DETERMINANTS OF PERINATAL DEPRESSION IN LICIN BANYUWANGI 2019

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ABSTRACT

Perinatal depression is a mood disorder that occurs in pregnant and postpartum women. To determine the magnitude of the risk of perinatal depression, this study used the Edinburgh Postnatal Depression Scale (EPDS) screening tool. This study used primary data in the form of a questionnaire to collect data on screening for depression in pregnant women and postpartum during the last 12 months. This research was an observational descriptive study with a crossectional research design. Sampling was done by cluster random sampling in Segobang Village, Jelun Village, and Banjar Village in Licin District, Banyuwangi Regency. The number of samples obtained was 31 samples. In the EPDS screening results of the pregnant women group, the results showed a very high risk of 18,75%. Whereas in the postpartum maternal group, the results showed a high risk of 6,67% and a very high risk of 6,67%. Based on the results of the correlation test with Spearman's rho correlation, it can be concluded that there was a significant correlation between maternal age of postpartum with the risk of perinatal depression ($\alpha = 0.03$).

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INTRODUCTION

Mental health is a condition where an individual can develop physically, mentally, spiritually, and socially so that the individual is aware of his own abilities, can deal with stresses / stresses, can work productively and be able to contribute to his community. This is stated in Article 1 of Law No. 18 of 2014 concerning Mental Health.[1] Mental health is also important to be seen from the impact it causes, among other things there are large numbers of people with psychiatric disorders which are also followed by extensive socioeconomic burden. Mental health is a very big problem and poses a significant development burden. If mental health problems are not addressed then in the future it will reduce physical health status, reduce work productivity and quality of human resources, causing family disharmony, psychosocial problems, including can hamper national development.

According to the Decree of the Minister of Health of the Republic of Indonesia No. 220/MENKES/SK/III/2002 concerning General Guidelines for the Guidance Team, Steering Team, Community Mental Health Implementation Team (TP-KJM) various efforts in the mental health sector need to be carried out including: promotive, preventive, curative and rehabilitative in an integrated and comprehensive way throughout the life cycle of humans.[2] These efforts can be carried out in the family, community, educational institutions, service facilities, religious institutions, correctional institutions and involve various resources in the community so that integrated and comprehensive integrated efforts can be carried out properly.

In 1995 a World Bank Study was carried out in several countries. The results of the study indicate that the lost productive days or Disability Adjusted Life Years (DALYs) 8.1% are mental health problems of all "Global Burden of Disease". While the DALYs caused by tuberculosis (7.2%), cancer (5.8%), heart disease (4.4%), and malaria (2.6%). The numbers of these diseases are smaller when compared to the DALYs mental health problems. According to WHO data, there are around 300 million people affected by depression, more than 23 million people with schizophrenia. In Indonesia, with a variety of biological, psychological, and social factors with population diversity, the number of cases of mental disorders continues to increase which has an impact on increasing the country's burden and decreasing human productivity for the long term.[3]

Pregnancy should be the happiest moment for a mother. But sometimes, as a prospective mother, especially in primigravida pregnancies, there is just an excessive sense of worry in connection with the approach of the birth process. The period of pregnancy and childbirth it self is period of stressful life. A woman in the pregnancy period and the postpartum period tends to experience considerable stress because of the limitations of physical conditions that make it have to limit the activity and experience the process of adaptation to a mother so that in this period the potential for postpartum depression occurs.[4]

The estimated prevalence of depression during the perinatal period is 7.4% -20% in antenatal and 19.2% in the first three months after giving birth. Approximately 10% -20% of expectant mothers try to fight the symptoms of depression that are felt, but a quarter to half are still affected by severe depression. Of 360 pregnant women, 10% of these pregnant women experience depression during their pregnancy (antenatal), and 6.8% of pregnant women experience postpartum depression. Based on Halbreich and Karkun research in 2006 showed that the incidence of baby blues syndrome in the world is between 0.5% -60%, while in Asia between 3.5% -63.3%. In Indonesia alone, the incidence of baby blues syndrome is between 50% -70%.[5-7]

Primiparous mothers who experienced baby blues syndrome reached 88.9% of the results of the Machmudah study in 2010. This number is greater when compared to the incidence of baby blues syndrome in multipara mothers which amounted to 11.1%. In addition, a previous research estimated that 13% of all pregnant women who experience stress during pregnancy develop depression during postpartum. The incidence rate of postpartum depression is 1-2 per 1000 births, 50% -60% of which occur when

having a first child and 50% of postpartum depression incidents have families with mood disorders. While globally the prevalence of postpartum depression is between 10% -15%. Furthermore, the prevalence of postpartum depression in Denpasar is 20.5%, which is calculated based on EPDS scores.[4,8]

Depression is a mood disorder that occurs in 1 in 4 women who are pregnant and this is still not considered anything special. This disease often affects those who are pregnant, but often also not realized by pregnant women because they consider this incident is a natural thing to happen to pregnant women. Even if not handled properly can affect the baby conceived by the mother. Depression during pregnancy has a negative impact on both the mother and the baby to be born. A previous research found that anxiety and depression during pregnancy have an impact on premature fetus, LBW, disruption in fetal growth and also affect the mental development of children. While the impact on mothers is an increase in drug use, premature birth, cardiovascular problems, cesarean delivery. Postpartum depression not only has a big impact on the mother's condition but also on the child. Difficult interaction between mothers who are depressed with their children increases the risk of behavioral disorders and cognitive impairment of the child and can even endanger the child.[4,8]

Because of the above, it is necessary to know the cause of depression during pregnancy (antenatal) up to twelve months after pregnancy (postpartum) in the Licin Puskesmas, Banyuwangi Regency, East Java in order to determine the promotive and preventive efforts that can be done. Implementation of these efforts requires cross-sectoral cooperation, including the community, cadres and midwives at these locations.

MATERIALS AND METHODS

This is an observational descriptive with cross sectional research design. This study describes the mental health of pregnant women and postpartum mothers in the past 12 months as respondents in the villages of Segobang, Jelun, and Banjar, Licin District, Banyuwangi Regency. Characteristics of respondents include age, marital status, last education, employment, living with the husband and ownership of the MCH book. The data collection of this study was using primary data, data taken directly by researchers with a questionnaire to obtain information about screening for depression in pregnant women and postpartum in the last 12 months using the Edinburgh Postnatal Depression Scale (EPDS).

Data analysis was carried out through several stages. The first stage is editing which includes checking the completeness of the respondent's identity and answers. The second stage, namely coding, which gives the code to facilitate tabulation and data analysis. The third step is data entry, entering the respondent's identity and answers into Microsoft Excel. Furthermore, descriptive analysis, categorization, and crosstab were performed with SPSS 20.

The study population was pregnant women and postpartum mothers in the last 12 months in the areas of the villages of Segobang, Jelun, and Banjar, Banyuwangi Regency. Sampling was done by cluster random sampling. Data collection was carried out on 1 - 4 November 2019. The number of samples obtained was 31 samples. This study looked at 7 (seven) variables, among others: screening for risk

of perinatal depression, marital status, age, possession of MCH books, mother's last education, mother's occupation, and living with her husband.

The risk screening variable for perinatal depression is given through 10 EPDS questionnaire questions covering the questions felt by the mother in the past week. The answers will be calculated according to the numbers listed in the answer choices. The results of perinatal depression risk screening values will be classified based on the total number of selected answers with results <8 not depression, 9-11: depression possible, 12-13: high likelihood of depression, > 14: probable depression.

RESULTS

Based on the table above, a statistical test was performed with Spearman's rho correlation. From the test, the correlation results obtained by 0.44. Because this number is greater than 0.05, it can be concluded that there is no significant corellation between the last education of pregnant women with screening results using EPDS.

Based on the table above, a statistical test was performed with Spearman's rho correlation. From the test, the correlation results obtained by 0,03. Because this number is smaller than 0,05, it can be concluded that there is a significant corellation between the age groups of postpartum mothers up to a 12-month interval with screening results using EPDS. Test statistics with Spearman's rho correlation. From the test, the correlation results obtained by 0.79. Because this number is greater than 0.05, it can be concluded that there is no significant corellation between the last education of postpartum mothers up to a 12-month interval with screening results using the Edinburgh Postnatal Depression Scale (EPDS)

Table 1. Frequency Distribution of Perinatal Depression Screening Risk Results, Corellation Between Age and Education of Pregnant Women and Postpartum With Screening Results

Group	Screening results				Total
	No risk n (%)	Risky n (%)	High risk n (%)	Very high risk n (%)	
Pregnant mother	8 (50)	5 (31,25)	0 (0)	3 (18,75)	16
Postpartum	5 (33.33)	8 (53.33)	1 (6,67)	1 (6,67)	15
Total	13 (41.9)	13 (41.9)	1 (3,2)	1 (6,67)	31

Table 2. Frequency Distribution of Perinatal Depression Screening Risk Results, Corellation Between Age and Education of Pregnant Women and Postpartum With Screening Results

Group	Pregnant women screening results				Total
	No risk	Risky	High risk	Very high risk	
16-20 years	1	1	0	0	2
21-25 years old	0	2	0	2	4
26-30 years old	4	0	0	1	5
31-35 years old	3	1	0	0	4
36-40 years old	0	1	0	0	1
41-45 years old	0	0	0	0	0
Total	8	5	0	3	16
SD / equivalent	2	4	1	0	7
Middle school / sedera jat	1	3	0	0	4
SMA / equivalent	0	0	0	0	0
Higher Education / equivalent	2	1	0	1	44
Total	5	8	1	1	15

Group	Postpartum maternal screening results				Total
	No risk	Risky	High risk	Very high risk	
16-20 years	0	0	0	0	0
21-25 years old	1	1	1	1	4
26-30 years old	1	6	0	0	7
31-35 years old	1	1	0	0	2
36-40 years old	1	0	0	0	1
41-45 years old	1	0	0	0	1
Total	5	8	1	1	15
SD / equivalent	2	4	1	0	7
Middle school / equivalent	1	3	0	0	4
SMA / equivalent	0	0	0	0	0
Higher Education / equivalent	2	1	0	1	4
Total	5	8	1	1	15

Table 3. Frequency Distribution of Respondent General Data

Group	Marital status		Total
	Married - n (%)	Not Married - n (%)	
Pregnant mother	16 (51.61)	0 (0)	16
Postpartum	15 (48.39)	0 (0)	15
Total	31 (100)	0 (0)	31
Group	Status		Total
	Pregnant women - n (%)	Postpartum - n (%)	
16-20 years	2 (12.5)	0 (0)	2
21-25 years old	4 (25)	4 (25)	8
26-30 years old	5 (31,25)	7 (46.67)	12
31 - 35 years old	4 (25)	2 (12.5)	6
36-40 years old	1 (6,25)	1 (6,25)	2
41-45 years old	0 (0)	1 (6,25)	1
Total	16 (51.61)	15 (48.39)	31
No school	0 (0)	0 (0)	2
SD / equivalent	3 (18,75)	7 (46.67)	10
Middle school / equivalent	9 (56,25)	4 (26.67)	13
SMA / equivalent	3 (18,75)	0 (0)	3
Higher Education / equivalent	1 (6,25)	4 (26.67)	5
Total	16 (51.61)	15 (48.39)	31
Housewife	9 (56,25)	5 (33.33)	14
Civil servants	0 (0)	1 (6,67)	1
entrepreneur	2 (12.5)	0 (0)	2
Farmers / Laborers	0 (0)	1 (6,67)	1
Etc	5 (31,25)	8 (53.3)	13
Total	16 (51.61)	15 (48.39)	31
Group	KIA book (Maternal and Children Health Book)		Total
	Have - n (%)	None - n (%)	
Pregnant mother	16 (51.61)	0 (0)	16
Postpartum	15 (48.39)	0 (0)	15
Total	31 (100)	0 (0)	31
Group	Stay at home with husband		Total
	Yes - n (%)	No - n (%)	
Pregnant mother	16 (93,75)	1 (6,25)	16
Postpartum	15 (100)	0 (0)	15
Total	30 (96.77)	1 (3,23)	31

Table 4. Corellation Between Occupation of Pregnant Women with Screening Results and Corellation Between Postpartum Mother's Work and Screening Results

Group	Screening results		Total	OR
Pregnant mother	Positive	Negative		
Pregnant - Housewife	6	3	9	
Pregnant - Non Housewife	2	5	7	5
Total	8	8	16	
Postpartum - Housewife	4	1	3	
Postpartum - Non Housewife	6	4	10	2.67
Total	10	5	15	

The Fisher Exact test was carried out on the corellation between work and EPDS screening results. In the results obtained correlation results of 0.32. Because the correlation rate is greater than 0.05, it can be concluded that there is no significant corellation between work in the group of pregnant women with depression screening using EPDS. In addition, an odds ratio of 5 was obtained, meaning that the group of pregnant women with housewife occupations had a 5 times greater risk of getting positive screening results compared to non-housewives.

The Fisher Exact test was carried out on the corellation between work and EPDS screening results. In the results obtained correlation results of 0,60. Because the correlation rate is greater than 0,05, it can be concluded that there is no significant corellation between work in the postpartum maternal group to a 12-month interval with screening for depression using EPDS. In addition, an odds ratio of 2,67 is obtained, which means that the group of postpartum mothers with housewife occupations is 2,67 times more likely to get positive screening results compared to non-housewives.

A total of 16 people (51,61%) were pregnant women and 15 people (48,39%) were postpartum mothers. All respondents totaling 31 people (100%) were married. Age of respondents was found to have a median of 28.0 with a standard deviation of 5.63. The average respondent is 28,16 years old. The youngest respondent is 19 years old and the oldest respondent is 45 years old. A total of 13 people (41,94%) had the last junior high school education or equivalent. Most of the mothers do not work with 14 people (45,15%). Perinatal depression screening results in the group generally found that respondents at risk were 13 respondents with a percentage of 41,94%, a high risk of 1 respondent with a percentage of 3,22%, and very high risk with a total of 4 respondents with a percentage of 12,90%.

The statistical test results with Spearman's rho correlation produce a correlation of 0,03 which means there is a significant corellation between age groups in postpartum mothers up to a 12 month interval with screening results using EPDS. There is no significant corellation between the age of pregnant women, the last education of pregnant women and the work of pregnant women with the incidence of perinatal depression. There is no meaningful corellation between postpartum maternal last education and postpartum maternal occupation with perinatal depression events.

DISCUSSION

The results of the study have shown that 58.06% of pregnant and postpartum women in Licin District are at risk of developing perinatal depression. According to research, the prevalence of perinatal depression in low-income countries reaches 35% -40%.[9] The high prevalence of perinatal depression is influenced by several things, namely an increase in somatic symptoms, violent behavior from a partner, lack of social support, unwanted pregnancy, and periods of recurrence of depression.[10]

This study shows the results of perinatal depression screening using the Edinburgh Postnatal Depression Scale (EPDS) instrument. Perinatal depression screening results in the group in general found that respondents at risk were 13 respondents (41,94%), high risk as much as 1 (3,22%), and very high risk with the

number of 4 respondents (12,90%). This is in line with research conducted by Dira and Wahyuni (2016) showing of 44 mothers who filled the EPDS questionnaire as many as 9 mothers (20.5%) got a score of> 13 (depression probable) which means the mother had experienced postpartum depression. Pregnant women who get positive depression risk screening are 8 people with a percentage of 50.00%, while postpartum women up to 12 months who get positive risk screening screening are 10 people with a percentage of 66.67%.[4]

In pregnant women, the most respondents were in the age group 26-30 years, 5 respondents (31.25%), the most recent education was junior high school, 9 respondents (56.25%), and most mothers' occupations as housewives were 9 respondents. (56.25%). Based on the results above there is no significant corellation between age groups in pregnant women with screening results using EPDS. This is not in line with the previous research where the age range influences antenatal depression in which age 14-19 years are more at risk of developing antenatal depression than those aged 20-29 years.[11]

Recent education and occupation of pregnant women (antenatal) also did not find a significant corellation with screening results using EPDS. This is not in line with research conducted by Yoshiro *et al* (2012) where pregnant women who do not work have a risk of 1,35 times to get antenatal depression and this corellation is statistically significant.[12]

In postpartum mothers, most respondents were in the age group 26-30 years, 7 respondents (46,67%), the most recent education was elementary school, which was 7 respondents (46,67%), and most mothers' occupations other than housewives were 10 respondents. (66,67%). Based on the above results, a significant corellation was found between the age groups of postpartum mothers to a 12 month interval with screening results using EPDS. This is in line with research conducted by Annerangi and Helda (2013) showing that mothers aged <29 years are more at risk for antenatal depression. Age 20-35 years is the age that is considered safe for undergoing pregnancy and childbirth. In addition, research by Faisal-Cury & Menezes (2007) states that older age is a protective factor for the incidence of antenatal depression. Severe anxiety experienced by pregnant women who are young (<20 years) can affect the land of perception so that someone tends to focus on something detailed, specific, and can not think about anything else. Meanwhile, pregnant women who are quite old experience mild anxiety associated with tension in daily life and cause an increase in perception land.[8,12]

The last education of postpartum mothers did not have a significant corellation with screening results using EPDS. This result is in line with the research of Katherine *et al* (2013) in their study saying that postpartum depression is not related to education level.[13] The lack of corellation in this study can be influenced by the lack of information received by the mother so that it will affect the confidence of the mother during pregnancy. In contrast, Dira and Wahyuni (2016) showed that the education of mothers who had completed primary school (50%) suffered from postpartum depression. Education can affect the anxiety of pregnant women during pregnancy, because education can affect one's perception, ways of thinking in managing information and making decisions.[4,13]

The work of postpatum mothers has no significant corellation with screening results using EPDS. This is in line with research conducted by Katherine, *et al* (2013), in their study it was said that postpartum depression was not related to work. The absence of this corellation is likely because some of the respondents are housewives who do not have a lot of pressure when doing household chores. However, work is a stressor for pregnant women and this stressor is associated with depression, especially during pregnancy.[12,14,15]

In the stage of community diagnosis, problems selected using the Delbecq NGT method are lack of support from the family, lack of mental preparation about pregnancy, and lack of perinatal depression screening. In the community diagnosis stage, the chosen solution is also chosen, namely counseling for families and prospective brides, improving the quality of pregnant women, and providing screening instruments. In the community therapy stage, PENUH CINTA (Peduli dan Sayangi Utuh Ibu untuk Licin yang Sejahtera). This community therapy series is in the form of counseling to the community via radio (LANUDAL), counseling to prospective brides in KUA (LIONTIN PITA EMAS), counseling to the head of the family (SUSI), as well as counseling as well as socialization regarding the use of EPDS to midwives and cadres (IKAN TERI).

CONCLUSION

There was a significant corellation between age groups in postpartum mothers up to a 12 month interval with screening results using EPDS. There was no significant corellation between the age of pregnant women, the last education of pregnant women, and the occupation of pregnant women with the incidence of perinatal depression and there was no significant corellation between the last education of postpartum mothers and postpartum mothers work with the incidence of perinatal depression.

In the evaluation phase, the activity is assessed based on the success of introducing the field, establishing a community diagnosis and community therapy that has been carried out. Evaluation of community therapy is done by looking at participants' understanding of the material that has been given using pretest and posttest.

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CONFLICT OF INTEREST

All Authors have no conflict of interest

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All authors have contributed to all process in this research, including preparation, data gathering and analysis, drafting and approval for publication of this manuscript.

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