



Description of Mothers' Knowledge and Behavior in Preventing Stunting in the First 1000 Days of Life in the Pilolodaa Community Health Center Area

Nurhaliza Ibrahim^{1*}, Sitti Rahma², Ibrahim Suleman³

^{1,2,3}Program Studi Ilmu Keperawatan, Universitas Negeri Gorontalo, Gorontalo, Indonesia

*Corresponding Author: E-mail: ibrahimnurhaliza31@gmail.com

Article Info

Article history:

Received 12 Oct, 2025

Revised 21 Dec, 2025

Accepted 05 Jan, 2026

Keywords:

Children, Stunting, 1000 HPK, Mother's Knowledge, Mother's Behavior

ABSTRACT

This study aims to find out the picture of maternal knowledge and behavior in efforts to prevent stunting in 1000 HPK in the working area of the Pilolodaa Health Center. The method used is a quantitative research with a cross-sectional design. The research sample amounted to 92 people who were selected using total sampling. Data collection was carried out using questionnaires that have been tested for validity and reliability. Data were analyzed univariately using SPSS version 27. The results showed that the majority of respondents were in the age range of 26-35 years (47.8%), housewives (88.0%), high school education (45.7%), and had an income below UMP (58.7%). The level of knowledge of mothers in stunting prevention was mostly in the good category, namely 57 respondents (62.0%), followed by the sufficient category of 29 respondents (31.5%) and the category of less than 6 respondents (6.5%). Meanwhile, maternal behavior in stunting prevention was also dominated by the good category of 50 respondents (54.3%), the sufficient category of 33 respondents (35.9%), and the poor category of 9 respondents (9.8%). The conclusion of this study shows that most mothers already have good knowledge and behavior in stunting prevention, but there are still a small number of mothers with less knowledge and behavior, so continuous education and mentoring are needed.

INTRODUCTION

Children are the next generation of the nation, so the fulfillment of nutrition and access to quality health services is an important factor in supporting the optimal growth and development of children. This condition confirms that health has a fundamental role in human development, so promotive and preventive efforts need to be carried out from the womb to early childhood to support the growth and development of children in their physical, mental, social-emotional, and cognitive aspects (Salpina *et al.*, 2023).

Health is the most important part of human life, because health is the cause of humans being able to carry out activities as they should. Human development efforts can be carried out by building health from an early age even from the time the child is in the womb. Health development aimed at children from the womb is carried out so that children can achieve optimal growth and development. One of the main factors that play a role in the success of children's growth and development is the fulfillment of balanced nutritional needs from an early age (Salpina *et al.*, 2023).

Nutrition is one of those that also affects the growth and development of children. Therefore, it is very important to provide healthy and nutritious food to children. Malnutrition has a considerable impact, including slowing down brain and physical growth. This slowing of physical growth is also known as stunting (Sulistiawati, 2024).

According to WHO, stunting is a condition where children's growth is stunted. Stunting cases can occur in children who do not have adequate nutrition, are often infected, or lack adequate psychosocial stimulation. Stunting can be said to occur in children if their height does not match or does not reach the world's standard growth chart (Mediani *et al.*, 2020). Stunting remains an important global problem to be

overcome around the world, so stunting is named one of the main focuses for the target of improving nutrition in the world until 2025 (Asri, 2022).

WHO in 2021, said that the incidence of stunting in the world had reached 22% or as much as 149.2 million in 2020. In that year, Indonesia was the country with the 2nd highest stunting cases in Southeast Asia after Timor Leste with stunting cases in Indonesia which tended to decrease (Setiyawati *et al.*, 2024).

Based on data from the 2022 Indonesian Nutrition Status Study (SSGI), the prevalence of stunting in Indonesia reached 21.6%. This shows that this figure is still above the target set by the World Health Organization (WHO), which is 20% and puts Indonesia in 27th place out of 154 countries. Although the prevalence of stunting has decreased, the prevalence of underweight and wasting has increased. The prevalence of underweight increased from 17% to 17.1%, while wasting increased from 7.1% to 7.7% (Setiyawati *et al.*, 2024).

In Gorontalo Province it reached 32% (Riskesdas, 2018). Gorontalo Province consists of 6 districts with different percentages of stunting. The percentage of stunted toddlers in 2017 in Gorontalo City for the ages of 0-59 months was 36.1%, Pohuwato Regency 32.9%, Boalemo Regency 32.5%, Gorontalo Regency 32.3%, North Gorontalo Regency 27.4%, and Bone Bolango Regency 25.5% (Maesarah *et al.*, 2021).

Based on the results of the 2023 SKI, the national average recorded a stunting prevalence of 21.5% and there has been a decrease in stunting prevalence over the last 10 years (2013-2023). Of the 38 provinces in Indonesia, as many as 15 provinces have a stunting prevalence below the national figure. The three provinces with the highest prevalence of stunting are Central Papua (39.4%), East Nusa Tenggara (37.9%) and Mountainous Papua (37.3%), while Gorontalo province is ranked 12th with a stunting rate of 26.9%.

Based on data obtained from the Gorontalo Provincial Health Office on the observation results of June 5, 2025, it is known that the highest stunting rate in Gorontalo Province according to the Indonesian Nutrition Status Survey (SSGI) in 2024 is 23.8%. Gorontalo Province consists of 6 districts with different percentages of stunting. The percentage of stunted toddlers in 2024 in Gorontalo City is 31.2%, Gorontalo Regency 28.3%, Gorut 25.6%, Bone Bolango 23%, Pohuwato 18%, and Boalemo 8%.

Meanwhile, based on the results of follow-up observations conducted by researchers on July 3, 2025 at the Gorontalo City Health Office, the highest stunting data was obtained in Pilolodaa Village at 16.72, South City 5.84, Central City 5.28, Sipatana 4.93, West City 2.57, Hulontalangi 2.43, North City 2.35, Dumbo Raya 1.94, Dungidi 1.75, East City 0.94.

Growth at the age of toddlers will determine physical and mental development as well as success at a later age. A balanced nutritious diet at this age is very important, not only for physical growth, but also for the development of intelligence (Kurniasih *et al.*, 2010). In childhood, the good and bad fulfillment of nutrition can determine many aspects of life in the future. Stunting is one of the indications of malnutrition due to chronic malnutrition, especially in the first 1000 days of life (HPK), in infants (0-11 months) and toddlers (12-59 months) so that the child is too short for his age (Herliana *et al.*, 2024).

1000 HPK is the period from the time the child is in the womb until he is 2 (two) years old, which is called the golden period. Where in this period there is very rapid brain growth to support the entire growth process of children perfectly. Therefore, there must be nutritional support because at 1000 HPK if there is a nutritional deficiency, it cannot be corrected in the future (Fesmia *et al.*, 2023).

The 1000 HPK period is very crucial because during this period there is a very rapid and vulnerable growth and development of children, which can affect the quality and health of future generations. If the nutritional intake of pregnant women during this period is insufficient, it can potentially cause disturbances in the growth and development of the child. Examples include the emergence of non-communicable diseases, obstacles in cognitive development that can result in decreased intelligence and competitiveness, and impaired height growth that can be at risk of causing stunting (Majid *et al.*, 2024).

Stunting has long-term effects that can harm individuals, families, communities, and even a country. Stunted children are not only short, but cognitive development is stunted, productivity capacity is reduced, and the risk of increased degenerative diseases such as diabetes, coronary heart disease, hypertension, (Erwina Sumartini & Keb, 2020; Helmyati *et al.*, 2020). If the current trend continues, it is estimated that in 2025 there will be 127 million children under five who are stunted (WHO, 2014). Therefore, a holistic and comprehensive approach is needed to address stunting problems. According to Riskesdas, the incidence of stunting is influenced by the income and education of parents, especially mothers (Riskesdas, 2018).

If stunting prevention is not carried out, the growth of toddlers will continue to be disrupted and difficult to repair. This can increase stunting rates and the risk of death of toddlers due to malnutrition. Mothers' low knowledge about stunting also affects their attitude in prevention. In addition, poor environmental sanitation can lead to gastrointestinal infections, interfere with nutrient absorption, and lead to malnutrition, which ultimately impacts child growth (Asmawati, 2023).

Stunting can be overcome by improving parenting, namely ensuring the fulfillment of balanced nutrition through exclusive breastfeeding, nutritious MP-ASI, and food according to the child's age stage. In addition, maintaining children's health with complete immunization and routine examinations at posyandu is also important. Children need to get developmental stimulation through interaction and play, accompanied by

warm emotional connections. The residential environment must be supportive, with proper sanitation and access to clean water. Parenting in relation to stunting refers to the role of mothers in meeting the basic needs of toddlers, including nutritional intake, stimulation, rest, housing, and healthy environmental conditions (Centis *et al.*, 2024).

Improving nutrition in the first 1000 Days of Life (HPK) plays an important role in preventing stunting because this period is a golden period of child growth and development. Mothers need to implement proper nutritional parenting through exclusive breastfeeding for 6 months, continuing breastfeeding until the age of 2 years, and providing nutritionally balanced MP-ASIs according to age. The nutritional intake of pregnant and lactating women must also be considered because it has a direct impact on the fetus and baby. With the application of good nutritional parenting from pregnancy to two-year-olds, brain growth, height, and endurance can develop optimally. Therefore, mothers' knowledge of nutrition at 1000 HPK is very important to support children's growth and development while preventing stunting (Mulyani *et al.*, 2025).

Knowledge itself can be understood as the result of the process of knowing that occurs after a person senses a certain object through the five senses, especially the senses of sight and hearing. Knowledge is a domain that plays a very important role in shaping a person's attitude and behavior, so the better the mother's knowledge about nutrition and health, the more likely the mother is to apply the right parenting and feeding practices to the child (Andriani, 2019).

In addition to knowledge, stunting can be influenced by maternal behavior. A mother's behavior during the first 1000 days of life from pregnancy to the age of two has a fundamental impact on the child's growth and development, since during this period, the mother's interactions and responses directly affect the formation of the brain, immune system, and long-term health of the child. Positive behaviors such as exclusive breastfeeding, early stimulation through touch and communication, and ensuring adequate nutrition, are key factors that can prevent nutritional problems such as stunting. Conversely, inappropriate behavior or lack of attention can hinder a child's development (Tendean *et al.*, 2025).

Behavior is a person's response to a certain stimulus or object that can be positive or negative, and is formed from the interaction of individual knowledge, attitudes, and experiences. In the context of health, maternal behavior greatly determines parenting, breastfeeding, MP-ASI practices, and the fulfillment of health services for children. Good behavior and in accordance with the principles of balanced nutrition will support the nutritional status of children, while inappropriate behavior risks increasing the incidence of malnutrition and stunting (June, 2025).

Based on the results of initial observations conducted by researchers on July 30, 2025 at the Pilolodaa Health Center, data on stunted children in 2025 totaled 73 children. To obtain a deeper picture of maternal knowledge and behavior in stunting prevention, the researcher conducted an interview on August 21, 2025 at the Pilolodaa village office during the posyandu activity. Researchers conducted interviews with 5 people involved, consisting of 3 pregnant women and 2 of them mothers who had babies. From the results of the interviews, only 2 out of 5 mothers have good knowledge about stunting because they have participated in socialization held by the health center. Meanwhile, 3 other mothers admitted that they had never been exposed to information related to stunting.

METHODS

This study applies a quantitative-based *cross-sectional* design held in the Pilolodaa Health Center Area in the period of October 30, 2025 to November 14, 2025. The research subjects came from three villages in the working area of the Pilolodaa Health Center, which consisted of three villages of Pilolodaa, Lekobal, and Dembe. The sampling technique used was total sampling, because the population was only 92 people, so the entire population was used as a sample.

This study uses instruments that have been tested for validity and reliability. The questionnaire used in this study is a questionnaire adopted from the research of Ni Wayan Sri Deviyanti (2022). Based on the results of the validity test, the knowledge questionnaire has a calculated r range of 0.582–0.931, higher than the table r value of 0.361, so that all questions are declared valid. This shows that each item in the instrument is able to measure aspects of maternal knowledge about stunting appropriately and according to the set indicators. In addition, the results of the reliability test showed that the instrument had a Cronbach's Alpha value of 0.883, which was above the minimum limit of 0.60. Thus, knowledge questionnaire instruments can be categorized as reliable, which means they are consistent and can be used for data collection in research.

In the questionnaire of maternal behavior in preventing stunting, test results were also obtained with an r count ranging from 0.508–0.647, which all of which exceeded the r value of the table of 0.361. Thus, all items on the questionnaire were declared valid because they were able to reflect the indicators to be measured, namely maternal behavior in stunting prevention. The reliability value obtained was Cronbach's Alpha 0.748, also above the minimum standard value of 0.60. This means that this instrument is consistent and reliable to be used as a measuring tool in research on maternal behavior related to stunting prevention.

The data collection process begins after obtaining ethical permission from the study program and faculty concerned. The researcher provides an explanation of the purpose and objectives of the study to prospective respondents and obtains participation consent through *informed consent*. The distribution of the questionnaire was carried out directly and the filling was carried out by the respondents with the supervision of the researcher to ensure the completeness of the data collected. The data collected was then processed using SPSS software version 27.

RESEARCH RESULTS

Table 1. Characteristics of Respondents of Mrs. Baduta in the Pilolodaa Health Center Area

Respondent Characteristics	Frequency (n)	Percentage (%)
Age		
17-25 years old	37	40,2
26-35 years old	44	47,8
36-45 years old	11	12,0
Jobs		
PNS	3	3,3
P3K	2	2,2
Honorary	3	3,3
Self-employed	3	3,3
IRT	81	88,0
Education		
SD	16	17,4
Junior High School	14	15,2
High School	42	45,7
D3	4	4,3
S1	15	16,3
Income		
< IDR 500,000	20	20,6
IDR 500,000-1,000,000	54	58,7
IDR 1,500,000-2,000,000	14	15,2
IDR 2,500,000-3,000,000	6	6,5
> IDR 3,000,000	0	0

Based on table 1, the characteristics of respondents show that the majority of respondents are in the age range of 26-35 years, namely 44 people (47.8%), and almost all of them have the status of housewives as many as 81 people (88.0%). Most of the respondents had a high school education level, which was 42 people (45.7%). In addition, the majority of respondents have income in the range of Rp. 500,000-1,000,000 which is included in the category under UMP, namely 54 respondents (58.7%).

Table 2. Distribution of Maternal Knowledge in Stunting Prevention in the First 1000 Days of Life in the Pilolodaa Health Center Area

Knowledge	Frequency (n)	Present (%)
Good	57	62,0
Enough	29	31,5
Less	6	6,5
Total	92	100,0

Based on table 2, it was found that the distribution of respondents based on the level of knowledge was mostly at the level of good knowledge as many as 57 respondents (62%).

Table 3. Distribution of Maternal Behavioral Frequency in Stunting Prevention in the First 1000 Days of Life in the Pilolodaa Health Center Area

Menstrual Hygiene Management	Frequency (n)	Present (%)
Good	50	54,3
Enough	33	35,9
Less	9	9,8
Total	92	100,0

Based on table 3, it was found that the distribution of respondents based on the level of behavior was mostly at the level of good behavior as many as 50 respondents (54.3%).

DISCUSSION

Mother's Knowledge in Stunting Prevention in the First 1000 Days of Life in the Pilolodaa Health Center Area

Based on the results of the study conducted on 92 baduta mothers in Pilolodaa, Lekobalo and Dembe villages, the results were obtained that 62.0% of respondents had good knowledge, 31.5% of respondents had sufficient knowledge and 6.1% of respondents had insufficient knowledge. In this study, the majority of mothers' knowledge in Pilolodaa, Lekobalo and Dembe villages is in the good category.

Based on the results of the distribution of the questionnaire on maternal knowledge about stunting, which showed that 62% of respondents already had good knowledge about stunting. This is illustrated by the results of the questionnaire on the indicators of stunting definition, causes of stunting, characteristics of stunting, and stunting prevention as many as 84.8% of respondents answered correctly. The high percentage of mothers with good knowledge shows the effectiveness of information delivery through health counseling and the use of electronic media is able to increase maternal understanding so that mothers are able to understand the basic indicators of stunting and recognize their characteristics.

The results of the above research are corroborated by the theory from Notoadmodjo (2019) where knowledge is the result of knowing, which occurs when a person has perceived a certain object. Sense occurs through the five human senses, namely sight, hearing, smell, taste, and touch. Most human information is received through the eyes and ears.

This is in line with research by Puspitasari & Herdyana (2021) which states that maternal knowledge is an important factor in the success of stunting prevention in toddlers. The study showed that mothers with a good level of knowledge are better able to recognize signs of stunting risk early, provide balanced nutritional intake, and understand the importance of stimulating growth and development in the first 1000 days of life (Puspitasari & Herdyana, 2021).

In addition, the research of Sari et al. (2020) also stated that good maternal knowledge is significantly related to stunting prevention practices such as iron consumption during pregnancy, exclusive breastfeeding, and MP-Breastfeeding according to age. Access to information through posyandu and puskesmas has been proven to increase maternal insight in preventing stunting.

The understanding of the respondents in this study that affects knowledge is about nutrition that affects the occurrence of children experiencing stunting. To the question about nutrition, the majority of respondents answered correctly. This shows that respondents' understanding of balanced nutrition and nutritional status regarding stunting is in the good category. Stunting prevention should start early during pregnancy because it is hoped that with the mother's knowledge from pregnancy about good nutrition, it will prevent stunting (Puspitasari & Herdyana, 2021).

Knowledge about stunting is very important for mothers if the mother's knowledge is lacking, it will cause the child to be at risk of stunting (Puspitasari & Herdyana, 2021). Internal factors that affect maternal knowledge include age, based on the results of the characteristics of respondents, most of whom are 23-38 years old or as much as 46.7%.

Age has an impact on an individual's understanding and way of thinking. As we get older, the ability to understand and think also develops, so the knowledge gained is getting better. A mother's age plays an important role in the process of understanding stunting, because this will affect how well the mother can receive and process information. Older mothers tend to be wiser in choosing important information, so that the information received can be understood and applied in daily life. In contrast, younger mothers may not immediately accept the information provided; They sometimes ignore it first. Only when they encounter situations that require such information will they remember what has been taught. The older the mother, the more experience she has accumulated in caring for her child (Yunica & Heryanti, 2023).

In addition to the age of the job, it can also affect a person's knowledge. Based on the results of the job respondent characteristics, most of the respondents were IRT, namely 81 respondents (88.0%). Housewives (IRTs) have an important role in understanding the problem of stunting, because the position as an IRT provides both opportunities and challenges to gain and apply knowledge about health. On the one hand, mothers who work at home full-time have a better chance of accessing local health services such as posyandu, participating in counseling activities from health workers, and interacting with PKK cadres or other mothers, which can help expand their knowledge about nutrition and stunting. However, if the basic knowledge possessed is low, status as an IRT can reinforce misconceptions or be trapped due to limited education or access to official information. This is supported by a study published in the Journal of Food Nutrition and Health, which shows that the nutritional knowledge of housewives is strongly related to how they spend time at home and how they take care of children (Nur et al., 2021).

In addition to age and occupation, education can also affect a person's knowledge. Based on the results of the characteristics of educational respondents obtained, most of the respondents had a high school education, namely 42 respondents (45.7%). Based on the level of high school education, it can be seen that many mothers have a high school education, which tends to have better literacy skills compared to mothers who have a lower level of education. Mothers with a high school education are generally better able to understand health information, participate in counseling programs, and get information from official sources such as posyandu or health services. This situation supports the findings that mothers' knowledge tends to be high because formal education provides a foothold to receive information about nutrition and stunting.

This is in line with research conducted by Dian Widya Wati & Yekti Satriyandari (2024) showing that there is a significant relationship between maternal education and stunting prevention behavior, through the knowledge pathway. Mothers with higher education tend to have better knowledge and more effective preventive behaviors. Mothers who have knowledge and education about stunting prevention will be better able to understand how to care effectively and support optimal child development. Mothers with adequate knowledge are better able to avoid stunting in their toddlers. The level of understanding of mothers is also influenced by their level of education (Wanti, 2023).

Furthermore, in this study, 31.5% of respondents have sufficient knowledge about stunting. This can be seen from the questionnaire indicator on the impact of stunting which describes 55.4% of respondents answering correctly. This condition shows that some respondents already understand the concept of stunting but have not fully internalized all important aspects such as the causes, prevention, and impact of stunting. The results of the above research are strengthened by the theory from Notoadmodjo (2014) that knowledge is divided into several levels, ranging from knowing, understanding, application, analysis, synthesis, and evaluation. Mothers with a sufficient level of knowledge are usually at the stage of knowing and understanding, so that the information received is fully understood in depth. In line with research conducted by Munthe et al. (2023), maternal knowledge correlates with stunting prevention efforts, the higher the knowledge, the greater the tendency of mothers to take preventive measures (Munthe et al., 2023). Mothers' understanding of the impact of poor nutrition is often limited only to aspects of low body weight, without knowing the risks to the brain, immunity, and learning achievement. A total of 23 respondents did not understand that stunting causes impaired intelligence and physical growth. This shows that some mothers do not understand that 80% of brain growth develops in the first 1000 days of life, so malnutrition during this period has a direct impact on cognitive function and linear growth disorders are the main indicators of stunting (Fesmia et al., 2023).

In the questionnaire column that discussed the long-term impact of stunting, as many as 41 respondents gave inappropriate answers, where this number is quite large for almost half of the respondents. This shows that some mothers do not understand that stunted children often experience chronic malnutrition, especially in the first 1000 days of life. Deficiencies in macro and micronutrients weaken children's immune systems which makes them more susceptible to recurrent infections (Asiah et al., 2020).

Stunting is associated with impaired brain and cognitive development, because in the early stages of life (especially 0–24 months) the nutritional needs for neuronal development are very high. Nutritional deficiencies during this critical period can inhibit brain growth and synaptic connectivity, which then affects cognitive functions such as memory, concentration, and problem-solving (Suryawan, 2022).

In this study, in addition to mothers with good and sufficient knowledge, there are 6.5% of mothers who have less knowledge. It can be seen from the questionnaire indicators that chronic malnutrition in the first 1000 days of a child's life can cause stunting as many as 46.7% of respondents answered incorrectly. This condition occurs because respondents do not fully understand that stunting is the result of chronic malnutrition, especially in the 1000 HPK period. Although some respondents showed an understanding of stunting, it could have emphasized more general aspects such as the meaning of stunting and the impact on the physical without delving into the etiology of long-term nutrition. This shows a gap between knowing stunting and understanding the underlying causes. So that some respondents still answered incorrectly.

Mother's knowledge at 1000 HPK is very crucial, because this period is a golden period of child growth. Malnutrition for a long period of time in this period can result in stunting. This is in line with research conducted by Wulandari et al in the Work Area of the Ulak Muid Health Center, Melawi Regency in 2019 stating that mothers with less knowledge have a greater risk of having stunted toddlers when compared to mothers who have good knowledge. (Robinson & Rahman, 2022).

This can also be influenced by the age of the mother, where 8.7% of mothers are aged 39-43. Notoadmodjo's theory (2014) states that experience does affect knowledge, but if it is not accompanied by regular updates of information, knowledge is no longer accurate. Older mothers often rely on previous parenting experiences, so they are less up-to-date with new information about stunting which causes limited understanding.

In line with research conducted by Khadijah & Purnama Sari (2025), it was found that the age of the mother has a major impact on various aspects related to stunting. Older mothers tend to have less knowledge or do not update the latest information about stunting, especially those conveyed through digital media or modern

educational platforms (Sari & Khadijah, 2025).

In addition to age, education can also affect knowledge. In this study, 17.4% of mothers attended elementary school and 15.2% attended junior high school. Maternal knowledge about stunting is used as a variable in this study because knowledge is the basis for understanding the definition, causes, impacts, and efforts to prevent stunting, which further affects maternal behavior in fulfilling child nutrition and parenting.

This is in line with research conducted by Dian & Yekti (2024) showing that maternal education has a great influence on the knowledge and prevention measures carried out. Mothers with higher education are generally more skilled in health literacy, which makes them better able to understand information about nutrition, a balanced diet, early signs of stunted growth, and stunting prevention strategies. Formal education also strengthens mothers' skills in processing information from various sources, such as health workers, the media, Maternal and Child Health books, or counseling programs. On the other hand, mothers with low levels of education (elementary–junior high) tend to have a limited understanding of the concept of stunting, including its causes and long-term impacts. Limitations in understanding medical or nutritional terms result in some information not being absorbed properly, so the implementation of preventive behavior does not run optimally (Wanti, 2023).

Maternal Behavior in Stunting Prevention in the First 1000 Days of Life in the Pilolodaa Health Center Area

Based on the results of the study conducted on 92 baduta mothers in Pilolodaa, Lekobalo and Dembe villages, the results were obtained that 54.3% of respondents had good behavior, 35.9% of respondents had adequate behavior and 9.8% of respondents had poor behavior. In this study, the majority of maternal behavior in Pilolodaa, Lekobalo and Dembe villages was in the good category.

The description of maternal behavior in this study was 54.3% in the good category. This can be seen based on questionnaire indicators about the behavior of seeking information about stunting. In the questionnaire about finding out about stunting (definition, causes, characteristics, and impacts), as many as 42.4% of respondents admitted to having found out about stunting. In a questionnaire about paying attention to health counseling provided by health workers regarding stunting, as many as 27.2% of respondents admitted that they had participated in counseling on stunting. And in the statement about paying attention to health counseling provided regarding balanced nutrition, as many as 14.1% admitted to having participated in counseling on balanced nutrition.

Active involvement in seeking this information is an important factor that contributes to the formation of better preventive behaviors. The high percentage of mothers who actively seek information reflects the increased awareness of the risk of stunting and the willingness of mothers to strengthen knowledge and prevention practices.

The results of this research above are strengthened by the theory *Health Belief Model*. In the study, Noor & Muniroh (2023) explained that a person's health behavior is influenced by an individual's perception of vulnerability, seriousness, benefits, and barriers to a health problem. Mothers who actively seek information, participate in counseling, and pay attention to nutrition education show that they already have the perception that stunting is a serious and risky problem for their children, so they are encouraged to carry out preventive behaviors (Noor & Muniroh, 2023).

This is in line with research conducted by Noviani *et al.* (2023) shows that mothers who actively seek information about stunting have a higher chance of demonstrating good stunting prevention behaviors, such as nutritional fulfillment, the application of exclusive breastfeeding, and growth and development monitoring (Noviani *et al.*, 2023). In addition, research by Indriani *et al.* (2022) shows that information provided consistently by health workers and through digital media can encourage mothers to improve behavior in preventing stunting, which includes nutrition management for families and efforts to prevent infections in children. This is closely related to the results of this study, where most of the respondents are of productive age and have a high school education, so they are cognitively ready to receive and process health information (Simanjuntak *et al.*, 2022).

In the questionnaire indicator on providing nutrition to children, 57.6% of respondents admitted that they always provide nutritious food to children such as: rice, side dishes, and vegetables. In this case, it shows good parenting behavior, especially in the aspect of providing nutritious food, as can be seen from the high responses of respondents who stated that they had given nutritious food to children. These findings are consistent with a pattern that increased maternal knowledge is directly correlated with more appropriate parenting practices, including the selection of nutritious foods, age-appropriate feeding of MP-breastfeeding, and monitoring of children's nutritional status.

The results of the above research are strengthened by the theory *Knowledge Attitude Practice (KAP)* states that knowledge shapes attitudes, and attitudes will influence practices or behaviors. Mothers who have good knowledge about their children's nutritional needs will have a positive attitude towards the importance of nutritional fulfillment, which is then manifested in real behavior in the form of providing nutritious food such as rice, side dishes, and vegetables (Kigaru *et al.*, 2020).

These findings are in line with research conducted by Rohmandani *The al.* (2024) shows that mothers with good knowledge of MP-ASI and nutrition-conscious family principles have a tendency to have more optimal nutritional behavior, including in terms of the frequency of nutritious feeding, menu variation, and the ability to meet the child's daily energy needs (Rohmandani & Hermawati, 2024).

Research by Mauliza *et al.* (2023) also shows that mothers with better knowledge tend to be more conscious in choosing nutritious food ingredients, understand children's nutritional needs, and do not provide complementary foods for breast milk that are not appropriate for age. Thus, the behavior of mothers in the Pilolodaa, Lekobalo, and Dembe areas who always provide nutritious food shows that feeding practices are already on a positive path, in line with scientific evidence that good nutritional knowledge has a direct influence in shaping behaviors that support stunting prevention (Sahputri *et al.*, 2021).

One of the strong indicators which shows that the majority of mothers have good behavior in this study is illustrated by the results of the indicator questionnaire about seeking information about stunting as many as 27.2% of respondents stated that they had participated in health counseling programs related to stunting organized by health workers. These results are in line with recent scientific data showing that health counseling is the most effective intervention method in improving stunting prevention behavior. A study conducted by Rusnita (2024)) shows that organized health education can significantly improve maternal behavior in providing nutritious food, monitoring children's development, and adopting a clean lifestyle after they participate in counseling (Rusnita) *et al.*, 2024).

Meanwhile, research by Rohmandani *et al.* (2024) explains that mothers who regularly participate in nutrition counseling have a higher likelihood of implementing preventive measures against stunting, particularly in terms of providing appropriate MP-breastfeeding and choosing nutrient-rich foods. Another recent study conducted by Isnaningsih & Setyaningsih (2021) also confirms that the increase in stunting prevention behavior is greatly influenced by the knowledge gained from education, where counseling has proven to be the main source of information for most mothers (Rohmandani & Hermawati, 2024).

This study shows that the majority of mothers always provide exclusive breastfeeding and MP-ASI in accordance with the needs of the child is an important indicator that feeding practices in the region are already in a good category. This behavior is strongly supported by various recent studies that confirm that optimal feeding practices are greatly influenced by the mother's knowledge, health education received, and access to information from health workers.

Research conducted by Rahmadani & Wulan (2023) shows that targeted nutrition education is able to improve exclusive breastfeeding practices, responsive feeding methods, and the selection of MP-ASI that meets nutritional adequacy criteria. This education not only increases understanding, but also strengthens mothers' beliefs about the benefits of exclusive breastfeeding and the importance of the texture and composition of MP-ASI that is appropriate for the child's age (Rahmadani & Dari, 2025).

In addition, research conducted by Tyaningsih *et al.* (2025) shows that mothers who have good knowledge of the concept of exclusive breastfeeding and appropriate MP-ASI have a higher chance of implementing appropriate eating behaviors for the child. This happens because knowledge is the main foundation in the decision-making process of a mother, especially in terms of food selection, the timing of MP-BREASTFEED, and the understanding of nutritional needs at each stage of child development. Mothers who have good knowledge usually realize that exclusive breastfeeding for the first six months is the best source of nutrition that is very important for the growth, immunity, and development of the child. They also understand that MP-ASI should be given from the age of six months by considering texture, frequency, and energy density in accordance with WHO recommendations (Tyaningsih & Cahyaningrum, 2025).

Furthermore, in this study, there were 35.9% of respondents who had sufficient behavior about stunting. This can be seen from the statement of the questionnaire about participation in health counseling given regarding balanced nutrition as many as 54.3% of respondents admitted that they had never participated in counseling on balanced nutrition, in this case the researcher assumed that they began to implement several measures to prevent stunting, but still not consistently and thoroughly. Behavior in the category is enough to show that mothers are aware of several preventive methods, such as providing exclusive breastfeeding, maintaining the cleanliness of the food consumed by the child, or taking the child to the posyandu, but these actions have not been carried out regularly or fully understood. This condition is in line with the fact that health behaviors are influenced not only by knowledge, but also by factors such as environmental, social, economic, access to facilities, and family support.

The results of the above research are strengthened by the theory *Participatory Nutrition Education Impact* Explains that nutrition education/nutrition education has a significant impact on improving the knowledge, attitudes, and skills of mothers in feeding children which then affects the nutritional status of children (Pledge) *et al.*, 2023).

In line with research conducted by Wanti (2023), a number of mothers are aware of the importance of stunting prevention, but are hindered by limited sanitation, access to clean water, irregularities in providing exclusive breastfeeding, limitations in health services, and lack of education about nutrition. These obstacles result in preventive measures that cannot be carried out effectively even though the mother has sufficient

understanding (Wanti, 2023).

This can be influenced by the age of the mother where the majority of respondents are in the age group of 28-38 years and 17-27 years. These two age groups are included in the productive age category, but some of them are young mothers who usually have limited experience in parenting. Mothers at a young and productive age are usually in the early stages of undergoing parenting roles, so their knowledge and experience on how to care for and children's health, especially in efforts to prevent stunting, have not been fully developed. Even though they have access to information quite widely, especially through social media, the understanding gained is not always fully embedded so that not everything is applied in real actions. This condition causes the prevention efforts carried out to be not optimal because they are still in the process of learning, adapting, and deepening their knowledge about nutrition, health, and proper parenting practices

In addition to the age of the educational level, the majority of respondents were at the high school level with a percentage of 45.7%, while the rest consisted of elementary school graduates at 17.4% and junior high school at 15.2%. This condition shows that many mothers have basic knowledge about their child's health, including the risk of stunting and how to prevent it, but this understanding does not always encourage comprehensive and consistent preventive behaviors. Respondents with lower levels of education have the potential to experience limitations in access to information and the ability to understand health information, so awareness of the long-term impact of stunting and its prevention efforts are not implemented optimally. This shows that there is a gap between the knowledge possessed and the actions taken, so that existing prevention practices only reach the category of sufficient and are not yet fully effective

In addition to mothers with good and sufficient behavior categories, there are 9.8% of mothers with less behavior categories. This can be seen from the majority of respondents in the low-income group, which makes mothers prioritize the fulfillment of basic needs so that health behavioral practices such as providing nutritious food, proper sanitation, and hygiene kits are often not the main focus. The researcher assumes that this is due to economic limitations that affect household priorities, so that stunting prevention behavior has not been optimally carried out by some mothers.

The results of the above research are strengthened by Maslow's theory explaining that human needs are arranged hierarchically, starting from physiological and security needs. In low-income families, the main focus is on meeting basic needs such as food and shelter. As long as ibi's needs have not been optimally met, individuals tend to override higher-level needs, including preventive health behaviors such as fulfilling balanced nutrition, sanitation, and hygiene.

In research conducted by Sarni *et al.* (2024) shows that family income has a significant relationship with the incidence of stunting which means that children from low-income families have more than twice the risk of experiencing stunting compared to children from families with higher incomes. This low economic condition has a direct impact on the ability of families to provide basic needs to support children's growth and development, such as nutritious food, adequate sanitation, and access to health services. Limited income also affects maternal parenting, because in a limited economic situation, meeting balanced nutritional needs, environmental cleanliness, and participation in health counseling activities is often not a priority (Sarni *et al.*, 2024).

The limited income experienced by low-income families is a structural obstacle because it comes from economic conditions that are difficult to change only through education or counseling. Although mothers are equipped with the knowledge of how to manage their finances and choose nutritious foods, their ability to apply this knowledge is still limited by an insufficient amount of income. For example, families may understand the importance of giving their children animal protein, but the price of groceries is often unaffordable on a regular basis. In addition, knowledge about the importance of sanitation cannot automatically be realized if the family lives in an environment with limited clean water facilities or proper toilets that require repair costs. Therefore, financial management education is not enough to ensure sustainable behavior change without structural support (Widajantie *et al.*, 2025)

CONCLUSION

This study shows that the majority of mothers have good knowledge and behavior in efforts to prevent stunting. A total of 57 respondents (62.0%) were in the category of good knowledge, while 29 respondents (31.5%) had sufficient knowledge and 6 respondents (6.5%) had insufficient knowledge. In line with this, mothers' behavior in efforts to prevent stunting was in the good category, namely 50 respondents (54.3%) followed by 33 respondents (35.9%) with sufficient behavior, and 9 respondents (9.8%) had poor behavior.

BIBLIOGRAPHY

- Aini, A. H., Oktorina, L., & Arismunandar, H. P. (2024). Mother's Knowledge of the First 1000 Days of Life and Nutritional Status of Toddlers. *Forikes Journal of Voice Health Research*, 15(2), 82–84. <https://doi.org/doi.org/10.33846/sf15nk120>
- Ambarwati, I., Dewi, R. S., & Parman. (2020). Risk Factors for Stunting Incidence in Toddlers in the Simpanng Pandan Area, Geragai District, East Tanjung Jabung Regency. *Journal Of Healthcare*

- Technology And Medicine*, 6(2), 721–731. <https://doi.org/10.1186/s12887-024-04616-2>
- Anastasia. (2025). Prevelence of Overweight and Obesity and Its Association with Nutrition-related Knowledge, Attitude and Practices (KAP) Among Malaysian Deaf Adults. *Journal of Food Nutrition*, 20(2), 71–80. <https://doi.org/https://doi.org/10.25182/jgp.2025.20.2.71-80>
- Andriani. (2019). The Relationship between Maternal Knowledge of Nutrition and Dietary Intake of Toddlers and Nutritional Status of Toddlers (BB/U) Aged 12-24 Months. *Amerta Nutrition*, 1(4), 369–378. <https://doi.org/10.20473/amnt.v1.i4.2017.369-378>
- Ariati, L. I. P. (2019). Risk factors for stunting in toddlers aged 23-59 months. *Oxytocin : Scientific Journal of Obstetrics*, 6(1), 28–37. <https://doi.org/10.35316/oksitosin.v6i1.341>
- Asiah, A., Yogisutanti, G., & Purnawan, A. I. (2020). Micronutrient intake and history of infectious diseases in stunted toddlers at the Limbangan Health Center Uptd, Sukaraja District, Sukabumi Regency. *Journal Of Nutrition College*, 9(1), 6–11. <https://doi.org/10.14710/jnc.v9i1.24647>
- Asmawati, L. (2023). Stunting Prevention through Banten Local Food Security and Digital Parenting. *Journal of Obsession: Journal of Early Childhood Education*, 7(6), 6915–6926. <https://doi.org/10.31004/obsesi.v7i6.5396>
- Ayuningtyas, H., Nadhiroh, S. R., Milati, Z. S., & Fadilah, A. L. (2022). Family Economic Status and Nutritional Adequacy with Stunting Incidence in Children Aged 6-24 Months in Surabaya City. *Indonesian Nutrition Media*, 17(1), 145–152. <https://doi.org/10.20473/mgi.v17i1sp.145-152>
- Budhiana, J., Nugroho, T. M., & Utami, R. N. (2021). The Relationship between Parental Parenting and the Social Development of Children with Disabilities in SLBN Surade, Sukabumi Regency. *Journal of Health*, 10(2), 44–52. <https://doi.org/10.37048/kesehatan.v11i1.421>
- Candra, A. (2020). Pathophysiology of Stunting. *JNH (Journal of Nutrition and Health)*, 8(2), 2020. <https://doi.org/10.14710/jnh.8.2.2020.74-78>
- Centis, M. C. L., Trisnawati, R. E., Rosniyati, I., Dewi, & Paskalinda M. Y Bandur. (2024). The Influence of Parental Parenting on the Incidence of Stunting in Toddlers in Pong Murung Village. *MAHESA: Malahayati Health Student Journal*, 4(11), 1–23. <https://doi.org/10.33024/mahesa.v4i11.15470>
- Dai, M. Y. I., & Boro, V. I. A. (2024). Stunting Prevention Strategies Through Increasing Knowledge of Couples of Childbearing Age About the Dangers of Stunting in Oringbele Village, Witiham District, East Flores Regency. *AJAD : Journal of Community Service*, 4(2), 393–399. <https://doi.org/10.59431/ajad.v4i2.335>
- Daracantika, A., Ainin, & Besral. (2021). The Negative Effect of Stunting on Children's Cognitive Development. *Bikfokes*, 1(2), 124–135. <https://doi.org/10.7454/bikfokes.v1i2.1012>
- Deviyanti, N. W. S. (2022). *Overview of Knowledge, Attitudes and Behaviors of Mothers in Efforts to Prevent Stunting in Mengani Village [Thesis]*. Bali Institute of Technology and Health Denpasar.
- Diksha, G. N. A. S., Dewi, N. K. M. U., Prawista, G. A. M. H., Sujana, P. A. C., Mahotama, K. R. S., Setiawati, N. M. L. A., Swastika, K., & Pramesemara, G. N. (2024). Stunting education and child emergency first aid for PKK mothers in Kerta Mandala Village, Abang District, Karangasem Regency, Bali. *Digest of Medical Science*, 15(3), 1044–1047. <https://doi.org/10.15562/ism.v15i3.2144>
- Emelia, N., Sangkai, M. A., & Frisilia, M. (2023). The Relationship of Mother's Knowledge of the First 1000 Days of Life with the Incidence of Stunting in Toddlers at the Kereng Bangkirai Health Center, Palangka Raya City. *Journal of Medical Radiation*, 9(1), 165–174. <https://doi.org/10.33084/jsm.v9i1.5163>
- Febriani, A. (2024). Analysis of the Growth and Development of Children Aged 4 – 5 Years in the City of Pekanbaru. *Indonesian Health Scientific Journal*, 9(1), 100–108. <https://doi.org/10.51933/health.v9i1.1333>
- Fentaw, R., Bogale, A., & Abebaw, D. (2020). Prevalence of child malnutrition in agro-pastoral households in Afar Regional State of Ethiopia. *Nutrition Research and Practice*, 7(2), 122. <https://doi.org/10.4162/nrp.2013.7.2.122>
- Fesmia, H. L., Putri, L. L., Suryantini, N. K. M., & Nurhidayati, N. (2023). Nutrition in the First 1000 Days of Life (HPK) as the basis of cognitive development. *Unram Journal of Medicine*, 12(4), 351–357. <https://doi.org/10.29303/jk.v12i3.4524>
- Fitria, N. J., & Arifah, S. (2024). The relationship between the mother's level of knowledge and fever management behavior in toddlers. *Holistic Journal of Health*, 18(4), 502–508. <https://doi.org/10.33024/hjk.v18i4.151>
- Gasper, I. A. V., Yusni Ainurrahmah, & Wahyuningsih Triana Nugraheni. (2024). *Stunting Problems and Solutions*. PT Media Pustaka Indo.
- Ginting, K. P., & Pandiangan, A. (2019). Intelligence Level of Stunted Children. *Journal of Professional Nursing Research*, 1(1), 47–52. <https://doi.org/10.37287/jppp.v1i1.25>
- Herliana, I., Lestari, N. E., Solehudin, Koto, Y., & Lannasari. (2024). Education Regarding Balanced Nutritional Intake in Toddlers in Stunting Prevention. *Journal of Community Service*, 6(3), 171–178. <https://doi.org/10.37287/jpm.v6i3.4177>
- Hidayah, A. M., Wulandari, D., Putri, F. A., & Khotijah, S. (2025). Development in Children according to

- Santrock. *Early Childhood Journal*, 3(2), 88–101. <https://doi.org/10.30872/ecj.v3i2.4856>
- Hidayani, S. (2025). The Influence of Educational Video Media on Pregnant Women's Knowledge and Attitudes about 1000 HPK (First Day of Life). *Journal of Public Health*, 6(2), 416–425. <https://doi.org/10.33096/woph.v6i2.816>
- Jairani, E. N., Napitupulu, B. N., Suraya, R., Lestari, W., Yulita, Y., & Nababan, A. S. V. (2022). The Effect of Nutrition Counseling on Knowledge and Consumption Levels of Macronutrients and Micronutrients in Pulmonary Tuberculosis Patients at the UPT of the Pulmonary Special Hospital of North Sumatra Province. *Research Journal of Hesti Medan Akper Kesdam I/BB Medan*, 7(2), 138. <https://doi.org/10.34008/jurhesti.v7i2.278>
- Juniarti. (2025). Determinant Factors Influencing Stunting Prevention Behaviors Among Working Mothers In West Java Province, Indonesia: A Cross-sectional Study. *BMC Public Health*, 25(1), 3–11. <https://doi.org/10.1186/s12889-025-24078-0>
- Khoirunnisa, A., Kisnawaty, S. W., & Firmansyah, F. (2025). The Relationship between Mother's Knowledge and Attitude about the First 1000 Days of Life (HPK) with the Incidence of Stunting in Toddlers in the Giligan Health Center Area. *Domain Research: Journal of Multidisciplinary Research and Development*, 7(4), 2365–2372. <https://doi.org/10.38035/rj.v7i4.1625>
- Kigaru, D. M. D., Loechl, C., Moleah, T., & Ndungu, Z. W. (2020). Nutrition Knowledge, Attitude And Practices Among Urban Primary School Children In Nairobi City , Kenya : A KAP Study. *BMC Nutrition*, 1(44), 1–8. <https://doi.org/10.1186/s40795-015-0040-8>
- Maesarah, M., Adam, D., Hatta, H., Djafar, L., & Ka'aba, I. (2021). The Relationship between Diet and Exclusive Breastfeeding History and the Incidence of Stunting in Toddlers in Gorontalo Regency. *Al Gizzai: Public Health Nutrition Journal*, 1(1), 50–58. <https://doi.org/10.24252/algizzai.v1i1.19082>
- Majid, M., Meiresa, M., Amina, S., & Juwina, M. (2024). Increasing Knowledge and Awareness of Pregnant Women Through the 1000 HPK Flag for Stunting Prevention. *Nusantara Community Service Journal*, 1(1), 12–17. <https://doi.org/10.36982/jam.v9i2.5749>
- Mulyani, A. T., Khairinisa, M. A., Khatib, A., & Chaerunisaa, A. Y. (2025). Understanding Stunting: Impact, Causes, and Strategy to Accelerate Stunting Reduction—A Narrative Review. *Nutrients Journal*, 17(9), 3–29. <https://doi.org/10.3390/nu17091493>
- Munthe, W. S., Atika, R. A., & Candra, A. (2023). The relationship between maternal knowledge level and prevention efforts and stunting incidence. *Journal of Indonesian Public Health Media*, 22(5), 337–341. <https://doi.org/10.14710/mkmi.22.5.337-341>
- Muyassaroh, Y., & Fatmayanti, A. (2021). The Effect of the ATIKA Emo-Demo Game (Liver, Egg, Fish) on Knowledge, Attitudes and Behaviors of Anemia Prevention in Pregnant Women. *Journal of Nursing and Midwifery Sciences*, 12(2), 222. <https://doi.org/10.26751/jikk.v12i2.919>
- Noor, R. I., & Muniroh, L. (2023). The relationship between maternal perception and stunting incidence is based on the theory of health belief model. *Tambusai Health Journal*, 4(3), 4014–4017. <https://doi.org/10.31004/jkt.v4i3.18285>
- Noviani, D., Sugiri, Ahmad, R., Henny, C., Nursyamsiyah, Ariyanti, M., & Kusmiati, S. (2023). Maternal Behavior in Stunting Prevention. *Journal of Medical Towers*, 4(1), 29–35. <https://doi.org/10.34011/jkifn.v4i1.2166>
- Nur, M. L., Oematan, G., & Rina, Y. H. T. (2021). The Relationship between Nutritional Knowledge and Time Allocation of Housewives and the Parenting Style of Children Under Two Years of Age. *Journal of Pazih Pergizi Pangan DPD NTT*, 3(6), 1–15. <https://doi.org/10.51888/pazih.v10i1.130>
- Nursalam. (2020). *Nursing Science Research Methodology* (P. P. Lestari (ed.); 5th ed.). Medical Salon.
- Perdana, S. M., Reskiaddin, L. O., & Ningsih, V. R. (2023). Nutrition Education on Breastfeeding Success in the First 1000 Days of Life. *Journal of Community Health Salam (JSSM)*, 4(2), 29–36. <https://doi.org/10.22437/jssm.v4i2.26070>
- Driver. (2024). *The Relationship of Knowledge and Attitude at 1000 hpk [Thesis]*. Sultan Agung Islamic University, Semarang.
- Prasetyo, Y. B., Permatasari, P., & Susanti, H. D. (2023). The Effect of Mothers' Nutritional Education and Knowledge on Children's Nutritional Status : A Systematic Review. *International Journal of Child Care and Education Policy*, 17(11), 5–16. <https://doi.org/10.1186/s40723-023-00114-7>
- Prastiwi, R. S., Qudriani, M., Umriaty, & Nisa, J. (2023). Factors Causing Stunting of Obesity: Narrative Literature Review. *WOMB Midwifery Journal*, 2(2), 50–58. <https://doi.org/10.54832/wombmidj.v2i2.220>
- Puspasari, H., Nisa, I. C., & ... (2022). Increasing Stunting Knowledge as a Preventive Effort. *Journal of Health Community Service*, 1(2), 52–59. <https://doi.org/10.33258/birci.v5i4.7059>
- Puspitasari, B., & Herdyan, E. (2021). Overview of Knowledge of Mothers of Toddlers Aged 3-5 Years About Stunting. *Journal of Medical Towers*, 4(1), 89–96. <https://doi.org/10.31869/mm.v4i1.2775>
- Rahayu, A., Rahman, F., Marlinae, L., Husaini, Meitria, Yulidasari, F., Rosadi, D., & Laily, N. (2020). Nutrition Textbook The First 1000 Days of Life. In *CV Mine Publishers*. <http://kesmas.ulm.ac.id/id/wp-content/uploads/2019/02>

- Rahmadani, G., & Dari, S. W. (2025). The Effect of Nutrition Education on the Feeding Practice of Stunted Mothers Under Five Years Aged 6 – 59 Months in the Working Area of the Biaro Health Center, Agam Regency in 2024 Stikes Sehat Medan, Indonesia. *Journal of Public Health and Nutrition Sciences*, 3(1), 162–168. <https://doi.org/10.57213/antigen.v3i1.569>
- Robinson, B., & Rahman, S. (2022). Preventing Stunting in the First 1000 Days of Life in the Community of West Pasar Merah Village. *Jurnal.Umsu.Ac.Id/Index.Php/JIH*, 3(2), 84–87. <https://doi.org/10.30596/jph.v1i3.4943>
- Rohmandani, I. D., & Hermawati. (2024). The Relationship between MP-ASI Giving Knowledge and Nutrition-Conscious Family Behavior to the Incidence of Stunting in Children Aged 6-24 Months at the Polokarto Health Center. *Journal of Public Health*, 12(3), 216–218. <https://doi.org/10.14710/jkm.v12i3.41079>
- Rusnita, Khasanah, U., & Darlis, I. (2024). Community Empowerment in Stunting Prevention: Nutrition Education Program for Pregnant Women and Children Under Five. *Window of Community Dedication Journal*, 5(2), 40–47. <https://doi.org/10.406070/jph.v1i3490>
- Sahputri, J., Zara, N., Wahyuni, S., & Complimentary, E. (2021). The Relationship between Maternal Knowledge Level and Early MP-Breastfeeding Administration. *Journal of Medicine and Health*, 7(2), 50–61. <https://doi.org/10.29103/averrous.v7i2.5419>
- Salpina, Putri, D. A. J., Maisura, Rizki, S., & Aminah. (2023). Socialization of Stunting Risk Prevention through Child Growth and Development Monitoring. *BUDIMAS Journal*, 06(01), 1–23. <https://doi.org/10.3390/nu15194305>
- Sari, A. P., & Khadijah, S. (2025). The Influence of Knowledge, Attitudes, and Maternal Age on The Incidence of Stunting of Toddlers Aged 1-5 Years. *Journal of Obstetrics and Traditional Health*, 10(1), 66–73. <https://doi.org/10.37341/jkkt.v10i1.623>
- Sarni, S., Salma, W. O., & Fithria, F. (2024). Factors Related to the Incidence of Stunting in Toddlers Aged 6-59 Months in the Working Area of the Benu-Benua Health Center of Kendari City in 2024. *Journal of Medika Nusantara*, 2(4), 14–34. <https://doi.org/10.59680/medika.v2i4.1439>
- Setiyawati, M. E., Ardhiyanti, L. P., Hamid, E. N., Muliarta, N. A. T., & Raihanah, Y. J. (2024). Literature Study: The Situation and Handling of Stunting in Indonesia. *Journal of Social and Humanities*, 8(2), 179–186. <https://doi.org/10.37817/ikraith-humaniora.v8i2.3113>
- Simanjuntak, M., Yuliat, L. N., Rizkillah, R., & Maulidina, A. (2022). The Influence of Social Media Marketing-Based Community Nutrition Education Innovation on Knowledge, Attitudes, and Behaviors in Stunting Prevention Efforts. *Journal of Family and Consumer Sciences*, 15(2), 164–177. <https://doi.org/10.24156/jikk.2022.15.2.164>
- Sulistiwati. (2024). The Role of Nutrition in the Growth and Development of Toddlers. *Antigen: Journal of Public Health and Nutrition Sciences*, 2(2), 67–74. <https://doi.org/10.57213/antigen.v2i2.260>
- Suryawan, A. (2022). Malnutrition In Early Life And Its Neurodevelopmental And Cognitive Consequences : A Scoping Review. *Nutrition Research Reviews*, 3(5), 136–149. <https://doi.org/10.1017/S0954422421000159>
- Tendean, A. F., Ering, C. N., Sumolang, S., & Ponamon, J. F. (2025). The relationship between maternal knowledge and attitudes about the first 1000 days of life (HPK) and stunting prevention behavior. *Klabat Journal of Nursing*, 7(1), 46. <https://doi.org/10.37771/kjn.v7i1.1256>
- Tyaningsih, S., & Cahyaningrum, E. D. (2025). Education on Complementary Foods for Breastfeeding as an Effort to Prevent Stunting in Mothers of Toddlers Aged 6-24 Months. *Journal of Community Service*, 05(05), 853–862. <https://doi.org/10.56359/kolaborasi.v5i5.679>
- Wahyuti, M.Pariaribo, K., Rukayah, S., Iriani, R., Malaha, N., Fitria, R., & Suminar, S. (2023). Description of Growth and Development of Children Aged 1-3 Years with a History of Low Birth Weight Babies. *International Journal Of Health Sciences*, 1(1), 788–802. <https://doi.org/https://doi.org/10.59585/ijhs>
- Walther, E., Nagengast, B., & Trasselli, C. (2020). Evaluative conditioning in social psychology: Facts and speculations. *Cognition and Emotion*, 19(2), 175–196. <https://doi.org/10.1080/02699930441000274>
- Wanti, P. A. (2023). The Experience of Stunting Toddler Mothers Related to Perceived Barriers to Stunting Prevention Behavior. *Journal of Public Health*, 5(01), 168–175. <https://doi.org/10.34305/jmc>
- Widajantie, T. D., Yuhertiana, I., Wilasittha, A. A., & Putri, S. Y. (2025). Household Finance in Fulfilling Balanced Nutrition to Prevent Stunting. *Community Service*, 4(10), 263–270. <https://doi.org/10.28989/kacaneegara.v8i2.2583>
- Widiyanto, J., & Laia, F. S. (2021). Mother Knowledge of Nutrition and Effect on Nutritional Status of Children in Community Health Center. *Hospital Management Studies Journal*, 2(1), 2746–8798. <https://doi.org/10.1186/s40723-023-00114-7>
- Yunica, J. A., & Heryanti. (2023). The Relationship between Age and Education and Maternal Knowledge of Stunting in Toddlers. *Journal of Medical Masks*, 11(2), 473–479. <https://doi.org/10.52523/maskermedika.v11i2.599>