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Determinants Factors of Stunting in Together in East Kambingan Village and Talang Village, Saronggi District, Sumenep Regency

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ABSTRACT

Stunting is a chronic nutritional problem caused by inadequate nutritional intake for a long time. Stunting occurs from the womb and is only seen when the child is two years old. Stunting that is not handled quickly and appropriately is at risk of triggering health problems and not achieving optimal growth and development in children. The research design used was observational with a retrospective study approach. The sample in this study was 219 respondents who were taken from the population using simple random sampling technique. The independent variable in this study was maternal factors, while the dependent variable in this study was the incidence of stunting in children under five. To determine the relationship between research variables, the Spearman Rho correlation test was used, while the multiple logistic regression test was used to see the magnitude of the maternal risk factor for the incidence of stunting in children under five. From the results of the regression test, it is known that maternal height affects the incidence of stunting in toddlers (p-value: 0.005), mother's education affects the incidence of stunting in toddlers (p-value: 0.011) and the first age when pregnant women affect the incidence of stunting in toddlers (p value: 0.015). From the results of the study it can be concluded that the occurrence of stunting in toddlers in the East Kambingan Village and Talang Village, Saronggi District, Sumenep Regency is influenced by the mother's height, mother's education, and the mother's first age during pregnancy.

Keywords: determinant factor, stunting, toddler

INTRODUCTION

Health development as an integral part of National Development in Indonesia is essentially the implementation of health efforts to achieve the ability to live healthy for every Indonesian population as an effort to realize optimal health degrees and is a big contribution to the development and development of human resources as capital for national development. The Millennium Development Goals (MDGs) which are now replaced with Sustainable Development Goals (SDGs) are sustainable national development goals where the program has 17 goals with 169 measurable targets and a set deadline (Ermalena, 2017). Of the 17 goals contained in the SDGs, there are 2 goals in Goal 2, namely tackling hunger and poverty and ending hunger, achieving food security and improving nutrition and encouraging sustainable agriculture. In the second goal, there is a target that must be achieved by 2030, namely ending all forms of malnutrition, including achieving international targets, namely reducing stunting and wasting in children under five. Stunting is a chronic nutritional problem caused by

inadequate nutritional intake for a long time, generally due to food intake that does not match nutritional needs. Stunting occurs from the womb and is only seen when the child is two years old. Stunting has long-term effects, in the form of reduced cognitive abilities and physical development, as well as reduced health capacity.

Indonesia is ranked 10th out of 44 countries in the Hunger and Nutrition Commitment Index, which shows the magnitude of Indonesia's commitment to achieving the 2030 SDGs target. Across Indonesia, more than 37 percent of children under 5 years of age were stunted in in 2018, or about 8.4 million children. In 15 of the 34 provinces in Indonesia, the prevalence of stunting is higher than 40 percent, and the highest case of 52 percent occurs in East Nusa Tenggara. Even in the province with the lowest prevalence – Riau Islands – one in four children (26 percent) is stunted. The national stunting prevalence has not changed between 2007 (36.8 percent) and 2018 (37.2 percent). The double burden of malnutrition is therefore an increasingly serious problem. For Indonesia, this is an active challenge in 2018, 12 percent of children under the age of 5 are wasting (low weight compared to height), and approximately the same number are overweight. In 2019, it was reported that in East Java there were 12 districts experiencing stunting. The highest incidence of stunting was in the Sumenep Regency area (East Java Provincial Government, 2020). The results of the initial data collection conducted at the Saronggi Health Center, Sumenep Regency, recorded the number of stunting sufferers in the working area of the Saronggi Health Center as many as 122 cases. Stunting incidents in the East Kambingan Village, Saronggi District, Sumenep Regency, during 2019 there were 17 incidents.

Statistical data show that stunting is not a concentrated issue, but affects children from various socio-economic backgrounds. Children living in the poorest 20 percent of households are 1.7 times more likely to be stunted than children from the richest 20 percent, but stunting prevalence remains equally high across the welfare spectrum. Even in the richest quintile, 29 percent of children were stunted in 2018. There is only a small difference between children living in rural areas and those living in urban areas, and no significant differences between boys and girls. In 2018, one in four babies born was stunted from birth, indicating that the process of stunting started before birth. Thereafter, the prevalence of stunting increased sharply, reaching almost 40 percent among children aged 12–23 months. This pattern of stunting in early childhood makes the period from conception to the child's second birthday – the first 1,000 days of life – a window of opportunity or golden opportunity that is very important to prevent stunting in children (Laksono and Megatsari, 2020).

Stunting or low height compared to a person's age indicates a nutritional deficiency in the most critical period of a person's growth and development in his early life. This is identified by assessing the length or height of the child compared to his age and interpreting the results of these measurements by comparing them with the applicable standard values. Children are said to be stunted if their height is more than two standard deviations below the median growth standard of the World Health Organization (WHO) for children of the same age and sex (Ni'mah and Nadhiroh, 2015).

Toddler period is a period that is very sensitive to the environment so that more attention is needed, especially its nutritional adequacy (Kurniasih, 2016). Nutritional problems, especially stunting in toddlers, can hamper child development, with negative impacts that will take place in the next life such as intellectual decline, vulnerability to non-communicable diseases, decreased productivity to cause poverty and the risk of giving birth to babies with low birth weight (Ultriani, 2019). The nutritional status of pregnant women greatly affects the health and development of the fetus. Growth disorders in the womb can cause low birth weight (WHO, 2014). Research in Nepal shows that babies with low birth weight have a higher risk of becoming stunted (Paudel, et al., 2012). The length of the baby's birth is also associated with the incidence of stunting. Research in Kendal shows that babies with short birth lengths are at high risk of stunting in toddlers (Meilyasari and Isnawati, 2014). Another factor related to stunting is the intake of exclusive breastfeeding for toddlers. Research in Southern Ethiopia proves that toddlers who do not get exclusive breastfeeding for 6 months are at high risk of stunting (Fikadu, et al., 2014).

Family socioeconomic status such as family income, parental education, mother's knowledge of nutrition, and number of family members can indirectly relate to stunting. The results of Riskesdas (2013) show that the incidence of stunting under five is much influenced by low income and parental education. Families with high incomes will have easier access to education and health so that children's nutritional status can be better (Bishwakarma, 2011). Research in Semarang states that the number of

family members is a risk factor for stunting in toddlers aged 24-36 months (Nasikhah and Margawati, 2012).

Tackling stunting cases is a priority target to be achieved by the Sumenep Regency Government in 2020. To ensure this achievement can be met, the Sumenep Regency Government has begun to make breakthroughs and develop programs to meet nutritional needs. that can be used as a basis for compiling and implementing programs. Mapping the risk factors that trigger stunting is one of the efforts that can be done to increase the success rate of stunting prevention programs. With the existence of accurate data related to stunting risk factors, it will be easier for implementing stunting prevention programs to prioritize programs to reduce stunting rates in the Sumenep Regency area.

METHODS

The research design used was observational with a retrospective study approach. The affordable population in this study were all toddlers (aged 6-59 months) in East Kambingan Village and Talang Village, Saronggi District, Sumenep Regency as many as 483 toddlers. The number of samples in this study were 219 respondents who were taken using probability sampling technique with the type of simple random sampling. The variables in this study consisted of 2 variables, namely the independent variable (independent variable) and the dependent variable (the dependent variable). The independent variables (independent variables) in this study included maternal factors consisting of height, age at marriage, and age at first pregnancy. The dependent variable (the dependent variable) in this study was the incidence of stunting in toddlers (aged 6-59 months). Data collection methods used in this study were interviews, questionnaires, and documentation studies. The research instrument used for data collection in this study was a closed questionnaire. This research was conducted in the working area of the Saronggi Health Center, Sumenep Regency during March 2021 - August 2021. Statistical test to see the risk of maternal factors consisting of height, mother's educational background, and first age of pregnancy, on the incidence of stunting in toddlers (age 6 -59 months) using the Chi Square test, namely by looking at the Odds Ratio (OR) and multiple logistic regression tests to see the factors that have the most influence on the incidence of stunting. Subsequent research data were compiled using a frequency distribution table. This study has received ethical approval with the number 2567/KEPK/VIII/2021.

RESULTS

Mothers age

Table 1. Characteristics of respondents based on maternal age in East Kambingan Village and Talang Village, Saronggi District, Sumenep Regency

No	Description	Frequency	Percentage
1	< 20 years	112	51,1%
2	20-35 years	107	48,9%
3	> 35 years	0	0,0%
	Total	219	100%

Source : primary data, 2021

From the results of the study in table 1, it was found that more than half of the respondents aged < 20 years and almost half of the respondents aged 20-35 years, as many as 107 respondents (48.9%)

Fathers age

Table 2. Characteristics of respondents based on father's age in East Kambingan Village and Talang Village, Saronggi District, Sumenep Regency

No	Description	Frequency	Percentage
1	< 20 years	0	0,0%
2	20-35 years	219	100%
3	> 35 years	0	0,0%
	Total	219	100%

Source : primary data, 2021

From the results of the study in table 2, it was found that all respondents aged 20-35 years were 219 respondents (100%)

Father's occupation

Table 3. Characteristics of respondents based on father's occupation in East Kambingan Village and Talang Village, Saronggi District, Sumenep Regency

No	Description	Frequency	Percentage
1	Private	46	21,0%
2	Entrepreneur	52	23,7%
3	Farmer	121	55,3%
	Total	219	100%

Source : primary data, 2021

From the results of the study in table 3, it is found that most of the respondents have a livelihood as farmers as many as 121 respondents (55.3%) and only a small number of respondents who have a livelihood in the private sector are 46 respondents (21.0%).

Toddler age

Table 4. Characteristics of respondents based on age under five in the East Kambingan Village and Talang Village, Saronggi District, Sumenep Regency

No	Description	Frequency	Percentage
1	12-24 months	6	2,7%
2	25-36 months	70	32,0%
3	37-48 months	79	36,1%
4	49-60 months	64	29,2%
	Total	219	100%

Source : primary data, 2021

From the results of the study in table 4, it was found that almost half of the respondents aged 37-48 months, namely 79 respondents (36.1%) and only a small proportion of respondents aged 12-24 months, namely 6 respondents (2.7%)

Mother's height

Table 5. Characteristics of respondents based on maternal height in East Kambingan Village and Talang Village, Saronggi District, Sumenep Regency

No	Description	Frequency	Percentage
1	Normal	178	81,3%
2	Short	41	18,7%
	Total	219	100%

Source : primary data, 2021

From the results of the study in table 5, it was found that most of the respondents had height in the normal category, namely 178 respondents (81.3%) and only a small number of respondents had height in the short category, namely 41 respondents (18.7%)

Table 6. The relationship between maternal height and the incidence of stunting in children under five in East Kambingan Village and Talang Village, Saronggi District, Sumenep Regency

Mother's height	Incidence of stunting in toddlers							
	Very short		Short		Normal		Total	
	F	%	f	%	f	%	f	%
Short	9	22,0	20	48,8	12	29,3	41	100
Normal	0	0,0	2	1,1	176	98,9	178	100
Total	9	4,1	22	10,0	188	85,8	219	100
Correlation coefficient				0,423				
Sig (2-tailed)				0,000				
Unstandardized coefficient				30,860				
Regression coefficient				0,178				

Source : primary data, 2021

From the results of the cross tabulation in table 6, it is found that for mothers with height in the short category, almost half of the children under five are stunted (short height) as many as 20 respondents (48.8%), while mothers with height in the normal category are almost all of the children under five did not experience stunting (normal height) as many as 176 respondents (98.9%). From the results of the Spearman Rho correlation test with a significance of (0.05) obtained a sig (2-tailed) value of 0.000 which means that there is a relationship between maternal height and the incidence of stunting in children under five in East Kambingan Village and Talang Village, Saronggi District, Sumenep Regency with a strength correlation of 0.423.

From the results of the regression test in table 6, a constant number of unstandardized coefficients is 30,860 and it can be concluded that if there is no mother's height variable, the consistent value of stunting in toddlers is 30,860. From the results of the regression test also obtained a regression coefficient of 0.178 so it can be concluded that for every 1% addition of the mother's height, the incidence of stunting will decrease by 0.178. Because the regression coefficient is positive, it can be concluded that the mother's height has a positive effect on the occurrence of stunting in toddlers so that the regression equation Y = 30.860 + 0.178 X.

Mothers education

Table 7. Characteristics of respondents based on the mother's last education in East Kambingan Village and Talang Village, Saronggi District, Sumenep Regency

No	Description	Frequency	Percentage
1	Elementary education	8	4,1%
2	Middle school education	90	41,1%
3	High school education	120	54,8%
	Total	219	100%

Source : primary data, 2021

From the results of the study in table 7, it was found that more than half of the respondents had a high school education background, namely 120 respondents (54.8%) and only a small number of respondents had an elementary education background, namely 8 respondents (4.1%).

Table 8. The relationship between the mother's last education and the incidence of stunting in toddlers in East Kambingan Village and Talang Village, Saronggi District, Sumenep Regency

Mothers education	Incidence of stunting in toddlers							
	Very short		Short		Normal		Total	
	F	%	f	%	f	%	f	%
Elementary education	2	22,2	5	55,6	2	22,2	9	100
Middle school education	5	5,6	9	10,0	76	84,4	90	100
High school education	2	4,9	8	6,7	110	91,7	120	100
Total	9	4,1	22	10,0	188	85,8	219	100
Correlation coefficient	0,624							
Sig (2-tailed)	0,000							
Unstandardized coefficient	30,860							
Regression coefficient	0,118							

Source : primary data, 2021

From the results of the cross tabulation in table 8, it was found that for mothers with an elementary education background, more than half of the children under five experienced stunting (short height) as many as 5 respondents (55.6%), for mothers with a junior high education background, some Most of the toddlers owned did not experience stunting (normal height) as many as 76 respondents (84.4%), while for mothers with high school education background most of the toddlers owned did not experience stunting (normal height) as many as 110 respondents 91, 7%). From the results of the Spearman Rho correlation test with a significance of (0.05) obtained a sig (2-tailed) value of 0.000 which means that there is a relationship between the mother's last education and the incidence of stunting in children under five in East Kambingan Village and Talang Village, Saronggi District, Sumenep Regency with a strength correlation of 0.624.

From the results of the regression test in table 8, a constant number of unstandardized coefficients is 30,860 and it can be concluded that if there is no variable mother's age at first pregnancy,

the consistent value of stunting in toddlers is 30,860. From the results of the regression test also obtained a regression coefficient of 0.118 so that it can be concluded that for every additional 1% of maternal age at first pregnancy, the incidence of stunting will decrease by 0.118. Because the regression coefficient is positive, it can be concluded that the mother's age at first pregnancy has a positive effect on the occurrence of stunting in toddlers so that the regression equation Y = 30.860 + 0.118 X.

Mother's first age when pregnant

Table 9. Characteristics of respondents based on the first age of the mother during pregnancy in East Kambingan Village and Talang Village, Saronggi District, Sumenep Regency

No	Description	Frequency	Percentage
1	Age at risk of pregnancy (< 20 years / > 35 years)	98	44,7%
2	Pregnant age is not at risk (20-35 years)	121	55,3%
	Total	219	100%

Source : primary data, 2021

From the results of the study in table 9, it was found that most of the respondents in the first age during pregnancy were in the category of non-risk pregnancy age (20-35 years) as many as 121 respondents (55.3%) and almost half of the respondents during their first pregnancy were in the category of risky pregnancy age (< 20 years / > 35 years) as many as 98 respondents (44.7%).

Table 10. The relationship between the mother's first age during pregnancy and the incidence of stunting in children under five in East Kambingan Village and Talang Village, Saronggi District, Sumenep Regency

Usia pertama ibu saat hamil	Incidence of stunting in toddlers							
	Very short		Short		Normal		Total	
	F	%	f	%	F	%	f	%
Age at risk of pregnancy (< 20 years / > 35 years)	3	3,1	15	15,3	80	81,6	98	100
Pregnant age is not at risk (20-35 years)	6	5,0	7	5,8	108	89,3	121	100
Total	9	4,1	22	10,0	188	85,8	219	100
Correlation coefficient	0,544							
Sig (2-tailed)	0,000							
Unstandardized coefficient	30,860							
Regression coefficient	0,408							

Source : primary data, 2021

From the results of the cross tabulation in table 10, it was found that for mothers with the first age of pregnancy in the category of at-risk pregnancy (< 20 years / > 35 years) most of the children under five did not experience stunting (normal height) as many as 80 respondents (81.6 %), and for mothers with the first age of pregnancy in the category of not at risk of pregnancy (20-35 years), most of the children under five do not experience stunting (normal height) as many as 108 respondents (89.3%). From the results of the Spearman Rho correlation test with a significance of (0.05) obtained a sig value (2-tailed) of 0.000 which means that there is a relationship between the first age of the mother during pregnancy and the incidence of stunting in children under five in East Kambingan Village and Talang Village, Saronggi District, Sumenep Regency. with a correlation strength of 0.544.

From the results of the regression test in table 10, a constant number of unstandardized coefficients is 30,860 and it can be concluded that if there is no mother's education variable, the consistent value of stunting in toddlers is 30,860. From the results of the regression test also obtained a regression coefficient of 0.408 so it can be concluded that for every 1% addition of maternal education, the incidence of stunting will decrease by 0.408. Because the regression coefficient is positive, it can be concluded that mother's education has a positive effect on the occurrence of stunting in toddlers so that the regression equation Y = 30.860 + 0.408 X.

Incidence of stunting in toddlers

Table 11. Characteristics of respondents based on the incidence of stunting in children under five in East Kambingan Village and Talang Village, Saronggi District, Sumenep Regency

No	Description	Frequency	Percentage
1	Normal	188	85,8%
2	Short	22	10,0%
3	Very short	9	4,2%
	Total	219	100%

Source : primary data, 2021

From the results of the study in table 11, it was found that most of the toddlers had a height in the normal category, as many as 188 respondents (85.5%) and only a small number of toddlers had height in the very short category, namely 9 respondents (4.2%).

Table 12. Determinant Factors of Stunting in Toddlers in East Kambingan Village and Talang Village, Saronggi District, Sumenep Regency

Coefficients						
		Unstandardized Coefficients		Standardized Coefficients	t	Sig
Model		B	Std Error	Beta		
1	(Constant)	-30,860	1,930		-15,986	0,000
	Mother's height	0,178	0,12	0,630	14,859	0,005
	Mother's first age when pregnant	0,118	0,048	0,113	2,442	0,015
	Mother's education	0,408	0,158	0,155	2,579	0,11

a. Dependent Variable : Stunting Incidence in Toddlers (Z Score)

Source : primary data, 2021

From the results of the regression test output in table 12 between maternal height and the incidence of stunting in toddlers, a significance value (sig) of 0.005 < probability (0.05) can be concluded so that it can be concluded that there is an effect of maternal height on the incidence of stunting in toddlers in Kambingan Village. East and Talang Village, Saronggi District, Sumenep Regency. From the results of the regression test output between the mother's first age during pregnancy and the incidence of stunting in toddlers, a significance value (sig) of 0.015 < probability (0.05) can be concluded so that it can be concluded that there is an influence of the mother's first age during pregnancy with the incidence of stunting in toddlers in the village. East Goat and Talang Village, Saronggi District, Sumenep Regency. From the results of the regression test output between maternal education and the incidence of stunting in toddlers, a significance value (sig) of 0.011 < probability (0.05) can be concluded so that it can be concluded that there is an influence of mother's education on the incidence of stunting in children under five in East Kambingan Village and Talang Village, District Saronggi, Sumenep Regency. From the results of the regression test, it can be concluded that the determinants of stunting in children under five in the East Kambingan Village and Talang Village, Saronggi District, Sumenep Regency, respectively, are maternal height (0.05 significance), mother's education (0.011 significance) and age. mother's first time during pregnancy (0.015).

DISCUSSION

The factor of maternal height on the incidence of stunting in toddlers in East Kambingan Village and Talang Village, Saronggi District, Sumenep Regency.

From the results of the cross tabulation, it was found that for mothers with height in the short category, almost half of the children under five experienced stunting (short height) as many as 20 respondents (48.8%), while mothers with height in the normal category almost all toddlers who owned did not experience stunting (normal height) as many as 176 respondents (98.9%). From the results of the Spearman Rho correlation test with a significance of (0.05) obtained a sig (2-tailed) value of 0.000 which means that there is a relationship between maternal height and the incidence of stunting in

children under five in East Kambingan Village and Talang Village, Saronggi District, Sumenep Regency with a strength correlation of 0.423. From the results of the regression test output between maternal height and the incidence of stunting in toddlers, a significance value (sig) of 0.005 < probability (0.05) can be concluded so that it can be concluded that there is an effect of maternal height on the incidence of stunting in children under five in Kambingan Timur and Desa Kambingan Timur. Talang, Saronggi District, Sumenep Regency.

The results of this study are similar to the research conducted by Fajrina and Utami (2016) regarding the relationship between maternal factors and the incidence of stunting in toddlers at the Piyungan Health Center, Bantul Regency. The results showed that there was a relationship between maternal height and the incidence of stunting (p value 0.022 < 0.05). The results of this study are supported by research conducted by Fitriahadi (2018) on the relationship between maternal height and the incidence of stunting in toddlers aged 24-59 months. The results of the research conducted showed that there was a relationship between maternal height and stunting in toddlers aged 24-59 months in the work area of the Wonosari I Health Center. Human growth is influenced by genetic, environmental and hormonal factors. Genetics is one of the factors that cannot be changed because it is passed down directly from parents to their children. for term infants, size at birth reflects the influence of the uterine environment; at the age of the baby 2 years correlated with the average height of the parents indicating the influence of genetics. Another reference also mentions that after the age of 3 years, the child's height is significantly correlated with the height of the parents (Behrman et al, 1999, in Husna et al, 2017). Genetics that carry short traits are thought to affect hormonal work which plays a very important role in growth, especially linear growth. Hormones greatly affect the state of the body through changes in growth. The presence of growth hormone affects cortical bone deposition and may stimulate growth and height gain. Short parents tend to have short children due to genetic factors that are passed on to their children, so parents can only maximize environmental factors to support their children to achieve the maximum growth that can be achieved (Underwood, 1999, in Husna et al, 2017).

Characteristics of the mother or the condition of the mother which includes height is a genetic factor that causes stunting in toddlers. Parents who are short in height due to genes carrying short chromosomes are likely to pass the short trait to their children. This is due to a pathological condition, namely a growth hormone deficiency possessed by the gene carrying the chromosome, if it is not supported by adequate intake to support growth, in the next generation it will have an impact on growth failure or stunted (Kukuh and Nuryanto, 2013). Height is a form of genetic expression, and is a factor that is passed on to children and is associated with stunting. Children with short parents, either one or both, are more at risk of growing short than children with normal height parents. If the short nature of parents is caused by nutritional or pathological problems, then the short nature will not be passed on to their children (Supriasa et al, 2002, in Husna et al, 2017). One or both parents who are short due to pathological conditions (such as growth hormone deficiency) have genes in their chromosomes that carry short traits, thus increasing the chances of their children inheriting these genes and growing up to be stunted. However, if the parents are short due to nutritional deficiencies or disease, it is possible that the child can grow to a normal height as long as the child is not exposed to other risk factors (Amigo et al, 1997, in Husna et al, 2017). Mamabolo et al (2005) explained that parents who are short because of genes in chromosomes that carry short traits are likely to pass these short traits to their children. If the parent's short nature is caused by nutritional or pathological problems, then the short nature will not be inherited.

Mother's latest education factor on the incidence of stunting in toddlers in East Kambingan Village and Talang Village, Saronggi District, Sumenep Regency

From the results of the cross tabulation, it was found that for mothers with an elementary education background, more than half of their toddlers experienced stunting (short height) as many as 5 respondents (55.6%), for mothers with a junior high education background, most of the toddlers who owned did not experience stunting (normal height) as many as 76 respondents (84.4%), while for mothers with a high school education background most of the toddlers owned did not experience stunting (normal height) as many as 110 respondents 91.7%). From the results of the Spearman Rho correlation test with a significance of (0.05) obtained a sig (2-tailed) value of 0.000 which means that there is a relationship between the mother's last education and the incidence of stunting in children under five in East Kambingan Village and Talang Village, Saronggi District, Sumenep Regency with a strength correlation of 0.624. From the results of the regression test output between maternal education

and the incidence of stunting in toddlers, a significance value (sig) of 0.011 < probability (0.05) can be concluded so that it can be concluded that there is an effect of mother's education on the incidence of stunting in toddlers in East Kambingan Village and Talang Village, District Saronggi, Sumenep Regency.

The results of this study are similar to the research conducted by Rahayu and Khairiyati (2014) on the risk of maternal education on the incidence of stunting in children 6-23 months. This study found a significant relationship ($p<0.05$) between maternal education and the incidence of stunting in children aged 6-23 months in Banjar Baru. Mothers with low levels of education have a 5.1 times greater risk of having stunted children. Mother's education has an important role in the incidence of stunting in children aged 6-23 months in Cempaka, Banjarbaru. The results of this study are supported by research conducted by Setiawan et al (2018) on the factors related to the incidence of stunting in children aged 24-59 months in the Andalas Health Center Work Area, East Padang District, Padang City. The results of the study concluded that there was a significant relationship between the mother's education level and the incidence of stunting (p value, 0.012). Based on multivariate analysis, maternal education is the factor that has the most dominant relationship with the incidence of stunting in children aged 24-59 months in the Andalas Public Health Center, Padang Timur District, Padang City. According to George F. Kneller cited by Siswoyo et al (2007) education can be viewed in a broad and technical sense. In a broad sense, education refers to an action or experience that has an influence related to the growth or development of an individual's soul, character, or physical ability. In a technical sense, education is a process whereby society through educational institutions (schools, universities or other institutions) intentionally transforms its cultural heritage, namely knowledge, values, skills, and generations. Education according to Law Number 20 of 2003 is a conscious and planned effort to create a learning atmosphere and learning process so that students actively develop their potential to have religious spiritual strength, self-control, personality, intelligence, noble character, and the skills they need, society, nation and state. Formal education is education that takes place regularly, graded and follows certain conditions strictly. This education takes place in schools, primary education, secondary education, and higher education. Informal education is education that a person gets from everyday experiences both consciously and unconsciously throughout his life. This education can take place in the family, in daily interactions as well as in work, society, and organizations. certain and conscious but not very strict with the rules. The level of education is a process that is deliberately carried out by parents to their children to develop their personality and abilities through tiered formal education.

The level of education affects the pattern of food consumption through the selection of food ingredients in terms of quality and quantity. The education of parents, especially fathers, has a reciprocal relationship with work. Father's education is a factor that affects household assets and market commodities consumed because it can affect attitudes and tendencies in choosing consumption materials. While maternal education affects the nutritional status of children, where the higher the education of the mother, the better the nutritional status of children. The level of education is also related to the nutritional knowledge possessed, where the higher the education of the mother, the better the understanding in choosing food ingredients. A mother who has an adequate educational background, it will be easier to access various information related to stunting such as signs and symptoms of stunting, stunting risk factors, stunting impacts, how to handle stunting. By getting the right information related to stunting, mothers will try to provide nutritional intake according to the needs of their babies. A mother who knows that her toddler is stunted, will make every effort to overcome the stunting experienced by their toddler. If mothers are indeed unable to overcome the stunting conditions experienced by their toddlers, then mothers will try other ways to ensure that their toddlers are immediately free from stunting conditions, such as visiting health care centers or visiting posyandu.

During the current COVID-19 pandemic, the management of toddlers with stunting will be slightly different from before the pandemic. When conducting inspections and monitoring of stunting toddlers, health workers are required to use medical masks and for cadres and families to wear cloth masks. Children who are at risk of underweight (BB/U below-2SD) and children whose weight does not increase, confirm by looking at their nutritional status (BB/TB) and their growth needs to be monitored by health workers/cadres. Children with BB/PB or BB/TB below -2 SD must be ensured to receive additional food (MT) program. Health workers will ensure the fulfillment of balanced nutritional intake and monitoring nutritional status at home according to the recommendations of health workers. Health workers assisted by cadres schedule home visits to carry out monitoring and further

treatment. Priority visits are made to severely malnourished toddlers (BB/PB or BB/TB below -3 SD), must continue to be provided with services according to the management of malnutrition by taking into account some restrictions on meetings/contacts (meeting/control period) and physical distancing) and must use personal protective equipment (PPE) to prevent the spread of COVID-19. Additional food distribution can continue to be carried out according to the needs of toddlers through health workers assisted by cadres as supplementation to maintain nutritional adequacy of toddlers while still paying attention to contact / physical distancing restrictions.

The factor of maternal age at first pregnancy on the incidence of stunting in children under five in East Kambingan Village and Talang Village, Saronggi District, Sumenep Regency.

From the results of the cross tabulation, it was found that for mothers with the first age of pregnancy in the category of at-risk pregnancy age (< 20 years / > 35 years) most of the children under five did not experience stunting (normal height) as many as 80 respondents (81.6%), and for mothers with the first age of pregnancy in the category of not at risk of pregnancy (20-35 years), most of the children under five who are owned do not experience stunting (normal height) as many as 108 respondents (89.3%). From the results of the Spearman Rho correlation test with a significance of (0.05) obtained a sig value (2-tailed) of 0.000 which means that there is a relationship between the first age of the mother during pregnancy and the incidence of stunting in children under five in East Kambingan Village and Talang Village, Saronggi District, Sumenep Regency. With a correlation strength of 0.544. From the results of the regression test output between the mother's first age during pregnancy and the incidence of stunting in toddlers, a significance value (sig) of 0.015 < probability (0.05) can be concluded so that it can be concluded that there is an influence of the mother's first age during pregnancy with the incidence of stunting in toddlers in the village. East Goat and Talang Village, Saronggi District, Sumenep Regency.

The results of research conducted by Fajrina and Utami (2016) regarding the relationship between maternal factors and the incidence of stunting in toddlers at the Piyungan Health Center Bantul Regency showed a significant relationship between the age of first pregnancy and the incidence of stunting in toddlers with p-value = 0.034 (< 0.05). The results of this study are supported by research conducted by Sani et al (2019) regarding the relationship between maternal age during pregnancy and stunting in toddlers 24-59 months. It was found that the value of value = 0.001 with a significance level of 1%. The statistical test criteria used are H0 rejected because p value <0.05, so there is a relationship between the independent variable (first age of pregnancy) and the dependent variable (stunted toddlers) with a Correlation Coefficient of 0.361. A mother who is pregnant at the age of <20 years does not have sufficient experience and knowledge to pay attention to pregnancy, as well as a mother who is too old (>35 years) during pregnancy tends to have no enthusiasm in caring for her pregnancy (Chirande et al, 2015). In addition, at this age, the absorption of nutrients begins to decrease so that food intake is not balanced and there is a decrease in body resistance in mothers who start to turn 35 years old and above so they will be at risk of experiencing various diseases (Sistiarani, 2008). The optimal reproductive age for women is the age of 20-35 years because at that age women are at childbearing age so that they have more energy (Monita et al, 2016). Mother's age is too young (< 20 years) is still in the process of growth so that the physical development is not perfect, including the reproductive organs. At this age, blood circulation to the cervix and uterus is still not perfect so that it can interfere with the process of distributing nutrients from the mother to the fetus in her womb. At the age of the mother < 20 years, pregnant women and fetuses experience competition for nutritional fulfillment between the mother and the developing fetus, so that the nutritional needs needed are more than those of mothers aged 20-35 years (Wemakor et al, 2018). According to research conducted by Quarshie (2014), mothers who are still teenagers tend to be incomplete in breastfeeding because they are less sensitive to babies and emotionally and unstable because they are easily disturbed. Based on the description above, mothers aged < 20 years still need adequate nutrition to grow and develop into adults. Meanwhile, at the age of > 35 years, mothers tend not to have enthusiasm in caring for their pregnancy, experiencing a decrease in nutrient absorption due to the aging process, as a result, they will experience an imbalance in nutrient intake.

Stunting is a linear growth disorder caused by chronic nutrient intake malnutrition and or chronic or recurrent infectious diseases as indicated by the z-score for height for age (TB/U) less than -2 standard deviations (SD) based on World Health Organization standards. (WHO, 2010). The incidence of stunting has an impact on increased mortality and morbidity, decreased cognitive, motoric,

language development, and increased expenditure on health costs, short height, increased risk of obesity and its comorbidities, and decreased reproductive health, decreased intelligence and learning capacity, decreased ability and work capacity. According to WHO (2013) several factors that cause stunting in children there are 4 major categories, namely 1) Household and family, 2) Lack of additional or complementary food, 3) Breastfeeding, and 4) Infection factors. From the results of the research that has been carried out, it was found that the determinants of stunting in children under five in Kambingan Timur Village and Talang Village, Saronggi District, Sumenep Regency, respectively, were maternal height (0.05 significance), maternal education (0.011 significance) and mother's first age. while pregnant (0.015).

Stunting conditions in toddlers can cause impaired cognitive and psychomotor function development as well as decreased productivity as adults (Milman et al, 2011). Factors causing stunting consist of basic factors such as economic factors and mother's education, then intermediate factors such as number of family members, mother's height, mother's age, and number of mother's children. Next are proximal factors such as exclusive breastfeeding, child age and low birth weight (Darteh et al, 2014). The impact of stunting is not only impaired physical growth of children, but also affects the brain growth of toddlers. There are more children with low IQ among stunting children than among children who are growing well. Stunting has a lifelong impact on children. Stunting raises concerns about the development of children, because of the long-term effects. Public awareness of this case is very much needed. Therefore, the Community-Based Health and Nutrition Program to Reduce Stunting (PKGBM) is very useful to increase public awareness in participating in reducing stunting prevalence in Indonesia. The role of health workers in stunting prevention efforts is to control newly married young women so that during pregnancy efforts can be made to provide further information on stunting prevention efforts so that the baby in the womb will always be healthy (Eko, 2015). In order to ensure that stunting prevention and control programs can run as expected, the Government of Indonesia launched the “First 1,000 Days of Life Movement” in September 2012 known as 1,000 HPK. The aim of the movement is to accelerate nutrition improvement to improve the lives of Indonesian children in the future. In addition, this movement focuses on reducing the prevalence of stunting (MCA, 2013).

Cross-sectoral collaboration in efforts to tackle stunting in children under five is the key to breaking the chain of stunting in Indonesia. At the level of policy makers, it is necessary to have a public policy that supports the eradication and prevention of stunting that occurs in Indonesia. Furthermore, to apply this program requires cooperation between the Health Office and existing health workers including health cadres in the community. Monitoring the growth and development of toddlers carried out in screening activities will provide information about toddlers who are at risk of stunting or toddlers who are stunted. Furthermore, the Health Office will synergize with village officials and health cadres in areas where stunting occurs to carry out inspections and monitoring. Provision of additional intake and nutrition can be done especially for stunting toddlers to ensure the adequacy of the nutrients needed during growth and development. The Health Office through the Puskesmas or Posyandu in the community must also always carry out socialization to the community, especially couples of childbearing age about the risk of stunting. Improvements in nutrition consumed by women of childbearing age will help reduce the risk of stunting in toddlers. In addition to these efforts, it is also necessary to improve the quality of the economy in the community considering that people's purchasing power for food with nutrients in accordance with the body's needs will contribute to the occurrence of stunting. Ease of access to nutritious food and affordability of access for couples of childbearing age will support the stunting eradication and prevention movement in Indonesia.

CONCLUSION

1. There is an effect of maternal height with the incidence of stunting in toddlers in the East Kambingan Village and Talang Village, Saronggi District, Sumenep Regency with a significance of 0.005.
2. There is an influence of mother's education with the incidence of stunting in children under five in the East Kambingan Village and Talang Village, Saronggi District, Sumenep Regency with a significance of 0.011.
3. There is an influence of the mother's first age during pregnancy with the incidence of stunting in toddlers in the East Kambingan Village and Talang Village, Saronggi District, Sumenep Regency with a significance of 0.015.

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