

How Pregnant Women Perceive Stunting as a Problem for Their Children: A Qualitative Study

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ABSTRACT

OBJECTIVE: To explore the perception of pregnant women on stunting.

METHODOLOGY: Focus Group Discussion (FGD) with 14 pregnant women was used for data collection in Aceh, Indonesia. Data analysis was carried out using the Inductive Content Analysis (ICA).

RESULTS: This study found six themes: 1. Perceptions of pregnant women about stunting, 2. Coping responses of pregnant women regarding stunting, 3. Efforts to prevent stunting, 4. Support system in preventing stunting, 5. Role of health workers in preventing stunting, 6. local food sources to prevent stunting.

CONCLUSION: The perception of pregnant women about stunting was influenced by various factors, including the level of knowledge, values, beliefs, and experience in taking care of children. Health workers and family support, especially husbands, are crucial in increasing the understanding and fulfillment of nutrition for pregnant women. Local food has high nutritional value to meet the nutrition needs of pregnant women, so it is an alternative solution to prevent stunting.

KEYWORDS: Perception, Pregnant women, Stunting

INTRODUCTION

Stunting is a reduced growth rate among children under five due to chronic malnutrition, especially in the first 1,000 days of life. This condition is caused by a lack of nutritional intake for a long time and repeated infections. These two factors are influenced by inadequate parenting and psychosocial simulation, especially during the first 1000 days of a child's life. A child is classified as stunted if the length or height according to Age is lower than the applicable national standard. The standard is in the Maternal and Child Health Book and several other documents¹. The first 1000 days of life, from pregnancy to the child's second birthday, is a crisis for children's growth and development. Nutritional and health disorders during this period hurt physical and cognitive development among children, with the potential for lifelong health problems and even economic disorders².

Various research found the importance of nutritional status among pregnant women from conception and during pregnancy, both for the mother's health and the growth and development of the fetus. Every year, there are 32 million babies born in the small-for-

gestational-age (SGA) category or babies born small, not according to gestational Age. Fetal growth disorders cause more than 800 thousand neonatal deaths every year, and 25% are the cause of newborn deaths. Malnutrition that causes impaired fetal growth, inadequate breastfeeding, stunting, wasting, vitamin A and zinc deficiency causes 45% of children's deaths under five years old, representing 3 million child deaths every year. Neonates with impaired growth during pregnancy increase the risk of stunting at 24 months old and cause several non-communicable diseases in adulthood. Fulfilling adequate nutrition in early life is essential to achieving children's developmental potential. In addition, detection and simulation of growth and development are also things that must be done for optimal development according to the child's milestones at age³.

Nutritional intervention during pregnancy effectively increases normal birth weight and good growth in children at an early age. Provision of additional food and micronutrients during pregnancy can reduce the incidence of low birth weight for babies (LBW). So, community-based interventions must be developed effectively and support the WHO and UNICEF programs in tackling the stunting problem worldwide. The results of a systematic review stated that complementary food education and counselling positively impacted children's growth under two years old⁴. Research conducted in Bangladesh showed that nutritional interventions carried out for three months significantly increased the height of toddlers⁵.

Pregnant women are priority targets because the basic foundation of stunting problems starts in the womb, and this condition will cause depression of immune function, metabolic changes, decreased

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doi: 10.22442/jlumhs.2024.01125



motor development, low cognitive scores, and low academic scores^{6,7}. One of the factors that influences the incidence of stunting is perception. Mothers with stunted children have wrong knowledge and perceptions about stunting⁸. The phenomenon found in Aceh Besar is that there are still pregnant women who perceive stunting as something normal and not a growth problem, so there is no need to worry. The perception of mothers of toddlers about stunting is that children fail to grow, are short, and are less active than other normal children. Mothers of toddlers perceive stunting as tending to physical signs, which include the child looking small and having slow growth, with the characteristics of a short body, thin, weak, and malnourished. However, they do not yet understand how to understand the characteristics and signs of stunting in children⁹. Therefore, it is necessary to have a good understanding of the conditions and methods in preventing stunting among pregnant women, which in addition also requires a support system, especially the husband.

METHODOLOGY

Study Design

The study was designed with a phenomenology approach with Focus Group Discussions (FGDs) to explore the perception of pregnant women about stunting during pregnancy in Aceh Besar District, Aceh, Indonesia.

Population and Sample

The FGDs were conducted in 2 group sessions involving 14 pregnant women. Participants were selected using a purposive sampling technique. The inclusion criteria included pregnant women with a minimum gestational age of ten weeks and at least one antenatal care visit. Exclusion criteria were pregnant women with complications. The local midwife preferences were taken into account when recruiting the samples.

Instrument

The first author conducted the FGDs. Participants' Demographic data collected in this study were Age, education level, gravida, family form, health services used, and gestational Age. Two external reviewers reviewed the semi-structured questions used in the discussion. Participants were asked about their knowledge about stunting, how to prevent it, the support provided during pregnancy, and the foods often consumed.

Data Collection

Data collection was carried out using methods FGDs of 14 pregnant women. Data was collected at one of the Aceh Besar working areas in community health centres. The FGDs were conducted for 90 minutes. Interviews were conducted by the primary researcher, who has experience in qualitative research and is a specialist maternity nurse and lecturer. The observers consisted of 2 lecturers in the field of maternity nursing expertise. The first observer is tasked with ensuring that the tape recorder functions well during

the FGDs, and the other observer is tasked with controlling time and recording participants' conditions. An interviewer assisted with the data collection process, and the question guide provided and reviewed previously was used. The focus group discussion process was recorded with a voice recorder, and a transcript of the interview was produced. A tape recorder and notebook were used to collect all data during the FGDs. The FGDs guide is written in Indonesian. The FGDs were conducted in a place that had been set. So, environmental factors did not disturb the participants' concentration, and they were not allowed to bring children during the FGD. As a result, the FGD in Acehnese was translated entirely into Indonesian.

Data Analysis

Data analysis begins with member checking. Member checking (checking data) was done by involving participants to increase the data's credibility. Participants provided feedback on the data's analysis, categorization, interpretation, and conclusion. Participants provided input on the analyzed data and then understood it by condensing it. A crosscheck was conducted to achieve data certainty on one colleague from the Faculty of Health Sciences, Universitas Gadjah Mada and two colleagues from the Faculty of Nursing, Universitas Syiah Kuala. All colleagues are experts in qualitative research. The transcripts were read repeatedly by experts and researchers to gain a thorough understanding. Then, the data was fragmented into meaningful units and labelled according to the code. The results of the verbal interviews were then evaluated, coded, and analyzed manually using the Inductive Content Analysis (ICA) method¹⁰. The data analysis method with an inductive approach is a method that groups data from specific to general, so the collection of statements that was collected would be combined into a general statement/theme¹¹.

Next, the researchers analyzed the data found and developed it in the form of codes, subcategories, categories, and themes. The transcript was read several times to understand the context. Then, the main themes and categories were developed based on the research objectives that could answer the research question¹².

Ethical Statement

This research was approved by the Ethics Committee of Nursing Faculty, Universitas Syiah Kuala, Banda Aceh, No. 113001100522.

All participants provided written informed consent for the interview and explained the purpose of the study and its benefits. Participants were also assured that the information they provided would be kept confidential.

RESULTS

Demographic information of participants is shown in **Table I**. Most participants were 20-35 years old (85.72%). Participants with an education level in the

middle category were 71.43%, and 57.14% were multigravida. Furthermore, some participants lived with extended family (64.29%), most of the participants visited the Public Health Centre for antenatal care (85.71%) and 57.14% were in the second trimester of pregnancy when this study was conducted.

Table I: Demographic of Participants

Characteristics	Frequency	Percentage
Age		
< 20 years old	1	7.14%
20-35 years old	12	85.72 %
> 35 years old	1	7.14 %
Educational Level		
Low	3	21.43 %
Middle	10	71.43 %
High	1	7.14 %
Gravida		
Primigravida	4	28.58 %
Multigravida	8	57.14 %
Grandmultigravida	2	14.28 %
Family Form		
Main family	9	64.29 %
Extended family	5	35.71 %
Health services used		
Hospital	0	0 %
Public Health Center	12	85.71 %
Doctor/Midwife	2	14.29 %
Gestational Age		
1 st Trimester	3	21.43 %
2 nd Trimester	8	57.14 %
3 rd Trimester	3	21.43 %

The results of the FGD data analysis identified six main themes related to pregnant women's perception of stunting. **Table II** presents the data analysis process, described as follows.

Perceptions of pregnant women about stunting

Perceptions about stunting can be seen in the results of group discussions of pregnant women who, in general, have heard about stunting. They also had an opinion about the term stunting, although it is still general. This study showed that pregnant women had a perception that stunting is an unbalanced nutritional condition in children so that their growth and development are not per Age.

"The condition of a child which his development or growth is not per his age, some grow shorter because he does not eat enough food so that his growth and development is not appropriate (Participant R)."

In addition to perceptions about the definition of stunting, pregnant women also perceived that stunting conditions can be caused by food intake that is not per the child's needs.

"Children can be stunted if they have unbalanced nutrition; they don't eat much (Participant S)."

Coping responses of pregnant women regarding stunting

Various coping responses shown by pregnant women related to stunting were things that were influenced by perception. The beliefs and values among the community also influenced this. For example, some pregnant women were not worried if their child had a short height because it was a gift from Allah and there were no short offspring in their family.

"I'm not afraid of short children. It's because nobody is short in our family (Participant L)."

"I also worry if my child is short and not as smart as other children. But if it's like that, I believe that is God's gift (Participant R)."

Some pregnant women show ineffective coping by expressing concern that their child will be different from other children.

"I am afraid that when my youngest child is in school and not as smart as other children, now I eat whatever I think is nutritious. (Participant S)"

Efforts to prevent stunting

Some of the efforts made by pregnant women to prevent stunting include checking their pregnancy with midwives and doctors and visiting the Integrated Healthcare Center.

"I had a pregnancy check with the midwife; she said my pregnancy was safe (Participant E)."

"I have only been checked by the doctor once; after that, I have never had a check-up again (Participant S)."

"I came to the Integrated Healthcare Centre last month. I was given medicine, but I didn't take it all. I don't know if the medicine is to prevent stunting (Participant L)."

Besides that, pregnant women also consume vitamins, vegetables, and fruits and do appropriate physical exercise.

"I eat vegetables, although I don't really like them, but because I'm pregnant, I still eat them. Yes, I choose, I don't eat all of it (participant R)."

"It's not just vegetables. I also eat fruit, but not always because fruit is expensive in Aceh; I mostly eat bananas. It's cheaper (participant I)."

"During my seven months of pregnancy, I always exercise in the morning, sometimes accompanied by my husband or my sister (participant E)."

Support system in preventing stunting

The support system obtained by pregnant women should come from the closest person, in this case, the husband. In contrast to the FGD results in this study, some participants said that their husbands did not understand and had never talked about stunting during pregnancy.

"My husband never talks about stunting. He never

Table II: Data Analysis Process

Meaning Unit	Code	Subcategory	Category	Theme
Unbalanced nutrition, not eat much The child doesn't want to eat, and the growth is not according to the Age. The food is not enough, so the child's growth and development is not appropriate.	Unbalanced nutrition, don't want to eat, growth, and development is not appropriate.	Poor nutrition related to not enough food	Knowledge about nutrition	Perceptions of pregnant women about stunting
Mother just found out about stunting. Mothers think that stunting is not a problem.	New knowledge, stunting is not a problem	Mother's perception of stunting is normal	Lack of knowledge regarding stunting	
Not afraid because there is no short descendant in family	Faith, Worry and Surrender	Mother's belief regarding child's posture	Adaptive and maladaptive response	Coping responses of pregnant women regarding stunting
Fear of not being the same as other children		Mother worries if her child is different.		
Trust in Allah		Surrender if the stunting condition occurs because of Allah's decree.		
Check pregnancy with the midwife. Check pregnancy with the doctor only once Come to Integrated Healthcare Center (Posyandu)	Use health facilities	Facilities for pregnancy check-ups visited by mothers	Extrinsic factors for stunting prevention	Efforts to prevent stunting
Take vitamins from the health centre. Eat vegetables even if I choose the type of vegetables. Eat fruit, but not always.	Eat fruits vegetables and take vitamins.	Foods consumed by the mother during pregnancy	Intrinsic factors for stunting prevention	
Exercises, morning walks after dawn and taking classes for pregnant women.	Physical readiness of pregnant women with exercise, morning walks and taking classes for pregnant women	Mother's physical activity to maintain health during pregnancy		
Husband never talks about stunting. Husband never told or discussed about stunting	Husband's misunderstanding about stunting	Lack of husband's knowledge about stunting	Husband's support	Support system in preventing stunting
Husband asked about mother and child's conditions. Husband reminds mother not to forget to eat vegetables	Husband's response about pregnancy	Husband's positive response to mother's pregnancy		
The health workers only gave a little information about stunting. The health workers never give a specific information about stunting	Lack of information	Lack of information about stunting from health workers	Lack of information support from health workers	Role of health workers in preventing stunting
The health workers informed that tofu and tempeh contain protein.	Tofu and tempeh contain protein.	Information support from health workers	Support provided by health workers	
The health workers informed about the importance of eating vegetables and fruit during pregnancy.	Vegetable and fruit			
Green vegetables are good for pregnant women. Types of nuts that are available in the house yard Sweet potato tree is used as a house fence. Mustard leaves, water spinach leaves, and spinach are self-planted in their own garden. Spinach vegetables that are gardenened in plastic bags	Green vegetables, beans, sweet potato, mustard greens, spinach water, and spinach	Local vegetables available around the house	Availability of local food	Local food sources to prevent stunting
It is very good to be consumed by breastfeeding mothers. Katuk leaves are good for pregnant and breastfeeding mothers.	Moringa and katuk leaves	The benefits of local vegetables for pregnant and breastfeeding mothers	Benefits of local food	

said anything about stunting. Maybe he didn't even know (Participant M)."

"When it comes to stunting, we rarely discuss it. But every time I go home, my husband always asks if the fetus is moving today, if I have eaten, what have I eaten (Participant M)."

"My husband never asked about stunting. Does he know or not? I'll try to ask him later. But for me, he often said don't forget to eat vegetables. That's all (Participant S)"

Role of health workers in preventing stunting

Pregnant women still felt that there was very little information provided by health workers about stunting prevention; this was due to the large amount of work carried out by health workers, so they could not focus on providing health information, including stunting prevention. The information submitted by health workers related to stunting prevention was limited to a diet that can be consumed, such as foods that contain a lot of protein.

"I've been told, but only a few information. I don't understand much. That happens if you do a pregnancy check at a Public Health Centre; there is very little time for consultation. I didn't have time to ask much; another patient has entered (Participant E)."

"I have also been to the health centre. They say containing protein like tofu and tempeh is good (Participant Y)."

Local food sources to prevent stunting

Pregnant women already knew the source of nutrition for mother and child to prevent stunting. They said green vegetables have good nutrition for the growth and development of the fetus and child. During the pregnancy phase, women often consume these nutritional sources.

"I've never heard about it, vegetables, especially green vegetables. That's good for us getting pregnant and nuts (Participant N)."

"Eat rice with moringa leaf vegetables, katuk leaves, sweet potato leaves, and long beans. That's good (participant S)."

The types of vegetables with high nutritional value were those around the community, planted in the houseyard, so the source of these nutrients was straightforward to get by the community.

"Moringa leaves. That's a lot in our village. I like the Moringa vegetable (Participant M)."

"Katuk leaves - Alhamdulillah. In our village, there are many vegetables (Participant I)."

"I always consume mustard leaves. Some people near our house plant it. If we want to consume it, we just ask our neighbors so we can get it (Participant Z)."

"My mother plant spinach, spinach water, and kale (Participant L)"

DISCUSSION

Individual perceptions of stunting can be influenced by various factors, including the level of knowledge, values and experience related to stunting¹³. Based on

this study's data, most participants had a middle level of education (71.43%), and the other 7.43% had a high level of education. So, through a high level of education, pregnant women can have good knowledge about stunting because it can affect the perception of pregnant women about stunting¹⁴. Stunting is more than just a physical appearance; it is also a risk factor for mental decline and child development, especially under five years¹⁵.

The perception of pregnant women about stunting obtained from this study is supported by previous research conducted by Sutarto, Sari RDP, Utama WT, Indriyani R 2022¹⁶, who found that mothers with toddlers had heard the term stunting and defined stunting as failure of growth and development¹⁶. If you look at the concept presented by the World Health Organization, stunting is defined as a low height based on Age that indicates a limitation on a child's growth potential. This condition is diagnosed if the child's height or body length according to Age is more than two standard deviations below the median of the WHO child growth standard curve¹⁷.

In addition to the causal factors obtained from the discussion in this study, there are many possible causes of stunting, especially in Indonesia, including maternal nutritional status, breastfeeding practices, complementary feeding practices, and exposure to infection as well as related distal determinants such as education, food system, health care, water and sanitation¹⁸.

The perception and knowledge possessed by pregnant women about stunting is an essential initial provision in preventing stunting. An individual with good health knowledge will increase their ability to express health protection and preventive measures¹⁹. The perception of pregnant women who stated that the cause of stunting is "malnutrition" is also true. Based on the Ministry of Health of the Republic of Indonesia (2021), there are several steps to prevent stunting: fulfilling nutritional needs since pregnancy, exclusive breastfeeding, monitoring child growth and development, and maintaining environmental cleanliness²⁰. In an effort to avoid problems during pregnancy, including stunting, health workers should involve local traditional or religious leaders who are considered more effective²¹.

Pregnant women need to obtain information on how to prevent stunting. It will significantly affect the pattern of parenting in the future. Parenting is the ability of families to provide children time, attention, and support so they can grow and develop optimally²². Based on another research, children with poor parenting have an eight times greater risk of experiencing stunting than children with good parenting. This poor parenting includes incomplete immunization, ineffective breastfeeding, personal hygiene, and environmental sanitation. The support of health workers is essential in improving health and preventing and curing disease by providing education

and motivation²³.

In addition to the enormous benefits arising from providing education about stunting prevention, stunting prevention programs are also one of the serious concerns of the Indonesian government; this can be seen from the Medium and Long-Term Development Plan 2020-2024, which targets a 19% reduction in stunting by 2024; this can result in not achieving national development targets and risking a significant burden that the state must bear to the deficient quality of human resources²⁴.

In supporting the achievement of this government policy, health workers can apply several interventions in the health sector, including interventions for pregnant women. The interventions include Providing additional food for pregnant women to overcome chronic energy and protein deficiency, iron and folic acid deficiency, and protect pregnant women from malaria²⁵. Local health workers can carry out these specific interventions and empower the community through health cadres in the local area. The empowerment of cadres and the provision of health information can not only be done during visits to pregnant women to the Public Health Centre but also through Integrated Healthcare Centre activities and home visits.

Children who suffer from stunting will be more susceptible to disease and, as adults, are at risk for degenerative diseases. Stunting impacts not only health but also a child's intelligence level²⁶. Preventing stunting in children needs to be done during pregnancy. Routinely conducting antenatal check-ups at health facilities is no less critical in preventing stunting in children. Routine examinations during pregnancy are required to monitor fetal growth and development and detect if there are problems with the fetus or pregnant woman. By visiting health facilities, you can educate and socialize about the importance of nutritious food as an essential element in children's growth and development²⁷. In addition, adequate nutrition for pregnant women and children is the main key to avoiding stunting in children^{17,28}.

The results of the Nigeria Demographic and Health Survey (NDHS) in 2013 on 40,680 households stated that the significant risk factors for severe stunting in children aged 0-23 months and 0-59 months were the majority were male, born to mothers with short size, deficient economic status and do not get exclusive breastfeeding²⁹.

The coping response of pregnant women is one of the factors that can affect pregnant women in perceiving something, including stunting³⁰. It is also related to the belief pattern of the surrounding community, for example, believing that it is natural for mothers with short stature to give birth to short children. Hence, the education process through communication strategies is crucial for stunting prevention³¹.

One source of adaptive coping for pregnant women can be obtained from the husband's support. Ideally,

the husband is the best support system for pregnant women³². However, most husbands still play a passive role in this matter; for example, culture in one area in Indonesia still sees the husband's role as only the head of the family and breadwinner, including in Aceh³³. The study's results prove that the role of fathers has a significant effect on stunting prevention; soarenting culture, especially the husband's support system, can be one solution for stunting prevention³⁴.

A previous study conducted by Brown et al. showed that many decisions made by pregnant and breastfeeding women were related to nutrition and are influenced by their husbands^{35,36}. Husbands are a group of individuals in the family who can cause, prevent, ignore, or increase the health problems of pregnant women³⁷. One of the roles of the husband in the family is to maintain the health of his wife during pregnancy, which was by giving love to the wife so that the wife feels cared for, giving birth to be controlled, advocating eating nutritious food, getting enough rest, maintaining personal hygiene and providing support. The absence of a husband's support for pregnant women will cause the women to feel unnoticed and depressed^{38,39}.

Nutrition is the most essential thing in the problem of stunting. Inadequate nutrition causes the mother to have malnutrition and even chronic nutrition problems since pregnancy, which will later give birth to babies with low birth weight, and this is one of the factors causing stunting. According to research by Beal T, Tumilowicz A, Aang Sutrisna, Izwardy D, Neufeld LM 2018¹⁸, the determinants of stunting in Indonesia include poor nutrition during preconception, pregnancy, and breastfeeding.

The study results show that pregnant women understand that one of the efforts to reduce the risk of stunting is to provide adequate nutrition during pregnancy by consuming various foods, including carbohydrates, proteins, and vitamins sourced from fruits and vegetables, because nutritional status during pregnancy can significantly impact maternal and infant health outcomes. The dietary needs of both macronutrients and micronutrients increase during pregnancy to maintain maternal homeostasis while supporting fetal growth and development⁴⁰.

To overcome the stunting problem, using local food to fulfill the nutritional needs of pregnant women is very important. Various local foods in Aceh have sufficient dietary content to meet the nutritional needs of pregnant women. Local foods that can be used include moringa leaves, katuk leaves, mustard leaves, nuts, and others. Several local foods have the potential to be developed to overcome stunting. For example, Moringa leaves contain micronutrients pregnant women need, such as beta (B3), calcium, iron, phosphorus, magnesium, zinc, and vitamin C⁴¹⁻⁴³.

Other local foods such as mustard greens, spinach, kale, katuk leaves, and sweet potato leaves have high

nutritional value to meet the micronutrient needs of pregnant women. So, the use of local food is an alternative to preventing stunting. According to Lowensohn RI, Stadler DD, Naze C 2016⁴⁴, micronutrients such as folic acid, zinc, iron, B vitamins, vitamin C, and vitamin E must be met by pregnant women for maternal and fetal health so that the fetus is born with sufficient weight and thrives.

CONCLUSION

This study provides essential information about the perceptions and views of pregnant women about stunting until local food nutrition is found. This study found six themes: 1) Perceptions of pregnant women about stunting, 2) Coping responses of pregnant women regarding stunting, 3) Efforts to prevent stunting, 4) Support system in preventing stunting, 5) Role of health workers in preventing stunting, 6) Local food sources to prevent stunting. Other important information obtained, including the support provided by the husband and the availability of local food, are the most substantial support factors mothers need during pregnancy to prevent stunting. The results of this exploration can be used as input in implementing further interventions. This study has several limitations; a wider FGD is needed for pregnant women in other areas to understand the causes of stunting.

ACKNOWLEDGMENT

The authors thank all research assistants and respondents who participated in this study and we also thank the Aceh Besar District Health Service and the community health centre (Puskesmas) Kuta Baro.

Ethical permission: Universitas Syiah Kuala, Banda Aceh, Indonesia, ERC letter No. 113001100522.

Conflict of interest: The authors declared no conflict of interest in the study.

Financial Disclosure /Grant Approval: No

Data Sharing Statement: The data supporting this study's findings are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

AUTHORS CONTRIBUTION

Darmawati: Coordinated the entire research process and wrote the initial manuscript.

Dimiati H: Critical review of the manuscript.

Fitri A: Conducted the data collection.

Rizkia M: Conducted the data collection.

Fajri N: Contributed to the data analysis.

Nurhidayah I: Conducted the data collection.

All authors have approved the final version of the article.

REFERENCES

- World Bank. Better Growth through Improved Sanitation and Hygiene Practices. 2014. Available from: <https://documents1.worldbank.org/curated/en/326971467995102174/pdf/100891-WSP-P131116-AUTHOR-Susanna-Smets-Box393244B-PUBLIC-WSP-SERIES-WSP-Indonesia-WSS-Turning-Finance-into-Service-for-the-Future.pdf>
- Olney DK, Leroy J, Bliznashka L, Ruel MT. PROCOMIDA, a Food-Assisted Maternal and Child Health and Nutrition Program, Reduces Child Stunting in Guatemala: A Cluster-Randomized Controlled Intervention Trial. *J Nutr.* 2018 Sep; 148(9): 1493-505. doi: 10.1093/jn/nxy138.
- Black RE, Victora CG, Walker SP, Bhutta ZA, Christian P, de Onis M et al. Maternal and child undernutrition and overweight in low-income and middle-income countries. *Lancet.* 2013 Aug; 382(9890): 427-51. doi: 10.1016/S0140-6736(13)60937-X
- Lassi ZS, Das JK, Zahid G, Imdad A, Bhutta ZA. Impact of education and provision of complementary feeding on growth and morbidity in children less than 2 years of Age in developing countries: a systematic review. *BMC Public Health.* 2013; 13 Suppl 3(Suppl 3): S13. doi: 10.1186/1471-2458-13-S3-S13.
- Mahmudiono T, Mamun A Al, Nindya TS, Andrias DR, Megatsari H, Rosenkranz RR. The Effectiveness of Nutrition Education for Overweight/Obese Mother with Stunted Children (NEO-MOM) in Reducing the Double Burden of Malnutrition. *Nutrients.* 2018 Dec; 10(12): 1910. doi: 10.3390/nu10121910.
- Victora C, Adair L, Fall C, Hallal P, Martorell R, Richter L et al. Maternal and child undernutrition: consequences for adult health and human capital. *Lancet.* 2008; 57(371): 340. doi: 10.1016/S0140-6736(07)61692-4.
- Sri Ayu Candra, Wahyuningsih, Rahman T. Attitude and pregnancy planning of the women reproductive of Age not associated. *Jurnal Ners dan Kebidanan Indonesia.* 2021; 9(3): 224. doi: 10.21927/jnki.2021.9(3).224-232.
- Margawati A, Astuti AM. Pengetahuan ibu, pola makan dan status gizi pada anak stunting usia 1-5 tahun di Kelurahan Bangetayu, Kecamatan Genuk, Semarang. *Jurnal Gizi Indonesia.* 2018; 6(2): 82-9. doi: 10.14710/jgi.6.2.82-89.
- Yelvita FS. Persepsi Ibu Balita Dan Tokoh Masyarakat Tentang Stunting Di Wilayah Kerja Puskesmas Beringin Raya Kota Bengkulu Tahun 2022 (Studi Kualitatif). *Poltekkes Kemenkes Bengkulu.* 2022; Available from: <http://repository.poltekkesbengkulu.ac.id/2326/>.
- Graneheim UH, Lundman B. Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. *Nurse Educ Today.* 2004; 24: 105-12. doi: 10.1016/j.nedt.2003.10.001.
- Elo S, Kyngas H. The qualitative content analysis process. *J Adv Nurs.* 2008; 62(1): 107-

15. doi: 10.1111/j.1365-2648.2007.04569.x.
12. Vaismoradi M, Jones J, Turunen H, Snelgrove S. Theme development in qualitative content analysis and thematic analysis. *J Nurs Educ Pract.* 2016; 6(5): 100-110. doi: 10.54 30/jnep.v 6n5p100.
13. Patimah S, Sundari S, Arundhana AI. A Qualitative Study on Secondary School Teacher's Perceptions of Stunting in Majene District, West Sulawesi Province. *Amerta Nutrition.* 2021; 5 (2SP): 1. doi: 10.20473/amnt.v5i2SP.2021.1-9.
14. Beal T, Tumilowicz A, Aang Sutrisna, Izwardy D, Neufeld LM. A review of child stunting determinants in Indonesia. *Metern Child Nutr.* 2018; 14(4): e12617. doi: 10.1111/mcn.12617.
15. Akombi BJ, Agho KE, Hall JJ, Merom D, Astellburt T, Renzaho AMN. Stunting and severe stunting among children under 5 years in Nigeria: A multilevel analysis. *BMC Pediatr.* 2017; 17: 15. doi: 10.1186/s12887-016-0770-z.
16. Sutarto, Sari RDP, Utama WT, Indriyani R. Komitmen Stop Stunting Dalam Kegiatan Kemitraan Dukun Beranak, Bidan Desa, Pamong Desa dan Ibu Balita di Desa Binaan Fakultas Kedokteran, Universitas Lampung. *Jurnal Pengabdian Kepada Masyarakat.* 2022; 2(3): 45-55. doi: 10.23960/buguh.v2n3.1083.
17. Organization WH. Reducing stunting in children: equity considerations for achieving the Global Nutrition Targets 2025. World Health Organization. 2018. Available from: <https://www.who.int/publications-detail-redirect/9789241513647>
18. Beal T, Tumilowicz A, Aang Sutrisna, Izwardy D, Neufeld LM. A review of child stunting determinants in Indonesia. *Matern Child Nutr.* 2018; 14(4): e12617. doi: 10.1111/mcn.12617.
19. Rincón Uribe FA, Godinho RC de S, Machado MAS, Oliveira KR da SG, Neira Espejo CA, de Sousa NCV et al. Health knowledge, health behaviors and attitudes during pandemic emergencies: A systematic review. *PLoS One.* 2021; 16(9): e0256731. doi: 10.1371/journal.pone.0256731.
20. Kemenkes RI. Pencegahan Stunting Pada Anak. Direktorat Promosi Kesehatan Dan Pemberdayaan Masyarakat Kementerian Kesehatan RI. 2021. p. 1-2. Available from: <https://promkes.kemkes.go.id/pencegahan-stunting>
21. Darmawati D, Siregar TN, Kamil H, Tahlil T. Acehese Cultural Leaders' Perspective on Anemia in Pregnant Women: A Qualitative Study. *Adv Public Health.* 2020; 1-6. doi: 10.1155/2020/8710254.
22. Picauly I, Toy SM. Analisis Determinan Dan Pengaruh Stunting Terhadap Prestasi Belajar Anak Sekolah Di Kupang Dan Sumba Timur, Ntt. *Jurnal Gizi dan Pangan.* 2013; 8(1): 55. doi: 10.25182/jgp.2013.8.1.55-62.
23. Fajrianti D, Yunitasari E, Pradanie R. The Correlation Between Personal Reference: Health Workers and Health Facilities with Parenting in Stunting Prevention. *Pedimatern Nurs J.* 2020; 6 (2): 125-132. doi: 10.20473/pmnj.v6i2.20966.
24. Priyono P. Strategi Percepatan Penurunan Stunting Perdesaan (Studi Kasus Pendampingan Aksi Cegah Stunting di Desa Banyumundu, Kabupaten Pandeglang). *Jurnal Good Governance.* 2020; 16(2): 149-74. doi: 10.32834/gg.v16i2.198.
25. Oktaviani NPW, Trisnadewi NW, Adiputra IMS. Strategies of Health Workers in Tackling Stunting in Rural Areas During the Covid-19 Pandemic. *Indonesian J Glob Health Res.* 2019; 2(4): 61-8. doi: 10.37287/ijghr.v4i1.802.
26. UNICEF. Reduce stunting | UNICEF Eastern and Southern Africa. Unicef. 2020. Available from: <https://www.unicef.org/esa/reduce-stunting>.
27. Apriliani H. [Internet]. Efforts to Prevent Stunting, Epidemiologist Education On The Importance Of Balanced Nutrition For Children Needs To Be Improved. 2022. Available from: <https://voi.id/en/lifestyle/130412>.
28. Darya-Varia. [Internet]. Stunting Prevention by Fulfilling Adequate Nutrition. February 08, 2021. Available from: <https://www.darya-varia.com/en/read/stunting-prevention-by-fulfilling-adequate-nutrition>.
29. Akombi BJ, Agho KE, Hall JJ, Merom D, Astellburt T, Renzaho AMN. Stunting and severe stunting among children under 5 years in Nigeria: A multilevel analysis. *BMC Pediatr.* 2017; 17: 15. doi: 10.1186/s12887-016-0770-z.
30. Guardino CM, Schetter CD. Coping during pregnancy a systematic review and recommendations. *Health Psychol Rev.* 2013; 8 (1): 70-94. doi: 10.1080/17437199.2012.752659
31. Marni M, Abdullah AZ, Thaha RM, Hidayanty H, Sirajuddin S, Razak A. Cultural Communication Strategies of Behavioral Changes in Accelerating of Stunting Prevention: A Systematic Review. *Open Access Maced J Med Sci.* 2021; 9: 447-52. doi: 10.3889/oamjms.2021.7019
32. Guardino CM, Schetter CD. Coping during pregnancy a systematic review and recommendations. *Health Psychol Rev.* 2013; 8 (1): 70-94. doi: 10.1080/17437199.2012.752659.
33. Darmawati D, Siregar T, Kamil H, Husna C, Tahlil T. Husband's Perception on Anemia among Pregnant Women based on Cultural Perspective: A Qualitative Study. *Open Access Maced J Med Sci.* 2022; 10(G): 6-13. doi: 10.3889/oamjms.2022.7617.
34. Januarti, Fauziyah L, Hidayathillah, Putr A. Parenting Culture of Father in Prevention of Stunting in Toddlers. *Repositori Stikes Ngudia Husada Madura.* 2020; 1(2): 81-90. Available

- from: <https://repository.stikesnhm.ac.id/id/eprint/734>.
35. Brown K, Henretty N, Chary A, Webb MF, Wehr H, Moore J et al. Mixed-methods study identifies key strategies for improving infant and young child feeding practices in a highly stunted rural indigenous population in Guatemala. *Matern Child Nutr.* 2016; 12(2): 262-77. doi: 10.1111/mcn.12141.
 36. Januarti LF, Abdillah A, Priyanto A. Family Empowerment Model in Stunting Prevention Based on Family Centered Nursing. *STRADA Jurnal Ilmiah Kesehatan.* 2020; 9(2): 1797-806. doi: 10.30994/sjik.v9i2.536.
 37. Maranatha, Sari NKPM, Suhardin S, Indarwati R, Meo CM, Putri NK, et al. Social-cultural aspect of stunting: A systematic review. *Int J Psychosoc Rehabil.* 2020; 24: 7805-16. doi: 10.37200/IJPR/V24I7/PR270753.
 38. Organization WH. *Counselling for Maternal and Newborn Health Care: A Handbook for Building Skills.* Geneva; 2013.
 39. Yanti E, Iffah U. Development Model of Improving the Role of Pregnant Women Husbands for Preventing Early Stunting in Regency Padang Pariaman in 2021. 2021; 4(10): 2019-21. doi: 10.31149/ijie.v4i11.2347.
 40. Mousa A, Naqash A, Lim S. Macronutrient and Micronutrient Intake during Pregnancy: An Overview of Recent Evidence. *Nutrients.* 2019; 11(2): 443. doi: 10.3390/nu11020443.
 41. Nugrawati N, Junaidin, Ekawati N, Sartika D, Wijaya A. Edukasi Tentang Pemanfaatan Daun Kelor Guna Pencegahan Stunting Pada Kader Posyandu di Kecamatan Maros Baru Kabupaten Maros. *Jtcsa Advertisi J.* 2021; 2(1): 6-10.
 42. Ulfah ND, Sididi M. Pengolahan Daun Kelor oleh Kelas Ibu Fatayat NU Untuk Pencegahan Stunting di Kab. Takalar. 2021. doi: 10.33096/WOCD.VI.340
 43. Merina ND, Septiyono AE, Arum AP. Kelor (*Moringa Oleifera*) Chips as a Leading Product of Klampokan Village, Bondowoso, West Java in Preventing Stunting [in Indonesia]. *Jurnal Pengabdian Kepada masyarakat.* 2021; 5(3): 274-81. doi: 10.20956/pa.v5i3.8058.
 44. Lowensohn RI, Stadler DD, Naze C. Current Concepts of Maternal Nutrition. *Obstet Gynecol Surv.* 2016; 71(7): 413-26. doi: 10.1097/OGX.000000000000329.

