychological problems are referred to as Postpartum Depression (PPD) (Rai et al., 2015).

The incidence of PPD is around 10-15%, baby blues is around 30%-75%, and postpartum psychosis is around 1-2 per 1000 births. The total number of people with depression worldwide is around 322 million people and this case continues to increase. nearly half of people live in Southeast Asia and the Western Pacific Region with a depression prevalence in Southeast Asia of 27%. The prevalence of depression in Indonesia was 3.7% and Indonesia ranked second after India (4.5%) (Motzfeldt et al., 2013). Based on data derived from the Centers for Disease Control from 2004 to 2012, the prevalence of postpartum depression was 11.5% in 27 countries (Rockhill KM, Ko JY, Tong VT, Morrow B, 2017). Postpartum depression cases in Asia are quite high and vary between 3.5% to 63.3% (Yessi Kurniati, 2017; Yusuff et al., 2015). The prevalence of postpartum depression in lower middle-income countries ranges 1.9% to 82.1% and in high-income countries it ranges from 5.2% to 74% (Tikmani et al., 2016). There is no statistical data on the incidence of postpartum depression in Majalengka District Preliminary study conducted among 10 postpartum women showed that a woman did not experience postpartum blues, 6 women experienced mild postpartum blues, 3 women experienced moderate postpartum blues and none experienced severe postpartum blues.

Factors that influence the postpartum blues are interrelated with each other so that the symptoms that

appear are the result of the mechanism of several factors or so called multi-factorial. The first factor is hormonal factor in the form of changes in levels of estrogen, progesterone, prolactin and cortisol. The second factor is of physical exhaustion due to babysitting, breastfeeding, bathing, changing diapers activities and lack of sleep. The third factor is psychosocial factor including age, parity, education, employment status, income, husband and family support and pregnancy status. Several previous studies found that the highest cause of postpartum blues was the lack of husband and family support for mothers during pregnancy to postpartum periods (Alifah, 2016).

Women who experience postpartum blues often feel anxious and excessively worry about childbirth and their new role as parents (Yonkers et al., 2011). The facts show that depression in the mother will be dangerous not only for the mother, but will also have an adverse impact on the baby and his family. Depression that lasts a long time results in a long-term adverse impact on the behavioral, intellectual and emotional development of children at an early age so that this situation will affect the development of their lives in later life and family life as a whole. Severe PPD can increase the risk of suicide 70 times compared to other triggers (Martini Fairus dan Septi Widiyani, 2014). Recently, there have been many cases reported in the mass media of a mother who committed suicide together with her baby because she felt that she could not take care of her baby along with poor family support (Cesa Septiana Pratiwi, 2019; Sinaga, 2014).

Based on the background, the authors are interested to discuss and determine the incidence of postpartum blues comprehensively, especially regarding the psychosocial aspect and considering that there is no data on the postpartum blues in Majalengka District yet.

## METHODS

### *Participant characteristics and study design*

This was an analytical observational study with a cross sectional study design. The samples in this study were 91 postpartum women who gave birth in the Majalengka District area, who were selected based on certain inclusion criteria: married women, normal postpartum on day 5-14, did not experience complications and were willing to be respondents. The study was conducted on October 12 – November 11, 2020.

### *Sampling procedures*

The consecutive sampling technique was applied here to find subjects who met the inclusion criteria to be involved in the study for a certain period of time until the number of respondents needed by the researchers was met.

There are 14 out of 33 CHCs located in the area of the Majalengka District Health Office as a mapping of the study site: 5 CHCs in the northern part of Majalengka District including Kertajati, Sukamulya, Ligung, Jati Tujuh and Jatiwangi CHCs; 4 CHCs in the southern part of Majalengka District including Maja, Argapura, Cingambul and Talaga CHCs; 2 CHCs in the eastern part of Majalengka District including Rajagaluh and Sindang CHCs; and 3 CHCs in the western part of Majalengka District including Majalengka, Kadipaten and Panyingkiran CHCs.

Data were collected directly by distributing questionnaires to respondents on Day 5-14th of postpartum period. This strategy aims to give the time for women to reflect on her feelings and know how well she was adapting and coping as a mother. At the time of filling out the questionnaire, the women were not accompanied by her husband, family members and were let to fill in the questionnaire according to her feelings to obtain better results. Respondents must complete the scale themselves, unless they had a poor understanding of the language used. Before answering the questionnaire, all respondents were given informed consent to determine their willingness to be involved in this study.

**Research Instrument**

This study used the EPDS (Edinburgh Postpartum Depression Scale) instrument to assess the incidence of

postpartum blues (Cox JL, Holden M, 1987; Jennifer E.McCabe-Beane et al, 2016; Ruta Nonacs, 2016), while the Husband Social Support Questionnaire adopted from House in Bart Smet (1994) was applied to assess the psychosocial aspect 994) (Smet, 1994).

For the EPDS questionnaire assessment, each question had a different score on the answer. Each answer was given a score of 0,1,2,3 according to the severity of the symptoms. For questions number 1,2 and 4, the score was 0 for answer a, 1 for answer b, 2 for answer c, 3 for answer d. while for questions number 3,5,6,7,8,9 and 10, otherwise the score was 3 for answer a, 2 for answer b, 1 for answer c, 0 for answer d. The severity range was determined by the EPDS, namely: 0-6 for Normal Condition, 7-13 for Mild Postpartum Blues, 14-19 for Moderate Postpartum Blues and 19-30 for Severe Postpartum Blues.

**Table 1**  
**Husband Support Instrument**

No	ASPECT	INDICATOR	F	UF	Total
1	Emotional Support	Empathy, caring, compassion and care	1,2,3,4,12, 14,25,	13,33,34, 40	10
2	Appreciation Support	Positive rating, encouragement to go forward, and approval of ideas	5,6,15,26, 35,	7,16,24,27,3, 8,	10
3	Instrumental Support	Helping daily duties and direct assistance	9,20, 28,30,36,	10,11, 29,	8
4	Information Support	Giving advice, instructions and advice	8,17,21, 22, 31,	18,19,23,32,37, 39	11
TOTAL			22	18	40

Favorable (F) questions were scored: 0 for Disagree, 1 for Disagree, 2 for Agree and 3 for Strongly Disagree. Unfavorable questions (UF) were scored: 3 for Disagree, 2 for Disagree, 1 for Agree, and 0 for Strongly Disagree

**Data analysis**

Univariate Analysis to determine the general description of the characteristics of respondents (age, education, income, employment status, parity, type of delivery and husband

support). Also to determine the description of postpartum depression (EPDS) among postpartum women in Majalengka District

Bivariate Analysis to determine the relationship of EPDS with age, education, income, employment status, parity, type of delivery and husband support.

Multivariate Analysis to determine the best model for the most influential factors for the incidence of postpartum blues

**Table 2**  
**Frequency Distribution of the Incidence of Postpartum Blues and Characteristics of Respondents (n=91)**

Variable	Postpartum Blues					
	Severe		Moderate		Mild	
	f	%	f	%	f	%
<b>Incidence of Postpartum Blues</b>	20	22	19	20.9	52	57.1
<b>Education</b>						
No Formal Education	6	85.7	0	0	1	14.3
Elementary-Junior High School	3	7.7	12	30.8	24	61.5
Senior High School	6	20	6	20	18	60
Higher Education	5	33.3	1	6.7	9	60
<b>Age</b>						
<20->35 years	12	38.7	5	16.1	14	45.2
≥20-≤35 years	8	13.3	14	23.3	38	63.3
<b>Income</b>						
<1 million	11	25.6	7	16.3	25	58.1
1-3 million	3	8.6	9	25.7	23	65.7
>3 millioj	6	46.2	3	23.1	4	30.8
<b>Employment Status</b>						
Unemployed	16	25	9	14.1	39	60.9
Employed	4	14.8	10	37	13	48.1
<b>Parity</b>						
Primiparous	13	36.1	3	8.3	20	55.6
Multiparous	7	12.7	16	29.1	32	58.2
<b>Jenis Persalinan</b>						
Caesarean Section	4	20	1	5.3	9	17.3

Normal	16	20.8	18	23.4	43	55.8
<b>Husband Support</b>						
Poor	2	66.7	1	33.3	0	0
Moderate	16	24.6	16	24.6	33	50.8
Good	2	8.7	2	8.7	19	82.6

**RESULTS AND DISCUSSION**

Table 2 presented that the incidence of severe postpartum blues was 22% and in the moderate category it was 20.9%. 30.8% of respondents with elementary-junior high school education experienced moderate postpartum blues and 33.3% of respondents with higher education experienced severe postpartum blues. Furthermore regarding maternal age, among respondents aged <20->35 years, 38.7% experienced severe postpartum blues and 16.1% experienced moderate postpartum blues. 46.2% of respondents with income of >3 million experienced severe postpartum blues and 25.6% of respondents with income of <1 million experienced severe postpartum blues. Regarding employment status, 25% of women who were unemployed experienced severe postpartum blues, higher than employed women by 14.8%. Regarding parity factor, 36.1% of primiparous women experienced severe postpartum blues, higher than multiparous women by 12.7%. Moreover, 20% of womef with caesarean section delivery experienced severe postpartum blues, lower than women with normal delivery by 20.8%. Among women with poor husband support, 66.7% of experienced severe postpartum blues and 33.3% experienced moderate postpartum blues.

Based on the results of bivariate analysis presented in table 3, 4 factors significantly affected the incidence of postpartum blues with a p value <0.05, namely age, parity, income and husband support, while the other 3 factors of education, employment status and type of delivery had no statistical significant effect on the incidence of postpartum blues.

**Table 3**  
**Bivariate Analysis**

Independent Variable	p value
Education	0.533
Age	0.008
Income	0.030
Employment Status	0.289
Parity	0.011
Type of Delivery	0.519
Husband Support	0.009

Prior to multivariate analysis, a bivariate selection analysis for each independent variable towards the dependent variable was performed. If the p value was <0.25, then the variable was feasible as a candidate to be included in the multivariate model. The results of the bivariate selection analysis showed that the candidates included age, parity, income and husband support.

**Multivariate Analysis**

Multivariate analysis was conducted to obtain the best model in determining the most influential factors on the incidence of postpartum blues. Variables with a p value of < 0.05 were retained and variables with a p value of >0.05 were excluded from the model.

**Table 4**  
**Results of Logistics Regression Test The Most Influential Factors on the Incidence of Postpartum Blues**

Variable	B	Sig	Exp (B)	95%C.I for Exp (B)	
				Lower	Upper
<b>Step 1</b>					
Parity	1.697	.007	5.457	1.578	18.870
Age	1.688	.007	5.408	1.576	18.555
Income	-1.025	.149	.359	.089	1.441
Husband support	1.538	.085	4.654	.807	26.833
<b>Step 2</b>					
Parity	1.742	.005	5.707	1.687	19.310
Age	1.809	.003	6.102	1.814	20.525
Husband support	1.514	.083	4.544	.819	25.208
<b>Step 3</b>					
Parity	1.655	.005	5.231	1.638	16.708
Age	1.709	.004*	5.524	1.743	17.504

Note: \*=significant (p<0.05)

The results of the analysis presented in Table 4 revealed that the multivariate final model among the 4 variables hypothesized to be related to the incidence of postpartum blues, age variable was the most dominant factor (OR = 5.524), meaning that postpartum women aged <20->35 years had 5 times the chance of developing postpartum blues compared to postpartum women aged 20-≤35 years.

**Effect of Maternal Age on the Incidence of Postpartum Blues**

The results of the analysis showed that there was a significant effect of age factor on the incidence of postpartum blues with a p value of 0.008 and a 5.52 times chance of experiencing postpartum blues among women aged <20->35 years. Maternal age during pregnancy and

childbirth is often associated with the woman's mental readiness to become a mother. An earlier age (teenage pregnancy) has been believed to increase the risk of low birth weight, premature birth and other pregnancy risks. Age becomes a global phenomenon related to high mortality and morbidity which affects non-optimal behavior both in women as the mothers and the baby or child born and raised (Chung et al., 2018).

The study finding is in line with a study conducted by Purnamaningrum in 2018 which found that women with an early pregnancy age of <20 years had a 3.8 times chance of experiencing postpartum blues compared to those aged 20 years (Purnamaningrum et al., 2018). However, this study is not in line with a study conducted by Muraca (2014) which reported that elderly women aged 35-44 years experienced significantly higher rates of depression than younger women (Muraca & Joseph, 2014).

### **Effect of Parity on the Incidence of Postpartum Blues**

The results of the analysis showed that there was a significant effect of parity factor on the incidence of postpartum blues with a p value of 0.011. It was further shown that less than half by 36.1% of primiparous women experienced severe postpartum blues, more than multiparous women. Parity is a term that defines the number of children a woman has. Primiparous women often show more symptoms related to mental health such as anxiety, depression and sadness than multiparous women (Martínez-Galiano et al., 2019).

Primiparous women do not have experience in caring for children so that they may be afraid and worried about making mistakes in caring for babies. Likewise, in carrying out their duties as a mother, primiparous women often feel confused, more burdened and feel their freedom is reduced by the presence of a child. No experience will affect duties in raising children. Maternal knowledge has a significant effect on baby care pattern (Fatmawati, 2015).

The result of a different study conducted by Mathisen (2013) among 86 respondents of 6 weeks postpartum women reported that women with two or more children had a higher psychological burden and this was associated with the incidence of postpartum depression (Mathisen SE, Glavin K, Lien L, 2013).

### **Effect of Income on the Incidence of Postpartum Blues**

The results of the analysis revealed that there was a significant effect of income factor on the incidence of postpartum blues with a p value of 0.030. Socioeconomic status is a strong predictor of mental health. Higher levels of depression are evident in pregnant and postpartum women who are socially and economically disadvantaged. Economic conditions often interfere with a woman's psychology. Families who are able to cope with expenses for maternal care during childbirth and additionally with the presence of a new baby may barely feel the financial burden so that it does not interfere with the transition to parenthood. However, families who have a newborn baby with a financial burden can experience increased stress and this can interfere with parental behavior, making the difficult transition to enter the role of parenting (Stepanikova I, 2017). A similar study reported that education and low income were associated with the risk of postpartum depression (Chien LY, Tai CJ, 2012; Huang C et al, 2020).

Families with low incomes will have difficulty in accessing health services, transportation, and meeting the

needs of their babies. Maternal self-efficacy about health tends to be lower in low-income parents (Holland ML, Kwang Yoo B, Kitzman H, Chaudron L, Szilagyi PG, 2011).

### **Effect of Husband Support on the Incidence of Postpartum Blues**

The results of the analysis showed that there was a significant effect of husband support factor on the incidence of postpartum blues with a p value of 0.009. Women with low social support were 3.3 times more likely to experience depression than those with high social support, thus making them vulnerable to stress, loneliness and hopelessness (Solomon Shitu, Biftu Geda, 2019). Postpartum support can contribute to improving the well-being of both mother and baby by assisting a woman's transition to motherhood.

Social support has been described as a three-dimensional construct consisting of emotional support (attention, comfort, and encouragement); instrumental support (money, time and real help); and informational support (advice, education, and knowledge). At the International Conference on Population and Development, the power of decision-making at home and increased support from partners were considered the most important solutions for promoting women's reproductive health (Escribà-Agüir V, 2011). Lack of social support is an influential factor for depression and anxiety disorders (Razzak et al., 2019). The study finding is in line with a study conducted by Kusumastuti which found that husband support had a significant relationship with postpartum depression. A woman may feel comfortable, have a higher self-confidence and self-efficacy along with the support provided by her husband and other people surrounding areas during the labor process until the postpartum period (Kusumastuti, Astuti DP, 2015).

### **Effect of Education on the Incidence of Postpartum Blues**

The results of the analysis showed that there was no significant effect of educational factor on the incidence of postpartum blues with a p value of 0.533. It was shown that less than half of respondents (33.3%) with higher education experienced severe postpartum blues. Highly educated women may face social pressures and role conflicts between the demands of being a highly educated woman who has the drive to work and do activities outside the home and the role of a housewife or parent of her children (Robertson, E., Grace, S., Wallington & Stewart, 2004). Education is very influential on knowledge and readiness of a woman in facing pregnancy and childbirth.

In contrast, a study conducted by Indriasari (2017) found that the higher the education level of a woman, the lower the risk of experiencing postpartum depression. Level of education has an effect on the effectiveness of the coping strategies used. People with higher education will be more realistic and more active in solving problems compared to people with low education (Indriasari S, 2017; Matsumura et al., 2019).

### **Effect of Employment Status on the Incidence of Postpartum Blues**

The results of the analysis showed that there was no significant effect of employment status factor on the incidence of postpartum blues with a p value of 0.289. Finding regarding employment status indicated that unemployed woman experienced severe postpartum blues

by 25%, higher than employed women by 14.8%. The study finding is in line with a study conducted by Kusumastuti (2015) which found that there was no relationship between employment status and the incidence of postpartum depression. Although women only acted as housewives, such condition did not affect the incidence of postpartum depression since the family's economy can be fulfilled by a working husband and the mental readiness of the respondent in accepting the birth of a baby (Kusumastuti, Astuti DP, 2015). Similar study also reported that there was no difference between groups of part time working women and full time working women regarding the incidence of postpartum blues (Lewis et al., 2017).

### Effect of Type of Delivery on the Incidence of Postpartum Blues

The results of the analysis showed that there was no significant effect between the type of delivery on the incidence of postpartum blues with a p value of 0.519. Regarding the type of delivery, it was shown that women with cesarean section experienced severe postpartum blues by 20%, lower than women with normal delivery by 20.8%. Different study revealed that women with a strong desire to give birth naturally and had caesarean section during the perinatal period were more susceptible to the risk of postpartum depression compared to other women (Houston KA, Kaimal AJ, Nakagawa S, Gregorich SE, Yee LM, 2015). The discrepancy between maternal expectation and the reality during pregnancy and postpartum periods is a factor that influences the incidence of depression. Spending the gestation period in a natural state, no complications during pregnancy and readiness for delivery appear to be effective conditions in the prevention of postpartum depression. The results of previous study reported that the use of epidural anesthesia during labour, attending labor preparation classes during pregnancy and breastfeeding after delivery were associated with a reduced risk of postpartum depression (Ding T, Wang DX, Qu Y, Chen Q, 2014).

### CONCLUSIONS AND RECOMMENDATIONS

The factors of age, parity, income and independent husband support had a significant effect on the incidence of postpartum blues. Furthermore, maternal age was the most influential factor for the incidence of postpartum blues. Healthcare workers must be able to detect and diagnose the signs and symptoms of postpartum blues as early as possible and take immediate follow-up to reduce the risk factors for this condition. There is a need for psychosocial and psychological interventions in the management of postpartum blues in the forms of psychosocial support, postpartum visits, interpersonal psychotherapy and cognitive therapy.

### ETHICAL CONSIDERATION

This study has obtained a research permission from the Research Ethics Commission of the General Achmad Yani Health Sciences Institute of Cimahi No: 005/KEPK/X/2020

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