# THE CORRELATION BETWEEN SOCIOECONOMIC STATUS AND STUNTING IN TODDLERS AGED 2-4 YEARS (IN LERAN VILLAGE, MANYAR DISTRICT, GRESIK REGENCY)

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**Abstract**

**Background:** Stunting is the final indicator of all the factors that affect the growth and development of children in the first 2 years which will then have a negative impact when they get older. The purpose of this study was to determine the Socio-Economic Relationship with Stunting Incidence in Toddlers Age 2-4 Years in Leran Village, Manyar District, Gresik Regency. **Method:** Correlational analytic research method, Case Control time approach. The population of all mothers and children under five aged 2-4 years, a large sample of 34 respondents using simple random sampling. The independent variable is socio-economic, the dependent variable is the incidence of stunting. Questionnaire data collection instrument and z-score value. Research analysis using Spearman test. **Result:** The results of the analysis using SPSS 16.0 for windows, obtained spearman (rs) = -0.360 and the value of Sig. 2 tailed (p) = 0.036 then p <0.05 H1 is accepted meaning that there is a socio-economic relationship with the incidence of stunting with p value (0.000). **Conclusion:** The results of this study are suggested to be a reference for respondents, health institutions, the community and further researchers in increasing knowledge about stunting.

**Keywords: Socio-Economic, Stunting Incidence, Toddler Age 2-4 years**

## INTRODUCTION

Nutritional problems are essentially public health problems, but their management cannot be done with a medical approach and health services alone, the causes of nutritional problems are multifactorial, therefore the management approach must involve various related sectors (Pengan, 2012). Stunting or short stature is a condition of failure to grow in infants (0-11) months and toddlers ((12-59) months due to chronic malnutrition, especially in the first 1,000 days of life, so that the child is too short for his age. Malnutrition occurs from infancy and early after birth, but stunting only becomes apparent after 2 years. A toddler is considered stunted if their length-for- age (PB/A) or height-for-age (H/A) z- score is <-2 SD or standard deviation (stunted) and <-3 SD (severly) stunted). Stunted toddlers will have suboptimal intelligence, be more susceptible to disease, and may

be at risk of reduced productivity in the future. Ultimately, stunting can hamper economic growth and increase poverty (Ramayulis et al. 2018). Socio economic status is also greatly influenced by the level of family income. If food access at the household level is disrupted, especially due to poverty, then malnutrition, one of which is stunting, will definitely appear (Ngaisyah, 2015)

Globally, according to the World Health Organization (WHO) (2017), 22.2%, or approximately 150.8 million children worldwide, suffer from stunting. According to WHO data on the prevalence of stunting in toddlers, Indonesia ranks third in the Southeast Asia Region (SEAR). The average incidence of stunting in Indonesia from 2016 to 2018 was 36.4% (WHO, 2018). The Nutritional Status Monitoring Survey (PSG) was conducted to monitor and evaluate program activities and achievements. Based on the results of the 2016 PSG, the incidence of stunting in Indonesia was 27.5%. This figure increased in 2017 to 29.5%. The incidence of stunting decreased to 28.6% in 2018. The incidence of stunting in children aged 0-59 months in Indonesia in 2019 was 27.6% (PSG, 2019).

According to the 2017 Nutritional Status Monitoring (PSG), stunting rates in East Java dropped significantly from 32.7% five years ago to 26.7%. This figure is slightly lower than the national figure of 27.5%. However, East Java remains a region with stunting problems because it is still above the 20% limit (Kohar Heri Susanto, 2018). Based on monthly reports on toddlers from the Gresik District Health Office regarding child height (H/U) in 2018, out of 2834 toddlers, there were 1167 (41.18%) stunted toddlers, 1523 (53.73%) with normal height, and 144 (5.09%) with tall height. Data from the Temandang Community Health Center in 2018 showed that the most stunted toddlers were in Leran village with a total of 201 toddlers. There are 43 (21.5%) toddlers with stunting, 146 (72.5%) toddlers with normal, and 12 (6.0%) toddlers with tallness. Data from Leran Village on September 17, 2019 obtained data on toddlers in August 2019 weighed as many as 204 toddlers. 41 (20.1%) toddlers with stunting, 159 (77.5%) toddlers with normal, and 5 (2.4%) toddlers with tallness. The poverty rate in Gresik Regency increased based on data from the Central Statistics Agency (BPS) in 2020 reaching 15.91% (187,130 poor people) from 14.58% in 2019. The poverty rate in Gresik increased to 5th in East Java (data from the national socio-economic survey SUSENAS). Meanwhile, in Leran village, based on village statistics data in 2020, there were 142 formal workers and 2,183 informal workers. Informal workers include farmers, farm laborers, casual project workers and traders, most of whom have uncertain monthly incomes due to seasonal work, which can affect the socio-economic conditions of families, causing the purchasing power of the people in Leran village to decrease.

Stunting occurs as a result of long-term conditions such as poverty, inappropriate parenting behavior, and frequent recurrent illnesses due to poor hygiene and sanitation. One of the indirect causes of stunting

problems is the socio-economic status of the family which is influenced by the level of education of parents, because if education is higher the greater the opportunity to earn enough income so that they can have the opportunity to live in a good and healthy environment, while better jobs parents are always busy working so they are not interested in paying attention to the problems faced by their children, even though in fact these children really need parental affection (Andriani, 2012). Malnu trition, caused by inadequate consumption, is seen as an ecological problem not only due to insufficient food and nutrient availability but also due to poverty, poor environmental sanitation, and nutritional deficiencies. Socioeconomic status influences a family's ability to meet the nutritional needs of toddlers. Furthermore, socioeconomic status influences the choice of supplementary foods, timing of feeding, and healthy lifestyle habits. This significantly impacts the incidence of stunting in toddlers. Socioeconomic status is also strongly influenced by family income. If food access at the household level is disrupted, particularly due to poverty, malnutrition, one of which is stunting, is likely (Ngaisyah, 2015).

Socio-economic status is related to purchasing power. A family's ability to purchase food depends, among other things, on the size of the family's income, the price of the food itself, and the level of land and yard management. Families with limited incomes are more likely to be unable to meet their food needs, especially the nutritional needs of children (Fikawati & Shafiq, 2010). Limited income also determines the quality of food consumed daily, both in terms of quality and quantity. Prolonged poverty can result in households being unable to meet their food needs, which can lead to inadequate nutrition for children's growth (Proverawati, 2009)

Several factors associated with the occurrence of stunting are inadequate energy and protein intake, infectious diseases, exclusive breast feeding, immunization status, parental education, parental occupation, and socio-economic status (Ferdiansyah, 2016). The National Team for the Acceleration of Poverty Reduction (TNP2K) (2017) explainsthat toddlers with stunting have less than optimal intelligence, are more susceptible to disease and are at risk of developing degenerative diseases in adulthood, have less than ideal body posture as adults, experience decreased cognitive abilities, and are at risk of reduced productivity in the future. Ultimately, stunting can hinder economic growth, increase poverty, and widen inequality within a country.Children who suffer from stunting can grow up with cognitive development problems.

This condition requires the role of health workers, especially nutrition officers at community health centers, by providing counseling on how to prepare a healthy menu from local food ingredients that are affordable for the family's socio-economic level or by utilizing the existing yards to help families overcome family nutrition problems, as well as monitoring toddlers who are at risk of stunting, especially in low-income families (Ngaisyah, 2015). Based on the case above where the incidence of stunting is still high, the

author is motivated to conduct research on "the relationship between socio-economic conditions and the incidence of stunting in toddlers aged 2-4 years (in Leran Village, Manyar District, Gresik Regency)".

## METHOD

This research is a correlational analytical study with a case-control approach. The study was conducted in Leran Village, Manyar District, Gresik Regency in April 2024. The population in this study were all mothers who had toddlers aged 2-4 years and all toddlers aged 2-4 years in Leran Village, Manyar District, Gresik Regency in April 2024, totaling 41 toddlers. The sample size in this study using simple random sampling was calculated using the formula obtained. Some mothers who have toddlers aged 2-4 years and some toddlers aged 2-4 years in Leran Village, Manyar District, Gresik Regency who meet the inclusion criteria are 34 respondents. The independent variable in this study is socio-economics. The dependent variable in this study is the incidence of stunting. Data analysis in this study used a computer tool with the SPSS program for Windows consisting of univariate analysis and bivariate analysis. Univariate analysis was conducted by creating a frequency.

## RESULT AND DISCUSSION

Table 1 . Presentation of General Characteristics

| No | Age | Frequent | Percentage |
|---|---|---|---|
| 1 | 2 | 9 | 26,5 |
| 2 | 3 | 15 | 44,1 |
| 3 | 4 | 10 | 29,4 |
| | Total | 34 | 100 |
| No | Occupation | Frequent | Percentage |
| 1 | Farmer | 23 | 67,6 |
| 2 | Civil servant | 2 | 5,9 |
| 3 | Provate employee | 4 | 11,8 |
| 4 | Self-employed | 5 | 14,7 |
| | Total | 34 | 100 |

Table 2 . Presentation Of Variable Presentation

| No | Socio Economic | Frequent | Percentage |
|---|---|---|---|
| 1 | High | 6 | 17,6 |
| 2 | Middle | 11 | 32,4 |
| 3 | Low | 17 | 50 |
| | Total | 34 | 100 |
| No | Stunting Incidents | Frequent | Percentage |
| 1 | Stunted | 9 | 26,5 |
| 2 | Not Stunted | 25 | 73,5 |
| | Total | 34 | 100 |

Table 3 . Cross-Tabulation Of Socio- Economic Status With Stunting Incidence In Toddlers Aged 2-4 Years In Leran Village, Manyar District, Gresik Regency In 2024

| No | Socio Economic | Stunting Incidents | | | | Total | |
|---|---|---|---|---|---|---|---|
| | | Stunted | | Not Stunted | | | |
| | | n | % | n | % | n | % |
| 1 | High | 0 | 0 | 6 | 100 | 6 | 100 |
| 2 | Middle | 2 | 18,2 | 9 | 81,8 | 11 | 100 |
| 3 | Low | 7 | 41,2 | 10 | 58,8 | 17 | 100 |
| Total | | 9 | 26,5 | 25 | 73,5 | 34 | 100 |
| p-Value 0,03 | | | | | | | |

Source. Researcher's Primary Data

The study results showed that the majority of toddlers in Leran Village, Manyar Distict, Gresik Regency in 2024 were in the non- stunting category. Stunting is a chronic nutritional problem caused by many factors, including socio-economic conditions, maternal nutrition during pregnancy, infant illness, and inadequate nutritional intake. Stunted toddlers will struggle to achieve optimal physical and cognitive development and age later in life (Ministry of Health of the Republic of Indonesia, 2018; Hurin'in, 2023).

Stunting is caused by multi dimensional factors, including poor nutritional care practices, including a lack of maternal knowledge about health and nutrition before and during pregnancy and after childbirth and stunting is also caused by two factors, namely direct and indirect, directly namely breastfeeding, infectious diseases, food intake, and birth weight and which are indirect factors namely parental education, parental occupation, and family economic status (Pengan, 2013). Looking at the existing facts, almost half of toddlers aged 2-4 years in Leran village experience stunting. This is likely because at the age of 2-4 years, children prefer to play and buy snacks that have no nutritional value (Hurinin, 2021; Rahmawati & Qiftiyah, 2021).

According to researchers, the steps that must be taken are to provide education to parents of toddlers about balanced nutritional intake and stunting because providing balanced nutrition can reduce the incidence of stunting, parents must know the impact of stunting on toddlers. Apart from that, stunting can be seen when the child is Based on the results of bivariate analysis using Spearman rank to determine the relationship between socioeconomic and stunting incidence in toddlers in Leran Village, Manyar District, Gresik Regency, the Spearman correlation coefficient (rs) value was obtained = -0.360 and the Sig. 2 tailed (p) value = 0.036, so p <0.05 H1 was accepted, meaning there was a socioeconomic relationship with stunting incidence in Leran Village, Manyar District, Gresik Regency. With a frequency of low income and stunting of 64.1% with a total of 7 respondents, while high income and stunting were 0% with a total of 0 respondents

Stunting is a major nutritional problem that impacts social and economic life in society. Furthermore, stunting can have long-term effects on toddlers

adequacy, parental height, low birth weight, not being given exclusive breastfeeding, complementary feeding given too early, and inadequate breastfeeding patterns (Wanda, 2014). The results of this study are also supported by Al-Mahdi's 2013 study entitled "The Relationship Between Family Socioeconomic Characteristics and the Incident of Stunting in Toddlers Aged 25-59 Months," which states that stunting can be influenced by socio-economic factors with low income. Limited family income also determines the quality of food managed every day, both in terms of quality and quantity. Long-term poverty can result in households being unable to meet food needs, which can lead to inadequate nutrition for child growth (Proverawati, 2009).According to researchers, socio economic factors significantly correlate with balanced nutritional intake and stunting, although they are not directly influenced by socio- economic support. In addition, socio- economic factors such as education, experience, the influence of others, and beliefs also have a direct impact on balanced nutritional intake

## CONCLUSION AND SUGGESTION

The results of research conducted in Leran Village, Manyar District, Gresik Regency, found that the socio-economic status of parents of toddlers in Leran Village, Manyar District, Gresik Regency has a low socio-economic status. There is also a socioeconomic relationship with stunting in Leran Village, Manyar District, Gresik Regency. According to researchers, socio-economic status is significantly correlated with balanced nutritional intake and stunting, although it is not directly influenced by social support. Other variables, such as education, experience, the influence of others, and beliefs, may also have a direct impact on balanced nutritional intake.

It is hoped that the results of this research will provide information, education, and new insights for preventing stunting, particularly in infants, as early as possible. Institutions, particularly health care workers, are expected to provide additional information, education, insights, and supporting references regarding stunting in toddlers. This will enable healthcare workers to more easily address stunting issues as early as possible, thereby improving the quality and well-being of children in the future.

In this study there are still short comings, the researcher recommends that future researchers examine other factors that cause stunting such as genetic factors, toddler nutritional intake, food availability, maternal nutritional status during pregnancy, exclusive breastfeeding, comple mentary feeding, environmental sanitation, and health services, so that it is not only due to socio-economic factors

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