

## THE EFFECTIVENESS OF STUNTING PREVENTION PROMOTION TO IMPROVE MOTHERS' KNOWLEDGE

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### ABSTRACT

Childhood undernutrition include stunting remains a global public health problem that affects many middle-income countries. Nutrition education generally seeks to increase nutritional knowledge, thereby influencing attitude and practices towards good nutrition. This study aimed to analyze knowledge of stunting prevention before and after stunting prevention promotion in Purwakarta Village, Banten Indonesia. This study was quasi-experimental design with one group pre-posttest in 2023. The population in this study were mothers who had children under five years old in Purwakarta Village, Banten Indonesia. A total of 78 mothers who participated in stunting prevention promotion were selected as a respondent. Data was collected by questionnaire and analyzed using paired-t test. The mean score of stunting prevention knowledge was higher after intervention (Mean= 10,45; SD=0,83) than before intervention (Mean= 6,12; SD= 1,84) and it was statistically significant ( $p < 0,05$ ). Appropriate nutrition promotion plays a role to inform and remind of stunting prevention behavior.

**Keywords:** Stunting, Health Promotion, Childhood, Knowledge

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## LATAR BELAKANG

Under and over-nutrition, cancer and other NCDs, preventable childhood diseases, and maternal and infant/ young child mortality remain key global health issues. Some of these issues, like chronic malnutrition (stunting) among children, have been resistant to improvement (Lamstein et al., 2014). Poor diets and malnutrition in all its forms are among the greatest societal challenges, impacting health, economies, and environment (Global Nutrition Report, 2022).

*Stunting* is one of the important factors of human development, which globally affects 162 million children under the age of 5 years (World Health Organization, 2018). *The World Health Organization* (WHO) defines *stunting* as a height that is more than two standard deviations below the median growth of a child based on WHO standards (Wirth et al., 2017). *Stunting* is a form of *growth failure* (*growth faltering*) due to chronic nutrient deficiency that occurs from the womb to the age of 24 months (Oxy Handika, 2020). *Stunting* has serious short and long-term impacts. The short-term impact is an increase in child morbidity and mortality, non-optimal cognitive, motor, and verbal development, and an increase in health financing. Long-term impacts are shorter posture, metabolic disorders, decreased immune function, increased risk of obesity, degenerative diseases, decreased reproductive health, work capacity, and productivity (Mutiarra, Apriliana, Suwandi, & Utami, 2019).

Based on the Basic Health Research (Riskesdas) in 2018, the prevalence of *stunting* in Indonesia reached 30.8% in 2021 and decreased to 21.6% in 2022 (Kementerian Kesehatan RI, 2018). This

figure haven't met the WHO target of *stunting* prevalence below 20% (World Health Organization, 2018). Based on the Indonesian Toddler Nutrition Status Survey (SSGBI) in 2022, the prevalence of *stunting* in Banten province is at 20% (Kementrian Kesehatan RI, 2023). The Banten government has set a target of reducing *stunting* to 14% by 2024 (Dinas Kesehatan Provinsi Banten, 2017).

In order to improve knowledge, attitudes, and *stunting* prevention behavior, it is important to carry out health promotion. Health promotion is an effort to improve the ability of the community through the process of learning from, by, for and with the community, so that they can help themselves, and develop activities that are community-resourced, in accordance with local socio-cultural conditions and supported by health-minded public policies (Kemenkes, 2018). Therefore, effective health promotion of *stunting* prevention behavior will affect knowledge about *stunting* prevention.

Data from the Purwakarta Health Center, Banten Indonesia in 2022, showed that the community in the Purwakarta village has not implemented *stunting* prevention behavior optimally, where it can be seen from the low coverage of exclusive breastfeeding (43.3%) and early initiation of breastfeeding (70%). Based on the interview, it was found that they did not know about the timing of exclusive breastfeeding, the practice of early initiation of breastfeeding, and the consumption of balanced nutritious foods. Therefore, health promotion of *stunting* prevention is needed to increase knowledge, attitude, and practice of *stunting* prevention.

In this research, the health promotion was carried out by providing education on stunting prevention through lectures, discussion, and using leaflet media. The novelty of the study was that leaflet media was developed by the research team using interesting picture and diagram about stunting prevention behavior. The objective of this study was to analyze knowledge of stunting prevention before and after stunting prevention promotion in Purwakarta Village, Banten Indonesia.

## METODE PENELITIAN

This study was a quasi-experimental design with one group pre-posttest in 2023. This study was conducted in Purwakarta Village, Banten Indonesia. The population in this study were mothers who had children under five years old in Purwakarta Village, Banten Indonesia. The inclusion criteria of the respondents were mothers who had children under five years old in Purwakarta Village who are willing to become respondents and participate in health promotion activities. For those who did not participate in health promotion activities, they were excluded from the study. A total of 78 mothers who participated in stunting prevention promotion were selected as a respondent.

The dependent variables was knowledge of stunting prevention. The independent variable was promotion of stunting prevention. Data was collected through questionnaires by the research team before and after the health promotion. Data was analyzed using paired-t test.

Knowledge of stunting prevention questions include definition of stunting prevention, benefit of stunting prevention, types of stunting prevention, time and amount of breastfeeding, the amount of consumption of nutritious food, and duration

of physical activity. The knowledge was measured by interval scale; wrong answer 0 and right answer 1.

The intervention was carried out by providing education on stunting prevention through lectures, discussion, and using leaflet media. Health promotion activities were carried out at Purwakarta village hall which lasted for 90 minutes. Questionnaire were distributed to respondents to fill out before and after the intervention (stunting prevention promotion). Questionnaire filling lasted for 15 minutes for each pre-test and post-test

## HASIL DAN PEMBAHASAN

Respondents in this study were mothers who had children under five years old in Purwakarta Village, Banten who participated in stunting prevention promotion, totaling 78 people. The mean age of respondents was 32 years old, most of them was high education (64%), and not working (57,7%).

Knowledge of stunting prevention in this study include questions about definition of stunting prevention, benefit of stunting prevention, types of stunting prevention, time and amount of breastfeeding, the amount of consumption of nutritious food, and duration of physical activity.

On 1st measurement, majority of mothers can answer correctly questions about definition of stunting prevention, benefit of stunting prevention, and time and amount of breastfeeding. But they lack of knowledge about types of stunting prevention, the amount of consumption of nutritious food, and duration of physical activity. After promotion of stunting prevention, there was an increase in mothers' knowledge about types of stunting prevention, the amount of consumption of

nutritious food, and duration of physical activity.

Overall, there was an improvement of mother's average total score of knowledge of stunting prevention on 1<sup>st</sup> and 2<sup>nd</sup> measurements. The average total score of knowledge of stunting prevention on 1<sup>st</sup> measurement was (Mean= 6,12; SD= 1.84) and 2<sup>nd</sup> measurement was (Mean= 10,45; SD= 0,83). It showed in table 1. Based on paired t-test, there was a difference in the mother's average total score of knowledge of stunting prevention on first and second measurements (p <0.05). This explained that promotion of stunting prevention improved the mother's knowledge of stunting prevention. The statistical results showed in table 2.

Table 1. Knowledge of Stunting Prevention Score at Each Measurement

Knowledge of Stunting Prevention	Mean	SD
1 <sup>st</sup> Measurement	6,12	1,84
2 <sup>nd</sup> Measurement	10, 45	0,83

Table 2. Knowledge of Stunting Prevention Score Difference at Each Measurement

Knowledge of Stunting Prevention	Mean Difference		95% CI	p
	Mean	SD		
1 <sup>st</sup> and 2 <sup>nd</sup> Measurement	-4,33	1,62	-4,70 to -3,97	<0,05

There are various factors that influence stunting prevention behavior, one of which is knowledge. Socio-demographic characteristics and maternal knowledge about stunting prevention behavior have a significant relationship with stunting prevention behavior (Mustikawati et al., 2023; Ananda, et al., 2023). Therefore, there

is a need for health promotion activities regarding stunting prevention behavior to increase maternal knowledge that can affect stunting prevention behavior.

Behaviour change communication is an intervention that can be done to change behavior at the individual and family level (Saaka, et al, 2021). The novelty of the study was health promotion was carried out with a lecture and discussion approach combined with leaflet media, so that the mothers can re-read the material presented and can be taken home. Mothers in this study had an improvement of stunting prevention knowledge after promotion of stunting prevention. It can be explained that information provided in the health promotion received well by the mothers and it is effective. Health promotion plays a role to inform and remind of stunting prevention behavior.

Stunting prevention promotion in this study was effective to improve mother's knowledge about stunting prevention. Health promotion was one of the strategies to improve knowledge, attitudes, and practice. Many studies have discussed the effectiveness of stunting prevention promotion towards knowledge, attitudes, and practice of stunting prevention. A study showed that there was an improvement of knowledge, attitudes, and practices of balanced nutrition after educational intervention (Jafar, et al., 2020). In the study, delivering nutrition education using modules, balance sheet (calendar), and physical activity poster can potentially improve the knowledge about balanced nutrition.

Education has been confirmed can improve behavior-related diseases by mediating the participant's knowledge (Pollard, et al., 2009; Wang, et al., 2013).

Another study in Turkey found that interventions through education can improve knowledge, and thus affecting someone's behavior (Mäntyselkä, et al., 2019). A study found that nutritional and eating education was effective in improving diabetics' nutrition knowledge and practices (Wang et al., 2013).

Health promotion in this study also use leaflets media to provide information regarding stunting prevention. The novelty of the study was that leaflet media was developed by the research team using interesting picture and diagram about stunting prevention behavior. Leaflets were one of the effective health promotion media to deliver health information.

Several studies have shown the effectiveness of leaflet media in increasing knowledge about stunting prevention. Nutrition education by using leaflets media have a significant effect on increasing mothers' knowledge and attitudes to prevent stunting in Gurah village, Aceh, Indonesia (Mulyani, et al., 2022). Another study found that there was an effect of nutrition counseling using leaflets media towards knowledge among mothers who have stunted children in Bone, Indonesia (Nuheriana, et al., 2022). A study showed that leaflets are effective in increasing the knowledge, attitudes, and actions of women in preventing stunting in the working area of the Abeli Public Health Center (Mardan, et al., 2023). A literatur review showed that variations in the visual media of posters, leaflets and flip sheets will make it easier for the public to receive knowledge from health promotion officers about stunting prevention (Sahli, 2021).

## KESIMPULAN

In this study, there was an improvement of mother's average total score of knowledge of stunting prevention on 1<sup>st</sup> and 2<sup>nd</sup> measurements. This explained that promotion of stunting prevention improved the mother's knowledge of stunting prevention in Purwakarta Village, Banten Indonesia.

## DAFTAR PUSTAKA

- Ananda, O; Mustikawati, IS; Wekadigunawan, CSP; Shorayasari, S. (2023). Faktor yang Berhubungan dengan Perilaku Kadarzi pada Balita Kecamatan Purwakarta Kota Cilegon. *Health Publica, Jurnal Kesehatan Masyarakat Universitas Esa Unggul*, 2(1), 40–51.
- Dinas Kesehatan Provinsi Banten. (2017). *Rencana Strategis Dinas Kesehatan Provinsi Banten* (pp. 13–24). pp. 13–24. Retrieved from <https://dinkes.bantenprov.go.id/read/berita/724/DIFTERI.html>
- Global Nutrition Report. (2022). Global Nutrition Report. In *Global Nutrition Report*. Retrieved from [http://www.segeplan.gob.gt/2.0/index.php?option=com\\_content&view=article&id=472&Itemid=472](http://www.segeplan.gob.gt/2.0/index.php?option=com_content&view=article&id=472&Itemid=472)
- Jafar, N., Hasan, N., Hadju, V., Thaha, R. M., & Arundhana, A. I. (2020). Improved knowledge, attitudes, and practices of balanced nutrition after educational intervention based on the self-determination theory: An intervention study in senior school teachers in Makassar city. *Open Access Macedonian Journal of Medical Sciences*, 8(E), 228–235. <https://doi.org/10.3889/oamjms.2020.4605>
- Kemenkes. (2018). *Pedoman Strategi Komunikasi*. 5–80.
- Kementerian Kesehatan RI. (2018).

- Riskesdas Nasional 2018.pdf. In *Badan Penelitian dan Pengembangan Kesehatan*. Retrieved from [http://labdata.litbang.kemkes.go.id/images/download/laporan/RKD/2018/Laporan\\_Nasional\\_RKD2018\\_FINAL.pdf](http://labdata.litbang.kemkes.go.id/images/download/laporan/RKD/2018/Laporan_Nasional_RKD2018_FINAL.pdf)
- Kementrian Kesehatan RI. (2023). *Hasil Survei Status Gizi Indonesia (SSGI) 2022*. Retrieved from <https://promkes.kemkes.go.id/materi-hasil-survei-status-gizi-indonesia-ssgi-2022>
- Lamstein; S, Stillman; T, Booher; PK, Aakesson; A, Collaiezzi; B, Williams; T, Beall; K, and A. M. (2014). Evidence of Effective Approaches to Social and Behaviour Change Communication for preventing and Reducing Stunting and Anemia. *Systematic Literature Review*, (August), 116.
- Mäntyselkä, P., Kautiainen, H., & Miettola, J. (2019). Beliefs and attitudes towards lifestyle change and risks in primary care - A community-based study. *BMC Public Health*, 19(1), 1–10. <https://doi.org/10.1186/s12889-019-7377-x>
- Mardan, N., Zainuddin, A., & Hikmawati, Z. (2023). Efektivitas Penggunaan Media Leaflet Terhadap Peningkatan Pengetahuan, Sikap Dan Tindakan Ibu Hamil Dalam Mencegah Stunting Di Wilayah Kerja Puskesmas Abeli Tahun 2022. *Jurnal Wawasan Promosi Kesehatan*, 4(1), 41–47. <https://doi.org/10.37887/jwins.v4i1.43206>
- Mulyani, N. S., Fitriyaningsih, E., Al Rahmad, A. H., & Hadi, A. (2022). Peningkatan pengetahuan dan sikap ibu untuk pencegahan stunting di Kabupaten Aceh Besar. *Jurnal PADE: Pengabdian & Edukasi*, 4(1), 28. <https://doi.org/10.30867/pade.v4i1.810>
- Mustikawati IS; Ananda O; Mahadewi EP, Shorayasari. S; Handayani, P; Wahidin, M. (2023). Social Determinants of Stunting Prevention Behavior in Purwakarta Village, Banten Province, Indonesia. *European Modern Studies Journal*, 2(4), 46–51. [https://doi.org/10.59573/emsj.7\(5\).2023.26](https://doi.org/10.59573/emsj.7(5).2023.26)
- Mutiara, H., Apriliana, E., Suwandi, J. F., & Utami, N. (2019). Screening Pertumbuhan Anak , Edukasi tentang Stunting serta Pelatihan Pemantauan Pertumbuhan Anak pada Orang Tua Siswa Sekolah Dasar Negeri di Provinsi Lampung dalam Upaya Meningkatkan Derajat Kesehatan Anak Indonesia. *Jurnal Pengabdian Masyarakat*, 4(1), 1–5.
- Nuheriana, A., Rate, S., Yusuf, K., Musdalifah, & Intang, N. (2022). Pengaruh Penyuluhan Gizi Dengan Media Leaflet Terhadap Pengetahuan Dan Tindakan Ibu Anak Yang Stunting. *Gizido*, 14(1), 42–53.
- Oxy Handika, D. (2020). Keluarga Peduli Stunting Sebagai Family Empowerment Strategy Dalam Penurunan Kasus Stunting di Kabupaten Blora. *Dinamisia : Jurnal Pengabdian Kepada Masyarakat*, 4(4), 685–692. <https://doi.org/10.31849/dinamisia.v4i4.3981>
- \Pollard, C., Miller, M., Woodman, R. J., Meng, R., & Binns, C. (2009). Changes in knowledge, beliefs, and behaviors related to fruit and vegetable consumption among Western Australian adults from 1995 to 2004. *American Journal of Public Health*, 99(2), 355–361. <https://doi.org/10.2105/AJPH.2007.131367>
- Saaka, M., Wemah, K., Kizito, F., & Hoeschle-Zeledon, I. (2021). Effect

- of nutrition behaviour change communication delivered through radio on mothers' nutritional knowledge, child feeding practices and growth. *Journal of Nutritional Science*, 10, e44. <https://doi.org/10.1017/jns.2021.35>
- Sahli, M. (2021). Efektifitas Media Promosi Kesehatan Dalam Penanganan Stunting ( Literatur Review ). *Jurnal Rumpun Ilmu Kesehatan*, 1(2).
- Wang, H., Song, Z., Ba, Y., Zhu, L., & Wen, Y. (2013). Nutritional and eating education improves knowledge and practice of patients with type 2 diabetes concerning dietary intake and blood glucose control in an outlying city of China. *Public Health Nutrition*, 17(10), 2351–2358. <https://doi.org/10.1017/S1368980013002735>
- Wirth, J. P., Rohner, F., Petry, N., Onyango, A. W., Matji, J., Bailes, A., ... Woodruff, B. A. (2017). Assessment of the WHO Stunting Framework using Ethiopia as a case study. *Maternal and Child Nutrition*, 13(2), 1–16. <https://doi.org/10.1111/mcn.12310>
- World Health Organization. (2018). Reducing stunting in children. In *Equity considerations for achieving the Global Nutrition Targets 2025*. Retrieved from <https://apps.who.int/iris/bitstream/handle/10665/260202/9789241513647-eng.pdf?sequence=1>