Description of the Knowledge of Stunting Children Regarding Animal Food, Attitudes, and Feeding Behavior in Gunggungan Lor Village, Probolinggo District

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ABSTRACT
Severe nutritional deficiencies, including growth retardation, are infant conditions caused by malnutrition that result in being smaller than their age indicates. Factors that influence stunting in young children include direct factors such as diet and infectious diseases, as well as indirect factors such as nutrition, parenting, food transmission, and family knowledge. This research is useful to know of mothers of stunted infants about animal foods and their attitudes and behaviors when providing such foods in the village of Gunggungan Roll, Probolinggo Regency. The research method used was descriptive. The study involved 38 mothers with stunted children aged 12 to 60 months. Data were collected by questionnaire-based interviews. Studies show that most stunted infants are between 42 and 58 months of age. The results also indicate a lack of animal protein due to low consumption of animal food. Most mothers have good knowledge (23 or 60.5%), agreeable attitudes (33 or 86.8%), but exhibit inadequate behavior (22 or 57.9%) in providing animal-based dishes. Mothers of stunted toddlers with good knowledge are more receptive and respond well to explanations about the condition, influencing their attitudes towards it.

INTRODUCTION

Toddlers are defined as infants over 1 year old or, in other words, infants under 5 years old.¹ Development that occurs in toddlers progresses rapidly, starting from physical advancements, psychomotor advancements, social and mental developments. Therefore, infancy is often referred to as the golden age.² The phase of growth and development in children occurs during toddlerhood, as the basic growth that influences and determines the development of language adequacy, social awareness, creativity, emotions, and intelligence during this phase happens so quickly and becomes the foundation for further development.³

One unresolved nutritional issue in Indonesia is the high prevalence of stunting, which refers to the failure of growth in children under 5 years old, resulting in them being too short for their age due to serious malnutrition.⁴ The delayed growth of children under five years old can be caused by ineffective nutrition during their first 1000 days of life. This period is critical for the future intellectual, physical, and productive growth of human beings.⁵

Stunting has affected various countries, both developing and developed. According to the World Health Organization (WHO) in 2020, the global prevalence of stunting reached 22%, or approximately 149.2 million individuals.⁶ In 2018, the Basic Health Research reported a stunting prevalence rate of 30.8% in Indonesia. In 2021, the Study on Nutritional Status in Indonesia showed...
a regional prevalence of 24.4% (23.9-24.9), with 19% moderately stunted and 5.4% severely stunted.7 In 2021, East Java Province had a stunting prevalence of 23.5% according to the Indonesia Nutritional Status Study.8 In the same year, monitoring by the Indonesia Nutritional Status Study in Probolinggo District revealed a stunting prevalence of 23.3% among toddlers. Data from Posyandu in Gunggungan Lor Village, Pakuniran District, Probolinggo Regency, showed a stunting prevalence of 25%, accounting for approximately 38 out of 152 toddlers.

Children who experience stunting are at risk of growing up with short stature.9 Various factors contribute to stunting in toddlers. Direct factors include dietary patterns and infectious diseases, while indirect factors encompass nutritional knowledge, parental education, food distribution, and family size. Additionally, socioeconomic factors such as income and occupation, family demographics (number of family members, birth spacing), education, and environmental health also play significant roles in nutritional status. Furthermore, inadequate consumption of animal foods can also contribute to stunting.

A mother's knowledge of animal foods can significantly impact the dietary intake within the family, especially for children.10 A mother who prepares meals for her child must possess adequate knowledge of menus and animal foods to support growth. If a toddler's daily food consumption lacks diversity and does not include animal foods, the nutritional requirements necessary for growth may be insufficient. According to Nirmala, the cause of stunting is not only attributed to poor nutritional intake during pregnancy or infancy but also to various interrelated factors. Several studies in Indonesia have explored the risk factors for stunting. Maternal factors are one of the risk factors for stunting, starting from conception. Lack of knowledge about health and nutrition during pregnancy and childbirth plays a crucial role in causing stunting in newborns.11

Attitude refers to the willingness or readiness to take action without any specific motive. Similarly, in the context of mothers of toddlers, if there is a lack of attention to the nutritional status of toddlers, it can lead to malnutrition and even severe malnutrition.12 Attitude in this behavior involves beliefs that determine the consequences of such behavior or confident behavior beliefs.13 Beliefs are subjective values that individuals hold about their world, understanding themselves and their environment. This may be due to the lack of proper nutrition provided by mothers to their babies. Additionally, coupled with beliefs and an environment perceived as not problematic, this can lead to neglecting the issue altogether.14

Behavior is the entirety of activities or actions of an individual that are conducted directly or indirectly through external parties. This research observes the behavior of mothers in providing animal-based foods to infants. The improvement of nutritional status in infants can be achieved through the mother's efforts to breastfeed/provide nutritionally and healthily balanced meals and control over the consumed food that has been depleted.15
In Gunggungan Lor Village, the majority of the area is dedicated to agriculture. Apart from farming, the farmers or residents also raise animals such as chickens, goats, and cows. However, with the high prevalence of stunting in this village, it indicates that the variety of food, especially animal-based food consumed in Gunggungan Lor Village, is low.

Based on the explanation provided, the author conducted research with the title "Overview of Knowledge of Mothers of Stunted Toddlers Regarding Animal Foods, Attitudes, and Behaviors in Feeding Practices in Gunggungan Lor Village, Probolinggo Regency.

MATERIALS AND METHODS

Research Design

The research design employed descriptive method to seek understanding of mothers of stunted toddlers regarding animal foods, attitudes, and behaviors in feeding practices in Gunggungan Lor Village, Probolinggo Regency.

Research Time and Location

Conducted from October 2022 to March 2023 in Gunggungan Lor Village, Pakuniran Subdistrict, Probolinggo Regency.

Population and Research Sample

Using a population of mothers with toddlers who have stunted growth aged 12-60 months. In this study, the population consists of 38 stunted toddlers in Gunggungan Lor Village, Pakuniran Subdistrict, Probolinggo Regency. The research sample consists of 1) Sampling using Purposive Sampling and Non-Probability Sampling techniques, and 2) Sample Criteria, including: Mothers of stunted toddlers with children aged 1-5 years, Mothers of stunted toddlers who can be communicated with, and willingness to participate as respondents.

Data Collection Technique

Data collection was conducted through interviews using questionnaires about knowledge of animal foods, attitudes, and behaviors in food provision.

Data Collection Instruments

Utilizing instruments consisting of: 1) Pre-consent explanation form, 2) Informed consent form, 3) Declaration of willingness form for mothers of toddlers to become respondents, 4) Questionnaire form. The tools used are a microtoise and a weight scale.

Data Processing

Data collection through questionnaires was followed by processing using stages including: 1) Data Examination (editing), 2) Scoring, 3) Coding, 4) Tabulation, and 5) Data Cleaning.

Data Analysis

Tested with descriptive analysis which is then analyzed with univariate analysis.
RESULTS

Overview of Research Location

Gunggunan Lor Village is located in the Pakuniran Subdistrict of Probolinggo Regency. Probolinggo Regency is bordered by Probolinggo City to the north, Situbondo Regency to the east, Lumajang Regency to the south, and Pasuruan Regency to the west. The administrative center of Probolinggo Regency is located in Kraksaan. Pakuniran Subdistrict is bordered by Paiton Subdistrict to the north, Kotaanyar Subdistrict to the east, Gading Subdistrict to the south, and Besuk Subdistrict to the west. The administrative area of Pakuniran Subdistrict is divided into 13 RW (neighborhood associations) and 12 RT (residential associations).

The village of Gunggunan Lor itself has a total area of 114.36 km² (BPS, 2022). According to BPS data at the end of 2021, this area has a population of 576 males and 172 females, making a total population of 748 individuals. Gunggunan Lor village borders Kecik village to the west, Patemon Kulon village to the east, Gunggunan Kidul to the south, and Alasnyiur village to the north.

Respondent Characteristics

The characteristics of the respondents include the identities of toddlers, which comprise age, gender, and the identity of the mothers of toddlers aged 12-60 months with stunting, including age and education.

Age of Stunted Toddlers

The research findings based on the gender of toddlers are observed through Table 1.

<table>
<thead>
<tr>
<th>Age</th>
<th>n</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>17-28 bln</td>
<td>10</td>
<td>26.3</td>
</tr>
<tr>
<td>29-40 bln</td>
<td>13</td>
<td>34.2</td>
</tr>
<tr>
<td>42-58 bln</td>
<td>15</td>
<td>39.5</td>
</tr>
<tr>
<td>Total</td>
<td>38</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Primary Data, 2023

Based on the table, it shows that out of a total of 38 samples, the majority are aged 42-58 months, totaling 15 (39.5%).
Gender of Stunted Toddlers

The research findings based on the gender of toddlers are observed through Table 2

<table>
<thead>
<tr>
<th>Gender</th>
<th>n</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>23</td>
<td>60,5</td>
</tr>
<tr>
<td>Female</td>
<td>15</td>
<td>39,5</td>
</tr>
<tr>
<td>Total</td>
<td>38</td>
<td>100,0</td>
</tr>
</tbody>
</table>

Source: Primary Data, 2023

According to the data, out of a total of 38 samples, the majority of stunted toddlers, numbering 23 individuals, are male (60.5%).

Mothers of Stunted Toddlers

The respondents of this research are mothers of stunted toddlers in Gunggungan Lor Village. The subjects of this research consist of 38 mothers of stunted toddlers who meet the criteria with the following characteristics:

Age of Mothers of Stunted Toddlers

The research findings based on the age of mothers of stunted toddlers are observed through Table 3

<table>
<thead>
<tr>
<th>Age</th>
<th>n</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-30</td>
<td>24</td>
<td>63,3</td>
</tr>
<tr>
<td>31-45</td>
<td>14</td>
<td>36,7</td>
</tr>
<tr>
<td>Total</td>
<td>38</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Primary Data, 2023

Based on the data, out of a total of 38 samples, the majority are aged between 20-30 years, totaling 24 individuals (63.3%).

Education of Mothers of Stunted Toddlers

The research findings based on the education of mothers of stunted toddlers can be observed in Table 4

<table>
<thead>
<tr>
<th>Education</th>
<th>n</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SD</td>
<td>7</td>
<td>18,4</td>
</tr>
<tr>
<td>SLTP</td>
<td>16</td>
<td>42,1</td>
</tr>
<tr>
<td>SLTA</td>
<td>13</td>
<td>34,2</td>
</tr>
<tr>
<td>PT</td>
<td>2</td>
<td>5,3</td>
</tr>
<tr>
<td>Total</td>
<td>38</td>
<td>100,0</td>
</tr>
</tbody>
</table>

Source: Primary Data, 2023
According to the data, the majority have an education level of Junior High School (SLTP/SMP) out of the total 38 samples, with 16 individuals (42.1%).

**Knowledge of Mothers of Stunted Toddlers Regarding Animal Foods**

Research results based on the knowledge of mothers of stunted toddlers regarding animal foods are observed in Table 5

**Table 5 Frequency Distribution of Knowledge of Mothers of Stunted Toddlers Regarding Animal Foods in Gunggungan Lor Village in 2023**

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>n</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>23</td>
<td>60.5</td>
</tr>
<tr>
<td>Moderate</td>
<td>11</td>
<td>29</td>
</tr>
<tr>
<td>Poor</td>
<td>4</td>
<td>10.5</td>
</tr>
<tr>
<td>Total</td>
<td>38</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Primary Data, 2023

Based on the table, it shows that out of a total of 38 samples, the majority have good knowledge, totaling 23 individuals (60.5%).

**Knowledge of Mothers of Stunted Toddlers Based on Education**

The level of knowledge of mothers of stunted toddlers based on education can be observed in Table 6

**Table 6 Cross-tabulation of Knowledge of Mothers of Stunted Toddlers Based on Education in Gunggungan Lor Village in 2023**

<table>
<thead>
<tr>
<th>Mother's highest level of education</th>
<th>n</th>
<th>%</th>
<th>n</th>
<th>%</th>
<th>n</th>
<th>%</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>SD</td>
<td>5</td>
<td>1,4</td>
<td>2</td>
<td>8.6</td>
<td>0</td>
<td>0.0</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>SLTP</td>
<td>9</td>
<td>6.2</td>
<td>4</td>
<td>25</td>
<td>3</td>
<td>18.8</td>
<td>16</td>
<td>30</td>
</tr>
<tr>
<td>SLTA</td>
<td>8</td>
<td>1.5</td>
<td>4</td>
<td>0.8</td>
<td>1</td>
<td>7.7</td>
<td>13</td>
<td>30</td>
</tr>
<tr>
<td>PT</td>
<td>1</td>
<td>50</td>
<td>1</td>
<td>50</td>
<td>0</td>
<td>0.0</td>
<td>2</td>
<td>30</td>
</tr>
<tr>
<td>Total</td>
<td>23</td>
<td>9.8</td>
<td>11</td>
<td>3.6</td>
<td>4</td>
<td>6.6</td>
<td>38</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Primary Data, 2023

Based on the table, it shows that the majority of respondents with a good level of knowledge have completed Junior High School education, totaling 9 individuals, which is 56.2%.

**Attitude of Mothers of Stunted Toddlers in Feeding Practices**

Research results based on the attitude of mothers of stunted toddlers can be observed in Table 7
### Table 7 Frequency Distribution of Attitude of Mothers of Stunted Toddlers in Gunggungan Lor Village in 2023

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>n</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Totally agree</td>
<td>5</td>
<td>13.2</td>
</tr>
<tr>
<td>Agree</td>
<td>33</td>
<td>86.8</td>
</tr>
<tr>
<td>Disagree</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Totally disagree</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>38</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Primary Data, 2023

Based on the table, it shows that out of a total of 38 samples, the majority of mothers have an agreeable attitude, totaling 33 individuals (86.8%).

### Table 8 Cross-tabulation of Attitude of Mothers of Stunted Toddlers Based on Knowledge in Gunggungan Lor Village in 2023

<table>
<thead>
<tr>
<th>Mother's Knowledge</th>
<th>Attitude</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Agree n (%)</td>
<td>Moderate n (%)</td>
</tr>
<tr>
<td>Good</td>
<td>18</td>
<td>78.3</td>
</tr>
<tr>
<td>Moderate</td>
<td>11</td>
<td>100</td>
</tr>
<tr>
<td>Poor</td>
<td>4</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>33</strong></td>
<td><strong>92.8</strong></td>
</tr>
</tbody>
</table>

Source: Primary Data, 2023

Based on the data, it shows that the majority of respondents exhibited an agreeable attitude and had good knowledge, with 18 individuals, accounting for 78.3%.

### DISCUSSION

#### Respondent Characteristics

Respondent characteristics of toddlers are examined based on age and gender, while the identity of mothers with toddlers aged 12-60 months includes age and education. During the first two years of a child’s life, there is a high risk of stunting as this period encompasses brain development and linear growth. The respondents in this study are toddlers aged 6-24 months. Table 5.1 shows that the majority of respondents fall within the age range of 42-58 months, totaling 15 respondents (39.3%). Toddlers require adequate intake of animal protein to prevent stunting.\(^{16}\) Studies conducted by other researchers have indicated that the largest age distribution in the short stature group is for stunted toddlers, with 22 toddlers (66.7%) in the 24–47-month age group, while for the normal group, it is 19 toddlers (57.6%). In the stunted group, there is a dominance of female...
children, comprising 22 children (66.7%), whereas in the normal group, there is a dominance of male children, totaling 19 children (57.6%).

Based on the findings from Table 5.3, the majority of mothers of toddlers are aged between 20-30 years, totaling 24 individuals (63.3%). In Table 5.4, the frequency distribution of the education level of mothers of toddlers shows that the majority have completed Junior High School (SLTP/SMP), with 16 individuals (42.1%). Following the results of a study conducted in Cirebon City, Hizni stated that there is a 2.22 times higher risk for mothers with low education to give birth to children with disabilities compared to mothers with higher education. In this study, mothers who have completed Junior High School education exhibit better knowledge compared to those who have completed Elementary School or Senior High School education.

Mothers' Knowledge of Stunted Toddlers Regarding Animal Foods

The research findings in Table 5.5 show that the highest frequency of mothers’ knowledge about stunted toddlers is good, with 23 individuals (60.5%). Table 5.6 presents cross-tabulation of mothers' knowledge about stunted toddlers based on education, revealing that a good level of knowledge is obtained with completion of Junior High School education, totaling 9 individuals (78.3%).

In this study, the majority of mothers exhibited good knowledge, particularly those with a Junior High School education, comprising 9 individuals (56.2%). Mothers of stunted toddlers with good knowledge can easily understand and continue to accept well-explained information, which influences their mindset and attitude towards the condition. Most mothers of stunted toddlers in Gunggungan Lor Village are not employed. Their knowledge about animal foods is obtained from integrated health posts and healthcare services. These mothers are generally familiar with various animal foods such as fish, eggs, and meat.

In the study by Agustiningrum & Rokhanawatir (2016), it was found that 52 respondents (57.1%) had good knowledge about stunting, and this was complemented by the research by Olsa et al. (2017), which showed that 113 respondents (48.7%) had a sufficient level of knowledge. Similarly, in this study, the research on mothers of stunted toddlers mostly showed good knowledge, particularly those with Junior High School education. This indicates a correlation between maternal behavior in providing adequately nutritious food to their babies and their behavior in caring for, assisting, treating, and preventing stunting.

Attitude of Mothers of Stunted Toddlers in Feeding Practices

Based on Table 5.7, the highest frequency of mothers’ attitude is agreement with statements regarding the provision of animal foods, with 33 individuals (86.8%). In Table 5.8, the cross-tabulation of mothers’ attitude based on knowledge indicates agreement with good knowledge.
Most mothers of stunted toddlers in Gunggungan Lor Village are aware of animal foods such as fish, eggs, and meat to support their children's growth and development. These mothers also understand that animal foods contain animal protein.

Additionally, according to the research by Olsa et al. (2017), 128 respondents (55.2%) exhibited positive behavior, followed by the findings of Arnita et al. (2020), with 59 respondents (67.8%) having good attitudes, supplemented by the study by Suryagustina et al. (2018), which found that 20 respondents (80%) had positive attitudes. In this study, the attitude of mothers of stunted toddlers shows agreement with good knowledge. According to Nursalam, several factors contribute to one's attitude, including occupation, age, parity, and education. If half of the respondents have a negative attitude, it may lead to efforts and behaviors tending towards negativity, resulting in nutritional problems in children.

Behavior of Mothers of Stunted Toddlers in Feeding Practices

Table 5.9 shows the highest frequency of mothers' behavior in providing animal dishes categorized as inadequate for toddlers, with 22 individuals (57.9%). In this study, the pattern of providing animal foods to stunted toddlers still falls into the inadequate category. This is because mothers' behavior in providing animal foods to toddlers is still low, resulting in a lack of animal protein intake for most stunted toddlers. Despite mothers having good knowledge and agreeing attitudes, the lack of behavior in providing animal foods is evident. Several contributing factors include low family income and catering to children's preferences, as some mothers apply the belief that as long as the child eats something, it's enough, without considering the need for animal foods for their growth.

The majority of protein intake among children is protein deficiency. The low quality of protein consumption is attributed to hindered growth or stunting. Plant-based proteins contain amino acids that are not as complex as those found in animal proteins in aiding growth. It is recommended to obtain adequate protein and micronutrient content by fulfilling approximately 25% of protein sufficiency from animal protein. According to Skinner, health behavior is the human response to stimuli or objects related to disease and illness, the immune system, eating and drinking, and the surrounding area based on behavioral limitations. Instilling a diverse diet pattern, starting from the introduction of rice porridge during infancy, which typically begins at six months old, is essential. Mothers should understand and implement healthy dietary patterns from an early age.

CONCLUSION

Based on the research results of the Description of Mothers' Knowledge about animal foods, attitudes, and behaviors in providing food in Gunggungan Lor Village, Probolinggo Regency, conclusions can be drawn as follows: The research results showed that the majority of toddlers...
were aged 42-58 months, which were 15 toddlers (39.3%), and they were male. The majority of mothers of toddlers were aged 20-30 years, which were 24 mothers (63.3%), with education completed up to Junior High School (SLTP/SMP). Most mothers of stunted toddlers had good knowledge with Junior High School education completed, totaling 9 mothers (56.2%). The majority of mothers of stunted toddlers had an agreeable attitude with good knowledge, totaling 18 mothers (78.3%). Most of the behaviors of mothers of stunted toddlers in providing animal foods were categorized as insufficient, with 22 individuals (57.9%).

REFERENCES


