THE RELATIONSHIP BETWEEN ANEMIA IN PREGNANT WOMEN AND THE RISK PREVALENCE OF STUNTING

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ABSTRACT

Pregnant women who are anemic are one of the opportunities for the risk prevalence of stunting. This research was conducted to determine the relationship between anemia in pregnant women and the risk of stunting in Bima Regency, West Nusa Tenggara. This type of research is Correlative Analytical with a cross-sectional study approach. The population in this study was all pregnant women with anemia from September 2022 to May 2023, namely 54 people, with an accidental sampling technique, so the number of samples obtained was 48 people. This research consists of a dependent variable and an independent variable. The dependent variable is the risk of stunting, while the independent variable is Anemia in Pregnant Women. To determine anemia in pregnant women, a measuring instrument in the form of a pregnancy control book is used, while to determine the risk of stunting, a questionnaire is used. The data collection technique used is by using primary data and secondary data. The type of primary data collected in this research is measured directly on respondents using a questionnaire. Meanwhile, secondary data consists of data on the number of anemic pregnant. Data analysis in this study consisted of univariate analysis and bivariate analysis. Bivariate analysis used the chi-square statistical test. The results of the study show that there is a relationship between anemia in pregnant women and the risk of stunting with a P value = 0.03

Keywords: Anemia, Pregnancy, Stunting Risk

INTRODUCTION

Anemia is a condition where the number of red blood cells is insufficient and meets physiological needs which vary according to age, gender, smoking, and pregnancy status which interferes with the blood's ability to carry oxygen in the body. Pregnant women are said to be anemic if their Hb levels are below <11 g/dl (Helliyana, 2018). Pregnant women are very susceptible to anemia caused by significant body changes. Apart from that, it is also influenced by hematological changes during pregnancy which are caused by changes in circulation which increase placental development and breast growth (Tampubolon, 2021). Several factors that can cause pregnancy anemia include gravida, age, parity, education level, economic status, compliance with Fe tablet consumption, and diet (Mariana, 2018). Pregnant women who do not get the amount of nutrition they need are at risk of experiencing nutritional problems which will affect the development and growth of the fetus as well as the mother's health. If pregnant women do not get balanced nutrition from both macronutrients and micronutrients, they are at risk of experiencing health problems or CED which can cause anemia (Adhelna, 2022). Problems that can arise due to anemia during pregnancy are prematurity, LBW, abortion, maternal health problems such as impaired maternal immune function, decreased work capacity, and increased risk of heart disease (Gudeta, 2019). Stunting is a condition where a child under five experiences a chronic nutritional deficit problem over a long period, resulting in slower growth compared to other children his age. This can be
seen after the child is 24 months old and is assessed by calculating the child's height as no more than minus two standard deviations based on the anthropometric standard table, where this deficit in nutritional intake has been experienced by the child since he was still in the womb, which continues in his growth and development after birth (Teja, 2019). Stunting is a linear growth disorder caused by chronic malnutrition and/or chronic or recurrent infectious diseases as indicated by a z-score value for height for age (TB/U) < -2 SD based on WHO standards (Haskas, 2020).

UNICEF data for 2020 shows that the prevalence of stunting in the world reached 26.7% (UNICEF Report, 2020). According to data released by UNICEF, around 150 million children are living in poor and developing countries experiencing stunting. In Asia, the prevalence of stunting is relatively high, namely 33%, with the highest prevalence in the South Asia region, namely half of the total number of children under 5 years experiencing stunting (Jayani, 2020).

Based on a report issued by UNICEF, Indonesia is among the top 5 countries with the number of children under 5 years experiencing stunting, namely Indonesia's status is still at number 4 in the world. 2020 Basic Health Research Data (Riskesdas) informs that the national prevalence of stunting is 27.67%. According to WHO, the prevalence rate is still quite high when compared with the cutoff limit for "non-public health problems". If the stunting problem is above 20% it is still a public health problem (RI, 2020).

There is research that shows that there is a significant relationship between anemia in pregnant women and the incidence of stunting (Hastuti, 2020).

The Ministry of Health (Kemenkes) announced that NTB province is fourth out of five provinces with the highest stunting rates in Indonesia. Data from the West Nusa Tenggara Provincial Health Service informs that West Nusa Tenggara province is experiencing public health problems with the prevalence of stunting in 2022 being more than 20%, namely 32.7% (NTB, 2022). Several programs carried out by the government to reduce the number of stunting and anemia in mothers include the "Ceting Class" or the so-called stunting prevention class which is intended for pregnant women as well as the "Kemil Kessia" program or the group of healthy garden pregnant women alert for anemia, the activities of which include providing material and providing food that contains high levels of hemoglobin. With this reduction program, it is hoped that the number of stunting incidents can be reduced.

METHOD

The type of research carried out was Correlative Analytical research with the research design being a cross-sectional study. The population in this study was all pregnant women with anemia from September 2022 to May 2023 who were in the working area of the Belo Community Health Center, namely 54 people, with an accidental sampling technique, so the number of samples obtained was 48 people, with inclusion criteria namely pregnant women who were willing to be respondents, and pregnant women with anemia. The method used in this research is by using: a) primary data is data measured directly on respondents using a questionnaire. b) secondary data, namely data on the number of anemic pregnant women in the work area of the health center.

The questionnaire used to determine the relationship between anemia in pregnant women and the incidence of stunting in the Puskesmas work area is divided into 3 parts, namely: a). Questionnaire that discusses the general identity of the respondent. b). Questionnaire discussing anemia in pregnant women c). Questionnaire discussing the risk of stunting. The number of questions in the questionnaire is 20 questions.

RESULTS

Respondent Characteristics

The characteristics of the respondents studied included age, education, and occupation.

Table 1. Overview of Respondent Characteristics

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<th>Characteristics of respondents</th>
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The characteristics of the respondent will affect the results of the study. a) Age. Age affects the capacity and mindset of a person. The age will also develop the capacity and mindset, so that the knowledge he gets improves, including in understanding the health information provided by health workers.
b). Education affects one's mindset. With higher education, someone will tend to get information, both from others and from the mass media. Mothers who have education will more easily understand anemia and the impact that will have. c) Work. A person's work is very influential in the process of accessing the information needed for an object (Laurin, 2020).

The results of this study are not in line with the research results of (Aryanto, 2020) in Sumedang Regency which revealed that there was no relationship between maternal hemoglobin levels during pregnancy and stunting children, however, in this study, it was found that the number of pregnant women who experienced anemia was greater than mothers who were not anemic. It was also concluded that although it was not related, mothers' Anemia during pregnancy will increase the chance of having a stunted child higher than mothers who are not anemic during pregnancy.

The growth development and health of the fetus in the womb are driven by many factors, for example, factors from the mother who is pregnant, during pregnancy that require adequate and balanced nutritional intake (Leny, 2019). Iron deficiency experienced by prospective mothers during pregnancy (anemia) can increase the risk of stunted fetal growth or Intra Uterine Growth Retardation (IUGR), where fetal development depends on how much iron is available from the mother because the formation of the placenta requires iron in the first 2 weeks of pregnancy. Therefore, maternal nutrition that is not optimal during pregnancy can cause LBW which carries a high risk of experiencing pain, imperfect mental development, and even death.

This research is also in line with other research which states that there is a relationship between anemia in pregnant women and the incidence of stunting, where low hemoglobin levels have an impact on children's linear growth because hemoglobin is a type 2 nutrient which is useful in the process of tissue formation and bone growth
(Salakory, 2021). Many more studies prove the factors that trigger stunting, namely research in Kendal by Meilyasari and Isnawati which proves that the length of a baby's birth also contributes to stunting (Destarina, 2018). Previous research has also reported that there is a correlation between a history of pregnancy anemia and the onset of stunting with a value of p=0.005 (Widyaningrum, 2018).

CONCLUSION

There is a relationship between anemia in pregnant women and the risk of stunting in the Belo Community Health Center working area with a p-value = 0.03. Hopefully, this research can be a reference for future researchers and can develop this research with more variables so that it can be used as a reference in preventing stunting.

REFERENCE


