

THE LEVEL OF KNOWLEDGE, ATTITUDES AND PRACTICES OF MOTHERS ON STUNTING IN NAGARI BUKIK KACIAK LUMPO, PESISIR SELATAN DISTRICT

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Abstract

Stunting is a chronic condition characterized by impaired linear growth in children due to prolonged nutritional deficiencies. It is associated with serious health consequences, including growth failure, developmental delays, and increased risk of non-communicable diseases (NCDs) such as diabetes, cardiovascular disease, and obesity in adulthood. Maternal awareness of nutrition—particularly knowledge, attitudes, and practices (KAP)—is critical in addressing stunting. This cross-sectional observational study was conducted in Nagari Bukik Kaciak Lumbo, Pesisir Selatan Regency, targeting mothers of children who met the inclusion criteria. The data revealed that most respondents were aged 21–60 years, had a high school education, were housewives, and lived in households with two members. The majority of mothers demonstrated good knowledge of stunting, displayed positive attitudes toward its prevention, and engaged in appropriate preventive practices. Conclusion: The study concludes that the majority of mothers in Nagari Bukik Kaciak Lumbo have good levels of knowledge, positive attitudes, and appropriate practices concerning stunting prevention, emphasizing the importance of maternal education in nutritional interventions.

Keywords: *Stunting, Maternal Knowledge, Health Attitudes, Health Practices, Pesisir Selatan*

INTRODUCTION

Stunting is a condition in children characterized by impaired growth and development, resulting in height that is not appropriate for age. This condition primarily arises due to chronic malnutrition, specifically prolonged deficiencies in nutrient intake.¹ Stunting is measured by length or height-for-age more than two standard deviations below the World Health Organization (WHO) Child Growth Standards median. Multiple factors contribute to stunting, including socioeconomic conditions, maternal nutrition during pregnancy, childhood illnesses, and inadequate nutrient intake during infancy. Stunting has long-term implications, hindering optimal physical and cognitive development in later stages of life.²

Indonesia is the country with the third highest prevalence of stunting in the Southeast Asia Region (SEAR), according to stunting data among children under five compiled by the WHO. Between 2005 and 2017, the average prevalence of stunting in Indonesian children under five was 36.4% (WHO, 2017). In 2007, the prevalence was 36.8%, dropping slightly to 35.6% in 2010, but increasing again to 37.2% in 2013, with 18% classified as severely stunted and 19.2% as moderately stunted. The 2018 Indonesian Basic Health Research (Riskesdas) reported a stunting prevalence of 30.8%, placing Indonesia in the category of countries with a high burden of stunting.³ Moreover, Indonesia continues to face a double burden

of malnutrition, as reflected by the persistently high rates of stunting. According to the 2020 Joint Malnutrition Estimates (JME) by UNICEF and the World Bank, Indonesia ranked 115th out of 151 countries globally in stunting prevalence.⁴

In West Sumatra, the prevalence of stunting has shown a downward trend over the past three years, with significant improvements. The prevalence declined from 30.6% in 2017 to 29.9% in 2018 and further to 27.4% in 2019. Compared to the national average, West Sumatra's stunting prevalence in 2019 (27.4%) was slightly below the national figure of 27.67%. However, the prevalence remains above the WHO target threshold of 20%.⁵

Children affected by stunting tend to have lower cognitive capacity and are more susceptible to infections, which in turn can reduce future productivity levels. In the broader context, stunting can hinder economic development, exacerbate poverty, and widen socioeconomic disparities.⁶ The health impacts of stunting include failure to thrive (e.g., low birth weight, small stature, thinness, and shortness), delayed cognitive and motor development, and an increased risk of non-communicable diseases (NCDs) in adulthood, such as diabetes, obesity, stroke, and cardiovascular disease. Furthermore, stunting may negatively affect population growth and workforce productivity. Nutritional problems can be attributed to both direct and indirect causes. Direct causes include poor dietary intake and infection in children under five, while indirect causes involve food security, caregiving practices, access to healthcare, and environmental sanitation.⁷

Maternal nutrition knowledge plays a crucial role in influencing food consumption behavior. Individuals with adequate nutrition knowledge are more capable of selecting and preparing nutritious foods, thus ensuring better dietary intake for themselves and their families, especially their children.⁸ Therefore, efforts to address stunting are closely linked to mothers' knowledge, attitudes, and practices regarding nutrition and stunting prevention. Families with higher nutrition awareness tend to have children with better nutritional status.⁹

Based on the above rationale, this study is titled: "An Overview of Mothers' Knowledge, Attitudes, and Practices Regarding Stunting in Nagari Bukit Kaciak Lumbo, Pesisir Selatan District."

MATERIALS AND METHODS

The research was carried out in Nagari Bukit Kaciak Lumbo, located in Pesisir Selatan Regency, West Sumatra Province, Indonesia. This research is an observational study using a cross-sectional design. The sampling technique employed in this study was non-probability sampling with a purposive sampling method. Purposive sampling, also known as judgmental sampling, is a technique in which the samples are selected from the population based on specific objectives or research problems, allowing the selected samples to represent the characteristics of the population that have been previously identified.

The population in this study comprised mothers with children residing in Nagari Bukit Kaciak Lumbo, Pesisir Selatan Regency. The sample consisted of mothers who met the inclusion criteria and were selected from the same population. The type of data collected in this study was primary data. Primary data refers to original and newly obtained data. To collect primary data, the researcher used a questionnaire-based survey consisting of structured questions. The questionnaire in this study included questions regarding mothers' knowledge, attitudes, and

practices related to stunting. After the data were categorized, univariate analysis was conducted using SPSS software to describe the distribution of respondents' characteristics, including age, occupation, last educational attainment, and number of family members.

The data analysis technique used in this study was descriptive statistical analysis, which involves describing or illustrating the collected data. The responses obtained from the questionnaire were tabulated and then assessed using the following formula:

$$\text{Percentage} = \frac{\text{Total score obtained}}{\text{Total score of the overall question}} \times 100\%$$

Based on the calculated percentages, respondents behaviors were categorized as follows: Good: 76% – 100%, Moderate: 56% – 75%, and Poor: 0% – 55%.

RESULT AND DISCUSSION

Characteristics of Respondents in Nagari Bukik Kaciak Lumpo, Pesisir Selatan Regency

Maternal Age

Based on the study conducted in Nagari Bukik Kaciak Lumpo, Pesisir Selatan Regency, a total of 61 respondents were selected who met the inclusion criteria. These respondents were mothers and their children. The age of the mothers ranged from 21 to 60 years. The distribution of maternal age is shown in Table 1.

Table 1. Age Distribution of Respondents

Age (Years)	F	%
21 – 25	12	19,6
26 – 30	8	13,1
31 – 35	10	16,3
36 – 40	15	24,5
41 – 45	4	6,5
46 – 50	8	13,1
51 – 55	1	1,6
56 – 60	2	3,2
Total	61	100

As shown in Table 1, the respondents' ages ranged from 21 to 60 years, with the most common age group being 36–40 years (24.5%), followed by 21–25 years (19.6%), 31–35 years (16.3%), and both 26–30 and 46–50 years (13.1%). Smaller proportions were in the 41–45 (6.5%), 56–60 (3.2%), and 51–55 (1.6%) age groups. Age is one of the factors influencing an individual's work capacity and productivity.

Work ability tends to increase with age but may decline after reaching a certain threshold. Age-related changes occur in both physical and psychological aspects. Physical development involves changes in size, proportions, loss of old characteristics, and the emergence of new ones—resulting from organ maturation. Mentally, cognitive development progresses toward greater maturity and adulthood.

Maternal Education

Regarding maternal education levels in Nagari Bukik Kaciak Lumpo,

respondents reported educational attainment ranging from elementary to higher education. The distribution is presented in Table 2.

Table 2. Distribution of Maternal Education

Education Level	f	%
Elementary School/ SD	5	8,1
Junior High School/ SMP	15	24,5
Senior High School/ SMA	30	49,1
Higher Education/ Perguruan Tinggi	11	18
Total	61	100

Table 2 shows that the majority of respondents had completed senior high school, totaling 30 individuals (49.1%). This was followed by junior high school graduates (15 respondents or 24.5%), college/university graduates (11 respondents or 18%), and elementary school graduates (5 respondents or 8.1%). Previous research conducted, demonstrated a significant relationship between maternal education level and the incidence of stunting.¹⁰ Education is a form of guidance provided by one individual to another to enhance understanding of a particular subject.¹¹ An individual's ability to comprehend information is often influenced by their educational background. Those with higher education levels are generally more receptive to information compared to those with lower educational attainment.¹⁰ Low educational attainment may hinder the development of attitudes necessary for receiving and processing new information and values.¹¹

Prior studies have indicated that mothers with low education levels are at a higher risk of having stunted children compared to those with higher education. Maternal education is associated with childhood stunting, as mothers with higher education are more likely to make informed decisions regarding their children's nutritional and health needs.¹²

Maternal Occupation

Based on the study conducted in Nagari Bukik Kaciak Lumpo, Pesisir Selatan Regency, the respondents' occupations were categorized as civil servants, housewives, private employees, and farmers. The distribution of maternal occupations is presented in Table 3.

Table 3. Distribution of Maternal Occupations

Pekerjaan Ibu	f	%
Civil Servant / PNS	3	4,9
Housewife/ IRT	48	78,6
Private Employee	5	8,1
Farmer	5	8,1
Total	61	100

Table 3 shows that 78.6% of respondents were housewives, followed by those working as private employees and farmers (each comprising 8.1%), and civil servants (4.9%). Employment status can influence an individual's ability to acquire experience and knowledge, both directly and indirectly.¹¹ A study by Picauly conducted in Kupang and East Sumba, East Nusa Tenggara (NTT), revealed that working mothers are more likely to have children who experience stunting compared to non-working mothers.¹³

This is likely due to the limited time working mothers have to attend to their

children's nutritional needs and the reduced attention given to childcare. In contrast, housewives are presumed to have more available time to monitor their children's condition and provide appropriate care, which can contribute to the prevention of stunting. Thus, maternal occupation is an important factor that may influence the incidence of stunting in infants and young children.

Number of Family Members

Based on the study conducted in Nagari Bukik Kaciak Lumbo, Pesisir Selatan Regency, the number of family members among respondents varied, ranging from 1 to more than 5 individuals per household. The distribution of family members is presented in Table 4.

Based on Table 4, the highest proportion of respondents had two children, accounting for 34.4%, followed by mothers with one child (29.5%), three children (21.3%), four children (9.8%), and five children (6.4%). Only one respondent (1.6%) reported having more than five children. The number of children and overall household size can significantly influence food consumption patterns, including the quantity and distribution of food within the household. Household size is one of the key factors affecting a child's nutritional status. A larger family size may impact a child's growth, particularly when accompanied by low socioeconomic conditions. In such households, limited resources may lead to a reduction in essential needs such as food and clothing, thereby increasing the risk of undernutrition and stunting.¹⁴

Table 4. Distribution of Respondents by Number of Family Members

Number of Family Members	f	%
1	18	29,5
2	21	34,4
3	13	21,3
4	6	9,8
5	2	6,4
>5	1	1,6
Total	61	100

Maternal Knowledge Level Regarding Stunting

Based on the findings of the study on maternal knowledge concerning stunting, the results were categorized into three levels: good, moderate, and poor. The distribution of maternal knowledge levels regarding stunting is presented in Table 5.

Table 5. Maternal Knowledge Level Regarding Stunting

Knowledge Level	F	%
Good	58	95
Moderate	2	3,2
Poor	1	1,6
Total	61	100

Based on Table 5, it can be observed that 58 mothers (95%) had a good level of knowledge about stunting. Furthermore, 2 mothers (3.2%) demonstrated moderate knowledge, and only 1 respondent (1.6%) had poor knowledge regarding stunting. Table 5 indicates that respondents with good knowledge far outnumbered those with moderate or poor knowledge. In general, mothers considered their children's height-for-age to be within the normal range. Knowledge is the result of cognitive processing that occurs following sensory perception of a particular object. This sensory

perception is facilitated through the five human senses: sight, hearing, smell, taste, and touch. Cognition is a critical domain in shaping human behavior and actions.¹¹

Parental knowledge, particularly that of mothers, significantly influences a child's nutritional status. Good nutritional knowledge contributes to healthier dietary patterns, which in turn supports optimal nutritional status. This knowledge can be acquired through both formal education and non-formal sources. Inadequate maternal nutritional knowledge may stem from factors such as low educational attainment or indifference toward nutrition-related issues. This lack of knowledge and awareness can adversely affect a child's growth and development, increasing the risk of stunting. Therefore, parental nutritional knowledge plays a pivotal role in determining the nutritional status of children under five years old.¹⁵ Maternal knowledge of food and nutrition can be obtained through various media, including print and electronic sources. Additionally, public health services such as community health centers (*puskesmas*) and integrated service posts (*posyandu*) can serve as important platforms for enhancing maternal nutritional awareness.¹⁶

Maternal Attitudes Toward Stunting

Based on the results of the study on maternal attitudes toward stunting, the responses were categorized into two levels: positive (good) and moderate. The distribution of maternal attitudes regarding stunting is presented in Table 6.

Table 6. Maternal Attitudes Toward Stunting

Attitude Category	F	%
Good	56	91,8
Moderate	5	8,2
Poor	0	0
Total	61	100

Table 6 indicates that the majority of respondents (91.8%) exhibited a positive attitude toward stunting prevention and management. A smaller proportion (8.2%) had a moderate attitude, while none of the respondents demonstrated a poor attitude. A mother's attitude plays a crucial role in determining her willingness to adopt health-promoting behaviors, particularly in relation to child nutrition and growth. Positive maternal attitudes are associated with greater receptiveness to health education and a stronger commitment to implementing recommended practices. These include appropriate child feeding, hygiene, and routine participation in health services such as immunization and growth monitoring. Conversely, moderate or indifferent attitudes may lead to inconsistent behaviors, potentially affecting the nutritional status of children. Strengthening maternal attitudes through targeted education and community-based interventions can significantly contribute to reducing the prevalence of stunting.

Attitudes are influenced by various factors, including age, occupation, education, and parity. When a mother exhibits a negative attitude, she is more likely to demonstrate inappropriate or detrimental behaviors.²⁴ Previous studies have shown a significant association between parental attitudes and children's nutritional status. Mothers with negative attitudes often lack sufficient knowledge and may pay less attention to the quality and sources of food provided to their children. As a result, children are at risk of nutrient deficiencies, which may lead to malnutrition and growth-related disorders such as stunting.¹⁷

Maternal Practices Regarding Stunting

Based on the study findings on maternal practices related to stunting, the results were categorized into two levels: good and moderate. The distribution of maternal practices in preventing stunting is presented in Table 7.

Table 7. Maternal Practices Regarding Stunting

Practice Level	F	%
Good	60	98,4
Moderate	1	1,6
Poor	0	0
Total	61	100

Based on Table 7, it can be seen that 98.4% of the participating mothers demonstrated good practices in preventing stunting, while 1.6% were categorized as having moderate preventive practices. The causes of stunting in children are broadly classified into direct and indirect factors.¹⁸ Among the direct causes is suboptimal caregiving, as data indicate that approximately 60% of infants aged 0–6 months are not exclusively breastfed, and two out of three children under two years of age (toddlers) do not receive adequate complementary feeding (MP-ASI). Efforts to prevent stunting should prioritize the period from conception to a child's second birthday, which corresponds to the government's First 1,000 Days of Life (*1000 Hari Pertama Kehidupan*, HPK) initiative. This period is considered the most critical window for promoting optimal physical and cognitive development.¹⁹ One of the most significant indirect contributors to stunting is poor sanitation. In response, the Indonesian government has promoted the Community-Based Total Sanitation (*Sanitasi Total Berbasis Masyarakat*, STBM) program to address environmental determinants of malnutrition.

The relationship between sanitation and stunting is well established. Poor sanitation-including lack of access to safe drinking water, inadequate septic tank management, fecal contamination, stagnant water, and insufficient clean water supply-can lead to a range of infections such as helminthiasis, enteric infections, and malaria. Chronic exposure to human and animal feces may result in persistent bacterial infections that impair nutrient absorption. This disruption is especially critical during the first two years of life when rapid brain cell growth occurs. Consequently, inadequate sanitation can hinder neurodevelopment and physical growth, placing children at increased risk of stunting. Breaking the cycle of disease transmission and environmental contamination requires transformative behavior change toward clean and healthy living, as promoted through the STBM-Stunting intervention strategy.²⁰

These findings suggest that most mothers in the study population actively applied appropriate health and nutrition practices to support their children's growth and development. Good practices may include exclusive breastfeeding, timely and adequate complementary feeding, maintaining hygiene, attending growth monitoring sessions at health facilities, and seeking early treatment for illness. Maternal practice is a direct reflection of both knowledge and attitude. When knowledge and attitude are aligned positively, behavior tends to follow. However, even with good knowledge, external barriers such as limited access to health services or economic constraints can influence actual practices. The strong prevalence of good practices in this study may also indicate successful health promotion and outreach efforts within

the community.

CONCLUSION

The characteristics of the mothers who participated in this study in Nagari Bukik Kaciak Lumpo, Pesisir Selatan Regency, were as follows: their ages ranged from 21 to 60 years, most had completed senior high school (SMA), the majority were housewives, and the most common number of family members was two. The level of maternal knowledge about stunting in Nagari Bukik Kaciak Lumpo, Pesisir Selatan Regency, was predominantly categorized as good. The majority of mothers in Nagari Bukik Kaciak Lumpo demonstrated a positive attitude toward preventing and addressing stunting. Most mothers also practiced appropriate behaviors in preventing stunting in Nagari Bukik Kaciak Lumpo, Pesisir Selatan Regency.

The recommendations derived from this study are as follows, further research is needed to explore other risk factors associated with the incidence of stunting in Nagari Bukik Kaciak Lumpo, Pesisir Selatan Regency. Targeted educational interventions should be conducted for mothers of infants and young children to enhance awareness and prevent stunting in Nagari Bukik Kaciak Lumpo, Pesisir Selatan Regency.

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