



The Relationship of Mother's Nutritional Knowledge and Feeding Patterns with Events Stunting in Toddler Ages 12-59 Months In the Working Area of Sijunjung Health Center

Irwadi^{1*}, Andre Utama Saputra², Yenni Elfira³

Universitas Baiturrahmah¹³

Universitas Kader Bangsa²

Corresponding Author: Irwadi irwadi@staff.unbrah.ac.id

ARTICLE INFO

Keywords: Toddlers, Nutrition, Maternal Knowledge, Feeding Patterns, Stunting

Received : 13, July

Revised : 7, August

Accepted: 18, September

©2023 Irwadi, Saputra, Elfira :

This is an open-access article distributed under the terms of the [Creative Commons Attribution 4.0 International](https://creativecommons.org/licenses/by/4.0/).



ABSTRACT

Indonesia is the third country with the highest prevalence in Southeast Asia with the number of stunting at 30.8% above the limit set by WHO, namely 20%. West Sumatra Province in 2021 the incidence of stunting was 25.6%. One area with a proportion of stunted toddlers is Sijunjung at 30.1%. The aim of this research is to determine the relationship between maternal knowledge about nutrition and feeding patterns and the incidence of stunting in toddlers aged 12-59 months in the Sijunjung health center working area. This research is a descriptive study with an analytical survey, and the design is cross sectional. The population of this study were all mothers with children under five who were in the working area of the Sijunjung Community Health Center. Purposive sampling was used to select 30 mothers and toddlers aged 12-59 months. This research uses a questionnaire as a research instrument. The research results show that there is a relationship between maternal nutritional knowledge and stunting with a p-value of $0.005 > 0.05$, and there is a relationship between feeding patterns and stunting with a p-value of $0.001 > 0.05$. And to the community health center.

INTRODUCTION

Stunting is a condition where a child experiences growth problems, which causes his height to be inappropriate for his age. This situation is a result of the problem of insufficient nutritional intake and poor food quality for a long time (Ministry of Health, 2018). This condition is measured by body length or height that is more than minus two standard deviations from the median child growth standard from WHO (Yankes.kemkes.go.id, 2022). Toddler *stunting* including chronic nutritional problems caused by many factors such as socio-economic conditions, maternal nutrition during pregnancy, pain in babies, and lack of nutritional intake in babies. Toddler *stunting* will experience difficulties in achieving optimal physical and cognitive development in the future (Alfarisi, Nurmallasari and Nabilla, 2019).

Prevalence *stunting* from the World Health Organization (WHO), Indonesia is the third country with the highest prevalence in the Southeast Asia region with the number of stunting among children under five in 2017 being 30.8% above the limit set by WHO, namely 20% (Ministry of Health of the Republic of Indonesia, 2018). Indonesia is a country with multiple nutritional problems, which can be seen from the high prevalence of stunting. Based on JME stunting data, UNICEF World Bank in 2020, stunting in Indonesia is in 115th position out of 151 countries in the world (WHO, 2020). Based on a report from the West Sumatra Provincial Health, (2021) the incidence of stunting in 2021 is 25.6%. And areas with a high proportion of toddlers *stunting* the largest in West Sumatra, namely in Solok 40.1%, Pasaman Regency 30.2% and Sijunjung 30.1%.

Toddlers or children who experience it *stunting* will have a level of intelligence that is not optimal, making children more vulnerable to disease and in the future could be at risk of decreasing levels of productivity. Ultimately broadly *stunting* will hamper economic growth, increase poverty and widen inequality (Rahayuet *al.*, 2018). *Stunting* has an impact on health problems, namely failure to thrive (low birth weight, small, thin and short), cognitive and motor obstacles, and in adulthood there is a risk of non-communicable diseases such as diabetes, obesity, stroke and heart disease. Stunting also has an impact on population growth, namely causing a decrease in human resource productivity (Yadika, Berawi and Nasution, 2019).

Nutritional problems are caused by direct and indirect factors. Direct factors that can cause nutritional problems are food consumption and infection status in toddlers, while indirect factors are food availability, parenting patterns, health services, environmental health and feeding patterns. This is related to the inappropriate type of food given to toddlers, and the amount the food intake provided is not in accordance with the needs of toddlers (Silvera Oktavia, Laksmi Widajanti, 2019).

Toddler feeding behavior is influenced by the mother's nutritional knowledge. Maternal nutritional knowledge is one of the factors that has a significant influence on the incidence of stunting. Maternal nutritional knowledge influences a person's food consumption. People who have good nutritional knowledge will have the ability to apply nutritional knowledge in

selecting and processing food so that food intake is more guaranteed and able to pay attention to good nutrition for children and their families (Arafatet *al.*, 2022). Research conducted by Amalia, Lubis, & Khoeriyah, (2021) on children under five shows that there is a relationship between parental knowledge about nutrition and the incidence of stunting. Meanwhile, research conducted by (Rahma Fauziah¹, Hj. Nurnasari P², 2020) Toddlers with a history of poor eating patterns have a higher risk of stunting than toddlers with a history of good eating patterns. Improper eating patterns can cause stunting in toddlers.

To solve the problem *stunting* is closely related to family awareness about nutrition and good feeding patterns. Families who are aware of good nutrition will have good nutritional status for their children (Mustika and Syamsul, 2018). Parents have an important role in fulfilling the nutrition of toddlers because toddlers still need special attention in their development, more specifically the role of parents as the figures who are most often with toddlers. If parents have good knowledge about stunting, they will be more active in detecting it early and preventing stunting.

Mother's knowledge can influence stunting prevention behavior so that the mother's role is very important in reducing the incidence of stunting. Mothers' knowledge regarding children's nutritional intake is an important factor in preventing stunting (Fitriani and Darmawi, 2022).

METHODOLOGY

The research design use *scross sectional study*, This study aims to determine the relationship between the independent variables (mother's nutritional knowledge and feeding patterns) and the dependent variable (stunting prevention). The samples in this study were mothers and toddlers aged 12-59 months years who visited the Sejunjung Community Health Center working area, totaling 30 respondents. The sampling technique is carried out by: *Accidental Sampling*. The researcher has determined the sample criteria as follows: Inclusion criteria in this study are: a. children who are raised by their mothers alone b. Mother who is willing to be a respondent c. toddlers aged 12-59 months. Exclusion Criteria Researchers determined the exclusion criteria in this study were: a. Children with comorbidities such as diarrhea b. Children who experience disorders such as autism and mental retardation c. Children who have certain food allergies d. Mother who was not willing to be a respondent. This research collected data using a questionnaire to obtain validity and reliability test result *salpha cronbach* knowledge (0.834), and feeding patterns (0.828) then the instrument is reliable, data processing uses the *chi-square*.

RESEARCH RESULT

The following are the results of research conducted in the working area of the Sijunjung Community Health Center. This description consists of univariate and bivariate analyzes which explain the characteristics and variables related to maternal nutritional knowledge, feeding patterns and the relationship between maternal nutritional knowledge and feeding patterns and the incidence of stunting.

Table 1. Frequency Distribution of Knowledge variables, Feeding Patterns, and Stunting Incidents with number of respondents (n=30)

| Variable distribution | F | % |
|-------------------------------------|----|------|
| Maternal Nutrition Knowledge | | |
| Good 76-100% | 13 | 43,3 |
| Fair: 56-75% | 9 | 30,0 |
| Less : <56% | 8 | 26,7 |
| Feeding Patterns | | |
| 30 100% | | |
| Exact: >55 % | 14 | 46,7 |
| Inaccurate: <55 % | 16 | 53,3 |
| Stunting events | | |
| 30 100% | | |
| Not Stunting | 17 | 56,7 |
| Stunt | 13 | 43,3 |
| Amount | 30 | 100% |

Table 1 shows that the total level of nutritional knowledge of mothers is almost 13 (43.3%), while 9 people (30.0%) have sufficient nutritional knowledge and 8 people (26.7%) have poor nutritional knowledge. While the feeding pattern of most respondents was incorrect 16 (53.3%) and the feeding pattern was correct 14 (46.7%), and the majority of toddlers did not experience stunting as many as 17 (56.7%), while toddlers who experienced stunting incidence 13 (43.3%).

Tabel 2. Relationship between maternal nutritional knowledge and feeding patterns and eventsian Stuntingn (n=30)

| Variable | Stunting events | | | | % | P Value |
|-------------------------------------|-----------------|-------|----------|-------|------|---------|
| | Not Stunting | % | Stunting | % | | |
| Maternal Nutrition Knowledge | | | | | | |
| Good 76-100% | 11 | 84,6% | 2 | 15,4% | 100% | 0.005 |
| Fair: 56-75% | 5 | 55,6% | 4 | 44,4% | 100% | |
| Less : <56% | 1 | 12,5% | 7 | 87,5% | 100% | |
| Feeding Patterns | | | | | | |
| Exact: >55 % | 13 | 92,9% | 1 | 7,1% | 100% | 0.000 |
| Inaccurate: <55 % | 4 | 25,0% | 12 | 75,0% | 100% | |

Table 2 shows that the level of maternal knowledge is good, the incidence of stunting is not 11 under five (84,6%) who experienced stunting of 2 toddlers (15,4%), while the mother's knowledge is sufficient, the incidence of stunting is not 5 toddlers (55,6%), who experienced stunting of 4 toddlers (44,4%), and lack of knowledge, the incidence of non-stunting is only 1 toddler (12,5%), who experienced stunting of 7 toddlers (87,5%), the statistical test results obtained

were 0.005 (p value < 0.05), meaning that there was a relationship between maternal nutritional knowledge and the incidence of stunting in toddlers aged 12-59 months. Meanwhile, with proper feeding patterns, the incidence of stunting is 13 under five (92,9%), who experienced stunting was only 1 toddler (7,1%), while in inappropriate feeding patterns the incidence of stunting is 4 under five (25,0%), and those experiencing stunting were 12 toddlers (75,0%), the statistical test results obtained were 0.000 (p value < 0.05), meaning that there is a relationship between feeding patterns and the incidence of stunting in toddlers aged 12-59 months.

DISCUSSION

Univariate Variables

Maternal Nutritional Knowledge

From table 1, it shows that almost all of the mothers' knowledge levels were good, as many as 13 people (43.3%), while 9 people (30.0%) had sufficient nutritional knowledge and 8 people (26.7%) had poor nutritional knowledge. Maternal nutritional knowledge is one of the factors that determines a person's food consumption. People who have good nutritional knowledge will have the ability to apply nutritional knowledge in selecting and processing food so that it can be hoped that their food intake will be more guaranteed, both in using household income allocation to choose good food and being able to pay attention to good nutrition for children and their families (Gibney, 2008)

Poor maternal nutritional knowledge is influenced by several factors including educational factors, and the mother's lack of concern or lack of desire to know about nutrition, so this will have an impact on the growth and development of her toddler who will experience growth disorders such as stunting (Septikasari, 2018). As the results of filling out the questionnaire were 56.6%, there are still many mothers who do not understand the importance of colostrum and the importance of giving exclusive breast milk to babies, which based on research there are still many mothers who do not give exclusive breast milk to babies for various reasons, including insufficient breast milk, and babies who do not want to breastfeed (Ministry of Health of the Republic of Indonesia, 2012).

Based on research by Ariyidah et al (2015), stated that breastfeeding status is also a risk factor for stunting, the lack of exclusive breastfeeding is one of the triggers for stunting in children under five which is caused by past events and will have an impact on the future of children under five, on the contrary good breastfeeding by mothers will help maintain children's nutritional balance so that normal child growth is achieved (Aridiyah, 2015)

By giving exclusive breast milk to children, they will provide colostrum produced during pregnancy which is rich in high protein, vitamins, minerals and as antibodies to children. This is one way to prevent stunting (Ministry of Health of the Republic of Indonesia, 2012). The results of this research are in accordance with theory. which states that breast milk is the only and most perfect ideal food for babies to meet the physical and psychological needs of those who are growing and developing. (Indonesian Ministry of Health, 2014)

One very important factor in increasing knowledge is the method of delivering information that is tailored to the needs of the target using appropriate health promotion media (Jatmika *et al.*, 2019). Health promotion media are all means or efforts to display messages or information that the communicator wants to convey, whether through print or electronic media (television, radio, computer, etc.) (Irwadi, 2022). And outdoor media, so that it can increase knowledge and change a person's behavior towards health (Jaya and Mahendra, 2019) (Irwadi, Elfira and Rahmaddian, 2022). Apart from that, the government is improving toddler nutrition by increasing knowledge related to nutrition, one of which is through nutrition education, namely in the form of nutrition counseling and education. Nutrition education is provided not only to health workers, but also disseminated to the wider community (Furi Kamalia Fitriani, 2015).

Based on the results of the presentation above, mothers' knowledge of nutrition is very important in preventing stunting, so there is a need for the government to play a role in providing monthly education and counseling regarding nutrition as a form of effort. *promotiv* and *preventive* which can be done directly or through the current mass media which are widely used by mothers, such as *instagram*, *facebook*, *WhatsApp* etc., as well as carrying out exclusive breastfeeding movements for mothers. In this study, nutritional knowledge was mostly good, namely (43.3%). Maternal nutritional knowledge is good because of the mother. Mothers are quite active in *posyandu* activities, so mothers of toddlers often receive information in the form of counseling about infant/toddler nutrition.

Based on table 1, the feeding patterns of most respondents were 16 (53.3%) incorrect and 14 (46.7%) were correct. The right feeding pattern is a feeding pattern that suits the type of food, amount of food and the child's eating schedule. These results found that the majority of respondents had not provided an appropriate diet for stunted children in the short category. This research is in line with the results of research by Priyono *et al* (2015). He found that the nutritional status of stunted toddlers is an accumulation of previous eating habits, so that feeding patterns on certain days cannot directly affect their nutritional status. The key to success in fulfilling children's nutrition lies in the mother. Good eating habits really depend on the mother's knowledge and skills in how to prepare food that meets nutritional requirements (Subarkah, Nursalam and Rachmawati, 2016).

A good feeding pattern for children is to provide food that meets the child's nutritional needs, such as energy sources found in rice, tubers and so on. Sources of building blocks are fish, meat, eggs, milk, nuts and regulatory substances such as vegetables and fruit, especially green and yellow vegetables, which contain lots of vitamins and minerals which have an impact on the baby's growth and development process, especially so that babies avoid nutritional problems, one of which has an impact. on stunting. The baby's diet must be appropriate to the baby's age. At the age of 0-6 months babies are given only breast milk, at the age of 6-8 months the baby is not only given breast milk but is also given soft food, at the age of 9-11 months the baby is still given breast milk and

soft food and at the end of 12-23 months the baby is not Those who are breastfed are also allowed to eat family food (Indonesian Ministry of Health, 2012).

A good diet will make it easier to meet nutritional needs and the ability to manage healthy food for toddlers is very important. Food that can meet the nutritional standards of toddlers must have a balanced diet, meaning that the food must have the right portions, not be excessive and adapted to the needs of the toddler's body. Food that meets the balanced nutritional menu for toddlers if the food menu consists of food groups that are sources of energy, building blocks, regulatory substances (Ministry of Health of the Republic of Indonesia, 2014). Based on the results of the explanation above, if there is a good feeding pattern, stunting will not occur and giving an inappropriate diet will cause stunting in children. This is because of the role of the family Mothers, in particular, have a very important role related to feeding patterns in providing food to their children according to their age and maintaining the nutritional quality of the toddler's food. So the government's role is to always provide nutritional education and carry out demonstrations on making complementary foods and appropriate feeding patterns.

Stunting events

Based on table 1, the majority of toddlers did not experience stunting, 17 (56.7%), while 13 (43.3%) toddlers experienced stunting. By looking at these results, many toddlers have a height below normal, namely close to 50%. When compared with the national prevalence of stunting in 2013, this result is quite large, because the prevalence of stunting in 2013 was only 37.2%. Factors that influence children's growth include socio-economic factors, namely education, employment, technology, culture and family income. These factors will interact with each other so that they can influence nutritional intake and infections in children (Septikasari, 2018). The consequences of these nutritional problems can cause several serious effects on toddlers such as suboptimal development and intelligence, and showing poorer abilities in various cognitive functions and worse school performance when compared to children of normal stature (Gibney, 2008)

Several studies show that children who experience stunting during their toddler years have low cognitive levels, poor learning and psychosocial achievement (Rahayuet *al.*, 2018). In the first thousand days of life, namely 270 days of pregnancy and the first 730 days (2 years) of life in the world, this is an irreversible period. So, if an individual after 1000 days of life has experienced stunting, it can be predicted that the individual will remain stunted in the future due to difficulty in achieving normal growth (Ministry of Health of the Republic of Indonesia, 2018)

However, the incidence of nutritional problems in toddlers can be avoided if mothers of toddlers pay attention to their nutritional intake during pregnancy, exclusively breastfeed since the baby is born and have sufficient knowledge about how to feed and manage toddlers' food well. And also providing nutritional education to mothers of babies/toddlers in the form of nutritional counseling and counseling regarding balanced nutrition for toddlers. A mother's lack of

knowledge about nutrition can result in nutritional disorders in toddlers. So that parents' knowledge about nutrition is one of the keys to success, whether the nutritional status of toddlers is good or bad (Septikasari, 2018).

Based on a report from the West Sumatra Provincial Health Office, (2021) the incidence of stunting in 2021 is 25.6%. This figure is quite high in the West Sumatra region, while the largest proportion of stunted toddlers is in West Sumatra, namely in Solok 40.1%, Pasaman Regency 30.2% and Sijunjung 30.1%. Based on the results of the explanation above by looking at the prevalence of stunting in West Sumatra Province, there are several things and efforts that the government or the community can take to reduce the prevalence of stunting, including by increasing community participation, especially mothers who have babies/toddlers, by frequently visiting community health centers or other health institutions, as well as facilitating access both in terms of providing health insurance and the distance of health facilities to people's living areas, especially people who live far from access to health services. As well as always providing nutritional education to the community, including counseling, nutritional counseling through the media, or conducting demonstrations on making complementary breast milk food for mothers of toddlers. Apart from providing understanding or increasing mothers' knowledge about nutrition and how to provide food to toddlers, this effort is also quite effective in overcoming nutritional status problems in toddlers.

Bivariate Variables

The Relationship Between Maternal Nutritional Knowledge And The Incidence Of Stunting In Toddlers Aged 12-59 Months

The results of this study show that of the 30 respondents, the level of maternal knowledge was good, the incidence of not being stunted was 11 toddlers (84.6%), of which 2 toddlers were stunted (15.4%), while the mother's knowledge was sufficient, the incidence of not stunting was 5 toddlers (55, 6%), 4 toddlers experienced stunting (44.4%), and lack of knowledge, the incidence of non-stunting was only 1 toddler (12.5%), 7 toddlers experienced stunting (87.5%), the statistical test results obtained were 0.005 (p value < 0.05) means that there is a relationship between maternal nutritional knowledge and the incidence of stunting in toddlers aged 12-59 months. In line with research conducted by Nasikhah and Margawati (2012), one of the variables related to the incidence of stunting was the mother's knowledge about nutrition. Respondents who have poor knowledge about nutrition (58.1%) experience child stunting, while respondents who have good knowledge about nutrition (41.9%) experience child stunting 6. As well as explaining that mothers of toddlers who have less knowledge about toddler nutrition are at risk. It is greater for children under five to experience stunting than mothers of toddlers who have good knowledge about toddler nutrition (Nasikhah and Margawati, 2012).

In line with Research by Khoirun and Nadhiroh (2015) found that the level of maternal knowledge about nutrition was related to stunting and mothers who had low knowledge about nutrition had a risk of experiencing stunting compared to mothers who had good knowledge about nutrition (Zurhayati and Hidayah, 2022).

Inadequate nutritional intake in children can result in disruption of the child's growth and development, even if this condition is not handled properly, the risk of child illness and death will increase. Not having enough nutrients in the child's body can affect the immune system. A weak immune system makes children more susceptible to infectious diseases from the surrounding environment, especially in environments with poor sanitation or from other children or adults who are sick (Septikasari, 2018)

Nutritional problems in children are caused by various causes, one of which is the result of consuming food that is not in accordance with the child's needs. Nutritional knowledge is a very influential thing for children, apart from that, mothers have a big role in the progress of their toddlers' growth and development through proper stimulation and child care, and arranging a balanced nutritional intake pattern for their toddlers. Parents' knowledge about nutrition helps improve the nutritional status of children. to reach growth maturity (Rahayuet *al.*, 2018). Judging from education, in this study almost the majority of mothers who had good knowledge about toddler nutrition had secondary education. The higher a person's level of education, the higher a person's ability to capture information that can increase knowledge. Higher education makes a mother more able to think rationally about the importance of balanced nutritional intake for the growth and development of her toddler (Murti, Budiani and Darmapatni, 2020).

Based on the description above, the researcher concludes that the mother's lack of nutritional knowledge can be one of the determinants of the nutritional status of toddlers because it determines the mother's attitude or behavior in choosing food to be consumed by toddlers. Mothers who have less nutritional knowledge for toddlers tend to provide less nutritional intake for their children, which will result in their children experiencing nutritional problems such as child stunting. Mothers with good knowledge of their children do not experience stunting, namely the possibility of good parenting carried out by mothers who know the balanced nutritional needs of their toddlers, and sources of information obtained from posyandu and mass media.

Relationship between feeding patterns and the incidence of stunting in toddlers aged 12-59 months

The results of this study show that of the 30 respondents with proper feeding patterns, the incidence of stunting was 13 toddlers (92.9%), only 1 toddler experienced stunting (7.1%), while with inappropriate feeding patterns the incidence was 4 toddlers (25.0%) were not stunted, and 12 toddlers (75.0%) were stunted. The statistical test results obtained were 0.000 (p value < 0.05), meaning there is a relationship between feeding patterns and the incidence of stunting in toddlers. aged 12-59 months. In line with research conducted by Pujiati (2021), with appropriate feeding patterns the incidence of non-stunting was 19 toddlers (63.3%), only 11 toddlers (36.%) experienced stunting, while with inappropriate feeding patterns the figure The incidence of stunting was 8 toddlers (26.6%), and 22 toddlers were stunted (73.4%), the statistical test results obtained were 0.000 (p

value < 0.05). The correct feeding pattern is a feeding pattern that is in accordance with type of food, amount of food and child's eating schedule. Based on this research, the majority of respondents have implemented appropriate feeding patterns (Pujiati, Nirnasari and Rozalita, 2021).

Nutritional status of toddlers *stunting* is an accumulation of previous eating habits, so that feeding patterns on a particular day cannot directly affect nutritional status. The key to success in fulfilling children's nutrition lies with the mother. Good eating habits really depend on the mother's knowledge and skills in how to prepare food that meets nutritional requirements (Septikasari, 2018). Child considered to be at greatest risk of malnutrition because inappropriate feeding patterns will impact growth and development. Adequate and balanced nutrition can be achieved by paying attention to feeding patterns which aim to obtain the nutritional intake needed by children. This is aimed at maintaining and restoring children's health through the food (substances) in the food they consume which greatly influence their health through the food their parents provide (Ministry of Health of the Republic of Indonesia, 2012).

The type of food consumed also greatly determines a child's nutritional status. This is because toddlers are a nutritionally vulnerable group so the type of food given must be in accordance with the child's body needs and digestive capacity. Types of food that are more varied and have sufficient nutritional value are very important to avoid children lacking nutritional nutrients. Good feeding patterns must be implemented from an early age by providing a variety of foods and providing information to children about good eating times. In this way, children will get used to healthy eating patterns (Indonesian Ministry of Health, 2014). According to researchers, every mother needs to learn to provide nutritious food at home starting from various types of food in quantities that suit the needs of each individual in the household. Uncontrolled consumption patterns of toddlers, such as excessive snacking habits, must be watched out for by parents, especially mothers. The ideal feeding schedule is three main meals and two nutritious snacks to complete a balanced nutritional composition in a day that is not yet fulfilled in the main meal.

Based on the description above, researchers also found several facts from respondents regarding toddler feeding patterns *stunting* who feel the need for nutritional consultation and assistance. Some toddlers are used to consuming only rice and vegetable soup, then there are toddlers who only like to eat porridge because they have difficulty eating even when they are over 2 years old, and the food processing is less varied than mothers of toddlers who prefer to buy more practical food. So there is a need for activities that not only provide nutritional education but provide demonstrations of making complementary foods as well as appropriate feeding patterns according to the child's age so that mothers can implement them at home.

CONCLUSIONS AND RECOMMENDATIONS

Based on the research results, it can be concluded that there is a relationship between the knowledge of maternal nutritional knowledge and feeding patterns and the incidence of *stunting* with a p value < 0.05 . For Community health centers can improve the programs that have been

implemented, increasing information related to *stunting* as well as conducting training on food processing with balanced nutrition and forming cadres in each working area of the Sijunjung Community Health Center who have been trained. Evaluation of treatment programs *stunting* must be carried out periodically to ensure that the program implemented has the right activities and is on target. Community Health Center officers, especially midwives and nutrition officers, must actively meet with the community to provide information about appropriate feeding patterns to parents, especially mothers with toddlers *stunting*.

ADVANCED RESEARCH

In this study, it was only limited to knowing the description of several risk factors for *stunting*, no analysis was carried out regarding the risk factors for *stunting*, and there were still other risk factors that had not been observed. There were difficulties in finding respondents when visiting from house to house

Future researchers who are interested in researching *stunting* can conducting research on risk factors for *stunting* and using other nutritional measurement tools such as: anthropometry, clinical, biochemistry.

ACKNOWLEDGMENT

Acknowledgments include appreciation given by the author to parties who have played a role in the research, both in the form of financial support, permits, consultants, and assistance in data collection. Thank you to Baiturrahma University for funding as well as the heads of departments and the Sejunjung Community Health Center who also accepted and facilitated the process of carrying out this research to completion.

REFERENCES

- Alfarisi, R., Nurmalasari, Y. and Nabilla, S. (2019) 'Nutritional Status of Pregnant Women Can Cause Stunting in Toddlers', *Malahayati Midwifery Journal*, 5(3), pp. 271-278. doi: 10.33024/jkm.v5i3.1404.
- Arafat, A. et al. (2022) 'The relationship between knowledge and eating patterns and the incidence of stunting among toddlers in the working area of the Sangurara Health Center, Palu City', *Collaborative Journal of Science*, 5(September), pp. 618-626.
- Aridiyah, F. O. (2015) 'Factors Affecting Stunting on Toddlers in Rural and Urban Areas', *Journal of Health Literature*, 3. doi: 10.1007/s11746-013-2339-4.
- West Sumatra Provincial Health Office (2021) *West Sumatra Provincial Health Service Performance Report*, West Sumatra Province Health Office.
- Fitriani, F. and Darmawi, D. (2022) 'Relationship of Mother's Knowledge and Attitudes with Stunting Incidents in Toddlers in Arongan Village, Kuala Pesisir District, Nagan Raya Regency', *Jurnal Biology Education*, 10(1), pp. 23-32. doi: 10.32672/jbe.v10i1.4114.

- Furi Kamalia Fitriani (2015) *The Influence of Nutrition Feedback Sheet Media Counseling on Increasing the Knowledge of Mothers of Toddlers with Malnutrition at the Pamulang Community Health Center, South Tangerang*.
- Gibney, M. . (2008) *Nutritional status*, Jakarta: EGC.
- Irwadi (2022) Health Education Using Audiovisual Media and Leaflet Media Simultaneously Increases the Knowledge, Attitudes and Actions of Elderly Caregivers in Preventing Covid-19 Infection, *Journal of Nursing*, 14, pp. 923-932.
- Irwadi, Elfira, Y. and Rahmaddian, T. (2022) The Influence of Health Education Using Audio Visual Media on Knowledge of Elderly Caregivers in Preventing Covid-19 Infection, *Health Journal*, 11(3).
- Jatmika, S. E. D. et al. (2019) *Textbook for Health Promotion Media Development, K-Media*. Jaya, I. M. M. and Mahendra, D. (2019) *HEALTH PROMOTION TEXTBOOK*. Jakarta.
- Ministry of Health (2018) *Getting to Know Stunting and Malnutrition. Causes, Symptoms, and Prevention, Indonesian Ministry of Health*. Available at: <https://promkes.kemkes.go.id/?p=8486> (Accessed: 29 October 2022).
- Indonesian Ministry of Health (2018) 'Preventing Stunting, It's Important.', *Data and Information Center, Indonesian Ministry of Health*, pp. 1-27. Available at: <https://www.kemkes.go.id/>.
- Indonesian Ministry of Health (2012) *Baby Food*. Jakarta.
- Indonesian Ministry of Health (2014) *GUIDELINES FOR BALANCED NUTRITION, Indonesian Ministry of Health*.
- Murti, L. M., Budiani, N. N. and Darmapatni, M. W. G. (2020) 'The relationship between maternal knowledge about toddler nutrition and the incidence of stunting in children aged 36-59 months in Singakerta Village, Gianyar Regency', *Midwifery Scientific Journal*, 8, pp. 63-69. Available at: <http://repository.poltekkes denpasar.ac.id/1080/3/BABII.pdf>.
- Mustika, W. and Syamsul, D. (2018) 'Analysis of the Problem of Malnutrition Status of Toddlers at the Teupah Selatan Community Health Center, Simeuleu Regency', *Journal of Global Health*, 1(3), p. 127. doi: 10.33085/jkg.v1i3.3952.
- Nasikhah, R. and Margawati, A. (2012) 'The highest prevalence of stunting in Central Java is in East Semarang District', *Journal of Nutrition College*, 1(1), pp. 176-184. Available at: ejournal-s1.undip.ac.id.
- Pujiati, W., Nirnasari, M. and Rozalita (2021) 'Feeding Patterns with Incidence of Stunting in Children Aged 1-36 Months', *Menara Medika Journal*, 4(1), pp. 29-35.
- Rahayu, A. et al. (2018) *Study Guide - Stunting and Prevention Efforts, Book on stunting and efforts to prevent it*.
- Gani, A. Health Education for Breast Cancer Prevention Program (regarding knowledge, attitudes and actions of adolescents). Adab Publishers.
- Afdhal, N. F., & Ariani, M. K. N. Y. COMMUNITY NURSING LAB PRACTICE TEXTBOOK II. Adab Publishers.
- Ariyani, N. Y., Saputra, M. K. N. A. U., Kep, M., & Adab, P. Family Nursing Lab Practice Textbook. Adab Publishers.