



Literature Review: The Recent Midwifery Interventions Improving Public Attitudes and Knowledge in Stunting Prevention

Neli Sunarni¹, Annisa Tsania Rizqiyani², Liva Maita³

¹STIKes Muhammadiyah Ciamis, Ciamis, Indonesia

²STIKes Muhammadiyah Ciamis, Ciamis, Indonesia

³Universitas Hangtuah Pekanbaru, Riau, Indonesia

Correspondence: Annisa Tsania Rizqiyani

Email: annisatsania100@gmail.com DOI: 10.56359/genmj.v1i1.98

Address: Dusun Nangela Kaler Desa Sumberjaya, Ciamis, Indonesia, +6281220987672

Submitted: 6 July 2022 Revised: 18 July 2022 Published: 20 August 2022

This work is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/).

ABSTRACT

Introduction: Stunting is still a public health problem in developing countries such as Indonesia with a fairly high prevalence. The consequences of stunting can lead to poor child development and affect learning abilities, increased risk of infection and non-communicable diseases in adulthood, and reduced productivity. Changes in community behavior through health promotion programs and community empowerment about the importance of fulfilling nutritional status can help reduce stunting in children.

Aim: The purpose of this study is to examine the literature, articles and research documents regarding the latest intervention activities to improve public attitudes and knowledge in stunting prevention.

Method: The research method used is Literature Review. The data used comes from reputable journal articles through databases of international journal providers such as Google Scholar and SINTA published in the last 5-year period (2017-2022). Analysis of research results using the PICO-T method (Population, Intervention, Compare/intervention, Outcome, Time).

Results: The results of the 10 research journals analyzed showed that the interventions provided varied greatly in terms of content, methods, media and duration. Interventions carried out in the form of audiovisuals, demonstrations, questionnaires and the provision of processed home products were able to increase knowledge and attitudes about stunting prevention.

Conclusion: The conclusion of this study is that intervention in stunting prevention efforts is to provide education/health promotion, demonstrations of the creation of balanced complementary food and the empowerment of the community and posyandu cadres can significantly increase stunting prevention efforts.

Introduction

The incidence of short toddlers or commonly called stunting is one of the nutritional problems experienced by toddlers in the world today (Hasliani, 2020). Stunting is still a public health problem in developing countries such as Indonesia with a fairly high prevalence. Stunting is caused by lack of nutritional intake for a long time in the first 1000 days of life (HPK) which is a period of fulfilling nutrition for toddlers. The 2005 WHO-MGRS (Multicentre Growth Reference Study) standard showed that a z-score value less than -2SD was categorized as short, and categorized as very short if the z-score value was less than -3SD. (Ministry of Health RI, 2016). Based on data from the World Health Organization (WHO), Indonesia is included in the third country with the highest prevalence in the Southeast Asia/South-East Asia Regional (SEAR) region. The average prevalence of stunting under five in Indonesia in 2005-2017 was 36.4% (Kemenkes RI, 2018). Based on the Nutritional Status Monitoring (PSG) data for the last three years, stunting has the highest prevalence compared to other nutritional problems such as undernutrition, thinness, and obesity. The prevalence of short toddlers has increased from 2016 which was 27.5% to 29.6% in 2017 (Kemenkes RI, 2018).

The factors causing stunting according to Bappenas (2013) are nutritional intake of children under five, infectious diseases, maternal factors during preconception, pregnancy and lactation, genetic factors, exclusive breastfeeding, food availability, education level, knowledge of maternal nutrition, socio-economic factors and environmental factors. Research conducted in China shows that maternal factors are risk factors for stunting, including mothers with anemia and malnutrition during pregnancy each having a 2 times higher risk than mothers who do not experience anemia or malnutrition during pregnancy, as well as maternal education have a risk 2 times higher than mothers with higher education (Fajrina, 2016). The consequences of stunting can be both short-term and long-term, including increased morbidity and mortality, poor child development and affects learning abilities, increased risk of infection and non-communicable diseases in adulthood, and reduced productivity.(Beal et al., 2018). Malnutrition in early childhood can increase infant and child mortality, cause sufferers to be susceptible to disease, and will have poor posture as adults.

Early stunting prevention efforts must be carried out by women of childbearing age who will prepare for pregnancy so that the first 1000 days of life (HPK) of children are successfully prepared. In an effort to prevent stunting, it is necessary for mothers to improve their nutritional status during pregnancy. Mother's knowledge indirectly affects the health status of the mother, the fetus being conceived, and the quality of the baby to be born. So far, efforts to improve nutrition have been carried out when the mother is pregnant, so that nutrition education, especially in preventing stunting, is carried out when the mother is not pregnant and will prepare for her pregnancy. (Fauziatin et al., 2019). Efforts in stunting prevention are changes in community behavior through health promotion and community empowerment programs, all of which seek to intervene in positive behavior changes related to maternal knowledge about nutritional intake during pregnancy, childbirth and children before the age of 2 years (Hamzah & B, 2020).

According to the Millennium Challenge Account (2014), stunting can be prevented by using several efforts, including the following :

1. Meeting the nutritional needs of pregnant women. Pregnant women need to get adequate nutrition, nutritional supplementation (iron tablets), and their health monitored.
2. Exclusive breastfeeding until the age of 6 months and after the age of 6 months, complementary foods (MP ASI) are given in sufficient quantity and quality.
3. Monitoring the growth of children under five at the posyandu is a strategic effort to detect the occurrence of growth disorders.
4. Increase access to clean water and sanitation facilities, as well as maintain a clean environment. Low sanitation and environmental hygiene will trigger digestive tract disorders which make energy for growth diverted to the body's resistance to infection. The longer you suffer from infection, the risk of stunting will increase.

This study aims to examine literature, articles and research documents that identify the effectiveness of current intervention interventions to improve public attitudes and knowledge in stunting prevention.

Method

The research method used is Literature Review. The data used comes from reputable journal articles through databases of international journal providers such as Google Scholar and SINTA published in the 2016-2021 period. The researcher wrote the appropriate keywords, namely stunting, stunting prevention, nutrition, 1000 HPK. Analysis of research results using the PICO-T method (Population, Intervention, Compare/intervention, Outcome, Time).

Results and Discussion

The ten studies analyzed in this literature review are interventions carried out to improve public attitudes and knowledge as an effort to prevent stunting. The results of the research analysis are outlined in table 1.

Table 1 Data Synthesis Results

No.	Author	Population	Intervention	Comparison Intervention	Outcome
1.	Anggraini et al., 2020	42 pregnant women	Audio visual	Not given treatment	There is a significant difference between the knowledge of pregnant women before and after the intervention using audio visual media with p value 0.001 ($p < 0.05$) and there is a significant difference between the attitudes of pregnant women before and after the intervention using audio visual media with a p value of 0.004 ($p < 0.05$).
2.	Hamzah & B, 2020	Local community	Interactive lectures and Q&A	Leaflet without facilitator	Increased public knowledge about stunting prevention, where the average score of community knowledge during the pre-test was 10.43 and

					and increased during the post-test to 19.60.
3.	Yarmaliza & Syahputri, 2020	75 mothers of toddlers who come from poor families	Provision of home-made tempeh broth powder with the addition of 5 grams of tempeh broth powder for every toddler eats (3 times a day)	Data observation sheet	Provision of tempeh broth powder can significantly increase the average height of toddlers so as to prevent stunting in toddlers with an average increase in height of 0.5 ± 1 cm, 1 ± 1.5 cm, 1.6 ± 2 cm, and the p-statistical test value was obtained. value = 0.000, indicating that there is a significant difference in height in measurement I or measurements before being given home-made tempe broth powder with height after being given home-made tempe broth powder for 3 months
4.	Norcahyanti et al., 2019	Posyandu cadre team	Extension and cultivation of hydroponic plants, provision of child-friendly play facilities and training in the manufacture of additional food.	Not given treatment	There is an increase in knowledge and experience from cadres and also Posyandu members about urban farming through hydroponic plant cultivation and the manufacture of additional food in the form of iron-rich cookies and nuggets. In addition, the activity of establishing children's play facilities that can stimulate motor activity is also welcomed by children who are in the Posyandu environment.
5.	Choliq & Nasrallah, 2020	Cadres and mothers with stunting toddlers	Nutrition counseling for stunting children and demonstration of 3 modified menus of healthy snacks high in zinc for stunting children, How to fill out KMS, and Measuring Stunting children	No control group	Cadres and participants understand the meaning, causes, impacts and interventions for stunting, are able to demonstrate 3 modified menus of healthy snacks high in zinc for stunted children.

6.	Fauziatin et al., 2019	72 brides and grooms	Counseling with flipchart media	The control group was not given intervention	There was an increase in the pretest and posttest on bride and groom after being given intervention. This is also proven by statistical tests that there are differences in knowledge and attitudes of the bride and groom before and after intervention using flipchart media.
7.	Maryam & Elis, 2021	Mother-to-be group	Socialization in the form of interactive dialogue and demonstration of making complementary foods for complementary feeding	No control group	There was a change in the behavior of participants in processing and choosing additional food for children in preventing stunting.
8.	Masitha Arsyati, 2019	17 pregnant women in trimesters 1 to 3	Counseling through audiovisual media	Not given treatment	There is an effect of knowledge after being given an intervention and an overview of consumption of non-nutritious food, and smoking status on the dominant husband. Continuous education and monitoring are needed every month in monitoring the diet of pregnant women during pregnancy classes at the posyandu
9.	Nurfatimah et al., 2021	49 pregnant women in the second trimester	Questionnaire	Not given treatment	Good behavior of pregnant women in preventing stunting is at the age of > 35 years, at the college education level, in working mothers and multigravida. Follow-up is needed to increase knowledge and behavior of pregnant women in preventing stunting in a comprehensive and sustainable manner.

10.	Rent et al., 2019	30 posyandu cadres	Experimental group a (counseling) 10 cadres, experimental group b (counseling and leaflets) 10 cadres and control group (no intervention) 10 cadres.	The control group was not given intervention	There was a significant effect of health promotion on knowledge and attitudes with stunting prevention by posyandu cadres in experimental group a and experimental group b with p value < 0.05 and no significant effect in the control group with p value > 0.05.
-----	----------------------	-----------------------	--	---	---

Stunting is an important health

problem that must be prevented early because it can cause serious impacts on children's health. Main focus Stunting prevention that can be done is to increase public knowledge and awareness about the importance of fulfilling balanced nutrition and changing community behavior in preventing the risk of stunting in children. Midwives have the main role and responsibility in stunting prevention, namely by providing education, services and driving community participation in improving the quality and productivity of better health, starting from prospective brides, pregnant women, breastfeeding mothers, mothers of babies & toddlers, parents and society.

In the 10 studies analyzed, the interventions given in research on stunting prevention took various forms, including: 5 studies using the lecture/audiovisual method (1,2,6,8,10), 2 studies combining the lecture method with food processing demonstrations. children (5,7), 1 study used the questionnaire method (9), 1 study used the method of giving processed home products (temperature broth) for 3 months (3), and 1 other study used special training methods for posyandu cadres (4).

Health Promotion Interventions in Stunting Prevention

The provision of health promotion programs is supported by the use of media such as leaflets, PPT, videos/pictures and flipcharts. From the research articles reviewed, it shows that most of the interventions carried out have increased knowledge about stunting. However, it is necessary to monitor and evaluate the provision of health promotion to assess whether increased knowledge can have an effect on the implementation of real (applicative) stunting prevention attitudes.

Stunting Prevention Intervention

The demonstration method in processing MP-ASI and children's snacks shows a change in attitudes and behavior regarding the provision of balanced MP-ASI for children as an effort to prevent stunting. Apart from increasing knowledge about stunting, mothers who participated in the demonstration had additional skills in processing food for children so that it was easier to apply independently. In addition, the provision of home processed products derived from soybeans for 3 months causes an increase in height in toddlers, this is considered effective because monitoring is carried out regularly so that the results can be directly seen and evaluated.

Community Empowerment and Posyandu Cadre Interventions

The training method for the community and posyandu cadres is considered effective in detecting and preventing stunting. In research (4 and 5), namely by measuring children's nutritional status correctly and routinely, providing nutritional knowledge and preventing stunting, providing child-friendly play facilities to stimulate children's motor skills, modifying nutritious children's supplementary food menus can have a positive impact on the whole family in Pay attention to child development. Through posyandu activities and adequate quality of cadres, it can improve the quality of optimal posyandu services as an effort to prevent stunting .

Conclusion

The conclusion of the review of 10 research sample journals used shows that interventions in the form of education/health promotion accompanied by demonstrations and monitoring can increase the knowledge and attitudes of parents to be more positive

towards stunting prevention. The selection of methods and media can be adjusted to the targets and objectives. Each intervention has its advantages and disadvantages, each with different levels of effectiveness. Based on the results of the analysis of 10 journals, several effective stunting prevention program intervention methods to be applied in Indonesia, namely:

- 1) Methods of education/health promotion for brides-to-be, pregnant women, parents, breastfeeding mothers, mothers of infants under five, parents and the community regarding balanced nutrition and stunting prevention. The main thing that can affect the incidence of stunting is the lack of knowledge about stunting.
- 2) Demonstration method of processed home products for the fulfillment of toddler nutrition. The demonstration practice involves mothers directly in the process of making processed foods that can be processed daily at home. This can change the mindset and habits of mothers in giving food to children.
- 3) Methods of training and empowerment of posyandu cadres. The quality of posyandu services affects the risk of stunting in children. In posyandu, midwives and posyandu cadres can routinely monitor children's nutritional status. Nutritional status deviations will be more easily detected and handled immediately through posyandu activities. Provision of information, assessment of child growth and development can be provided effectively and thoroughly by midwives and cadres at posyandu.

Increased knowledge and more positive attitudes of parents in meeting nutritional needs from prospective brides, pregnant women, breastfeeding mothers and mothers of toddlers to prevent stunting in children so that it is hoped that sufficient debriefing about stunting from an early age can be a preventive measure for stunting in children .

References

1. Accounts, MC (2014). Sanitation and Hygiene for Perfect Child Growth. Jakarta: Community-Based Health & Nutrition to Reduce Stunting (PKGBM) Project.
2. Anggraini, S., Siregar, S., & Dewi, R. (2020). The Effect of Audio Visual Media on Knowledge Levels and Attitudes of Pregnant Women About Stunting Prevention in Cinta Rakyat Village. *Imelda Scientific Journal of Midwifery*, 6(1), 2442–8116. <http://jurnal.uimedan.ac.id/index.php/JURNALKEBIDANAN>
<http://jurnal.uimedan.ac.id/index.php/JURNALKEBIDANAN>
3. Bappenas. (2013). Guidelines for Planning the National Movement for the Acceleration of Nutrition Improvement Program for the First Thousand Days of Life (1000 HPK Movement). Jakarta: National Development Planning Agency.
4. Beal, T., Tumilowicz, A., Sutrisna, A., Izwardy, D., & Neufeld, LM (2018). A Review of Child Stunting Determinants in Indonesia. In *Maternal and Child Nutrition* (Vol. 14, Issue 4). Blackwell Publishing Ltd. <https://doi.org/10.1111/mcn.12617>
5. Choliq, I., & Nasrullah, D. (2020). Prevention of Stunting in Medokan Semampir Surabaya Through Food Modification in Children. *Journal of Community Service*, 1(1), 31–40. <http://journal.um-surabaya.ac.id/index.php/HMN>
6. Fajrina, N. (2016). The Relationship of Maternal Factors with Stunting Incidence in Toddlers at the Piyungan Health Center, Bantul Regency. Yogyakarta: Faculty of Health Sciences, University of 'Aisyiyah Yogyakarta.
7. Fauziatin, N., Kartini, A., & Nugraheni, S. (2019). Effect of Health Education with Flipchart Media About Stunting Prevention in Bride and Groom. *VISIONS: Journal of Public Health*, 18(2), 224–233. <http://publikasi.dinus.ac.id/index.php/visikes>

8. Hamza, St. R., & B, H. (2020). Stunting Prevention Movement Through Community Education in Muntoi Village, Bolaang Mongondow Regency. *JKMI (Journal of Indonesian Community Service)*, 1(4), 229–235. <https://doi.org/10.36596/jpkmi.v1i4.95>
9. Hasliani, A. &. (2020). Health Education Approach About 1000 Hpk Against Stunting Prevention Efforts in Tamalanrea Jaya Health Center Makassar. *Health Media Makassar Health Polytechnic*, 15(2), 279-284.
10. Indonesian Ministry of Health. (2016). Short Toddler Situation. In Pusdatin Ministry of Health RI (pp. 1–10).
11. Indonesian Ministry of Health. (2018). RISKESDAS. Indonesian Ministry of Health.
12. Maryam, A., & Elis, A. (2021). Improving Children's Nutrition as an Effort to Prevent Stunting Through Making MP-ASI Made from Mairo Fish. *JMM (Journal of Independent Society)*, 5(3), 901–907. <https://doi.org/10.31764/jmm.v5i3.4456>
13. Masitha Arsyati, A. (2019). The Effect of Audiovisual Media Extension on Knowledge of Stunting Prevention in Pregnant Women in Cibatok 2 Cibungbulang Village. *Promoter: Student Journal of Public Health*, 2(3), 182–190. <http://ejournal.uika-bogor.ac.id/index.php/PROMOTOR>
14. Nurfatimah, N., Anaoda, P., Ramadhan, K., Entoh, C., Sitorus, SBM, & Longgupa, LW (2021). Stunting Prevention Behavior in Pregnant Women. *Poltekita: Journal of Health Sciences*, 15(2), 97–104. <https://doi.org/10.33860/jik.v15i2.475>
15. Saputri, RA (2019). Upstream and downstream stunting prevention in Indonesia. *Journal of Political Issues*, 1(1), 1–9.
16. Sewa, R., Tumurang, M., Boky, H., Health, F., University, M., Ratulangi, S., & Abstract, M. (2019). The Effect of Health Promotion on Knowledge and Attitude with Stunting Prevention Measures by Posyandu Cadres in the Bailang Public Health Center, Manado City. *Journal of Public Health*, 8(4), 80–88.
17. Yarmaliza, Y., & Syahputri, VN (2020). Tempe Broth as a Specific Intervention in the Prevention of Stunting. *Journal of Health*, 11(1), 1. <https://doi.org/10.35730/jk.v11i1.461>

