

Original Research

The Correlation Between Depression and Life Quality of Pregnant Mothers with Preeclampsia in Lumajang District

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ABSTRACT

Preeclampsia is a specific hypertensive disease in pregnancy with multi-organ involvement. It usually occurs around 20 weeks of gestation and before delivery. The condition of pregnancy with preeclampsia makes the mother more susceptible to experiencing psychological disorders, one of which is depression. Depressive disorders experienced during pregnancy can affect the baby's health condition. Psychological disorders in the form of depression can cause individuals to have a poor quality of life. This study aimed to analyze the relationship between depression and the quality of life of pregnant women with preeclampsia in Lumajang Regency. The research design uses a correlational study with a cross-sectional approach. The study was conducted on 54 pregnant women with preeclampsia in Lumajang District using a total sampling technique. Data collection using a depression questionnaire with quality of life. The results showed that most of the respondents experienced symptoms of depression, namely as many as 42 respondents (77.8%), and half of the respondents experienced a poor quality of life, namely as many as 37 respondents (68.5%). The bivariate analysis using Spearman Rank found a significant relationship between depression and the quality of life of pregnant women with preeclampsia in Lumajang Regency with a value ($p\text{-value} < \alpha = 0.0001 < 0.05$). This research implies that the role of nurses needs to conduct assessments and detect depressive symptoms and physical problems earlier to improve patients' quality of life.

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Introduction

Preeclampsia is a systemic syndrome usually characterized by the sudden onset of hypertension and proteinuria in pregnancy (Hutcheon, Lisonkova, & Joseph, 2011). Pregnant women with preeclampsia, where pregnancy is over 20 weeks or in the second trimester during pregnancy, have high blood pressure; however, blood pressure will return to normal after delivery (Lowdermilk, 2013). The condition of pregnancy with preeclampsia makes the mother more susceptible to experiencing psychological disorders, one of which is depression. This happens because of various things, such as fears for the safety of the fetus, a more significant threat of death, and limitations in activities (Fauzy et al., 2016).

Depression during pregnancy is the same mood disorder as depression that occurs in general, where the occurrence of depression will occur chemical changes in the brain. Chemical changes in the brain of pregnant women with preeclampsia will affect their psychological condition (Kurniawan et al., 2013). Unpreparedness to become a mother, socioeconomic imbalances, hormonal changes, or complications during pregnancy can be factors causing depression in pregnant women who can be at risk of causing preeclampsia (Kurki, Raitasalo, Mattila & Ylikorkala, 2017).

Depression is a mental illness characterized by persistent sorrow and a considerable loss of interest in daily activities as core symptoms that last at least two weeks. Other symptoms include feelings of inadequacy and worthlessness, irritability and resentment, insomnia, hunger changes, decreased energy, the difficulty of focus and memory, and suicidal or abortion thoughts. Women are predisposed to depression during pregnancy due to several risk factors. Poor antenatal care, poor nutrition, stressful life events such as economic deprivation, gender-based violence, and polygamy, a history of psychiatric disorders, previous puerperal complications, events during pregnancy such as previous abortions, and modes of previous delivery such as previous instrumental or operative delivery are just a few of them. Age, marital status, gravidity, whether the pregnancy was planned, a previous history of stillbirth, lengthy labor, and quality of social

support are all factors to consider (Soyemi et al., 2022).

Abbaszadeh et al (2013) stated that the quality of life in depressed pregnant women was lower than in non-depressed women. In depressive pregnant women, average QOL scores in all dimensions except "functional limits owing to physical health concerns" were significantly lower. Previous research has emphasized the significance of health-related QOL in the context of maternal health and pregnancy outcomes. Preterm birth has been linked to lower physical and social performance during pregnancy. Poor emotional functioning has been linked to increased primary care visits and resource utilization. In particular, poor maternal physical or emotional functioning may result in an increase in prenatal visits or fetal testing. Given the incidence and severity of depression in healthy pregnant women, regular prenatal care visits should include depression screening using established assays. The treatment of depression during pregnancy can improve women's quality of life. It is advised that prenatal services incorporate depression screening into routine antenatal care.

Mothers with preeclampsia have a challenging experience, usually experiencing somatic symptoms, and have a lower quality of life (Li, Li, Chen, Chen & Hu, 2015). One of the factors that cause individuals to have a poor quality of life is when individuals experience psychological disorders in the form of depression (Fauzy et al., 2016).

Several conditions experienced by pregnant women with preeclampsia will impact their lifestyle. This can determine the quality of life of pregnant women with preeclampsia. Quality of life is a measure of health standards, especially for some people with chronic, functional, psychological, and incurable diseases (Preedy & Watson, 2010). There are four quality-of-life domains for pregnant women with preeclampsia: the physical domain, the psychological domain, the social relations domain, and the environmental domain. The physical and psychological consequences are likely to affect health-related quality of life, especially in women with preeclampsia.

Mothers who experience depression during pregnancy tend to have a low quality of healthy life. Research conducted by Fauzy et al. (2016) showed the results of a relationship

between depression and the quality of life of high-risk pregnant women in East Jakarta with a p-value = 0.000 ($p < 0.05$). This study aimed to determine the relationship between depression and the quality of life of pregnant women with preeclampsia in the Lumajang District.

Method

Methods include research design, research variables, sample size, sampling technique, location and time, research instruments, data analysis, descriptive research type correlational with a cross-sectional approach. The dependent variable in this study is quality of life, and the independent variable is depression. The population of this study was pregnant women with preeclampsia in Lumajang Regency; in 2019, as many as 54 pregnant women. The sample used was 54 pregnant women with preeclampsia. The sampling technique uses total sampling.

The researcher determined the respondents by using depression and quality

of life questionnaires. The researcher explained to the respondents about the purpose and procedure of the research. This research has obtained research ethics permit from the KEPK of the Faculty of Dentistry, University of Jember, with letter number 412/UN25.8/KEPK/DL/2019. Instruments used to measure depressive symptoms and quality of life were the CES-D (Center for Epidemiologic Studies Depression Scale) and the WHOQOL-BREF (WHO Quality Of Life Bref) questionnaire. The CES-D measuring tool consists of 20 questions. Determination There are no symptoms of depression $x < 16$, and there are symptoms of depression $x \geq 16$. The WHOQOL-BREF questionnaire consists of 26 questions. Determinants $< 56 =$ Bad, $56-75 =$ Moderate and $76-100 =$ Good. The data analysis used was univariate and bivariate. A univariate analysis was used to describe the characteristics of the respondents. Bivariate analysis was used to determine the relationship between depression and the quality of life of pregnant women with preeclampsia.

Results and Discussion

Characteristics of Respondents

Table 1. Distribution Based On Age, Last Education, Occupation, History Of Preeclampsia Of Pregnant Women With Preeclampsia In Lumajang Regency (July, 2019; N: 54)

Variable	Amount (f)	Percentage (%)
Age		
<20 years	10	18.5
20-35 years	39	72.2
>35 years	5	9.3
Total	54	100.0
Level of education		
No school	3	5.6
SD	24	44.4
Junior High School	11	20.4
Senior High School	14	25.9
Diploma/Bachelor Degree	2	3.7
Total	54	100.0
Work		
civil servant	2	3.7
Private	8	14.8
Housewife	34	63.0
Etc	10	18.5
Total	54	100.0
Preeclampsia history		
Yes	20	37.0
Not	34	63.0
Total	54	100.0

Table 2. Depression Levels Of Pregnant Women With Preeclampsia In Lumajang Regency (July, 2019; N: 54)

No	Depression	Number of People (f)	Percentage (%)
1.	There are symptoms of depression	42	77.8
2.	No Symptoms of Depression	12	22.2
Total		54	100.0

Table 3. Quality Of Life For Pregnant Women With Preeclampsia In Lumajang Regency (July, 2019; N : 54)

Dimensions	Category	Bad		Currently		Well		Total	
		F	%	f	%	f	%	F	%
Physical Health	Psychological Health	36	66.7	13	24.0	5	9.3	54	100
	Social Relations	27	50.0	18	33.3	9	16.7	54	100
	Environment	36	66.7	14	25.9	4	7.4	54	100
	WHOQOL-Bref Total	37	68.5	13	24.1	4	7.4	54	100

Table 1 shows the results of the distribution of the majority of respondents aged 20-35 years were 39 mothers (72.2 %), the last education was Elementary School 24 mothers (44.4 %), work as housewives 34 (63.0 %), and 34 mothers (6 3.0 %) mothers did not have a history of preeclampsia. Table 2 shows the results of the level of depression most of the respondents experienced symptoms of depression, namely as many as 42 respondents (77.8%).

Table 3 reveals the value of each dimension of quality of life varies, it can be

seen that the physical health dimension is the dimension with the most bad categories, namely 42 mothers (77.8%). While the dimensions with the most good categories were the dimensions of social relations, namely 9 mothers (16.7%). An overview of the quality of life of pregnant women with preeclampsia as measured using the WHOQOL-Bref scale, a total of 37 pregnant women with preeclampsia had a poor quality of life (68.5%) and the rest had moderate quality of life as many as 13 pregnant women with preeclampsia (24.0%).

Table 4. The Relationship Between Depression And The Quality Of Life Of Pregnant Women With Preeclampsia In Lumajang Regency (July, 2019; N : 54)

Variable	Quality of Life	
Depression	R	0.636
	<i>p-value</i>	0.0001

Spearman correlation test results *Rank* obtained a *p value* of 0.0001 which means that H_0 is accepted. *p value* of 0.0001 is smaller than α (0.05). This shows that there is a correlation between depression and quality of life. The correlation value indicates that the correlation is positive with a strong relationship strength. It can be concluded that there is a relationship between depression and the quality of life of pregnant women with preeclampsia in several sub-districts of Lumajang Regency.

Pregnancy is a busy time when a woman's emotional condition can alter dramatically. There have been differing

opinions on the extent of emotional anguish during pregnancy. In addition, pregnancy is a period of perfect psychological adjustment, whereas others report significant levels of psychological strain (Soyemi et al., 2022). The results showed that most respondents were aged 20-35. This indicates that most pregnant women with preeclampsia in Lumajang Regency are in their productive age. According to Khatharina (2016), The safest age for pregnancy is the productive age, namely 20-35 years, because at that age, the female reproductive organs have developed and function optimally. Preeclampsia is a disorder of pregnancy in women under the age of 20.

This happens because the reproductive organs and physiology have yet to develop (Yogi, 2014) fully.

In terms of education level characteristics, of all the respondents, the education level that was the most common was the elementary school level. This is due to various factors, such as economic and cultural factors that have developed in several sub-districts of Lumajang Regency. In line with Khuzaiyah's research (2016), most pregnant women with preeclampsia have an average elementary school education. Education is related to access and understanding a person's ability to access health information. Education is also related to one's awareness of the importance of healthy living behavior.

Regarding employment status, more than half of the respondents are housewives, whereas mothers do not work and spend many activities at home. Sardeva (2017) shows that the average incidence of preeclampsia occurs in mothers who do not work. The job level is associated with physical activity and stress which are risk factors for preeclampsia. Occupation is related to low socioeconomic status, which can cause the mother to experience depressive symptoms, decrease the quality of life and physical quality, and reduce the ability to access health facilities, which can affect the treatment of preeclampsia and eclampsia. (Lombo, 2017).

The results of the research on the history of preeclampsia show that of the number of respondents who have been studied, more respondents do not have a history of preeclampsia than those who have a history of preeclampsia. This is in line with the research of Sutrimah et al. (2016) found that there were 25 more mothers with a history of preeclampsia who did not have a history of preeclampsia compared to 7 mothers with a history of preeclampsia.

The correlation analysis that has been carried out shows that more than half of the respondents experience depressive symptoms, namely 42 respondents (77.8%). Of the respondents who experienced depressive symptoms, 37 (68.5%) had a poor quality of life. At the same time, the rest of the respondents did not experience symptoms of depression and had a moderate or mediocre quality of life.

Health-related quality of life decreases during pregnancy in all trimesters, with a

decline in the second and third trimesters compared to the first. However, a study by Mourady et al. (2017) stated that except for the environment domain, where scores increase from trimester 1 to trimester 3, there are no differences in reported QOL among trimesters. This could represent an improvement in the environment's safety and availability of health services and better transportation options with advanced pregnancy. However, age and weekly weight gain were not connected with the quality of life.

Correlation results using rank Spearman show a p-value of less than 0.05, so H_0 is accepted, and both variables have a positive correlation with a correlation strength. It can be interpreted that there is a relationship between depression and the quality of life of pregnant women with preeclampsia in several sub-districts of Lumajang Regency. This is in line with research by Fauzy (2016), where it is said that there is a significant relationship between depression and quality of life. Another study by Diena (2016) also found an association between depression and quality of life.

The significant frequency of depressive disorders in the first trimester recommends that health professionals pay greater attention to pregnant women who appear in their first trimester of pregnancy so that they can diagnose and manage their emotional issues and improve fetal and mother outcomes. There is a need to identify the fluctuation of psychiatric morbidity throughout trimesters. The most common depressive symptom was psychomotor slowness, which is thought to be a core component of depressive disease and predicts the severity of sadness. Furthermore, sadness during pregnancy was connected with younger age, single marital status, and a history of miscarriage. A past miscarriage, an adverse life event, and the dread of a repeat, particularly when the expectant woman is beginning to accept the pregnancy, can all trigger depressive symptoms. The absence of a companion to provide comfort and consistent support could explain why depressive disorder was more prevalent among single pregnant women. This could be explained by the fact that these are prior adverse life events, and the dread of a repeat, particularly as the pregnant lady begins to

accept the pregnancy, may cause depressive disorder. Having more than two children, particularly with the related financial strain, may cause persistent concern linked with negative thoughts, triggering depressive symptoms (Soyemi et al., 2022).

Conclusion

Intake of *Vigna radiata* can stimulate the There is a significant relationship between depression and the quality of life of pregnant women with preeclampsia in Lumajang District. Most respondents experienced depressive symptoms, and half experienced the quality of life. This research requires nurses to conduct assessments and detect depressive symptoms and physical problems earlier to improve patients' quality of life.

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Conflict of Interest

There is no conflict of interest in this study.

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