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PERCEPTIONS ABOUT TRANSITION TO PARENTHOOD AND POSTPARTUM DEPRESSION RISK OF PRIMIPARA IN RURAL AREA

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Abstract
Transitioning to parenthood requires adjusting, especially for primiparas. Failure to meet expectations of good mothering may induce stress that develops into postpartum depression. This study aims to determine the relationship between primiparas' perceptions of parenthood transition and the risk of postpartum depression. Quantitative research is a cross-sectional correlational analysis. Sampling used proportional random sampling with a sample of 81 respondents. Instruments used were the Parenting Sense of Competence Scale (PSOC) for perceptions and the Edinburgh Postnatal Depression Scale (EPDS) for depression risk. Hypotheses were tested using Pearson's correlation test. Respondents' mean perception score was 72.14. Respondents' geometric mean postpartum depression risk score was 8.78. The EPDS results showed that 43.2% of the respondents had no depression risk, 40.8% had depression risk, and 21.0% had postpartum depression. Pearson's test results showed a value of p=0.005 (p-value <0.05) and r=-0.311, indicating an inverse relationship with low correlation strength. There is an association between primiparous perceptions of parental role change and risk of postpartum depression. Health workers need to conduct education since pregnancy and depression risk screening as prevention of postpartum depression.
Keywords: Postpartum depression, perception, primipara, parents, role

INTRODUCTION

The postpartum period is a time of healing and change that begins after the birth of the placenta and lasts for six weeks as women adjust to the addition of new family members. According to Reva Rubin's theory, postpartum women go through three stages of adjustment: taking in, taking hold, and letting go. During the third stage, mothers often experience stress as they face increasing demands to care for their babies independently due to changes in their new role as parents (Ariyanti, 2020).

The demands of parenthood may also affect their perceptions of being a good mother and their responsibilities for childcare and household management. Postpartum depression may be caused by several factors, including difficulty meeting expectations and incompatibility with the postpartum experience (Habel et al., 2015). New mothers in particular are at risk of experiencing postpartum depression due to stressful life events (Johansson, Benderix and Svensson, 2020).

Although a pregnancy may be planned and anticipated, the first childbirth can still have a significant impact on a mother's psychological well-being (Murwati, Suroso and Wahyuni, 2021). According to research by (Dira and Wahyuni, 2016), first-time mothers require high levels of readiness due to the role changes they will experience. According to research by (Dira and Wahyuni, 2016), first-time mothers require high levels of readiness due to the role changes they will experience. Additionally, primiparity is considered a risk factor for postpartum depression. The global prevalence of postpartum depression is estimated to be between 10-15%. Developing countries have a higher prevalence compared to high-income countries (Atuhaire et al., 2021). In Indonesia, the incidence of postpartum depression is as high as 50-70% (Sari, 2020), while in Central Java, the incidence rate reaches 52% (Ria, Budihastuti and Sudiyanto, 2018).

Studies have consistently shown that postpartum depression is more prevalent in rural areas. The prevalence of postpartum depression is higher in rural areas of developing countries (31.8%) compared to those in developed countries (21.5%) (Syamantha Putri et al., 2023). In Cameroon's rural areas, 31.8% of mothers experienced postpartum depression (Dingana et al., 2022). Meanwhile, in the Gunungkidul region, Central Java Province, 60% of early married mothers in rural areas experienced postpartum depression (Balqis, Mediastuti and Widiastuti, 2022). Previous research indicates that perception may contribute to postpartum depression symptoms (Dennis and Ross, 2006; Habel et al., 2015). However, research on the relationship between perceptions of role change into parents and postpartum depression, particularly in rural areas, is limited. This study aims to determine the relationship between primiparous perceptions of role change into parents and the risk of postpartum depression.

METHODOLOGY

This study is a quantitative, cross-sectional correlation analysis. The study was conducted from August 2023 to January 2024, with a population of 283 primiparous mothers in the working area of Karanglewas Health Center, Banyumas Regency. The sample size was determined using the Slovin formula, with an estimated dropout rate of 10%, resulting in 81 research respondents. The study employed proportional random sampling to determine a representative sample in each region/village. The inclusion criteria were primiparous mothers with live babies aged 1-12 months who were willing to participate as respondents. Exclusion criteria included mothers who were ill and unable to complete the questionnaire, as well as those who had hearing or speech impairments.

Instrument

The study employed a demographic data questionnaire, the Parenting Sense of Competence Scale (PSOC), and the Edinburgh Postnatal Depression Scale (EPDS) as instruments. The PSOC, which measures perception, was adopted from Apriani (2020) Indonesian version and consists of 17 questions assessing two subscales: the parenting self-efficacy scale and the parenting satisfaction scale. The PSOC score ranges from 17 to 102, with higher scores indicating a greater perception of role change (Johnston and Mash, 1989). The PSOC content validity test employs expert judgment, and the reliability test showed a Cronbach's alpha value of 0.776 for the parenting self-efficacy scale and 0.802 for the parenting satisfaction scale (Apriani, 2020).

The Edinburgh Postnatal Depression Scale (EPDS) was utilized to assess the risk of postpartum depression. The instrument comprises of 10 standardized questions that evaluate the subscales of anhedonia, anxiety, and depressed mood. The EPDS instrument was adapted from Faradiana (2016). The EPDS score ranges from 0 to 30. A score of less than 9 indicates the absence of postpartum depression, while a score of 9-12 indicates a risk of postpartum depression (El-Hachem et al., 2014; Dennis et al., 2016). A score of 13 or higher indicates the presence of postpartum depression (Bell et al., 2016; Syam et al., 2020). The validity test for EPDS was conducted on 15 postpartum mothers using Pearson Product Moment. The obtained r value was greater than 0.482 with the results of 10 valid questions. The reliability test resulted in a Cronbach's alpha value of 0.923 (Faradiana, 2016). The data were collected through questionnaires that respondents filled out directly on a one-time basis. The data collection was conducted door-to-door over a two-week period. The data analysis was conducted using a computer program, which included univariate and bivariate analysis. Univariate analysis was used to determine the characteristics of the respondents, including frequency and percentage. Meanwhile, the Pearson correlation test was used to examine the relationship between the independent and dependent variables. Both variables have a numerical scale and are normally distributed. The research was ethically tested at the Ethics Commission of the Faculty of Health Sciences, Jenderal Soedirman University, with letter number 1275/EC/KEPK/XI/2023.

RESULT AND DISCUSSION

Table 1. Characteristics of Respondents in the Working Area of Karanglewas Health Center in November-December 2023 (n=81)

Categories	Frequency	Percentage (%)
Age		
<20 years old	4	4,9
20-35 years old	77	95,1
Education		
Not in school	2	2,5
Elementary school	2	2,5
Junior high school	11	13,6
Senior high school	45	55,5
College	21	25,9
Occupation		
Housewife	69	85,2
Self-employed	3	3,7
Civil servant	3	3,7
Private employee	3	3,7
Other	3	3,7
Income		
<District minimum wage	48	59,3
≥District minimum wage	33	40,7
Marital status		
Marriage	81	100,0
Pregnancy planning		
Unplanned	16	19,8
Planned	65	80,2

Table 1 shows that 77 out of the total respondents, who were aged between 20-35 years, accounted for 95.1% of the sample. Among the respondents, 45 (55.6%) had completed high school or vocational high school education. The majority of the respondents (85.2%) were housewives. In terms of income, 48 respondents (59.3%) earned less than district minimum wages or <Rp2,130,980.94. All respondents were married. Additionally, 65 respondents planned their pregnancy.

Table 2: Overview of Primiparous Perceptions of Role Change to Parenthood and Risk of Postpartum Depression (n=81)

Variable	Frequency	Percentage (%)	*Mean*	SD	Min-Max
Perceptions of role change to parenthood			72,14	7,643	53 - 89
Postpartum depression risk			8,78		
EPDS Score					
4	3	3,7			
5	5	6,2			
6	12	14,8			
7	8	9,9			
8	7	8,6			
9	13	16,0			
10	8	9,9			
11	5	6,2			
12	3	3,7			
13	4	4,9			
14	3	3,7			
15	5	6,2			
16	3	3,7			
17	2	2,5			

Table 2 shows that the mean perception of changes in the role of being a parent in the sample of 81 participants is 72.14. Based on this mean value, it was found that 80.2% of respondents had a high perception score (≥ 72.14). The table also indicates that 35 respondents (43.2%) did not experience depression, 28 respondents (35.8%) were at risk of postpartum depression, and 17 respondents (21.0%) experienced postpartum depression. After analysis, the geometric mean for the variable of risk for postpartum depression, after data transformation, was 8.78.

Table 3. The Relationship between Primiparous Perceptions of Role Change to Parenthood to the Risk of Postpartum Depression (N=81)

	r	*P-value*
Perceptions of role change to parenthood Postpartum depression risk	-0,311*	0,005

*: r = 0.00-0.199 very weak; r = 0.20-0.399 weak; r = 0.40-0.599 medium; r = 0.60-0.799 strong; r = 0.80-1.000 very strong.

Table 3 shows that there is a significant relationship between primiparous perceptions of role change to become parents and the risk of postpartum depression (p-value = 0.005, p-value < 0.05). The Pearson correlation value of -0.311 indicates a weak negative correlation.

DISCUSSION

The aim of this study was to investigate the relationship between primiparous perceptions of role change in becoming parents and the risk of postpartum depression. The Pearson correlation test revealed a significant relationship between the two variables (p = 0.005, r = -0.311). This finding is consistent with Habel et al. (2015), who reported that dissatisfaction with parenting and unmet expectations during the transition period can contribute to postpartum depression. According to the study, most respondents had low perceptions (<mean). The low perception of mothers regarding role change suggests that they

struggle to adapt to their new role, which can cause stress and put them at risk of postpartum depression (Ariyanti, 2020).

Rubin's theory divides the adaptation phase into three stages: the taking-in phase, the taking-hold phase, and the letting-go phase. During the letting-go phase, the mother is expected to become more independent in caring for the baby (Lowdermilk, Perry and Cashion, 2013). The relationship between these two variables may be influenced by primiparity, which is a risk factor for postpartum depression (Dira and Wahyuni, 2016). In general, first-time mothers (primiparas) may face greater challenges adapting to their new role as parents compared to mothers who have had multiple children (multiparous). This is because primiparous mothers have not yet had the experience of becoming parents. As a result, they may feel confused by the changes in their role and this can have an impact on their psychological well-being and quality of life (Nababan and Sofiyanti, 2022).

The study results suggest an inverse relationship between primiparous perceptions of parental role change and the risk of postpartum depression. Specifically, a low perception increases the risk of postpartum depression in primiparas. This finding is consistent with Kohlhoff and Barnett (2013) research, which demonstrates an inverse relationship between parenting self-efficacy and maternal depression. de Avilla et al. (2020) found that maternal satisfaction with breastfeeding has an inverse relationship with symptoms of postpartum depression.

According to Bandura's theory, self-efficacy has an impact on learning ability, motivation, and performance (Lianto, 2019). Mothers with high confidence are better equipped to fulfill their responsibilities in new roles. As parents' confidence increases, so does their satisfaction with parenting, leading to higher levels of well-being (Botha et al., 2020). During the adaptation phase, if well-being is not achieved, it can lead to parenting stress and depressive symptoms, which can result in unfulfilled parenting responsibilities.

The analysis results indicate a weak relationship, suggesting that other factors also influence the risk of postpartum depression. This finding is related to the letting-go phase that respondents experience. Therefore, it is crucial that the mother's closest family members, such as her husband and immediate family, understand and provide strong support during the transition period after childbirth (Brown et al., 2018). While social support is essential during this time, it is unclear whether the respondents in the study received adequate social support, as this factor was not assessed.

Culture, pregnancy and childbirth complications, education, economic status, and employment are among the factors that may influence postpartum depression. Complications that occur during childbirth can limit the mother's ability to care for the baby, disrupting her independence in her new role. According to (Setiawati et al., 2020), postpartum depression can be caused by labor complications, including prolonged labor.

Local beliefs, particularly those related to pregnancy and postpartum care, are often intertwined with culture and can manifest as myths and taboos (Sari, 2022). The study results suggest a possible correlation between culture and adaptation, especially among respondents residing in rural areas. Furthermore, the occurrence of postpartum depression in rural areas may be linked to larger household sizes, unwanted pregnancies, and pregnancy complications (Syamantha Putri et al., 2023). These factors can disrupt the adaptation process to parenthood for new mothers, thereby increasing the risk of postpartum depression.

According to Dira and Wahyuni (2016) research, maternal education is a risk factor for postpartum depression. The study found that mothers with higher levels of education tend to have better information management skills, making it easier for them to adjust to their new role. Additionally, the data shows that the majority of mothers in the study did not work and had a low income. According to Nurbaiti, Herniyatun and Astutiningrum (2021) research, there is a significant correlation between occupation and income with parental beliefs.

The study suggests that health workers, particularly nurses, should provide education on role changes and postpartum depression in new mothers. Information provided to mothers during antenatal visits and pregnancy classes can improve their coping mechanisms, thereby reducing the incidence of depression (Kusuma and Fatmawati, 2019). Additionally, it is necessary to screen for depression risk in mothers, particularly primiparous mothers, as a preventive measure against postpartum depression. Additional interventions, such as mentoring, can be used to support mothers experiencing postpartum depression and reduce their depression levels.

CONCLUSION

The study found that some respondents had a high perception of the changing role of parenthood. The majority of respondents were not at risk of depression, but some were at risk of depression, including postpartum depression, as indicated by their EPDS scores. The average EPDS score in the depression risk category supports this finding. The bivariate test using the Pearson correlation test revealed a significant relationship between primiparous perceptions of changes in the role of parenthood and the risk of postpartum depression. Health workers should conduct education related to role change and postpartum depression, as well as early screening for depression risk, especially for primiparous mothers. Additional interventions, such as mentoring, can be utilized to support mothers experiencing postpartum depression and reduce their symptoms. Future research should focus on identifying factors that increase parenting satisfaction and self-efficacy, in order to mitigate the risk of postpartum depression. Other contributing factors, such as social support, cultural influences, and pregnancy/childbirth complications, should also be considered. Furthermore, researchers can explore the topic by investigating the correlation between other stages of adjustment, specifically intake and establishment, and the likelihood of experiencing postpartum depression.

CONFLICT OF INTEREST

The authors have no conflicts of interest to declare. All co-authors have seen and agree with the contents of the manuscript and there is no financial interest to report. We certify that the submission is original work and is not under review at any other publication.

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