ORIGINAL ARTICLE

Anxiety Level of Pregnant Mother in Facing Childbirth

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ABSTRACT
Background: Pregnancy is a dramatic episode of biological conditions, psychological changes, and adaptation for any woman experiencing it.
Aim: Some women may assume that pregnancy is an inevitable nature to pass, while others deem it a determining event between life and death event for a new chapter of life. Some researches reveal the increasing level of anxiety shared by pregnant women at the time of delivery.
Methods: This study used an observational analytical method with a cross-sectional approach. The samples were 74 respondents taken using quota sampling. It applied the standard questionnaire for data collection, the HARS questionnaire. The data were then analyzed with bivariate data of Chi-Square. It is revealed that 55.4% of respondents experienced anxiety, which was triggered by several factors, including employment factors (ρ = 0.001), parity (ρ = 0.001), and maternal age factors (0.021).
Results: Women facing childbirth in Gamping II Primary Health Center mostly experienced anxiety due to risky age with ρ = 0.002, primigravida with ρ = 0.001. In contrast, the mothers with low education experienced anxiety with ρ = 0.080, and pregnant women with low education experienced ρ = 0.001.
Keywords: Anxiety, pregnant women, childbirth

INTRODUCTION

Childbirth is a natural process that often leads to various problems of anxiety for those experiencing it. Anxiety levels shared by women in facing childbirth are something common appearing physiologically. Surah Maryam verse 22-23 says, "And the pains of childbirth drove her to the trunk of a palm tree. She said, "Oh, I wish I had died before this and was in oblivion, forgotten." This is to say that the existing anxiety is a natural process in dealing with childbirth, but it will commonly increase in the last weeks before labor. According to Andajani stated that 373,000 Indonesian pregnant women who experienced anxiety related to childbirth amounted to 107,000 people (28.7%) [1]. In Java, out of 67,976 pregnant women, 35,587 people (52.3%) suffered from anxiety in facing childbirth. Even though it is commonly shared, disorders due to pregnant women's anxiety will increase to both mother and son's emergent situation in childbirth unless it is treated seriously. Anxiety-related to childbirth occurs due to the release of stress hormones such as Adreno Cortico Tropin Hormones (ACTH), cortisol, catecholamines, β-Endorphins, Growth Hormones (GH), prolactin, and Luteinizing Hormones (LH) / Follicle Stimulating Hormones (FSH). The release of stress hormones results in systemic vasoconstriction, including vasa Utero placenta constriction, which disrupts blood flow to the uterus. The delivery of oxygen to the myometrium is disrupted and results in weak muscle contraction of the uterus [2]. Vasoconstriction will also impede the organs involved in the labor process from functioning correctly, such as the muscles in the body, especially the muscles in the birth canal that become stiff and hard, thus preventing it from expanding, reducing the straining power, and lessening physical power.

On the other hand, May and Nelson (2012) describe that anxiety in pregnant women before childbirth can stimulate the release of catecholamine hormones, which will compress uterine activity. Disruption of uterine activity can cause irregularity, stiff birth canal, and disrupting the baby from childbirth position [3]. The imbalance between power, passage, and passager that occurs due to anxiety can indirectly result in fetal distress due to labor length [4]. Penumadu research conducted unveils that most primigravidas in severe anxiety levels were 46.7%, and the majority of multigravidas at moderate anxiety levels were 72.3% [5]. Another study conducted by [6] at Fatrimesterawati General Hospital points out that out of 158 respondents, 52.5% of pregnant women experienced anxiety. Whereas according to Yuliana's research (2010), concerning the Description of Anxiety in Pregnant Women in Third Trimester, of 51 respondents studied, those experiencing anxiety amounted to 49%, those with mild anxiety were 47.1%, and moderate anxiety 3.9% respectively. Research in Indonesia asserts that pregnant women who experience high anxiety levels can increase the risk of premature birth and even miscarriage. Other studies have shown that pregnant women with high anxiety during pregnancy will increase the risk of hypertension in pregnancy and labor/disrupted long-term labor [7]. Previous studies conducted by researchers in October 2017 at the Gamping II Sleman Health Center reveal that 82% of the third-trimester pregnant women experience anxiety. The majority of pregnant women answered that they experienced anxiety, whether the child would be born with a disability, anxiety during childbirth, and anxiety about not having a smooth delivery. Unless treated seriously, anxiety in pregnant women will impact the physical and psychological, both for the mother and fetus. Besides, it can also affect pregnancy and childbirth.

METHOD

This is an observational analytic study using a sectional cross-design. This study was conducted to determine the factors associated with pregnant women's anxiety levels in the third trimester in dealing with childbirth. The research population involved all third-trimester pregnant women (91 pregnant women) examined at Gamping II Primary Health Center. The samples were calculated using the [8] formula with a significance level of 0.05, resulting in 74

respondents. This study used independent (age, parity, education, and work) and dependent variables (anxiety of pregnant women); for the sampling technique, the researcher used quota sampling. This study's sample unit was third-trimester pregnant women at Gamping II Primary Health Center, who was willing to be a respondent and did not have a poor obstetric history. The questionnaire used in this study contained demographic data of respondents and HARS standard questionnaires in measuring anxiety levels in facing childbirth. The research stages were conducted after the issuance of research ethics from the research ethics committee number 07 / KEP-UNISA / I / 2018 on January 10, 2018. In this study, the primary data were directly obtained from the third trimester pregnant women at the Gamping II Primary Health Center of Sleman with an assistant's help. The study was conducted after the researcher conducted an introductory explanation by explaining how to fill out the questionnaire. The research was conducted at the time of the antenatal care schedule at the PHC. The respondents' data retrieval process was revealed by submitting informed consent to respondents, giving questionnaires, and explaining to respondents how to fill out the questionnaire. Once the respondent finished filling out the questionnaire, the questionnaire was collected, and the researcher confirmed the data's completeness. Furthermore, the researchers analyzed and processed the data by editing, scoring, and coding before analysis. The analysis involved univariate analysis and bivariate analysis; for bivariate analysis, the researcher used a nonparametric chi-square statistical test.

RESULTS AND DISCUSSION

This research was conducted at Gamping II Primary Health Center, located in Gamping District, Sleman Regency, Special Region of Yogyakarta. The prioritized services of this Primary Health center carried out since 2015 were reducing MMR and IMR, improving community nutrition to reduce cases of malnutrition, and discovering and treating TB cases and Ultrasonography (USG) examinations for pregnant women.

Table 1 Frequency Distribution of Respondents by Age, Parity, Education, and Employment at Gamping II Primary Health Center of Sleman.

Characteristics	f	Percentage (%)
Age		
No risk	38	51.4
Risky	36	48.6
Parity		
Multigravida	31	41.9
Prim gravida	43	58.1
Education		
High Level of Education	41	55.4
Primary Level of Education	33	44.6
Employment		
Employed	42	56.8
Unemployed	32	43.2
Anxiety Levels		
Anxious	41	55.4
Not anxious	33	44.6

Table 1 describes the characteristics of respondents in this study. It can be seen that 51.4 % of the respondents were pregnant women who were at risk because the age of these pregnant women was <20 years or> 35 years. Besides, 58.1% of the pregnant women had primigravida

parity, 55.4% of pregnant women had high education (minimum education level of high school), 56.8% of the pregnant women worked, and 55.4% of the third trimester pregnant women experienced anxiety. In facing childbirth, out of 40 pregnant women in the third trimester, 62% experienced moderate anxiety levels, and only 2% of pregnant women did not experience anxiety. Commonly, in the third trimester of pregnancy, pregnant women realized that they would become parents awaiting the child's birth; during this time, there would be a bond between parents and fetus. These pregnant women care much about the safety of themselves and the child. Along with the expectation of a baby's presence, they also suffer from anxiety about the possibility of physical and mental defects in the baby. Anxiety about physical pain and damage due to childbirth and the possibility of a loss of control during childbirth also needs to be addressed [9]. The older the pregnancy, the more the pregnant women's fear and anxiety of childbirth [10]. In the third trimester of pregnancy at the age of seven months of pregnancy and above, the pregnant women's anxiety level is getting increasingly acute and intensive since it gets closer to childbirth [11]. Fear of childbirth ranks as the most case frequently experienced by mothers during pregnancy

Table 2. Results of Chi-Square correlation test between Age, Parity, Education, and Employment with Anxiety Levels in Third Trimester Pregnancy in Facing Childbirth in Gamping II Primary Health Center

Variable	Anxiety Levels				P	OR (CI 95%)
	Anxiety		No anxiety			
	N	%	N	%		
Age						
Risky	26	68.4	12	31.6	0.021	3.033
Not risky	15	41.7	21	58.3		(1.170 – 7.861)
Parity						
Primigravida	31	72.1	12	27.9	0.001	4.846
Multigravida	10	32.3	21	67.7		(1.791 – 13.111)
Education						
Basic	22	66.7	11	33.3	0.080	2.026
High-level	19	46.3	22	53.7		(0.793 – 5.177)
Employment						
Employed	25	78.1	7	21.9	0.001	5.804
Unemployed	16	38.1	26	61.9		(2.043 – 16.488)

Based on table 2, it can be concluded that the factors associated with anxiety in facing childbirth were age, parity, and occupation of respondents. Mothers who were at risky age had an anxiety level surge of 3,033 times as high as those who were not at risky age. Primigravida's mothers had an anxiety level of 4,846 times as high as those with multigravidas. Unemployed mothers had an anxiety level of 5,804 times as high as the employed mothers. The distribution of respondents in the risky age group had a more significant percentage since 68.4% of mothers experienced anxiety than respondents who were not at risk, with 58.3% experiencing anxiety. The statistical test obtained a value of ρ = 0.021. Thus, it can be concluded that there is a significant relationship between age and anxiety levels of pregnant women.

The age that is considered the safest to get pregnant and have childbirth is 20-35 years. At this age, the woman's physical condition is in top condition. Their womb has been

mature enough to protect the fetus, and they are mentally ready to treat and maintain pregnancy carefully. At the age of fewer than 20 years, pregnancy may trigger problems because their physical condition is not 100% ready. Some of the risks that can occur in teenage pregnancy are rising blood pressure and fetal growth inhibition. In addition to pregnancy and childbirth, the risk of cervical cancer also increases due to sex and childbirth.

On the other hand, after 35, some women are classified as having high-risk pregnancies and congenital abnormalities at the time of delivery. In this age period, the maternal and infant mortality rates are increasing [12]. The distribution of respondents in the primigravida parity group was more significant than the 72.1% experiencing anxiety. Statistical test results resulted in the value of $\rho = 0.001$. Thus, it can be concluded that there is a significant relationship between parity and the level of anxiety of third-trimester pregnant women in the face of childbirth.

Parity is the frequency of labor that the mothers experienced. Those classified as primigravida experienced childbirth for the first time. Therefore, many of them suffer from an increased anxiety level in the third trimester for getting closer to the labor process. Mothers will tend to feel anxious about their pregnancy, feel uneasy, and fear facing childbirth, given that ignorance is a contributing factor to anxiety. At the same time, mothers who have previously experienced childbirth may suffer from anxiety because of past experiences [10]. The distribution of respondents in the lower education group was more significant than the 66.7% experiencing anxiety. Statistical test results resulted in the value of $\rho = 0.080$. Thus, it can be concluded that there is no significant relationship between education and the level of anxiety of third-trimester pregnant women in the face of childbirth. Having primary education supports the delivery and acceptance of updated information. Education can also instill a positive understanding that will change the conceptual nature of the mother's personality.

Coping mechanisms are more consistently formed and modified due to the appropriate adaptive response to maternal anxiety. The well-educated mothers possess science that shapes healthy behaviors and further improves maternal physiological and psychological health. Maternal health guarantees the consistency of maternal adaptive responses to maternal anxiety [13]. Respondent distribution in the non-working group was more significant than the percentage of 78.1% experiencing anxiety. Statistical test results lead to the value of $\rho = 0.001$. Thus, it can be concluded that there is a significant relationship between employment and the level of anxiety in the third trimester of pregnant women in the face of childbirth. Working makes the mothers busy, which enable them to support their life and their family to earn income. Having an increase in income, the mothers can assure their health maintenance and services. A mother can find out all health information about herself and the baby in her womb to have safe and fun pregnancy, thus preventing anxiety. The working pregnant women commonly will have a better socioeconomic level and better interaction with the broader society because of active participation in specific organizations. Thus, it is assumed that working mothers will have higher knowledge and receive information faster than unemployed mothers [14].

CONCLUSION

The results showed that 40 (54.1%) third-trimester pregnant women experienced anxiety.

There is a relationship between age and the level of anxiety in the third trimester of pregnant women facing childbirth with $\rho = 0.020$. There is a relationship between parity and the level of anxiety in the third trimester of pregnant women facing childbirth with $\rho = 0.001$. The results reveal no relationship between education and the level of anxiety of third-trimester pregnant women facing childbirth with $\rho = 0.080$. There is a relationship between employment status and the level of anxiety in the third trimester of pregnant women facing childbirth with $\rho = 0.001$.

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