



Relationship between early marriage and teenager pregnancy to stunting in toddler at Bangun Rejo Village, Tanjung Morawa District, Tanjung Morawa, Deli Serdang 2019[☆]



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Abstract The brain undergoes very rapid growth and development among toddler below 5 year of age. The fault in their upbringing during this period of time will cause them to undergo growth and development disorder, and parents who get married too young early have lack of knowledge of raising their young children. As a result, the latter become vulnerable during their growth and development.

The objective of the research was to analyze the correlation between early marriage and teenager pregnancy to stunting in growth among toddlers. The research used descriptive analytic method with cross-sectional design. It was conducted at Bangun Rejo Village, Tanjung Morawa District, Deli Serdang regency from June to September 2019. The population consisted of 645 toddler aged between 0 and 59 months. The sample was chosen by using systematic random sampling technique. The data were gathered by using questionnaires in order to get the information about early marriage and by conducting observation in order to find out toddler stunting.

The result of univariate analysis showed that 87 (82.1%) infants had normal growth. The result of bivariate analysis, using chi-square test, showed that there was correlation between early marriage and toddler stunting, teenager pregnancy ($p=0.000$) and marriage age ($p=0.001$).

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The conclusion of the research was that there was correlation between early marriage and teenager pregnancy to stunting in toddler. The study showed that toddlers in case of parent with early marriage was more vulnerable to growth and development disorder. It is recommended that health service of care for adolescents and integrated monitoring of toddler be established in order to decrease the risk of incidence of early marriage and toddler stunting.

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Introduction

Indonesia is the country with the second highest percentage of young marriages in ASEAN region after Cambodia and ranks 37th in the world. More than 22,000 women aged 10–14 years in Indonesia are married, and 11.7% of women aged 15–19 years are also married. Kalimantan is the province with the highest percentage of young marriages.¹

Based on research conducted by Afifah² in Indonesia, it shows that mothers who marry early tend to have children with impaired growth and development. This was evident from the data obtained from the age group of mothers aged 25–29 years have 33.7% short children, and the age group of mothers 20–24 years have 37.2% short children and mothers aged 15–19 years have short children 42.2%. The younger the mothers age, the proportion of children under five with poor nutritional status increases.

Stunting is a state of the body that is short or so short that it exceeds –2SD below the median length based on height by age. The World Health Organization sets a stunting tolerance limit of maximum of 20% or 1/5 of the total number of children under five. Estimated global stunting of 171 million to 314 million occurs in children aged 5 years and 90% are in the continent of Africa and Asia. Indonesia recorded 7.8 million out of 23 million children under five with stunted growth (35.6%).³

Preliminary survey, from the results of interviews with village officials, it is known that there are still many incidents of early marriage, in the last 5 years between 2012 and 2017. It was seen that about 268 cases of adolescent's growth defect had parents who did early marriage.

Methods

The type of study carried out in this research is analytic descriptive, with the cross-sectional study design. The location of this research is Bangun Rejo Village, Tanjung Morawa Subdistrict, Deli Serdang Regency in 2019.

The population in this study were all children aged 0–59 months in the Bangun Rejo Manis Village, Tanjung Morawa District in 2019 with a population of 645 toddlers. The sample of this study was 106 toddlers, 42 from families who were married early and 64 from families who were not married early. Sample selection was done using the systematic random sampling method.

Primary data were obtained directly from respondents, and secondary data were obtained from village records and midwife data. The questionnaire is no longer tested for validity and reliability because the questionnaire is considered standard from the Ministry of Health. Data analysis

consisted of univariate and bivariate analyses using the chi-square test.

Results and discussion

Family characteristics

The research was based on the results of the study shown in the Bangun Rejo village of Tanjung Morawa subdistrict of Deli Serdang in 2019. Table 1 shows the distribution of family characteristics. Based on family education most of the wife's education is elementary education (SMP) of 53 (50%), most of the husband's education is higher education (SMA) as many as 47 (44.3%). Based on the age of most wives were aged 21–30 years as many as 63 (59.4%), most husbands aged 21–30 years were 60 (56.6%) among the families. By age the family did that not get married early as many as 64 respondents, families that married early as many as 42 respondents. Based on teenage pregnancies, 21% of the respondents were pregnant (pregnant age <20 years), and 85% respondents were pregnant (pregnant age >20 years).

Toddler characteristics

Based on the results of the study shown in Table 2, it is seen that the distribution of the characteristics of toddlers in Bangun Rejo village, Tanjung Morawa subdistrict, Deli Serdang district in 2016, of 193 respondents based on the sex of the respondents, the majority of the sex of under-five girls i.e. 108 (56%) respondents. Based on age, the majority of children under five in the age group of 0–11-month age range were 70 (36.3%) and the minority are in the range of 48–59 months represented by 19 (9.8%).

Relationship of early marriage with stunting incidence rate

Based on the results of statistical tests using chi-squared calculation, the value of $p = 0.001$ ($p < \alpha = 0.05$) means that there is a relationship between early marriage and the incidence of stunting in infants in Bangun Rejo Village, Tanjung Morawa Subdistrict, Deli Serdang Regency in 2019. This shows that families who marry early tend to have stunting children compared to children from families who are not married early.

The disruption of the growth of children under five in families who get married early is because majority of the mothers have only basic education as education is the basis of mother's knowledge to capture information. There are

Table 1 Distribution of family characteristics in Bangun Rejo Village, Tanjung Morawa Deli Serdang.

No.	Family characteristics	N	(%)
1.	<i>Age of first marriage</i>		
	1. Not married early >20 years	64	60.4
	2. Married early <20 years	42	39.6
2.	<i>Teenage pregnancies</i>		
	1. Pregnant age <20 years	21	19.8
	2. Pregnant age >20 years	85	80.2
Total		106	100

Toddler characteristics.

Table 2 Relationship of early marriage with stunting incidence rate.

Age of first marriage	Height/body length				n	(%)	p-Value	RP (95% CI)
	Normal		Stunting					
	n	(%)	N	(%)				
1. Not married early >20 years	59	92.2	5	7.8	64	100	0.001	4.267 (1.660–10.967)
2. Married early <20 years	28	66.7	14	33.3	42	100		

70 mothers with basic education, 70 (66.7%) were related to nutrition need of a toddler.

Various research results show that, mother with early marriage are less capable in fulfilling the nutrition of children, because early marriage will result in poor education resulting in less educated mothers that impacts on their poor knowledge regarding childcare. It was found that the performance and attitude of mothers who married early were not enough in fulfilling the nutritional status of their toddlers.⁴

In the research it is said that becoming a parent at an early age will cause someone to have less skills in caring for their children, in contrast to people who have toddlers in adulthood.⁵ This causes the child to get the wrong treatment. Therefore, children born from early marriage have a higher risk of experiencing developmental delays in contrast to children born to parents who are not married early.⁶

Getting married at a young age while still in their teenagers will have negative effect on their children. Psychologically, a child who has become a mother at a young age will have difficulty in providing the best care related to the growth and development of their children. This is because they are mentally not ready to become parents.⁷

Relationship of teenage pregnancy with stunting incidence rate

Based on the results of statistical tests using the chi-square calculation, the value of $p = 0.000$ ($p < \alpha = 0.05$) indicate that there is a relationship between teenage pregnancy and the incidence of stunting in infants. The results of the present studies in Bangun Rejo Village, Tanjung Morawa Subdistrict, Deli Serdang Regency in 2019 found that most stunting events occur in teenage pregnancies.

Based on the results of a study on 21 families, with mothers becoming pregnant in their teens, the majority have toddlers whose height was not in accordance with the tod-

dler's age of 13 (62%) toddlers. Study among 79 families showed that women who are pregnant at 20 years, the majority (79, 74.5% toddlers) have children under five with height not in accordance to the age of under-five.^{8,7}

As a result of teenage pregnancy there is a greater chance of giving birth to a premature baby or having a baby with a low birth weight. Teenage pregnancy is usually not planned, teenage pregnancy is more common in economically underprivileged populations and teenage mothers tend to lack experience in childcare because of shortage of education. Research reveals that the majority of stunting events occur in the first 2 years of life. The initial period of malnutrition in children is during fetal development caused by malnourished mothers. Therefore, maternal nutrition during pregnancy plays an important role in the growth and survival of children.⁹

In the Larasati study in 2018¹⁰ it was found that mothers who experience pregnancy at a young age are biologically as the flow of blood to the cervix and uterus is not fully developed in some adolescents at this age. This causes lesser flow of nutrients to the fetus during pregnancy. Teenage pregnant women are also still not physically developed, so there can be a struggle for nutrients between the fetus and the mother's metabolism itself. This situation will cause inadequate intake of maternal nutrients so that the fetus will experience growth restriction. Thereby increasing the risk of a fetus born with low birth weight or premature birth in which both of these factors are responsible for stunting in infants.

Research limitations

This study uses a cross-sectional design where data collection is only done once and does not look at previous growth records. It would be better if you use a case control design to see how growth and development of mothers are related

to the growth and development of toddlers, as well other the factors that cause stunting in toddlers in case of parents with early marriage. This study looked into factors such as age of first marriage and teenage pregnancy related to early marriage and stunting in infants. This research was conducted using random sampling techniques, it would be more difficult if all respondents were sampled. There is a relationship between early marriage and the incidence of stunting in infants in Bangun Rejo Village, Tanjung Morawa Subdistrict, Deli Serdang Regency in 2019.

Recommendations

For the village head of Bangun Rejo, it is expected to be able to minimize the incidence of early marriage in Bangun Rejo Village, Tanjung Morawa Subdistrict, Deli Serdang Regency by promoting and initiating youth care health program where positive activities are formed for youth and also providing other health care services

Conflict of interest

The authors declare no conflict of interest.

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