

Analysis Stress Level and Diet for Pregnant Women with The Incidence of Preeclampsia Ahmad Dahlan Hospital Kediri City

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ABSTRACT

Background: Preeclampsia is one of complications in pregnancy happened because increased blood pressure accompanied by proteinuria and edema. This is caused by several factors.

Purpose: The purpose of this study to find out the relationship between stress levels and dietary pattern of pregnant women with the incidence of preeclampsia in Hospital Muhammadiyah Ahmad Dahlan Kediri City.

Method: The design of this study is correlation with *cross sectional*. The population studied were all pregnant women who visited the Muhammadiyah Ahmad Dahlan Hospital Kediri City. With gestational age > 20 weeks with a sample of 85 respondents by *purposive sampling*. Data collection using questionnaires and observation sheets. Data analysis using test *chi-square*.

Result: The results of the study show that pregnant women with moderate stress levels experience as much mild preeclampsia 15 respondent (17,6%) and pregnant women with poor diet who experience as much preeclampsia 13 respondent (15,3%). The result of data analysis show that the variabel stress level *p-value* (0,088) > α (0.05) so there is no relationship between stress level and the incidence of preeclampsia whereas for dietary variables *p-value* (0.029) < α (0.05) so that H_0 rejected and H_1 be accepted which means there is a relationship between eating habits and incidence of preeclampsia in the Ahmad Dahlan Hospital, Kediri city.

Conclusion: During pregnancy it is very important for pregnant women to manage stress well and regulate a healthy diet and routinely carry out *Antenatal Care*.

Key words : Preeclampsia, Stress level, Dietary habit.

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BACKGROUND

Pregnancy influences on changes on pregnant women physical and psychological conditions. One of the psychological changes faced by pregnant women is stress. Stress by pregnant women relates to will-be born baby safety and health, cost preparations and will-be born baby care. According to Tobing (2007) in Qodriyah, L (2013), pregnant women facing stress can cause increased and uncontrolled blood pressure appropriately which will result in pre-eclampsia.

According to Prawirohardjo (2009), pregnancy can change appetite and dietary pattern (habit of craving), in which in general, there will be increased appetite which causes to imbalance dietary habit so there will be complications such as hypertension by pregnant women.

The main cause of death for pregnant women in East Java is mainly pre-eclampsia which increased in 2010-2012. There was 26,92% proportion of pre-eclampsia in East Java in 2013 and this number was increased in 2014 to be 27,27% and 34,88 in 2015 (Department of Health, East Java).

Maternal Mortality Rate (AKI) in Kediri city in 2015 was 17 people per 100.000 life birth and in 2016, it was decreased into 16 women. Cause of women death in 2016 was more dominated by bleeding and pre-eclampsia, one of which is 45,45% meanwhile the remaining of 9,09% is caused by other factors.

Excessive and unstable stress by pregnant women will trigger hypertension. Stress can stimulate adrenal gland to release aldosterone hormone in the blood and stimulate faster and stronger heartbeat so there will be increased blood pressure. Aldosterone hormone plays a role in regulating sodium level in the body so that liquid and electrolyte in the blood can still be maintained. If there is uncontrollable adrenal gland secretion, then it will cause water and sodium retention so there will be pitting oedema leading to pre-eclampsia (Nugrogo, 2013).

If there is unmaintained pregnant women dietary pattern such as too many consumptions of foods containing salt then the kidney will secrete rennin hormone so higher level of sodium in the blood will lead to higher blood volume. Increased blood volume will lead to increased blood pressure for pregnant women.

PURPOSE

Based on the above problems, the researchers are interested in examining the analysis of stress levels and dietary patterns of pregnant women with the incidence of preeclampsia in the Ahmad Dahlan Hospital, Kediri City.

METHODS

The research design used is correlation research. The approach used is *cross sectional*. The research was conducted at Ahmad Dahlan Muhammadiyah Hospital in Kediri City on 22 November - 22 December 2018. The populations in this study were all pregnant women who visited Ahmad Dahlan Muhammadiyah Hospital in Kediri City. The sampling technique used was purposive sampling that there were obtained 85 respondents as the samples.

RESULT

Table 3 Results of Statistic Test of Stress Level and Pre-eclampsia Incident Variables

No	Stress Level	Normal	PE Mild	PE Severe	Total
1	Severe	7 (8.2%)	1 (1.2%)	0	8 (9.4%)
2	Moderate	28 (32.9%)	15 (17.6%)	0	43 (50.6%)
3	Mild	29 (34.1%)	5 (5.9%)	0	34 (40%)
	Total	64 (75.3%)	21 (24%)	0	85 (100%)

Table 4 Results of Statistic Test of Dietary Pattern and Pre-eclampsia Incident

No	Dietary Pattern	Normal	PE Midle	PE Severe	Total
1	Not Good	54 (63.5%)	13 (15.3%)	0	67 (78.8%)
2	Good	10 (11.8%)	8 (9.4%)	0	18 (21.2%)
	Total	64 (75.5%)	21 (24.7%)	0	85 (100%)

From the results of the statistical test analysis, it is known that significant value $p = 0.808$. This p value is greater than $\alpha (0.05)$, which means there is no relationship between stress and the incidence of Pre-eclampsia in pregnant women in Ahmad Dahlan Hospital, Kediri City.

DISCUSSION**Relationship of Stress Level and Pre-eclampsia incidents in Ahmad Dahlan Muhammadiyah Hospital, Kediri City**

Based on the Tables of the results of the study, it was found that the number of pregnant women with Pre-eclampsia incidence was 21 respondents (24.7%). The results of cross tabulation showed that there are 5 respondents (5.9%) who were mildly stressed but had pre-eclampsia, because Pre-eclampsia was not only caused by stress, but it could be caused by poor diet in accordance with the results of the study. In addition, there are also many risk factors that can cause Pre-eclampsia. Some of the risk factors for Pre-eclampsia are based on the results of the research by Kusika, Masni, and Syafar (2014), are education, socioeconomic and history of preeclampsia / eclampsia. Reeder and Koniak (2015) stated that the risk factors for hypertension due to pregnancy (Pre-eclampsia) are primigravida, gromeluronephritis, multiple gestation, hydramnios, large fetus, hydatidiform mole, and hydrops fetalis.

Based on the above research, researchers argue that Pre-eclampsia is not only caused by stress, there are other factors playing an important role in causing Pre-eclampsia in pregnant women, for example not good dietary patterns, besides there are also risk factors that cause Pre-eclampsia in pregnant women such as parity, socioeconomic and previous history of Pre-eclampsia.

Relationship of Dietary Pattern and Pre-eclampsia incidents in Ahmad Dahlan Muhammadiyah Hospital, Kediri City

Based on the results of the study, there were 11 respondents (12.9%) who had an unhealthy diet facing Pre-eclampsia. There were 10 (11.8%) study subjects with proper diets and pre-eclampsia history. For research subjects with poor diet with no pre-eclampsia, there were 49 respondents (57.6%). While there are 15 respondents (17.6%). As the research subjects with good diet and not having pre-eclampsia.

In this study, there were 8 respondents (9.4%) who had good diets but had Pre-eclampsia. This can occur because the risk factors for Pre-eclampsia are not only about diet pattern. The results of a study by Indriani (2015) proven that any significantly associated

factors with incidence of pre-eclampsia include factors such as age, gestational age, and factors of maternal employment status. Based on the results of the research above, the researchers argue that dietary pattern plays an important role with the incident of Pre-eclampsia in pregnant women in addition to dietary patterns is one of the main factors in Pre-eclampsia, uncontrolled diet can increase the likelihood of health problems in mother and fetus.

CONCLUSION

There is no relationship between stress and the incidence of Pre-eclampsia in pregnant women at Ahmad Dahlan Hospital in Kediri City. There is a relationship between diet and the incidence of Pre-eclampsia in pregnant women at Ahmad Dahlan Muhammadiyah Hospital, Kediri City.

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