THE IMPACT OF PREGNANT WOMEN NUTRITIONAL STATUS HISTORY WITH STUNTING IN TODDLERS AGED 2-3 YEARS

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ABSTRACT

Stunting that take place in childhood will have an impact in the future, which can cause intelligence quotient (IQ) disorders, psychomotor development, motor skills, and neurosensory integration, having an average IQ of 11 points lower than children who do not Stunting. This research was to analyze The Impact Of Pregnant Women Nutritional Status History With Stunting In Children Aged 2-3 Years. The research design used was Case Control. This research was conducted in 5 posyandu, Tegalagung Village, Semanding District, Tuban Regency. This research was conducted in January-March 2021. This study using a total sampling technique, the sample of this study was some toddlers aged 2-3 years in Tegalagung Village, Semanding District, Tuban Regency who met the inclusion criteria. Data analysis used the Spearman test with a significant value of 0.05. Based on the results of SPSS version 21 using the Analysis using Spearman test got the result p-value = 0.635, because the p-value > 0.05 This shows that H1 is rejected, meaning that there is no significant impact between maternal nutritional status during pregnancy and the incidence of stunting in toddlers. 2-3 years old in Tegalagung Village, Semanding District, Tuban Regency. The results of this study are expected to be a source of information for health workers, especially midwives in providing midwifery care to mothers during pregnancy and toddlers to deal with stunting in toddlers

***Keywords** : Nutritional status, pregnant, toddlers stunting*

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INTRODUCTION

Toddlers are one of the age groups that are vulnerable to nutrition. One of the main nutritional problems in toddlers is nutritional conic or stunting. According to WHO data, the prevalence of stunting is highest in Africa and Asia. Indonesia is included in the third country for the number of stunting in children, around 36.4% of children in Indonesia suffer from stunting. Growth at this time is important because it is one of the indicators of health in adulthood.[1]

Based on the results of Nutrition Status Monitoring in 2015, the prevalence of stunting in Indonesia is 29%. This figure decreased in 2016 to 27.5%. However, the prevalence of stunted toddlers increased again to 29.6% in

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2017. The prevalence of very short and short toddlers aged 0-59 months in Indonesia in 2017 was 9.8% and 19.8%.[3]

East Java is a province that is included in the category of quite high stunting rates. The results from the PSG explained that the prevalence of stunting in East Java decreased significantly from five years ago by 32.7% to 26.7%. This figure is slightly lower than the national figure of 27.5%. However, East Java is still a stunting problem area because it is still above the 20% limit.[2]

In the Tuban Regency area, the working area of the Semanding Health Center ranks first in stunting prevalence and is located in Tegalagung Village, Semanding District, Tuban Regency, there are 134 children under five with a total of 91 children (68%) experiencing stunting, 31 children (23.1%) experiencing stunting. short and 12 children (8.9%) were normal.[4]

The causes of stunting include stunted growth in the womb, insufficient intake of nutrients to support rapid growth and development in infancy and childhood and frequent infections during early life, children have low body length at birth, children who experience low weight at birth, and supplementary feeding that is not appropriate for age accompanied by food consistency.[5]

Stunting that take place in childhood will have an impact in the future, which can cause intelligence quotient (IQ) disorders, psychomotor development, motor skills, and neurosensory integration, having an average IQ of 11 points lower than children who do not Stunting. To prevent this, the state contributes to the community in reducing stunting. The government's efforts in this case the Ministry of Health (Kemenkes) RI have carried out specific nutritional interventions including macro and micro nutrition supplementation (giving blood-added tablets, Vitamin A), additional food for pregnant women, exclusive breastfeeding, and complementary feeding, fortification, campaigns balanced nutrition, implementation of classes for pregnant women, provision of deworming medicine and handling of malnutrition.[6] This research was to analyze The Impact Of Pregnant Women Nutritional Status History With Stunting In Children Aged 2-3 Years.

MATERIALS AND METHODS

The research design used was Case Control, where the researcher makes observations or measurements of the

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dependent variable first (effect), while the independent variables are traced retrospectively to determine whether there are factors (independent variables) that play a role.[7]

This research was conducted in 5 posyandu, Tegalagung Village, Semanding District, Tuban Regency. This research was conducted in January-March 2021. The sample is partly taken from the entire object under study and is considered to represent the entire population.[8] The sample of this study was some toddlers aged 2-3 years in Tegalagung Village, Semanding District, Tuban Regency who met the inclusion criteria. This study using a total sampling technique, which is a sampling technique that is the same as the existing population.[9]

Inclusion criteria are general characteristics of research subjects from a target population that is affordable and will be studied. Scientific considerations should be a guideline when determining inclusion criteria.[7] The inclusion criteria in this study were 1) Toddlers who came to the posyandu during data collection 2) Mothers of toddlers who still had MCH books and we're still complete.

Exclusion criteria are eliminating or removing subjects who meet the inclusion criteria from the study because they are the cause (Nursalam, 2009). The exclusion criteria of this study are 1) Toddlers who have a history of illness once a month 2) Instruments are tools chosen and used by researchers in their activities to collect data so that these activities become systematic and easier.[8]

The instruments used are primary data with TB/U under five using a microtome arm and KIA book (Graph Z-Scores) and secondary data for maternal LILA size during pregnancy taken from the MCH book.

Data collection is a process of approaching the subject and the process of collecting data on the characteristics of the subjects collected in a study.[8] After receiving a recommendation from an educational institution, the researcher went to the Tuban District Health Office with a cover letter to collect data on the highest incidence of stunting in children under five in which area, after that the researchers went to the Semanding Health Center to look for the highest stunting incidence data. to Tegalagung Village, after that, the researcher went to the midwife of Tegalagung Village, Semanding District, Tuban Regency with a cover letter from education to collect data on stunting in toddlers.

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The researcher took part in the posyandu activity, then the researcher gave the consent form to become a respondent and collected data with primary and secondary data, expressed the aims and objectives of the researcher to the respondent, then measured the height/age of children under five (TB/U) and saw the mother's MCH book to get maternal nutritional status during pregnancy (LILA). The data that has been collected is raw data that must be organized in such a way that it can be presented in the form of tables or graphs so that it is easy to analyze and draw conclusions about activities in the data processing process, then data processing is carried out.

Nutritional status is the condition of pregnant women whose arm circumference is measured (LILA) based on records in the MCH book LILA <23.5 cm: Undernourished, LILA 23.5 cm: Good nutrition using the ordinal scale, while the incidence of stunting is a chronic condition that describes delayed growth in children aged 2-3 years due to malnutrition in the long term as indicated by TB/U with parameters TB/U >-2SD: Not stunting and TB/U <-2SD: Stunting, with nominal data scale. Data analysis used the Spearman test with a significant value of 0.05.

RESULT

1. Mother's Nutritional Status during Pregnancy

Table 1 Distribution of Respondents Based on Maternal Nutritional Status during Pregnancy in Tegalagung Village, Semanding District, Tuban Regency

No	Mother's Nutritional Status During Pregnancy	*f*	%
1	Nutrition Less	18	41,9
2	Good Nutrition	25	58,1
	Total	**43**	**100**

Source : Secondary Data, 2021

Based on table 1 shows that of the 43 respondents, most of them showed that mothers had good nutritional status during pregnancy, namely 25 respondents (58.1%).

2. Toddler Nutritional Status

Table 2 Distribution of Respondents based on the Nutritional Status of Toddlers (TB/U) Age 2-3 Years in Tegalagung Village, Semanding District, Tuban Regency

No.	Toddler Nutritional Status	*f*	%
1	Stunting	22	51,2
2	No Stunting	21	48,8
	Jumlah	**43**	**100**

Source : Secondary Data, 2021

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Based on table 2 shows that out of 43 respondents, most of the children under five experienced stunting, namely 22 respondents (51.2%).

3. Impact of Maternal Nutritional Status during Pregnancy with Stunting Incidence in Toddlers Age 2-3 Years

Table 3. Analysis of the Impact of Maternal Nutritional Status during Pregnancy with Stunting Incidence in Toddlers Age 2-3 Years in Tegalagung Village, Semanding District, Tuban Regency

No	Mother's Nutritional Status During Pregnancy	*Stunting*		No *Stunting*		Total	
		n	%	n	%	n	%
1	Nutrition Less	10	45,5	8	38,1	18	41,9
2	Good Nutrition	12	54,5	13	61,9	25	58,1
	Total	**22**	**100**	**21**	**100**	**43**	**100**
p=0,635							

Source : Secondary Data, 2020

Based on table 3 shows that of the 43 respondents in the village of Tegalagung, Semanding District, Tuban Regency, it can be seen that of the 22 toddlers who experienced stunting, most of them 12 (54.5%%) had mothers who had good nutritional status during pregnancy. And of the 21 children under five who were not stunted, most of them 13 (61.9%) had mothers who had good nutritional status during pregnancy. Analysis using *Spearman test* got the result p value = 0.635, because the p value > 0.05 which indicates there was no impact Of Pregnant Women Nutritional Status History With Stunting In Children Aged 2-3 Years.

DISCUSSION

Based on the results of SPSS version 21 using the Analysis using *Spearman test* got the result p-value = 0.635, because the p-value > 0.05 This shows that H1 is rejected, meaning that there is no significant impact between maternal nutritional status during pregnancy and the incidence of stunting in toddlers. 2-3 years old in Tegalagung Village, Semanding District, Tuban Regency.

The nutritional status of the mother during pregnancy is a substance of food or nutritional needs needed by the mother and fetus during pregnancy because the nutritional status of the mother during pregnancy is very important for the growth and development of the fetal brain while in the womb.[10]

Mothers who have poor nutrition will have an impact on anemia in mother and baby, bleeding during childbirth,

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miscarriage, abortion, congenital defects in infants, intrapartum asphyxia, and babies born with low birth weight.[11] From this research, most of the mothers had good nutritional status during pregnancy but still found poor nutritional status (41.9%). The condition of the mother during pregnancy greatly affects the quality of future human resources because the child's growth and development is very much determined while in the womb who gets a source of nutrition from the mother. This means that the mother during pregnancy requires more nutritional needs than the needs of the mother before pregnancy.

Pregnant women who have poor nutritional status during pregnancy may be caused by the poor nutritional status of mothers before pregnancy, socioeconomic status, lack of maternal food intake during pregnancy, lack of education and knowledge of mothers. Therefore, health workers, especially midwives, must be more careful in providing midwifery care and provide health education with the importance of nutritious and diverse foods for mothers from pregnancy to childbirth.

Stunting is a chronic nutritional condition that describes stunted growth due to malnutrition in the long term.[6] Factors causing stunting in children can be divided into 3 major categories, namely maternal factors (Maternal height during pregnancy, maternal age during pregnancy, anemia during pregnancy, and maternal nutritional status during pregnancy), parenting factors (exclusive breastfeeding and complementary feeding) and infectious factors in children.[1]

Most children aged 2-3 years in Tegalagung Village are stunted. Based on the reality in the field, another possible cause of stunting is that children do not fully receive exclusive breastfeeding because usually there are customs from the village that before it is time to get MP-ASI already given MP-ASI when the child is less than 6 months old, eating patterns fewer children. After all, children prefer to eat light snacks compared to eating rice, vegetables, and side dishes, and children often play in direct contact with the ground so that children are susceptible to disease. Children who are sick will cause the child's nutritional status to decline and stunting will occur. Therefore, health workers, especially midwives, must be more careful in providing midwifery care for newborns to toddlers to minimize the risk of stunting in toddlers.

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This study is in line with research conducted in the working area of the Bontoa Health Center, Maros Regency in 2017 which said that there was no significant relationship between the history of maternal nutritional status during pregnancy (LILA) and the growth of children under five. However, the history of maternal nutritional status has a significant relationship with nutritional status and infant birth weight. This may be influenced by various other factors that can affect the nutritional status of children under five.[12]

Other studies have shown different results, such as those conducted in Soreang Sub-district, Bandung Regency related to the incidence of stunting in toddlers by Sukmawati & Hendrayati in 2018 which said that there was a significant correlation between maternal nutrition during pregnancy, infant birth weight, and stunting incidence in children.[13] Based on the theory that supports the results of the research conducted, it is stated that several factors can affect LBW with stunting, namely the lack of maternal nutritional intake during pregnancy, severe illness, stress conditions in pregnant women can affect fetal growth through adverse effects on the mother. Babies with low birth weight in adulthood will experience stunting and have a risk of various diseases such as coronary heart disease, diabetes, stroke, and hypertension.

The absence of this impact is probably due to the high awareness of pregnant women in Tegalagung village to have their pregnancy checked at least 4 times. Thus pregnant women who experience malnutrition can be immediately handled by health workers so that interventions can be carried out as early as possible. Interventions given to pregnant women can improve their nutritional status, including increasing the baby's weight and length while in the womb. The existence of the PMT program for pregnant women in Semanding District is one of the interventions provided so that babies in the womb can grow and develop properly.

The possibility that causes stunting is other factors experienced by babies after birth, namely when they start getting exclusive breastfeeding, complementary feeding, and infectious factors that occur in babies. Stunting does not occur easily and takes a long time, meaning that children who are stunted tend to experience illness, stress, and lack of nutrition and care during or during periods of growth and development.

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Stunting is often encountered by children because, at this time, individuals depend on adults to meet their needs.[12-13]

CONCLUSION

There is no significant impact between maternal nutritional status during pregnancy and the incidence of stunting in toddlers. 2-3 years old in Tegalagung Village, Semanding District, Tuban Regency. The results of this study are expected to be a source of information for health workers, especially midwives in providing midwifery care to mothers during pregnancy and toddlers to deal with stunting in toddlers, can add library literature and it is hoped that institutions can also add various reference books about stunting that can be used as material. learning and reference in further research and can provide information to mothers so that they can improve their nutritional status during pregnancy, provide adequate nutritional intake to their children, and mothers are diligent in bringing their children to the posyandu to weigh so that early detection of stunting can be carried out and early treatment can be carried out in child.

REFERENCES

1. WHO, 2017 Situation : *Underweight In Children In Global Healty Observatory*.
2. Data Laporan PSG. 2017. Prevalensi *Stunting*di wilayah Jawa Timur.
3. Ditjen Kesehatan Masyarakat, 207. Pemantauan Status Gizi Balita di Indonesia.
4. RISKEDA Tuban, 2018. Prevelansi *Stunting*pada Balita di Wilayah Kerja Puskesmas Semanding Kabupaten Tuban.
5. Kusuma, E. K. 2013. Faktor Risiko Kejadian *Stunting*pada Anak Usia 2-3 Tahun di Kecamatan Semarang Timur. Program Studi Ilmu Gizi Fakultas Kedokteran Diponegoro Semarang.
6. Kementerian Kesehatan Replubik Indonesia. Status Gizi Pengaruh Kualitas Bangsa. Jakarta : Kemenkes RI. 2018:7(1):8-13.
7. Nursalam. 2009. *Metodologi Penelitian*. Jakarta: EGC
8. Notoadmdjo, Soekidjo. 2010. *Penelitian Kesehatan*. Jakarta: Raneka Cipta
9. Arikunto (2009). *Metode Penelitian*. Jakarta : EGC
10. PERSAGI (2009). *Gizi pada Ibu Hamil*. Jurnal Gizi Indonesia 6 (9: 42: 43).
11. Choirunisa, (2010). *Pentingnya Status Gizi Ibu pada Masa Kehamilan*. Surabaya.
12. Sulistiani (2017). Hubungan Riwayat Status Gizi Ibu (LILA) dengan Pertumbuhan Anak Balita di Puskesmas Bontoa Kecamatan Maros. Program Studi Ilmu Gizi.
13. Sukmawati & Hendraayati (2018). Hubungan Antara Riwayat Status Gizi Ibu saat Hamil, Berat Badan Lahir dengan Kejadian *Stunting*di Kecamatan Soerang Kabupaten Bandung.

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