



# THE IMPACT OF HAVING A STUNTING CHILD ON PSYCHOLOGICAL CHANGES OF MOTHERS IN SOOKO VILLAGE, MOJOKERTO

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## Abstract

Stunting in toddlers is a chronic nutritional problem that not only affects the child, but also the psychological condition of the mother as the primary caregiver. The emotional burden borne by the mother due to stunted children can trigger stress, anxiety, and reduce self-efficacy in parenting. The purpose of this study was to analyze the impact of children's stunting status on the psychological condition of mothers, including stress, anxiety, and self-efficacy. This study used a quantitative approach with a descriptive correlational design. The sample consisted of 100 mothers who had stunted children aged 0–5 years in the working area of the Sooko Health Center, Mojokerto Regency, selected through a simple random sampling technique. The instruments used included the DASS-21 questionnaire and the Parental Self-Efficacy Scale. Data analysis was carried out using descriptive statistics and Pearson correlation with the help of SPSS 26. The results showed that the majority of mothers experienced moderate levels of stress and anxiety, and had low parenting self-efficacy. There was a significant relationship between children's stunting status and the mother's psychological condition ( $p < 0.05$ ). Having stunted children has an impact on increasing maternal psychological stress. Handling of stunting should be accompanied by psychosocial interventions to support maternal mental health.

Keywords: Stunting, Mother, Stress, Anxiety, Self-efficacy, Psychological.

## 1. INTRODUCTION

Stunting is a chronic nutritional problem that is still a major challenge in health development in Indonesia. Based on data from the 2022 Indonesian Nutritional Status Survey (SSGI), the national prevalence of stunting is 21.6%, with East Java reaching 23.5%, and Mojokerto Regency being one of the priority areas for intervention (Ministry of Health of the Republic of Indonesia, 2022). Stunting not only has implications for children's physical growth, but also has an impact on cognitive, motoric, and social development aspects, which have the potential to reduce the quality of human resources in the future (UNICEF, 2021)

In the dynamics of child care, mothers play a central role. When a child experiences stunting, mothers are often the ones most emotionally affected. They not only have to face challenges in terms of fulfilling nutritional and child care needs, but also experience quite high psychological burdens, such as feelings of failure, stress, anxiety, and even depression (Lubis et al., 2023). If this condition is not treated, it can have a negative impact on the quality of care provided and worsen the child's growth and development.

Thus, there is a need for empirical studies that specifically explore the impact of having a stunted child on the psychological condition of the mother, so that the interventions designed are not only physical-biomedical in nature, but also touch on the psychosocial dimension of the family as the child's main support system.

Problems arise when mothers are not only faced with economic limitations and nutritional access, but also experience social pressures, such as stigma from the environment, lack of understanding about stunting, and minimal emotional support from partners and the primary health system. This situation is exacerbated by limited parenting literacy and ongoing guilt, thus worsening the mother's stress and anxiety levels (Hapsari & Lestari, 2022). An unstable

psychological condition in mothers can lead to decreased self-efficacy in parenting, which ultimately impacts the quality of child care and strengthens the stunting cycle.

To respond to this challenge, research is needed to explore the relationship between child stunting and psychological changes experienced by mothers. A quantitative approach is used to objectively describe and measure the level of stress, anxiety, and self-efficacy of maternal caregiving. The results of this study are expected to provide a scientific basis for developing family-based psychosocial interventions, which can complement efforts to improve child nutrition. This study is also expected to contribute to the development of more comprehensive and sustainable public health policies.

## **2. METHODOLOGY**

### **2.1. Research Design**

This study uses a quantitative approach with a descriptive correlational design, which aims to determine the relationship between stunting status in children and changes in maternal psychological conditions, including stress, anxiety, and self-efficacy in parenting. This study not only describes the psychological condition of the mother, but also tests the relationship between variables statistically.

### **2.2. Location and Time of Research**

The study was conducted in the working area of the Sooko Health Center, Mojokerto Regency, which is one of the areas with a fairly high stunting rate. The research implementation time starts from November 2024 to January 2025, including the preparation stage, data collection, data analysis, and report preparation.

### **2.3. Population and Sample**

The population in this study were all mothers who had children age 1-59 months with stunting status recorded at the Sooko Health Center, with a population of 135 mothers. The sampling technique used was simple random sampling, using a random number table to select samples randomly. The sample size was determined using the Slovin formula: 101 respondents

### **2.4. Data Collection Technique**

The data collection technique in this study was carried out directly to respondents using a structured questionnaire. This procedure is designed so that the data obtained is accurate, relevant to the research objectives, and easy to analyze quantitatively. The questionnaire consists of four main parts:

- a. Respondent Demographic Data: Contains basic information about the respondent's mother, including: Mother's age, Last level of education, Mother's occupation, Number of children and Age of children who experience stunting.
- b. Stress and Anxiety Scale Using the validated Indonesian version of the DASS-21 (Depression Anxiety Stress Scales-21 item). Focuses on only two subscales: stress and anxiety. Respondents are asked to fill in based on their experiences over the past 7 days.
- c. Parenting Self-Efficacy Scale Using the Parental Sense of Competence Scale (PSOC) efficacy section, to measure how much the mother believes in her ability to care for her child. This scale was originally developed by Gibaud-Wallston and Wandersman (1978) and has been revised by Johnston & Mash (1989). The items in the efficacy scale use a 6-point Likert scale. The higher the score obtained, the higher the level of maternal self-efficacy. The total score of all items is added up to get the final score, then categorized into three levels.
- d. Child Stunting Status Data: This data is not obtained through a questionnaire, but from measurements. Stunting status is determined based on WHO criteria: height for age is less than -2 SD from the WHO child growth standard.

### **2.5. Data Analysis Technique**

The research data analysis was conducted using univariate analysis and bivariate analysis. Univariate analysis is a statistical analysis technique used to describe and summarize the characteristics of each variable one by one (single). The purpose of this analysis is to obtain an overview of the respondent profile and data distribution in each variable studied. Bivariate analysis

is a statistical analysis technique used to test the relationship or association between two variables. In this study, bivariate analysis was used to test whether there was a significant relationship between the child's stunting status and the mother's psychological variables. Before being used as a research instrument, the measuring instrument used was tested for validity and reliability to ensure the feasibility of the research instrument used. Univariate analysis was conducted to describe the characteristics of respondents and psychological scores. Furthermore, to test the relationship between the child's stunting status and the mother's psychological variables (stress, anxiety, and self-efficacy), bivariate analysis was carried out with the Pearson correlation test with a significance level of  $\alpha$  (0.05).

### 3. RESULTS

#### 3.1. Description of the Characteristics of Mothers with Stunted Children in the Sooko Village Area

*Tabel 1. Description of the Characteristics of Mothers with Stunted Children in the Sooko Village Area*

No	Characteristic	Category	Frequency (f)	Percentage (%)
1	<b>Mother's Age</b>	< 25 Years	24	23,8%
		26–35 Years	65	64,4%
		> 35 Years	12	11,8%
2	<b>Last Education</b>	Elementary School	9	8,9%
		Junior High School	25	24,8%
		High School	54	53,5%
		Diploma/Bachelor	13	12,9%
3	<b>Mother's Occupation</b>	Housewife	72	71,3%
		Laborer/Daily Worker	16	15,8%
		Employee/Civil Servant	9	8,9%
		Entrepreneur	4	4,0%
4	<b>Number of Children</b>	1	35	34,7%
		2–3	52	51,5%
		>3	14	13,8%
5	<b>Age of Stunting Children</b>	1 – 12 months	12	11,9%
		13 – 24 months	36	35,6%
		25 – 36 months	29	28,7%
		36 – 59 months	24	23,8%

Source: Primary Data 2024

The majority of respondents were in the age range of 26–35 years, namely 65 people (64.4%), which reflects the productive and general age in childcare. Meanwhile, 24 people (23.8%) were <25 years old, and 12 people (11.8%) were >35 years old. These data indicate that most mothers of stunted children are in the early to middle adulthood age group.

The last level of education of respondents was dominated by high school as many as 54 people (53.5%), followed by junior high school (25 people, 24.8%), and Diploma/Bachelor (13 people, 12.9%). Respondents with the last education of elementary school were only 9 people (8.9%). This shows that most mothers have a secondary education level, and only a small number have higher education.

Most mothers have the status of housewives as many as 72 people (71.3%), indicating that the majority of respondents do not work in the formal sector. Other respondents worked as Laborers/Daily Workers (16 people, 15.8%), Employees/Civil Servants (9 people, 8.9%), and only 4 people (4.0%) were Entrepreneurs.

The majority of respondents had 2–3 children, which was 52 people (51.5%). Respondents with 1 child numbered 35 people (34.7%), while those with more than 3 children numbered 14 people (13.8%). These data indicate that most families have a moderate number of children, which is generally considered ideal in the context of child care and fulfillment of children's needs.

The children with the most stunting were in the 13–24 months age group, which was 36 children (35.6%), followed by 25–36 months (29 children, 28.7%), then 36–59 months (24 children, 23.8%), and the fewest were in the 1–12 months age group (12 children, 11.9%). This indicates that stunting most often occurs in children under two years of age (toddlers), which is a critical period for children's growth and development and is greatly influenced by nutrition and parenting patterns.

### 3.2. Description of Maternal Psychology

**Tabel 2.** Overview of Maternal Stress Levels

Category	Number of Mothers	Percentage
Normal	18	17,8%
Mild	23	22,8%
Moderate	34	33,7%
Severe	20	19,8%
Very Severe	6	5,9%

Source: Primary Data 2024

The data results show that most mothers in this study experienced varying levels of stress. The majority of respondents, namely 34 people (33.7%), were in the moderate stress category

**Tabel 3.** Overview of Maternal Anxiety Level

Category	Number of Mothers	Percentage
Normal	21	20,8%
Mild	27	26,7%
Moderate	31	30,7%
Severe	16	15,8%
Very Severe	6	5,9%

Source: Primary Data 2024

The results of the analysis of the distribution of anxiety levels show that most mothers in this study experienced anxiety with varying intensity. The category most occupied by respondents was moderate anxiety, with 31 people or 30.7% of the total respondents.

**Tabel 4.** Self-Efficacy Overview of Parenting

Self-Efficacy Category	Number of Mothers	Percentage
High	19	18,8%
Medium	42	41,6%
Low	40	39,6%

Source: Primary Data 2024

The data results show that most of the mothers in this study had a level of parenting self-efficacy in the moderate category, namely 42 people or 41.6%.

### 3.3. Correlation Test Results between Child Stunting Status and Mother's Psychological Changes

**Tabel 5.** Correlation Test Results between Child Stunting Status and Mother's Psychological Changes

No	Correlated Variables	r Value (Pearson)	Sig. (p-value)	Description
1	Stunting Status and Mother's Stress Level	0,472	0,000	Significant positive correlation
2	Stunting Status and Mother's Anxiety Level	0,396	0,000	Significant positive correlation
3	Stunting Status and Mother's Parenting Self-Efficacy	-0,355	0,001	Significant negative correlation

Source: Primary Data 2024

The results of the Pearson correlation test showed a significant relationship between the child's stunting status and various aspects of psychological changes in the mother, namely stress levels, anxiety levels, and self-efficacy in parenting. The results of the analysis showed a significant positive relationship between having a stunted child and the level of stress in the mother ( $r = 0.547$ ;  $p = 0.000$ ). This shows that the higher the degree of stunting in a child, the higher the level of stress experienced by the mother. These results support the findings of previous studies which show that poor child health conditions, such as stunting, can be a source of chronic stress for mothers because they increase the burden of care, concerns about the child's future, and social pressure.

Stress in mothers who have stunted children is a significant phenomenon and has been documented in various studies. A study by Sari et al. (2022) showed that psychological stress in mothers during pregnancy is associated with an increased risk of developmental delays in infants aged 6 and 12 months. This stress can affect the child's linear growth and increase the risk of stunting. In addition, research by Susanty et al. (2022) in a systematic review found that maternal depression is associated with an increased risk of stunting in children. Depression and stress experienced by mothers can interfere with optimal parenting and nutrition for children, which ultimately affects the child's growth.

A significant positive correlation was also found between stunting and maternal anxiety ( $r = 0.541$ ;  $p = 0.000$ ), indicating that mothers with stunted children tend to experience higher levels of anxiety. This result is in line with Lazarus and Folkman's (1984) theory of stress and coping, which states that the perception of threats to a child's well-being can cause anxiety, especially when caregiving resources are considered inadequate.

Maternal anxiety also plays a role in the incidence of stunting in children. Research by Susanty et al. (2022) showed that maternal anxiety is associated with an increased risk of underweight in children, although the direct relationship with stunting was not significant in multivariate analysis. However, maternal anxiety can affect eating patterns and child care, which can indirectly contribute to the risk of stunting. Anxiety can cause mothers to be less responsive to their children's needs and interfere with positive interactions, which are important for children's growth and development.

On the other hand, there is a significant negative correlation between having a stunted child and parenting self-efficacy ( $r = -0.486$ ;  $p = 0.000$ ). This means that mothers who have stunted children tend to have lower confidence in their ability to carry out their role as effective caregivers. This can be explained by Bandura's (1997) concept of self-efficacy, where experiences of failure or unexpected conditions (such as stunting) can reduce an individual's confidence in their ability to achieve certain goals.

Parenting self-efficacy, namely a mother's belief in her ability to care for and educate her child, is an important factor in child growth. Research by Latifah et al. (2023) in Bogor found that mothers with low parenting self-efficacy tend to have children with stunting status. Low self-efficacy can lead to a lack of stimulation and attention to children's nutritional needs.

In addition, a study by Arini et al. (2022) in Surabaya showed that there is a relationship between maternal self-efficacy and the cognitive development of toddlers who experience stunting. Mothers with high self-efficacy tend to provide better stimulation, which contributes to children's cognitive development.

## **4. CONCLUSIONS**

### **4.1. Conclusion:**

- a. The majority of mothers experience moderate levels of stress and anxiety, and have low to moderate parenting self-efficacy. This indicates that the psychological condition of mothers is under quite high pressure when caring for children with chronic nutritional status.
- b. There is a significant positive relationship between the child's stunting status and the mother's stress and anxiety levels, meaning that the higher the severity of stunting in children, the higher the stress and anxiety felt by the mother.
- c. significant negative relationship was found between the child's stunting status and the mother's parenting self-efficacy, indicating that mothers with stunted children tend to have lower confidence in their ability to carry out their parenting role.
- d. These results empirically strengthen the assumption that stunting not only affects the child's physical condition, but also has serious consequences for the mother's mental and emotional condition as the primary caregiver. Therefore, handling stunting needs to consider the mother's psychosocial dimensions in an integrative manner.

### **4.2. Suggestions**

#### **4.2.1. For Health Services and Local Governments**

Stunting prevention interventions should not only focus on the nutritional and medical aspects of children, but also include psychosocial support programs for mothers, such as counseling, peer support groups, or self-efficacy-based parenting training. Health centers can integrate maternal mental health screening into routine integrated health post programs or toddler services.

#### **4.2.2. For Further Researchers**

Further research can develop a longitudinal design to see changes in maternal psychology continuously, as well as explore mediating factors such as social support or economic burden. It is recommended to examine the role of fathers or other family members in supporting maternal psychology and caring for stunted children. Research can also expand the study area to other areas with high stunting prevalence for comparison of different cultural and social contexts.

#### **4.2.3. For the Community**

It is important to increase public literacy about stunting and the important role of mothers in care, so that there is no stigma or additional social pressure on mothers who have children with this condition.

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