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Relationship Of Obesity, Anxiety Level And Sleep Quality In Pregnant Women With Preeclamsia In Rsud Dr. Hm Rabain Muara Enim 2021

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ABSTRACT

Preeclampsia was defined as new-onset gestational hypertension with a systolic blood pressure greater than or 140 mmHg and/or a diastolic blood pressure of 90 mmHg associated with new onset of at least one proteinuria, maternal organ dysfunction or uteroplacental dysfunction at or after 20 weeks ' gestation. This study aims to determine the relationship between obesity, anxiety levels and sleep quality, in pregnant women simultaneously with the incidence of preeclampsia in RSUD Dr.H.M. Rabain Muara Enim in 2021. The method used in this study is an analytical observational study with a cross sectional design or approach. The population in this study were all pregnant women with gestational age more than or 20 weeks, with a total sample of 46 people. Data were collected, processed and analyzed using univariate and bivariate analysis. The sampling technique was using purposive sampling. The statistical test used was the chi square test. Through data analysis, it was found that there was a relationship between obesity in pregnant women and the incidence of preeclampsia with p value = 0.001 < = 0.05, there was no relationship between anxiety levels of pregnant women and the incidence of preeclampsia with p value = 0.191 > = 0.05, and there is a relationship between the quality of sleep of pregnant women with the incidence of preeclampsia with p value = 0.031 < = 0.05. The results of this study are expected to be used as input for improving the quality of services for pregnant women so that they can reduce the incidence of preeclampsia and at the same time reduce maternal mortality.

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1. Introduction

Pregnancy is a naturally occurring process of continuing heredity. Pregnancy as a process that occurs between the fusion of sperm and ovum cells so that conception occurs until the birth of the fetus, the normal length of pregnancy is between 280 days or 40 weeks calculated from the first menstruation of the last menstruation.

Pre-eclampsia is a syndrome characterized by increased blood pressure and proteinuria that appears in the second trimester of pregnancy which always recovers in the postnatal period. Pre-eclampsia can occur in the antenatal, intranatal, and postnatal period. Mothers who experience hypertension due to pregnancy range from 10%, 3-4% of them have pre-eclampsia, 5% have hypertension and 1-2% have chronic hypertension [1].

The highest cause of death in mothers was due to bleeding, namely 42 people, hypertension 39 people, circulatory system disorders 8 people, while the least cause of death was caused by infection and metabolic disorders as many as 4 people [2], Data obtained from the Health Office of

Muara Enim Regency the number of maternal deaths in Muara Enim Regency from 2018 - 2020, namely in 2018 as many as 10 cases, in 2019 as many as 12 cases and in 2020 as many as 3 deaths (Profile of the Muara Enim District Health Office, 2020) [3].

Efforts to reduce MMR through intermediate interventions have been programmed by the government since several years ago through safe motherhood efforts, safe motherhood efforts are a form of intervention against several determinants of maternal mortality, known as 4 pillars, namely family planning, antenatal care, clean and safe delivery and obstetric services. essential. These 4 pillars are supported by basic activities, namely primary health care and women's empowerment. Safe motherhood efforts in addition to the objectives of MPS are to protect reproductive rights and human rights as well as empower women. Where the key message of MPS is that every delivery is assisted by trained health workers, every obstetric and neonatal complication receives adequate services, and every woman of childbearing age has access to prevention of unwanted pregnancy and management of complications [4]. The factors that commonly cause preeclampsia in pregnant women include obesity. Obesity is the accumulation of excessive fat in all body tissues evenly which results in health problems and causes various diseases such as diabetes, high blood pressure, heart attacks and even death [5]. Psychological changes in pregnant women who are at risk for hypertension in pregnancy, one of which is anxiety. Anxiety in pregnant women is related to the safety and health of the baby to be born, preparation for the costs required during childbirth, care for the baby to be born and fear of death after delivery. Pregnant women who experience stress can cause their blood pressure to rise. [6].

Sleep is a condition where there is a decrease in consciousness which is full of calm. During pregnancy, pregnant women also experience changing sleep patterns. [7] The effect of sleep quality on pregnant women with preeclampsia where the results of the study were analyzed with the chi square analysis test obtained a p value of 0.001 so that Ha was accepted ($p < 0.05$). These results indicate that there is a significant relationship between the quality of sleep of pregnant women and the incidence of preeclampsia. [8].

Based on the above phenomenon, researchers are interested in conducting a health research entitled "The Relationship of Obesity, Anxiety Levels, and Sleep Quality in Pregnant Women with Pre-Eclampsia at Dr. HM Rabain Hospital, Muara Enim Regency in 2021".

2. Methods

This study used an analytical observational study using a cross sectional research design, the study was conducted in January 2022, the sample of this study was pregnant women with gestational age 20 weeks at Dr. HM Rabain Muara Enim Hospital, the number of samples in this study was 46 people

3. Results and Discussion

3.1 Result

a. Univariate Analysis

TABLE 1
FREQUENCY DISTRIBUTION BASED ON PREECLAMPSIA IN DR. HM RABAIN MUARA ENIM HOSPITAL IN 2021

No	Preeclampsia	Frequency (n)	Percentage (%)
1	Preeclampsia	16	34.8
2	No Preeclampsia	30	65.2
Amount		46	100

Based on Table 1 above, out of a total of 46 respondents, it is known that 16 respondents (34.8%) had preeclampsia and 30 (65.2%) did not experience preeclampsia

TABLE 2
FREQUENCY DISTRIBUTION BASED ON MATERNAL OBESITY IN DR. HM RABAIN MUARA ENIM HOSPITAL IN 2021

No	Obesity	Frequency (n)	Percentage (%)
1	Obesity	27	58.7
2	Not Obesity	19	41.3
Amount		46	100

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Based on table 2 above, from a total of 46 respondents, it is known that there are 27 people (58.7%) with obesity, while 19 people are not obese (41.3%).

TABLE 3
FREQUENCY DISTRIBUTION BASED ON ANXIETY LEVEL AT DR. HM RABAIN HOSPITAL MUARA ENIM THAN 2021

No	Anxiety Level	Frequency (n)	Percentage (%)
1	Worried	43	93.4
2	No Worry	3	6.6
	Amount	46	100

Based on Table 3 of a total of 46 respondents, it is known that there are 43 people (93.4%) who experience anxiety, while those who do not experience anxiety are 3 (6.6%).

TABLE 4
FREQUENCY DISTRIBUTION BASED ON SLEEP QUALITY AT DR. HM RABAIN MUARA ENIM HOSPITAL IN 2021

No	Sleep Quality	Frequency (n)	Percentage (%)
1	Bad	26	56.5
2	Well	20	43.5
	Amount	46	100

Based on Table 4 above, from a total of 46 respondents it is known, there are 26 people (56.5%) who experience poor sleep quality and there are 20 people (43.5%) who experience good sleep quality.

b. Bivariate Analysis

TABLE 5
RELATIONSHIP BETWEEN OBESITY IN PREGNANT WOMEN AND PREECLAMPSIA AT DR. HM RABAIN MUARA ENIM HOSPITAL IN 2021

No	Obesity	Pree chlamydia				Amount		*value*	Odds Ratio (OR)
		Yes		No					
		n	%	N	%	N	%		
1	Obesity	15	55.6	12	44.4	27	100		
2	Not obese	1	5.3	18	94.7	19	100	0.001	22,500
Amount		16		30		46			

Based on table 5.5 above, it can be seen that of the 27 respondents who are obese, as many as 15 respondents (55.5%) have preeclampsia, while of the 19 respondents who are not obese only 1 respondent (5.3%) has preeclampsia.. Based on the results of the chi-square test at the limit of = 0.05 and df = 1, the p-value = 0.001 < = 0.05, this shows that there is a relationship between maternal obesity and the incidence of preeclampsia so that the hypothesis that states there is a statistically significant relationship was proven. The results of the Odds Ratio obtained a value of 22,500 which means that respondents with obesity have a 22.5 times chance of experiencing preeclampsia compared to non-obese respondents.

TABLE 6
THE RELATIONSHIP BETWEEN ANXIETY LEVELS IN PREGNANT WOMEN AND PREECLAMPSIA AT DR. HM RABAIN MUARA ENIM HOSPITAL IN 2021

No	Anxiety Level	Preeclampsia				Amount		*value*	Odds Ratio (OR)
		Yes		No					
		n	%	N	%	N	%		
1	Worried	16	37.2	27	62.8	43	100		
2	No Worry	0	0.0	3	100.0	3	100	0.191	
Amount		16		30		46			

Based on table 5.6 above, it can be seen that from 43 respondents with anxiety levels, 16 respondents (37.2%) experienced preeclampsia. Meanwhile, of the 3 respondents with no anxiety

level, 0 respondents (0.0%) experienced preeclampsia. Based on the results of the chi-square test at the limit of = 0.05 and df = 1, the p-value = 0.191 > = 0.05, this shows that there is no relationship between the level of anxiety of pregnant women and the incidence of preeclampsia, so that the hypothesis that stated that there was no statistically proven significant relationship.

TABLE 7
RELATIONSHIP BETWEEN SLEEP QUALITY OF PREGNANT WOMEN AND PREECLAMPSIA AT DR. HM RABAIN HOSPITAL MUARA ENIM YEAR 2021

No	Sleep Quality	Preeclampsia				Amount		*value*	OR
		Yes		No					
		n	%	n	%	n	%		
1	Bad	13	50.0	13	50.0	26	100	0.031	5,667
2	Well	3	15.0	17	85.0	20	100		
	Amount	16		30		46	46.0		

Based on table 5.7 above, it can be seen that of the 26 respondents with poor sleep quality, as many as 13 respondents (50.0%) experienced preeclampsia. Meanwhile, from 20 respondents with good sleep quality, there were 3 respondents (15.0%) who had preeclampsia. 05 this indicates that there is a relationship between sleep quality and the incidence of preeclampsia so that the hypothesis that there is a significant relationship is statistically proven. The results of the Odds Ratio obtained a value of 5.667 which means that respondents with poor sleep quality have a 5.667 times greater chance of experiencing preeclampsia than respondents with good sleep quality.

3.2 Discussion

1. Relationship between maternal obesity and the incidence of preeclampsia in Dr. HM Rabain Muara Enim Hospital in 2021

From the results of research on univariate analysis, it was found that from 46 proportions of obesity, there were 27 obese people (58.7%) with obesity, while 19 people were not obese (41.3%). of 27 respondents with obesity, there were 15 people (55.5%) who had preeclampsia, and 12 people (44.4%) who did not have preeclampsia. Meanwhile, from 19 respondents who were not obese, there was 1 person (5.3%) who had preeclampsia, and 18 people (94.7%) did not have preeclampsia.

Based on the results of the chi-square test at the limit of = 0.05 and df = 1, p-value = 0.001 < = 0.05, this shows that there is a relationship between maternal obesity and the incidence of preeclampsia so that the hypothesis that states there is a statistically significant relationship was proven. The results of the Odds Ratio obtained a value of 22,500 which means that respondents with obesity have a 22.5 times greater chance of experiencing preeclampsia compared to non-obese respondents.

The results of this study are in line with the theory of research that has been carried out by Ayatun (2018) at RSIA Siti Khodijah, the results show that the relationship between obesity and maternal preeclampsia with high risk obesity at body weight > 24.9 kg/m2 who experienced preeclampsia due to obesity was 10 people (100 %) who did not have preeclampsia due to obesity 0 (0.0%). This number is higher than the number of low-risk obesity with body weight <18.5kg/m2 who experienced obesity as many as 254 (85.5%).Based on the Chi test -Square obesity factors can experience preeclampsia. From the results of the Chi-Square statistical test where the value of p = 0.00 (ρ value <0.05), it proves that there is a relationship between obesity and the incidence of pre-eclampsia.

Based on the researcher's assumptions, obesity can affect preeclampsia because pregnant women with excess weight will find it difficult to carry out various activities, fat deposits in their bodies can also affect blood circulation from the heart to all vital organs in the body, disturbed circulation will certainly affect blood partners. so that it can be at risk for the occurrence of preeclampsia in pregnancy.

2. The Relationship between Anxiety Levels and the Incidence of Preeclampsia in Dr. HM Rabain Muara Enim Hospital in 2021

From the results of research on univariate analysis, that from 46 proportions of anxiety levels, there are 43 people (93.4%) anxious and 3 people (6.6%). From the results of research on bivariate analysis, it was found that from 43 respondents with anxiety levels there were 16 people (37.2%)

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who experienced preeclampsia, and 27 people (62.8%) who did not experience preeclampsia. Meanwhile, of the 3 respondents with no anxiety level, 0 people (0.0%) had preeclampsia and 3 people (100%) did not experience preeclampsia.

Based on the results of the chi-square test at the limit of = 0.05 and df = 1, the p-value = 0.191 > = 0.05, this shows that there is no relationship between the level of anxiety of pregnant women and the incidence of preeclampsia, so that the hypothesis that stated that there was no statistically proven significant relationship. The results of this study are not in line with the research of Kordi et al.(2017), which shows that almost half of pregnant women who experience anxiety 40 (26.7%) experience pre-eclampsia and from the results of the chi-square statistical test, it is found that the p value count < 0 ,05 means that there is a relationship between pregnant women who experience anxiety and the incidence of preeclampsia.

Anxiety during pregnancy is an unpleasant emotional experience for pregnant women which is characterized by feelings of guilt, sadness or worry about conditions related to their pregnancy. Meanwhile, Cote-Arsenault (in Handley 2006) specifically defines anxiety in pregnancy as a special problem regarding concerns about the fetus and physical changes in the body and attitude of pregnant women. Anxiety can be generalized to pregnancy as a whole or specific to certain problems.

Based on the researcher's assumptions, anxiety or concern in pregnant women if not handled seriously will have an impact and influence on the physical and psychological well-being of the mother and fetus, high anxiety during pregnancy will increase the risk of hypertension and preeclampsia.

3. The Relationship between Anxiety Sleep Quality and the Incidence of Preeclampsia in Dr. HM Rabain Muara Enim Hospital in 2021

From the results of research on univariate analysis, it was found that from 46 proportions of sleep quality, 26 people (56.5%) experienced poor sleep quality and 20 people (43.5%) experienced good sleep quality. Based on the results of research on bivariate analysis, it was found that of 26 respondents with poor sleep quality, there were 13 people (50.0%) who had preeclampsia, and 13 people (50.0%) who did not experience preeclampsia. Meanwhile, of the 20 respondents with good sleep quality, there were 3 (15.0%) who had preeclampsia and 17 (85.0%) who did not. Based on the results of the chi-square test at the limit of = 0.05 and df = 1, the p-value = 0.031 < = 0.05, this indicates that there is a relationship between sleep quality and the incidence of preeclampsia. which is statistically proven. The results of the Odds Ratio obtained a value of 5.667 which means that respondents with poor sleep quality have a 5.667 times greater chance of experiencing preeclampsia compared to respondents with good sleep quality.

4. Conclusion

There is a relationship between obesity, anxiety levels and sleep quality with the incidence of preeclampsia in RSUD Dr.H. M Rabain Muara Enim 2021.

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