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Risk Factors Foranemiain Pregnant Women in Konawe Islands Regency

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ABSTRACT

Introduction: The prevalence rate of anemia incidence in pregnant women in Konawe Islands Regencyin 201 9, namely 72.9%, in 2020 it was 69.7% while the prevalence of pregnant women who received 90 Fe tablets in the year 2018 was 49.5%, in 2019 it was 61.25% and 62.7% (Konawe Islands District Health Office 2018-2021). The purposeof the study was to analyze the risk factors for the incidence of anemia in pregnant women inKonawe Islands Regency.

Method: This study used the Case Control Study approach. The control population was 106 respondents and the control population was 562 respondents. The Research Sample totaled 47 case samples and 47 control samples. The Sample Technique in this study is the Cluster Random Sampling Technique. The data is processed using the Odds Ratio Test.

Result: The results showed that educationOR 2,424 LL value0.876 UL value6.707 and Φ 0.179, family income OR 57,400 LL value 16.242 UL value 202.849 and Φ 0.766, role of midwife OR 2,343 LL value 1,823 value UL 3.011 and Φ 0.383, anemia in pregnant women in KonaweIsland Regency.

Conclusion: The conclusions in this study show that education and family income, midwiferoleare risk factors for anemia in pregnant women in Konawe Islands Regency. It is hoped that the health office and health center will always provide education in the form of counseling and counseling related to maternal and child health to reduce the incidence of anemia in pregnant women.

Introduction

Maternal mortality is a global issue in both developing and developing countries. Indonesia as a developing country in Southeast Asia still has a maternal mortality rate (MMR) of 305 per 100,000 live births and a fairly high Infant Mortality Rate of 22.23 per 1,000 live births when compared to other ASEAN countries according to the 2015 Inter-Census Population Survey. In general, there was a decrease in MMR from 2015 but when compared to the Sustainable Development Goals (SDGs) target, it is still quite high. The WHO says

the vast majority (97%) of neonatal maternal deaths are preventable. Anemia experienced by pregnant women is a problem that until now has not been treated and has a serious impact on mothers and babies.[1]

The prevalence of pregnant women around the world who experience anemia is 41.8%. South and Southeast Asia combined account for up to 58% of the total anemic population in developing countries. In Indonesia, the rate of anemia in pregnant women is still quite high and is increasing as the gestational age increases. Based on the results ofRiskesdas 2018 stated that in Indonesia 48.9% of pregnant women experience anemia and this percentage has increased compared to Riskesdas data in 2013, which was 37.1%. As many as 84.6% of anemia in pregnant women occurs in the group of 15-24 years.[2]

The percentage of pregnant women who received 90 tablets of added blood (Fe) in Southeast Sulawesi Province in 2018 was 74.97%. And experienced an increase of 75.35% in 2019 and again experienced a decrease of 74.95% in 2020. This is directly proportional to the cases of anemia in pregnant women in Southeast Sulawesi Province by 61.2% in 2019 and 63.4% in 2020.[3]

The Konawe Islands Regency Health Office described that for the past three years it has become one of the three regencies/ cities that have the lowest achievement of giving blood-added tablets (Fe) and cases of anemia prevalence are still quite high in pregnant women in Southeast Sulawesi Province. In 2018 the percentage of pregnant women who received blood-added tablets (Fe) 90 tablets was 49.5% and the Konawe Islands Regency Health Office had no data related to the prevalence of anemia in pregnant women. In 2019, the achievement of giving blood-added tablets (Fe) to pregnant women was 61.25% and 62.07% in 2020. Meanwhile, the incidence of anemia in pregnant women in 2019 was 72.9% and 69.7% in 2020. Although the achievement ofgiving blood-added tablets (Fe) has increased and cases of anemia in pregnant women have decreased, this is still far from expected.[4]

The results showed that family income is a factor that is very risky for the incidenceofanemia in pregnant women The results of the analysis with Fisher's Exact test, obtained a p value of 0.000 (p < 0.05) so that there was a significant relationship between a family income and the incidence of anemia in pregnant women.[5]

Method

This type of research is quantitative research with observationalanalytical methods. The design of this study uses a Case Control Study, namely to analyze the risk factor between independent variables and dependent variables retrospectively. This study used a Case Control Study approach. The study has been carried out for 30 days. The population numbered 24 samples. The Research Sample totaled 47case samples and 47 control samples. The Sample Technique in this study is Cluster Random Sampling.   The data was processed using the Odds Ratio Test, regression test and phitest.

Result

Tabel 1 showed that out of 47 cases, there were 14 (29.8%) respondents whose education was low and 33 (70.2%) respondents whose education was high. Of the 47 controls, there were 7 (14.9%) respondents whose education was low and 40 (85.1%) respondents whose education was high.Based on statistical tests using odds ratio, the results were obtained OR = 2.424, LL = 0.876 and UL = 6.707. Shows that education is a risk factor for the incidence of anemia in pregnant women. For the value of $\Phi = 0.179$ indicates that there is a weakrelationship betweenmaternal education and the incidence of anemia in pregnant women in the Konawe Islands District.

Tabel 2 showed that out of 47 cases, there were 41 (87.2%) respondents with low family income and 6 (12.8%) respondents with sufficient family income. Of the 47 controls, there were 46 (48.9%) respondents with low family income and 48 (51.1%) respondents with high family income.Based on statistical tests using odds ratio, the results were obtained OR = 57,400, LL = 16,242 and UL = 202,849. Shows that family income is a risk factor for the incidence of anemia in pregnant women. For the value of $\Phi = 0.766$ indicates that there is a moderate relationship between family income and the incidence of anemia in pregnant women in the Konawe Islands Regency area.

Table 1.
Risk Factors for Education to the IncidenceofAnemia in Pregnant Women in Konawe IslandsRegency in 2022

Education	Incidence of Anemia in Pregnant Women						Statistical Test Results
	Case		Control		Sum		
	n	%	n	%	n	%	OR = 2,424
Low	14	29,8	7	14,9	21	22,3	LL = 0,876
Tall	33	70,2	40	66,785,1	73	77,7	UL = 6.707
Sum	47	100	47	100	94	100	Φ = 0.179

Table 2.
Risk Factors for Family Income to the IncidenceofAnemia in Pregnant Women in KonaweIslandsRegency in 2022

Family Income	Incidence of Anemia in Pregnant Women						Statistical Test Results
	Case		Control		Sum		
	n	%	n	%	n	%	OR = 57,400
Low	41	87,2	5	10,6	46	48,9	LL = 16,242
Tall	6	12,9	42	89,4	48	51,1	UL = 202.849
Sum	24	100	24	100	48	100	Φ = 0766

Discussion

The level of maternal education greatly influences how a person to act and seek causes and solutions in his life. Highly educated people will usually act more rationally. Therefore, an educated person will find it easier to accept new ideas.Likewise pregnant women who are highly educated will have their health and pregnancy checked regularly.[6]The results ofthis study are not in line which states that the incidence of anemia in pregnant women is very high in the group of mothers who have a level of low education.[7]

The state of the family's economic statusis one of the factors that determine the amount offood available in thefamily[8] and affects the selection of the variety and quality of foodstuffs, especially during the period now when the economy is very difficult and foodstuffs are soaring so much that it also determines the nutritional status of the family. Under these circumstances, mothers must be good at choosing foodstuffs. Nutritious food does not have to be expensive, for example to take the benefits of animal protein can buy fresh fish, chicken eggs, quail eggs and anchovies instead of meat chicken or beef. Although the price is relatively cheap, theseingredients contain protein which is as good

as chicken or beef.Economic status is quite dominant in influencing food consumption. Increasing income will increase the opportunity to buy food ofbetter quality and quantity.[10]

Conclusion

Research shows that education and family income are risk factors foranemia in pregnant women in Konawe Islands Regency.

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