FACTORS ASSOCIATED WITH THE INCIDENCE OF RISKY PREGNANCY

Mulyati[1]*, Shinta Alifiana Rahmawati[2], Amirul Amalia[3]

Universitas Muhammadiyah Lamongan, Indonesia
* *Email Corespondence:* nurfiqih6@gmail.com

ABSTRAK: FAKTOR YANG BERHUBUNGAN DENGAN KEJADIAN KEHAMILAN BERISIKO

Latar Belakang: Kehamilan merupakan proses fisiologis yang dialami oleh wanita. Setiap kehamilan berisiko mengalami gangguan yang disebut komplikasi, yang dapat menjadi penyebab langsung kematian ibu.

Tujuan: Penelitian ini untuk mengetahui faktor apa saja yang berhubungan dengan kejadian kehamilan berisiko.

Metode: Penelitian ini merupakan penelitian kuantitatif dengan pendekatan cross sectional. Penelitian ini dilakukan di Puskesmas Karangbinangun Kabupaten Lamongan pada bulan September - Desember tahun 2024. Populasi dalam penelitian ini adalah seluruh ibu hamil di Wilayah Kerja Puskesmas Karangbinangun Kabupaten Lamongan bulan Juni-Agustus 2024 berjumlah 139 orang. Teknik sampling digunakan dalam penelitian ini adalah Purposive sampling berjumlah104 orang responden. Penelitian ini menggunakan uji Chi-Square.

Hasil: Berdasarkan hasil penelitian, sebagian besar responden memiliki kehamilan risiko rendah dengan pendidikan menengah sebanyak 30 responden (28,8%), dan sebagian kecil responden memiliki kehamilan dengan risiko sangat tinggi dan berpendidikan tinggi sebanyak 2 responden (1,9%). Sebagian besar responden memiliki kehamilan risiko rendah dengan status gizi yang baik sebanyak 40 responden (38,5%), dan sebagian kecil responden memiliki kehamilan dengan risiko sangat tinggi dan berstatus gizi kurang sebanyak 1 responden (1,0%). Hasil uji statistik menunjukkan bahwa seluruh faktor memiliki nilai p>0,05.

Kesimpulan: Hasil uji statistik menunjukkan bahwa tidak ada hubungan antara tingkat pendidikan dengan kejadian kehamilan namun terdapat hubungan antara status gizi dengan kejadian kehamilan berisiko di Puskesmas Karangbinangun Kabupaten Lamongan Tahun 2024.

Saran: Diharapkan upaya dalam memberikan edukasi serta informasi mengenai kehamilan berisiko dapat terus dipertahankan dan ditingkatkan oleh layanan kesehatan, guna menurunkan angka kehamilan dengan berisiko diwilayah Puskesmas Karangbinangun Kabupaten Lamongan.

Kata Kunci: Kehamilan; Risiko Kehamilan; Pendidikan; Status Gizi.

ABSTRACT

Background: Pregnancy is a physiological process experienced by women. Every pregnancy carries the risk of complications, which can be a direct cause of maternal death.

Objective: This study was to find out what factors are associated with the incidence of risky pregnancies.

Methods: This study employs a quantitative research design with a cross-sectional approach and was carried out at the Karangbinangun Health Center, Lamongan Regency in September - December 2024. This study focuses on a population that includes all pregnant women in the Working Area of the Karangbinangun Health Center, Lamongan Regency in June-August 2024, totaling 139 people. This study used a purposive sampling technique, selecting 104 respondents. This study uses the Chi-Square test.

Results: The study findings showed that most respondents had low-risk pregnancies with secondary education as many as 30 respondents (28.8%), and a small number of respondents had very high-risk pregnancies and higher education as many as 2 respondents (1.9%). Most of the respondents had low-risk pregnancies with good nutritional status as many as 40 respondents (38.5%), and a small number of respondents had very high-risk pregnancies with poor nutritional status as many as 1 respondent (1.0%). The results of the statistical test showed that all factors had a value of p>0.05.

Conclusion: The results of the statistical test show that there is no relationship between education level and the incidence of pregnancy but there is a relationship between nutritional status and the incidence of risky pregnancies at the Karangbinangun Health Center, Lamongan Regency in 2024.

Suggestion: Efforts to provide education and information about high-risk pregnancies are expected to be maintained and improved by healthcare services, in order to reduce the rate of at-risk pregnancies in the Karangbinangun Health Center area, Lamongan Regency.

Keywords: Pregnancy; Pregnancy Risk; Education; Nutritional status.

INTRODUCTION

Pregnancy is a physiological event experienced by women. Every pregnancy is at risk of developing pregnancy disorders called complications. The pregnancy disorder is the direct cause of maternal death. High-risk pregnancies or pregnancy complications often arise due to the "Four Too" (4T) and "Three Too Late" factors. The 4T factors include being too young (under 20 years old), too old (over 35 years old), having too many pregnancies (more than three children), and having pregnancies too closely spaced (less than two years apart). The three factors of delay are late in making decisions to seek immediate medical attention, arriving late at health facilities and getting medical help late (Rachman et al., 2022).

WHO data in 2019 states that around 21 million pregnancies are experienced by women less than twenty years old (<20 years) every year. Of these results, 55% of them carried out abortion practices that were unsafe and could result in death for the mother. Pregnancy of mothers under twenty years old can increase the risk of eclampsia, postpartum endometritis, and other systemic infections compared to pregnant women aged 20-24 years. In addition, babies born to young mothers are at higher risk of low birth weight, premature birth, and severe neonatal conditions (WHO, 2024).

A risky pregnancy is a condition that can affect the health of the mother and baby during pregnancy if it is managed the same as a normal pregnancy. Obstetric complications in pregnancy are abnormal conditions from normal, which directly cause pain and death of the mother and baby. There are many causes of high risk in pregnant women in addition to the four too, there are also other factors in the form of height <145 cm, having a history of family diseases such as hypertension, diabetes, body deformities and spinal or pelvic abnormalities which are one of the risk factors associated with maternal and infant death (Bayuana et al., 2023).

Maternal mortality rates in Indonesia remain high, due to several direct factors related to problems and complications during pregnancy, childbirth, and postpartum. The Maternal Mortality Rate (MMR) serves as an important indicator of a country's overall welfare (Na'im & Susilowati, 2023).

According to the World Health Organization (WHO), an estimated 295,000 maternal deaths occurred worldwide in 2021. The main causes included high blood pressure during pregnancy (such as pre-eclampsia and eclampsia), unsafe abortions, severe bleeding, and postpartum infections. In Indonesia, the maternal mortality rate (MMR) in 2020 was recorded at 189 deaths per 100,000 live births. The leading direct causes of maternal deaths were pregnancy-related hypertension (31.9%), severe bleeding (26.9%), non-obstetric complications (18.5%), other obstetric complications (11.8%), infections during pregnancy (4.2%), abortion-related complications (5%), and other causes (1.7%) (Kementerian Kesehatan RI, 2022).

In East Java, according to the Provincial Health Office's records indicates that in 2021, The maternal mortality rate stood at 234.7 per 100,000 live births, with 1,279 recorded cases. Encouragingly, this number dropped to 93 per 100,000 live births, or 499 cases, in 2022 (East Java Provincial Communication and Information Service, 2024). A similar trend was seen in Lamongan Regency, where the maternal mortality rate fell from 148 per 100,000 live births in 2021 to 55 per 100,000 live births in 2022. These improvements highlight the importance of continued efforts in maternal healthcare and early intervention (Dinas Kesehatan Kabupaten Lamongan, 2022).

The maternal mortality rate at the Karangbinangun Health Center in 2023 is as many as 2 cases, 1 occurred during the 3rd trimester of pregnancy with a fetus in the womb (IUFD) and 1 during postpartum caused by pregnancy at risk due to maternal factors such as KEK, age ≥35 years, anemia (Hb 10.3gr/dl), pregnancy distance that is too close and maternal BMI ≥30. AKI can be handled by efforts to handle obstetric complications by health workers. As reported by the Lamongan Regency Health Office in 2022, the coverage of handling obstetric complications at the Karangbinangun Health Center in 2022 is 39.5% (Dinas Kesehatan Kabupaten Lamongan, 2022).

Efforts to prevent pregnancy risks through 4T socialization in the immediate environment of the community can prevent the emergence of problems in at-risk pregnant women. The first risk of 4T pregnancy is being too young, this risk causes miscarriage, fetal growth and development disorders, prematurity, low birth weight (BBLR), anemia, preeclampsia, birth disorders, and antepartum hemorrhage. A gestational age of <20 years can endanger the health of the mother and fetus because the reproductive organs for pregnancy are immature. Second, being too old this risk can cause the mother to experience placenta previa, bleeding, hypertension, gestational diabetes. Third, too many pregnancies, this risk leads to reduced elasticity of the uterine muscles, which can result in long pregnancies and bleeding during labor. Fourth, too close to the pregnancy distance this risk causes BBLR, premature babies, short-distance pregnancies pose a danger because the

reproductive organs have not recovered to their original condition (Ratnaningtyas & Indrawati, 2023).

Building on this background, researchers are interested in exploring the topic of "Factors Associated with the Incidence of High-Risk Pregnancies." This study aims to identify the factors linked to the occurrence of high-risk pregnancies.

RESEARCH METHODS

This study is a quantitative research using a cross-sectional approach, conducted at the Karangbinangun Health Center, Lamongan Regency in September - December 2024. The population in this study is all pregnant women in the Working Area of the Karangbinangun Health Center, Lamongan Regency in June-August 2024, totaling 139 people. The sampling technique used in this study was Purposive sampling of 104 respondents. This sampling has inclusion criteria: pregnant women who visit the Karangbinangun Health Center, Lamongan Regency from June to August 2024. Meanwhile, the exclusion criteria of this study sample are pregnant women who are not residents of the Karangbinangun Health Center work area.This study uses the Chi-Square test.

The *independent variables* in this study include education level and nutritional status, while the dependent variable of this study is risky pregnancy.

RESEARCH RESULTS

Based on a 2024 study examining the factors associated with high-risk pregnancies at the Karangbinangun Health Center in Lamongan Regency, the results were obtained from a sample of 104 respondents. The study results indicated that most respondents were pregnant women in their third trimester (48.1%), with secondary education (60.6%), and as housewives (57.7%). In terms of gravity, the majority were multigravidal mothers (50.0%), had good nutritional status (83.7%), and had low-risk pregnancies (41.3%).

In table 1, it is known that the results of the analysis of the chi-square test showed that the education level factor was obtained by the results of the statistical test with a P-value of 0.174 (>0.05), the study conducted at the Karangbinangun Health Center, Lamongan Regency in 2024 found no significant link between education level and the occurrence of high-risk pregnancies, and the nutritional status factor was obtained *P-value* 0.003 means that there is a relationship between nutritional status and the incidence of risky pregnancies at the Karangbinangun Health Center, Lamongan Regency in 2024.

Table 1
Cross-tabulation of Nutritional Status and Education Level of Respondents with At-Risk Pregnancies

		Pregnancy at Risk						*p-value*
		KRR		KRT		KRST		
		n	%	n	%	n	%	
Nutritional Status	Good Nutrition	40	38,5	28	26,9	19	18,3	0,003
	Undernutrition	3	2,9	13	12,5	1	1,0	
Education Level	No School	0	0	0	0	0	0	
	Primary Education	5	4,8	8	7,7	6	5,8	0,174
	Secondary Education	30	28,8	21	20,2	12	11,5	
	Higher Education	8	7,7	12	11,5	2	1,9	

DISCUSSION

According to a study carried out by researchers, the majority of respondents had low-risk pregnancies with secondary education and test results Chi-Square analysis revealed no significant link between education level and the likelihood of high-risk pregnancies at the Karangbinangun Health Center, Lamongan Regency in 2024. The results of this study agree with the research Friyandini et al. (2015) which states that there is no meaningful relationship between education and high-risk pregnancy (p=0.473). Research from Hipni (2019) and Julianti & Yanti (2024) It was also stated that there was no relationship between education and pregnancy at risk of preeclampsia with p values of p=0.121 and p=0.083, respectively.

This research is in line with the research Rachman et al. (2022) that the incidence of risky pregnancies or pregnancy complications usually occurs due to factors four too (4T) and three too late. In addition, according to Puspitosari (2020) A history of bad obstetrics is also a factor in the occurrence of risky pregnancies. There are also other factors in the form of a height of <145 cm, having a history of family diseases such as hypertension, diabetes, body deformities and spinal or pelvic abnormalities which

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is a significant risk factor for maternal and infant mortality (Bayuana et al., 2023).

According to the researcher's assumption, the level of education in this study has no relationship with risky pregnancy because most of the respondents have secondary education, so pregnant women are considered to have sufficient knowledge and understanding in carrying out prevention and handling of risky pregnancies. The educational factor is also not a direct factor in the incidence of risky pregnancies. According to the researcher's assumption, the level of education in this study has no relationship with risky pregnancy because most of the respondents have secondary education, so pregnant women are considered to have sufficient knowledge and understanding in carrying out prevention and handling of risky pregnancies. The educational factor is also not a direct factor in the incidence of risky pregnancies.

According to research findings, most respondents had low-risk pregnancies with good nutritional status. Chi-Square test results indicate a significant relationship between nutritional status and the occurrence of high-risk pregnancies. This aligns with research Endik et al. (2024) A relationship was observed between the nutritional status of pregnant women and high-risk pregnancies, as indicated by the P-value (0.001) < 0.05. According to the findings of the odds ratio (OR) analysis regarding nutritional status, the risk of high-risk pregnancy in pregnant women with an abnormal Body Mass Index (BMI) increased by 4.462 times compared to pregnant women with a normal BMI.

Yuliantika (2016) states that pregnant women with LILA less than 23.5 cm need attention because they are likely to suffer from chronic energy deficiency for a long time. This will result in the child being born with a low birth weight, fetal growth and development is stunted, so it will affect the child's intelligence in the future. Good nutrition before and during pregnancy will result in offspring with adequate muscle mass, higher height, working capacity, and better appearance by the age of 10-20 years. This is in line with research Simorangkir & Barus (2023) which stated that the nutritional status of the mother during pregnancy was related to the risk of stunting in the child she gave birth to (p=0.002).

Chronic energy deficiency (CED) in pregnant women is often caused by a lack of awareness regarding the importance of proper nutrition during pregnancy. In the first trimester, nausea and vomiting can lead to reduced food intake, preventing both the mother and fetus from receiving essential nutrients. Although only 10–30% of pregnant women seen during antenatal care are classified as high-risk, they account for more than 70% of perinatal mortality and morbidity. Each year, approximately 500,000 women die from pregnancy-related complications. (Dalal et al., 2022). For every maternal death, nearly 118 women experience severe, life-threatening conditions. Improving perinatal outcomes requires early detection and proper management of high-risk pregnancies (Mirzakhani et al., 2022). Therefore, all pregnancies should be screened for risk factors, and adequate antenatal care (at least four visits, as recommended by WHO) should be ensured to identify complications early and provide timely interventions for better maternal and newborn health. (Dangel et al., 2020).

CONCLUSION

Nutritional status has been shown to have a relationship with risky pregnancies. Every pregnancy should be carefully monitored for any potential risks. Expecting mothers need proper antenatal care, with at least four check-ups as recommended by WHO, to catch any complications early and provide the right support. This helps ensure both the mother and baby have the best possible health outcomes.

SUGGESTION

Health services are expected to be able to maintain and increase efforts in providing counseling or information about risky pregnancies, generally to the community and especially to pregnant women so that they can reduce the rate of risky pregnancies in the Karangbinangun Health Center area, Lamongan Regency.

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