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CORRELATION BETWEEN HISTORY OF MATERNAL ANEMIA AND PREVALENCE OF 0-5 YEARS OLD STUNTING CHILDREN IN CILEMBU VILLAGE, SUMEDANG REGENCY, 2019

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ABSTRACT

Stunting is a health problem among children in Indonesia, reaching 30,8% and 29,9% on infants less than five years old and two years old. West Java prevalence of stunting is higher than 38,8% of the entire stunting population in Indonesia in 2018. Sumedang ranks second in districts with the highest prevalence of stunting in West Java, which is 19,4%, according to Riskesdas in 2013. Stunting caused major problems are delayed mental development, lack of intellectual ability and long-term consequences of degenerative diseases. Anaemia is a public health problem that burdens developed and developing countries, especially adolescents and pregnant women. Risked data reaches 48.9% of anaemia incidence on pregnant women. Maternal anaemia can increase the prevalence of stunting. The purpose of this study to determine the Correlation between the History of Maternal Anemia and Prevalence of 0-5 Years Old Stunting Children in Cilembu Village, Sumedang Regency, January 2019 Period. This study used a cross-sectional analysis method, a sample of 61 consisted of stunting children aged 0-5 years in Columbus Village. Statistics is tested by Pearson correlation and also analysis of demographic data. The prevalence of maternal anaemia 50,8%, and the highest category of stunting is very short (46%). The results of Pearson's analysis found (p= 0.717 > 0.05) that do not have an association between the History of Maternal Anemia and the incidence of stunting aged 0-5 years old. There is no correlation between the History of Maternal Anemia and the incidence of stunting aged 0-5 years old in Cilembu Village, Sumedang Regency, January 2019 Period.

Keywords: Stunting, Anaemia, Maternal Anaemia

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1. INTRODUCTION

Stunting is a public health problem of concern in Indonesia due to Indonesia's high incidence rate Sari et al. (2010); Schmidt et al. (2002); Torlesse et al. (2016). Accord-

ing to Riskesdas, in 2018, stunting incidence reached 30.8% in toddlers and 29.9% in under two-year babies. It still has not reached the 2019 Regional Medium-Term Development Plan target for stunting, 28%. The prevalence of stunting in West Java in 2018 amounted to more than 38.8% of Indonesia's entire stunting population. In 2013, Sumedang as the district was at second rank with the highest prevalence of stunting in West Java, namely 19.4% Nainggolan and Siagian (2019); Sasongko et al. (2019). According to WHO (World Health Organization), a child is categorized as stunting if he/she has a height <2 SD (Standard Deviation) median WHO Child Growth Standards Stunting. Stunting is a condition in which a child has growth retardation caused by poor diet and recurrent infections. Stunting can cause delayed mental development, lack of intellectual abilities and long-term consequences, namely degenerative diseases Oriá et al. (2007); Ratna (2019). The complications of stunting can affect the economic productivity of a country because it is associated with the quality of human resources (HR) Dewey and Begum (2011); Hoddinott et al. (2013).

Anaemia is a public health problem that burdens developed and developing countries, especially adolescents and pregnant women. According to WHO data for 2011, 81.5% of women of reproductive age in the world have anaemia. According to Riskesdas in 2018 in Indonesia, the incidence of anaemia in pregnant women reached 48.9%, including pregnant women aged 15-24 years with anaemia reaching 84.6% of all anaemia incidents in pregnant women Diana et al. (2019); Lipoeto and Nindrea (2020); Warvadekar et al. (2018). According to WHO, anaemia is defined as a condition of haemoglobin levels <12.0 g / dL in women and <13.0 g / dL in men. Anaemia can be caused by various things such as folic acid deficiency, B12 deficiency, and iron deficiency. Iron deficiency anaemia is caused by massive iron deficiency in the body, which reduces erythropoiesis. The most significant impact caused by anaemia, especially in pregnant women, is to increase the risk of maternal and infant mortality, low birth weight (LBW), premature birth and affects the physical and mental development of children Bian et al. (2013); Iskandar et al. (2015); Kader and Perera (2014).

Anaemia in pregnant women can increase the risk of premature birth. In a study, pregnant women diagnosed with anaemia at week 13-24 of pregnancy had a 1.18-1.75 times greater risk of giving birth to preterm babies, low birth weight (LBW) and increased infant mortality. Preterm birth of infants is associated with an increased risk of stunting Christian et al. (2013); Lawn et al. (2014); Santos et al. (2009). The high incidence of stunting in the Sumedang Regency can be caused by anaemia in pregnant women. It can reduce the quality of community resources (HR) in a country, so this supports researchers to research the relationship of anaemia history during pregnancy to stunting at age 0-5 year in Cilembu Village, Sumedang Regency in 2019.

2. RESEARCH METHOD

The type of research used was an analytic observational study. The design used was cross-sectional to determine the relationship between anaemia history during preg-

nancy and stunting children aged 0-5 years in Cilembu Village, Sumedang Regency in 2019. The time of the study was from 21 January 2019 - 8 February 2019. This research was conducted in Cilembu Village, Sumedang Regency. The sample was taken using the total sampling technique with a total population of 81 children, while the number of samples in the study was 81 children who met the inclusion criteria. The data collected is in the form of primary and secondary data. Primary data were obtained directly by researchers from respondents who were collected regarding the characteristics of mothers and characteristics of children. History of anaemia during pregnancy using Kartu Menuju Sehat. The collected data is then analyzed by univariate analysis to provide an overview of the characteristics of each variable studied and bivariate analysis to prove whether or not there is a relationship between dependent and independent variables using the SPSS (statistical package for the social science) application with the Pearson correlation test.

3. RESULT AND DISCUSSION

This research was conducted on a sample of children aged 0-5 years in January 2019 in Cilembu Village, Sumedang Regency, with a sample size of 61 people because

there are exclusion criteria, namely, one person moved domicile, and 19 people did not meet the incluion criteria. Then from the research results obtained the following data.

Table 1 Sample characteristics based on height/age

BW	Number	%
Short	15	24,6 %
Very short	46	75,4%
Total	61	100%

Of the total 61 samples, based on the category of children with very short stunting, as many as 46 samples (75.4%), while the children with stunting were 15 samples (24.6%).

Table 2 Sample Characteristics Based on Birth Weight

BW	Number	%
Normal	46	75,4%
Low	15	24,6%
Total	61	100%

Of the total 61 samples, based on the category of children with very short stunting, as many as 46 samples (75.4%), while the children with stunting were 15 samples

(24.6%).

Table 3 Characteristics of Samples Based on Age during Pregnancy

Age group	Age Category	Number	%
12 – 16	Early adolescence	4	6,6%
17 – 25	Late teens	33	54,1%
26 – 35	Early adulthood	19	31,1%
35 – 45	Late adulthood	5	8.2%%
Total		61	100%

Characteristics of the age when pregnant women with stunting children in the village of Cilembu mainly were in the 17-year age group. Namely, 33 samples (54.1%). The age group 12-16 years has the lowest age group, namely four samples (6.6%). The 26–35-year age group is in the second-largest position, namely 19 samples (31.1%). The 35–45-year age group only has a difference of 1 sample with the 12–16-year age group, namely five samples (8.2%).

Table 4 Sample Characteristics Based on Education

Education	Number	%
Primary	33	54,1%
Junior High School	17	27,9%
Senior High School	11	18%
Total	61	100%

Of the total sample, the most current education level is SD, with 33 samples (54.1%). The latest high school education has the lowest education level, namely 11 samples (18%), the last education is 17 samples (27.9%).

Table 5 Sample Characteristics by Occupation

Profession	Number	%
Driver	6	9,8%
Employees	10	16,4%
entrepreneur	19	31,1%
Labor	20	32,8%
Traders	6	9,8%
Total	61	100%

Based on the job characteristics, most are workers, as many as 20 samples (32.8%). The occupation of drivers and traders has the same percentage, namely as many as six samples (9.8%). Entrepreneurs occupy the 2nd most occupational

characteristics, namely as much as 31.1%.

Table 6 Characteristics ofNutritional Status based on Upper Arm Circumference

LILA	Nutritional Status	Number	%
<23	Less	13	21,3%
≥ 23	Good	48	78,7%
Total		61	100%

Of the 61 samples, 13 samples (21.3%) of mothers with stunted children had low nutritional status during pregnancy. The nutritional status mentioned is based on the mother's LILA at the time of pregnancy.

Table 7 Distribution of Anemia Prevalence

BW	Number	%
Anaemia	31	50,8%
Not anaemia	30	49,2%
Total	61	100%

Of the total 61 samples, based on the category of mothers with anaemia, there were 31 samples (50.8%), while 30 samples (49.2%) had no anaemia.

Table 8 Relationship History of Anemia in Pregnant Women and Incidence of Stunting

	Sig (2-tailed)
Anaemia	0,717
Stunting	0,717

In the Chi-Square test, it was conducted between anaemia during pregnancy and the incidence of stunting. The instrument is said to be related if the p-value <0.05. The analysis showed no relationship between anaemia in pregnancy and the stunting incidence with a value of p = 0.717.

4. CONCLUSION

The Pearson analysis results (p = 0.717> 0.05) showed no relationship between anaemia in pregnancy and the incidence of stunting in children aged 0-5 years. Based on this study, it can be concluded that there is no relationship between anaemia in pregnancy and the incidence of stunting in children aged 0-5 years.

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