

Ante partum depression and husband's mental problem increased risk maternity blues

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Abstrak

Maternity blues (MB) adalah suatu gangguan yang umum ditemukan dan biasanya tidak terdiagnosis. Studi ini mengidentifikasi beberapa faktor risiko yang berhubungan dengan MB. Subjek adalah perempuan hamil dengan antenatal dan melahirkan di Rumah Sakit Persahabatan (RSP) Jakarta dari 1 Nopember 1999 - 15 Agustus 2001. Pengambilan sampel dengan cara konsekutif dan diikuti sampai dengan 2 minggu postpartum. Subjek yang menderita gangguan psikiatri (skizofrenia atau gangguan psikotik lainnya) tidak diikuti sertakan. MB dan ante partum depresi (APD) dideteksi dengan Edinburgh Postnatal Depression Scale (EPDS). Status mental suami didasarkan penentuan Symptom Check List-90 (SCL-90). Sebanyak 25% menderita MB di antara 580 subjek. Dibandingkan dengan yang subjek yang tidak mengalami APD, yang mengalami APD berisiko 3 kali lipat menderita MB [rasio hazard suaian (aHR) = 3,57; 95% interval kepercayaan (CI) = 2.54;5,03]. Perempuan yang mempunyai bayi tidak sehat pada 5 hari pertama pasca persalinan berisiko lebih dari 2 kali lipat menderita MB dibandingkan dengan yang mempunyai bayi sehat (aHR = 2,21; 95% CI = 1,34 ; 3,66). Istri yang suaminya mengalami masalah kesehatan mental berisiko hampir dua kali lipat menderita MB (aHR = 1,91; 95% CI = 1,36 ; 2,68). Serta istri yang mengalami stres dalam masa hamil berisiko 1,6 kali menderita MB (aHR = 1,59; 95% CI = 1,14 ; 2,25). Untuk mencegah timbulnya MB perlu diberikan penanganan khusus pada mereka yang mempunyai riwayat APD, kondisi bayinya tidak sehat pada 5 hari pertama pasca persalinan dan suami mengalami masalah pada kesehatan mental, serta istri yang mengalami stres dalam masa hamil. (Med J Indones 2006; 15:74-80)

Abstract

Maternity blues disorder (MB) is common, and it is usually undiagnosed. This study to identify several risk factors related to MB. Subjects were pregnant women who had antenatal and delivery at the Persahabatan Hospital (RSP) Jakarta from 1 November 1999 to 15 August 2001. Consecutive sampling and was followed-up until two-week postpartum. Those who ever had psychiatric disorders (schizophrenia or other psychotic disorders) were excluded. MB and ante partum depression (APD) detected by using Edinburgh Postnatal Depression Scale (EPDS). Husband's mental status based on Symptom Check List-90 (SCL-90) respectively. Among 580 subjects, 25% suffering from MB. Compared with those who did not have APD, those who experienced it had more than three-fold increased risk to be MB [adjusted hazard ratio (aHR) = 3.57; 95% confidence interval (CI) = 2.54;5.03]. Those who had not healthy baby on the first 5 days afterbirth than who had healthy baby had twice increased risk to be MB (aHR = 2.21; 95% CI = 1.34 ; 3.66). Who had husband with problem in mental health had 1.9 increased risk to be MB (aHR = 1.91; 95% CI = 1.36 ; 2.68) . Stress during pregnancy had 1.6 increased risk to be MB (aHR = 1.59; 95% CI = 1.14 ; 2.25). To control MB, special attention should be paid to women who had APD history, who had unhealthy baby on 5 first days afterbirth, who had husbands' mental health problems, and who had stress during pregnancy. (Med J Indones 2006; 15:74-80)

Keywords: ante partum, maternity blues, depression, mental problem

Maternity blues (MB) is common, but it is usually undiagnosed.¹ The disorder is characterized by feelings of sadness or anxiety, loss of appetite, fatigue, and sleep disorders, either too little or too much sleep.^{2,3,4,5,6}

They becomes hypersensitive to the trivial problems, excessive crying, easily influences by the bad or good news.^{1,3,4,5,6} The MB seems to appear within less than the first two weeks post-natal.³⁻⁷ In addition, about three quarter among the children with their mother suffered from depression, showed emotional disorders when they were 3 years old.⁷ Follow-up of women with MB is important, since up to 20% develop postpartum depression.⁶

Reported incidence rates vary widely, with estimates in the literature ranging from 5% to 80%.⁴⁻⁸ In Jakarta as reported on the pilot study detected 37% were suffering from MB based on Edinburgh Postnatal Depression Scale (EPDS).⁸ The MB related to history of prior postpartum depression, history of depression during pregnancy, history of severe premenstrual syndrome,^{7,9} social support, depression in the third trimester, previous mental health, attitudes towards pregnancy, complications of pregnancy, menstrual or other endocrine disturbances.^{2,10}

In Indonesia, no comprehensive study identifying the risk factors related to MB has ever been conducted. Therefore, it beneficially to study some risk factors related to MB. The objective of this study is to investigate history of ante partum depression (APD), social support, history of depressive episode, marital adjustment, mental health status of husband, and the conditions of the baby related to MB.

METHODS

The study desain is cohort study. The subjects were pregnant women in the third trimester who attended antenatal care and were follow up until two weeks after birth at the Department of Obstetrics of the Persahabatan Hospital (RSP) Jakarta, from 1 November 1999 to 15 August 2001. The sampling method was non probability and consecutive sampling. The subjects who were included in this study: able to read and write Indonesia language, married, and signed an informed consent form. Those who had a history of psychiatric disorder, either schizophrenia or other psychotic disorders were excluded from this study.

In this study, MB was detected during post partum period until 2 weeks postpartum. Subjects were diagnosed MB by psychiatrist if they had an validated EPDS score of 13 or more.¹¹ Those who had an EPDS score of less than 13 were categorized as non MB subjects.

The information collected pertained to demographic, obstetrical, and gynecological characteristics, as well as mental health conditions. The author interviewed respondents in the hospital consultation room to collect information on demographic and personal characteristics.

Information on stress before and during pregnancy was collected using a special questionnaire for this study, and the subject filled in by themselves the questionnaire. Stress before pregnancy was defined as a significant unpleasant condition before pregnancy, whereas stress during pregnancy was a significant unpleasant condition during pregnancy. Any history of depressive episode, with or without therapy, was included. Premenstrual syndrome history consisted of mild menstrual problems with symptoms of irritability, tension, dysphoria, or mood liability, with or without somatic symptoms. The symptoms, single or combined, should appear before menstruation and disappear early in menstruation.¹²

Information regarding social support were collected using validated *Kuesioner Dukungan Sosial (KDS)*.¹³ A score of 13 or more considered as no social support present, while a score of less than 13 means social support was present. Where as information regarding marital relationship were collected using validated *Kesesuaian Hubungan Suami Istri (KHSI)* questionnaire.¹⁴ The husbands and wife filled *KHSI* questionnaires. A score of 16 or more means marital adjusted was not present, and score of less than 16 means marital adjusted is present. The Symptom Check List-90 (SCL-90) was also administered to the husbands to find out the their mental status. A husband considered having psychopathology if he had a score of 61 or more.¹⁵

A number of risk factors were examined as potential confounders and/or effect modifiers, including: age (21-40 / lower than 20 or higher than 40 years); education (none – junior high school and senior high school / university graduates); occupation (employed / housewives); number of pregnancies (first pregnancy / second or more); number of children (none / one child or more children).

Cox proportional hazards regression analysis using STATA version 6 software,¹⁶ was used in order to control for the confounding effects of risk factors on the relationship between the risk factors and MB. A risk factor was considered to be a potential confounder if upon completing of the univariate test, the p-value < 0.25 and will be considered as a candidate for the multivariate model along with all risk factors of known biological importance.¹⁷ Characteristics that fulfilled this definition as confounders are included by the method of maximum

likelihood. Ninety-five percent confidence intervals were based on the standard error of coefficient estimates. The research proposal was approved by the Ethical Committee of Faculty of Medicine, University of Indonesia, Jakarta.

RESULTS

The total participants in this study were 681 subjects who attended in the antenatal care. A number of 101 subjects were excluded because of the incomplete data, such as KDS, KHSI, SCL-90 or the information regarding stress before and during their pregnancy. Therefore, only 580 participants were included in this analysis.

Table 1 shows there were 25% (146/580) subjects were suffering from MB. Those who had or did not suffer from MB were similarly distributed with respect to age, education, occupation, number of pregnancy and delivery, method of delivery. It was likely that not health than healthy post partum physical health condition had maternity blues.

Table 2 shows those who had or did not suffer from MB were similarly distributed with respect to marital adjustment of wife and baby birth weight. Subjects who did not have social support, or marital adjustment of husband, or pre-pregnancy stress, or depressive episode than those who had it more likely had increase risk to be MB.

Table 1. Some demographic and obstetrical characteristics of subjects and risk of maternity blues

| | Maternity blues | | | | Crude hazard ratio (95% CI) |
|--|-----------------|------|----------------|------|-----------------------------|
| | No (N=434) | | Yes (N=146) | | |
| | n | % | n | % | |
| Age (years) | | | | | |
| 21-40 | 408 | 74.7 | 138 | 25.3 | Reference |
| Less or more than 21-40 | 26 | 76.5 | 8 | 23.5 | 0.92 (0.45;1.88) |
| Education | | | | | |
| Senior HS – University | 362 | 75.7 | 116 | 24.3 | Reference |
| None-junior high school | 72 | 70.6 | 30 | 29.4 | 1.22 (0.82;1.83) |
| Occupation | | | | | |
| Housewife | 269 | 72.9 | 100 | 27.1 | Reference |
| Employed | 165 | 78.2 | 46 | 21.8 | 0.87 (0.61;1.23) |
| Number of pregnancies | | | | | |
| Second or more | 230 | 74.9 | 77 | 25.1 | Reference |
| First | 204 | 74.7 | 69 | 25.3 | 0.94 (0.68;1.31) |
| Number of deliveries | | | | | |
| Once or more | 346 | 75.1 | 115 | 24.9 | Reference |
| None | 88 | 73.9 | 31 | 26.1 | 1.03 (0.69;1.53) |
| Method of delivery | | | | | |
| Spontan | 339 | 76.5 | 104 | 23.5 | Reference |
| Operation or others | 95 | 69.3 | 42 | 30.7 | 1.22 (0.85;1.75) |
| Postpartum physical health condition (1-5 days) | | | | | |
| Healthy | 411 | 75.5 | 133 | 24.5 | Reference |
| Not healthy | 23 | 63.9 | 13 | 36.1 | 1.73 (0.97;3.06) |

Table 2. Some mental health problems and risk factors of the maternity blues

| | Maternity blues | | | | Crude hazard ratio (95% CI) |
|--------------------------------------|-----------------|------|-------------|------|-----------------------------|
| | No (N=434) | | Yes (N=146) | | |
| | n | % | n | % | |
| Social support | | | | | |
| Yes | 204 | 80.6 | 49 | 19.4 | Reference |
| No | 230 | 70.3 | 97 | 29.7 | 1.54 (1.09;2.17) |
| Marital adjustment of wife | | | | | |
| Yes | 222 | 76.3 | 69 | 23.7 | Reference |
| No | 212 | 73.4 | 77 | 26.6 | 1.22 (0.88;1.69) |
| Marital adjustment of husband | | | | | |
| Yes | 248 | 80.8 | 59 | 19.2 | Reference |
| No | 186 | 68.1 | 87 | 31.9 | 1.82 (1.30;2.53) |
| Pre-menstrual syndrome | | | | | |
| None | 322 | 77.1 | 96 | 22.9 | Reference |
| Present | 112 | 69.1 | 50 | 30.9 | 1.35 (0.96;1.91) |
| Pre-pregnancy stress | | | | | |
| None | 391 | 79.1 | 103 | 20.9 | Reference |
| Present | 43 | 50.0 | 43 | 50.0 | 2.55 (1.78;3.65) |
| Depressive episode | | | | | |
| Not present | 400 | 77.3 | 117 | 16.4 | Reference |
| Present | 34 | 53.9 | 29 | 65.4 | 2.53 (1.68;3.81) |
| Baby birth weight (gram) | | | | | |
| 2500-3750 | 421 | 75.4 | 137 | 24.6 | Reference |
| 2500 or lower | 13 | 59.1 | 9 | 40.9 | 1.34 (0.68;2.64) |

Table 3, the final model, shows that MB was dominantly related to ante partum depression, pregnancy stress, husband had mental status problem, and the health condition of baby during the first 1 to 5 days postpartum. Those who had than who did not have stress during pregnancy had 1.6 folds increased to be MB [adjusted Hazard Ratio (aHR) = 1.56; 95% confidence interval (CI) = 1.14 ;2.25]. Compared with those who did not have ante partum depression, those who experienced it had more than 3.6 times increased risk to be MB [aHR] = 3.57; 95% confidence interval

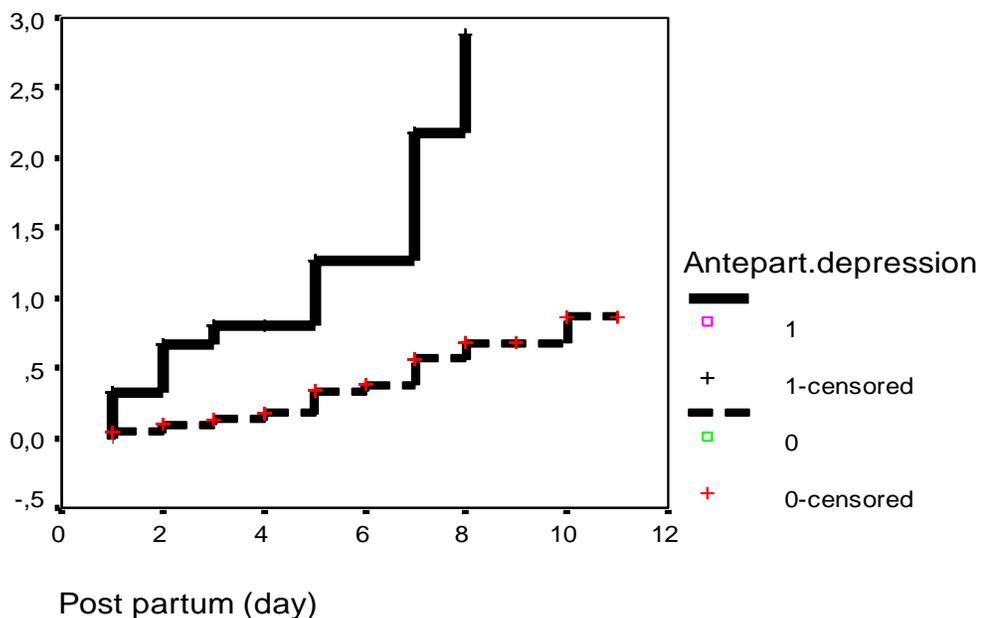
(CI) = 2.54; 5.03]. Furthermore in term of husband factor, those postpartum who had their husband had mental status problem compared with those did have the mental problem had 1.9-fold increased to be MB (aHR = 1.91; 95% CI = 1.36; 2.68).

Graphic 1 shows among who had APD, MB was drastically increased by history of APD after sixth day postpartum and it was stable after eight-day postpartum period compared with those who did not had history of APD.

Table 3. Relationship between antepartum depression, mental health status of husband, baby condition, pregnancy stress as risk factors of maternity blues

| | Maternity blues | | | | Adjusted hazard ratio (95% CI) | p |
|--|-----------------|------|-------------|------|--------------------------------|-------|
| | No (N=434) | | Yes (N=146) | | | |
| | n | % | n | % | | |
| Antepartum depression | | | | | | |
| Not present | 398 | 83.6 | 78 | 16.4 | Reference | 0.000 |
| Present | 36 | 34.6 | 68 | 65.4 | 3.57 (2.54;5.03) | |
| Mental health status of husband | | | | | | |
| No problem | 309 | 83.3 | 62 | 16.7 | Reference | 0.000 |
| Problem | 125 | 59.8 | 84 | 40.2 | 1.91 (1.36;2.68) | |
| Pregnancy stress | | | | | | |
| None | 353 | 80.4 | 86 | 19.6 | Reference | 0.007 |
| Yes | 81 | 57.4 | 60 | 42.6 | 1.59 (1.14;2.25) | |
| Baby health condition 1-5 days postpartum | | | | | | |
| Healthy | 415 | 76.4 | 128 | 23.6 | Reference | 0.002 |
| Not healthy | 19 | 51.3 | 18 | 48.7 | 2.21 (1.34;3.66) | |

Adjusted each other for risk factors listed in this table



Graph 1. Cumulative hazard function related to antepartum depression

DISCUSSION

In this study, 101 participants were excluded for analysis due to incomplete data. These incomplete data because of some of subjects had difficulties in completing data, and it was difficult to trace the subjects due to incomplete address, some of subjects did not had deliveries at the study hospital (Persahabatan Hospital), or they moved to other address, or they were available for interview after three time home visits.

In this study the prevalence of MB was 25%. The previous reports indicated that the prevalence varied widely, ranging from 5% to 80%. This discrepancy most likely due to either different conceptual definition of this postpartum syndrome or objective studies.⁹ The previous results in Indonesia ranged from 29.6% to 33%.¹⁸ The difference was likely due to difference on the study population such as level education and normal labor, deferent culture, and different study methods.

This study proved that stress during pregnancy is a psychosocial factor of MB. In addition, mental status problem of the husband is important to be considered, it is related with MB. The unhealthy husband can make women more sensitive, and it may caused women sad. The condition of unhealthy baby during the period of 1-5 days postpartum might make the mother felt being unlucky mother.

In conclusion, special attention should be paid to women who had ante partum depression history, stress during pregnancy, their husbands' mental health problems, and who had baby not healthy on the first five days afterbirth in order to control MB.

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