

Manuscript received October 14, 2024; revised December 5, 2024; accepted December 5, 2024; date of publication December 30, 2024.

Digital Object Identifier (DOI): <https://doi.org/10.35882/ficse.v3i4.87>

Copyright © 2023 by the authors. This work is an open-access article and licensed under a Creative Commons Attribution-ShareAlike 4.0 International License ([CC BY-SA 4.0](https://creativecommons.org/licenses/by-sa/4.0/))

How to cite: Agung Suharto, Budi Joko Santosa, and Astuti Setiyani, "Community Empowerment in Efforts to Prevent Stunting Based on the Health Belief Model in Milangasri Village, Panekan District, Magetan Regency.", *Frontiers in Community Service and Empowerment*, vol. 3, no. 4, pp. December 2024

# Community Empowerment in Efforts to Prevent Stunting Based on the Health Belief Model in Milangasri Village, Panekan District, Magetan Regency

Agung Suharto<sup>1</sup>, Budi Joko Santosa<sup>2</sup>, and Astuti Setiyani<sup>3</sup>

Departement of Midwifery, Poltekkes Kemenkes Surabaya, Indonesia

\*Corresponding author: Agung Suharto ([agungsuarto14@gmail.com](mailto:agungsuarto14@gmail.com))

**ABSTRACT** Introduction, stunting is a disruption in the growth and development of children due to chronic malnutrition and recurrent infections, which is characterized by their body length or height being below standard. The number of stunted toddlers in Milangasri Village, Panekan District, Magetan Regency in 2022 will be 4 (four) toddlers. Milangasri Village, which is part of the Panekan sub-district, contributes around 4% of all malnourished children under five in Magetan Regency. Coverage of healthy living behavior at household level in Panekan sub-district is around 46%, this achievement is smaller than the national standard of 60%. Efforts to overcome stunting directly touch aspects of knowledge, attitudes, behavior and skills of families and communities through integrated community service activities and are carried out starting from monitoring from pregnancy until the child is at least two years old. Method, community service by providing education about stunting prevention using pre-test-posttest. Location of community service activities in Milangasri Village, Panekan District, Magetan Regency. Results. Characteristics of community service participants, most of whom are 31-35 years old, 38%, most of the participants' education is secondary (high school or equivalent) as much as 57% and the occupation of most of the community service participants is housewives, 35%. There has been an increase in posyandu prevention knowledge regarding stunting prevention based on the health belief model. Conclusion: There has been an increase in posyandu prevention knowledge regarding stunting prevention based on the health belief model.

**INDEX TERMS** Community empowerment, Stunting, Health Belief Model.

## I. INTRODUCTION

Stunting is a condition of failure to thrive in children under five due to chronic malnutrition, especially in the first 1,000 days of life (HPK). The condition of failure to thrive in children under five is caused by a lack of nutritional intake for a long time and the occurrence of recurrent infections, and these two causal factors are influenced by inadequate parenting patterns, especially within 1,000 HPK. Children are classified as stunted if their length or height according to their age is lower than the national standard. applicable. The

standards in question are found in the Maternal and Child Health (KIA) book and several other documents[1]. The Ministry of Health's Basic Health Research (Riskesdas) in 2018 found that 30.8% of children experienced stunting. Even though the prevalence of stunting has decreased from 37.2% in 2013, the stunting rate remains high and there are still 2 (two) provinces with a prevalence above 40%[2]. The direct cause of nutritional problems in children, including stunting, is low nutritional intake and health status. Reducing stunting focuses on addressing the causes of nutritional

problems, namely factors related to food security, especially access to nutritious food (food), the social environment related to the practice of feeding babies and children (parenting), access to health services for prevention and treatment (health), as well as environmental health which includes the availability of clean water and sanitation facilities (environment). These four factors influence the nutritional intake and health status of mothers and children. Intervention on these four factors is expected to prevent nutritional problems, both undernutrition and excess nutrition[3].

The problem of stunting at an early age, especially in the 1000 HPK period, will have an impact on the quality of Human Resources (HR). Stunting causes the body's organs to not grow and develop optimally. Stunted toddlers contribute to 1.5 million (15%) deaths of children under five in the world and cause 55 million Disability-Adjusted Life Years (DALYs), namely the loss of healthy life span every year. In the short term, stunting causes failure to thrive, obstacles to cognitive and motor development, suboptimal physical body size and metabolic disorders[4]. In the long term, stunting causes a decrease in intellectual capacity. Disorders of the structure and function of nerves and brain cells that are permanent and cause a decrease in the ability to absorb lessons at school age which will affect productivity as an adult. Apart from that, malnutrition also causes growth disorders (short and/or thin) and increases the risk of non-communicable diseases such as diabetes mellitus, hypertension, chronic heart disease and stroke [5].

Stunting is one of the main nutritional problems among toddlers in Indonesia that has not been resolved. Basic Health Research (Riskesdas) data shows that the prevalence of short and very short children under five in Indonesia was 37.2% in 2013 and decreased to 30.8% in 2018. Meanwhile, for toddlers, the prevalence in 2018 was 29.9%, which has decreased from 32.8% in 2013. The 2021 Indonesian Nutritional Status Study (SSGI) in 34 provinces shows that the national stunting rate has decreased from 27.7% in 2019 to 24.4% in 2021. The prevalence has decreased but based on WHO criteria it is still in the high category (>20%). Apart from that, data in Indonesia to date has not differentiated between stunting caused by nutritional factors and non-nutritional factors (genetic, hormonal or familial factors). Stunting rates in Magetan Regency have continued to decline over the past three years. Data from the Health Service is recorded from the number of stunted toddlers was 3,565 in 2019, currently in 2021 there are 3,018 stunted babies. The prevalence of malnutrition among toddlers in Magetan Regency in 2018 was 0.96%. four) Milangasri Village, which is part of the Panekan sub-district, accounts for around 4% of all under-five children with malnutrition in the district. The coverage of healthy living behavior at the household level in Panekan sub-district is around 46%, this achievement is lower than the national standard of 60% Various efforts has been made to reduce this number to as small as possible [6]. One of Magetan Regency's efforts to reduce the stunting rate is by mapping fifteen Special Stunting Locations (Locus).

The specific stunting locations that have been mapped for 2021 are Milangasri, Pojoksari, Truneng, Ngente, Klagen Gambiran, KedungPanji, Lembeyan Wetan, Nguri, Suratmajan, Ngujung, Sukowidi Nguntoronadi subdistrict, Bangunasri subdistrict. West, Tanjungsari, Turi, Banjarpanjang, and Sobontoro. This mapping was carried out because in 2021, Magetan Regency was included in the expanded list of Regency/City Locations for Focus of Integrated Stunting Reduction Interventions in 2021 along with 13 other Regencies in East Java [7].

Efforts to prevent stunting in Magetan are also carried out by giving blood supplement tablets to young women. This step is of particular concern because in 2020 the anemia rate of pregnant women in Magetan Regency reached 26% and underweight/chronic low energy (KEK) pregnant women reached 12.1%. However, the pandemic meant that the activity of providing blood supplement tablets was hampered and stopped. Apart from paying attention to young women who are prospective brides and pregnant women, other efforts to prevent stunting include optimizing treatment for 1000 HPK (First Day of Life) of toddlers up to two years of age as well as optimizing PAUD [8][9]. The health belief model is a concept that expresses an individual's reasons for wanting or not wanting to carry out healthy behavior (Janz & Becker, 1984). The health belief model can also be interpreted as a theoretical construct regarding individual beliefs in healthy behavior [10]. The health belief model is a model used to describe an individual's belief in healthy living behavior, so that the individual will carry out healthy behavior, this healthy behavior can be in the form of preventive behavior or the use of health facilities. This health belief model is often used to predict preventive health behavior and behavioral responses to the treatment of patients with acute and chronic diseases. However, recently the Health Belief Model theory has been used to predict various health-related behaviors, one of which is efforts to prevent stunting [11] [12]

## II. METHODS

Community service method by providing education about stunting prevention using pre-test-posttest. The targets of this community service are 100 posyandu cadres, community leaders and village officials. Location of community service activities in Milangasri Village, Panekan District, Magetan Regency. The implementation time for this community service activity is Wednesday, June 26, 2024, 08.00-12.00 WIB.

## III. RESULT

The study aims to understand the demographics of people involved in community service activities in this village. It examines how old the participants are, what level of education they have completed, and what their job situations are. This information could be useful for planning future community programs or understanding who tends to engage in community service in this area as the results in TABLE 1

### A. CHARACTERISTICS OF COMMUNITY SERVICE PARTICIPANTS

**TABLE 1.**

Characteristics age of community service participants in Milangasri Village, Panekan District, Magetan Regency, 2024

No	Age (Year)	Frequency	(%)
1	21-25	12	12
2	26-30	20	20
3	31-35	38	38
4	36-40	25	25
5	41-45	16	16
6	45-60	13	13

**TABLE 2.**

Characteristics education of community service participants in Milangasri Village, Panekan District, Magetan Regency, 2024

No	Education level	Freq	(%)
1	Basic Education (Primary to Middle School or equivalent)	28	28
2	Secondary Education (High School Equivalent)	57	57
3	Higher Education (PT)	15	15

**TABLE 3.**

Characteristics employment of community service participants in Milangasri Village, Panekan District, Magetan Regency, 2024

No	Job	Frequency	(%)
1	Housewives	35	35
2	Civil servants	11	11
3	Farmer	23	23
4	Private/entrepreneur	16	16
5	Village Apparatus	15	15

In TABLE 1-3. Characteristics of community service participants, the majority are aged 31-35 years as much as 38%, the education of most of the participants is secondary (high school or equivalent) as much as 57% and the occupation of most of the community service participants is housewives at 35%.

In TABLE 4, the results show that there is an increase in knowledge from pre-test to post-test, mostly in very shared knowledge of 30%.

#### IV. DISCUSSION

Characteristics of community service partners, most of whom are 31-35 years old (38%). Increasing a person's age can have an impact on their health, where there is a decline in organ structure and function, so that the elderly tend to use health services more than young people. The impact can be in the form of cognitive and psychological changes, social and environmental changes, so that it will increase the occurrence of health risks. Some hearing and vision losses are as part of normal aging as the body's immune function declines [13]. For example, older patients with musculoskeletal disorders will experience decreased function in bone healing, which can result in long-term limitations, which can increase dependence on others. Age is one of the social aspects that affect the formation of vulnerability perceptions, because the abilities possessed can be obtained through daily experience. The older you are, the more mature you are mentally and behaviorally. In certain cases, even young people can have a sufficient perception of vulnerability if they are frequently exposed to knowledge or information regarding nutritional status. Even low income may not necessarily worsen the perception of vulnerability because a person who already feels vulnerable to disease problems will try to optimize existing facilities to get treatment [14]. Parents with little nutrition but who can regulate the food consumption pattern of toddlers will be able to improve the nutritional status of toddlers [15].

The level of education of respondents showed that most of the respondents had secondary education, 57%. This level of education is the secondary level of education, where a person has the skills to conduct analysis in solving problems. Most of the respondents' education is lacking, which is related to the respondent's ability to understand knowledge information. A person's education level is related to a person's ability to receive and understand information about health. The better a person's level of education, the better their ability to absorb information and increase their knowledge [16][17].

**TABLE 4.**

Frequency distribution of pre-test and post-test knowledge about stunting prevention in Milangasri Village, Panekan District, Magetan Regency in 2024

Stunting knowledge	Pretest		Post test	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Very Good	20	20	30	30
Good	30	30	45	45
Just	40	40	15	15
Less	10	10	0	0
Total	100	100	100	100

Sources; Primary Data

#### B. LEVEL OF KNOWLEDGE OF COMMUNITY SERVICE PARTICIPANTS REGARDING STUNTING PREVENTION

The distribution of respondents' occupations shows that most respondents are housewives, 35%. This condition means that respondents have sufficient time to pay attention to their body

condition. Home environmental factors, where mothers have sufficient free time to pay attention to the condition of their bodies, become better. This condition helps mothers pay attention to developments in their health conditions, including caring for their children [18]

## V. CONCLUSION

There has been an increase in posyandu prevention knowledge regarding stunting prevention based on the health belief model.

## ACKNOWLEDGMENT

Thank you to the Director of the Health Polytechnic, Ministry of Health, Surabaya and the Head of the Center for Community Service Research, Health Polytechnic, Ministry of Health, Surabaya

## VI. REFERENCES

- [1] R. Nazli and E. Erlinda, "PEMODELAN APLIKASI PENDUKUNG KEPUTUSAN MAKANAN PENDAMPING AIR SUSU IBU (MPASI) BERBASIS ANDROID," *JURNAL TEKNOLOGI DAN OPEN SOURCE*, vol. 3, no. 2, pp. 272–283, Dec. 2020, doi: 10.36378/jtos.v3i2.900.
- [2] B. P. dan P. K. Kemenkes RI, "Laporan Riskesdas 2018," Jakarta: Kemenkes RI, 2018. Accessed: Jan. 07, 2025. [Online]. Available: <chrome-extension://efaidnbmnnnibpcajpgclclefindmkaj/https://repository.badankebijakan.kemkes.go.id/id/eprint/3514/1/Laporan%20Riskesdas%202018%20Nasional.pdf>
- [3] H. S. Kasjono and E. Suryani, "Pengaruh Aplikasi Pencegahan Stunting 'Gasing' Terhadap Perilaku Pencegahan Stunting Pada Siswi SMA Di Wilayah Kecamatan Kalibawang Kulon Progo," *JURNAL NUTRISIA*, vol. 22, no. 1, pp. 16–22, Mar. 2020, doi: 10.29238/jnutri.v22i1.200.
- [4] SAVIRA NURCAHYA PUTRI and Rahmat Sudiyat, "PENGEMBANGAN E-BOOK ANTI STUNTING (EBAS) BAGI KADER KESEHATAN MENGENAI PENCEGAHAN STUNTING," *Jurnal Kesehatan Siliwangi*, vol. 2, no. 1, pp. 267–274, Dec. 2021, doi: 10.34011/jks.v2i1.660.
- [5] I. Isril, M. Y. Tiyas Tinov, Z. Harirah MS, and A. Wasillah, "Perencanaan Urusan Pemerintahan Kesehatan Untuk Mencegah Stunting Di Kabupaten Bengkalis Provinsi Riau," *Jurnal Pengabdian Masyarakat Indonesia*, vol. 4, no. 4, pp. 615–621, Aug. 2024, doi: 10.52436/1.jpmi.2533.
- [6] Dinkes Kabupaten Magetan, "LAPORAN KINERJA INSTANSI PEMERINTAH (LKJIP) TAHUN 2023," Magetan, 2023.
- [7] Dirjenakes, "Pedoman Penelitian dan Pengabdian Kepada Masyarakat Politeknik Kesehatan Kementerian Kesehatan; Edisi II," Jakarta: Kemenkes RI, 2021.
- [8] J. E. Newman *et al.*, "Theory-driven process evaluation of a complementary feeding trial in four countries," *Health Educ Res*, vol. 29, no. 2, pp. 297–305, Apr. 2014, doi: 10.1093/her/cyt115.
- [9] K. Kustin, "Peningkatan pemberdayaan keluarga dalam upaya pencegahan stunting melalui taman gizi di Kelurahan Sumbersari Kabupaten Jember," *INDRA: Jurnal Pengabdian kepada Masyarakat*, vol. 2, no. 1, pp. 30–36, Apr. 2021, doi: 10.29303/indra.v2i1.82.
- [10] S. P. I. Hadi and Tri Budi Rahayu, "Pengembangan Aplikasi Sahabat Bunda | Cegah Stunting Berbasis Android Sebagai Upaya Pencegahan Dini Stunting," *EMBRIO*, vol. 14, no. 1, pp. 84–96, May 2022, doi: 10.36456/embrio.v14i1.4503.
- [11] C. Abraham and P. Sheeran, "The health belief model," in *Cambridge Handbook of Psychology, Health and Medicine*, Cambridge University Press, 2001, pp. 97–102. doi: 10.1017/CBO9780511543579.022.
- [12] Agung Suharto and Budi Joko Santosa, *Buku Monograf Pemberdayaan Masyarakat dalam Mewujudkan Keluarga Sehat Bebas Stunting Berbasis Health Belief Model dan Theory of Planned Behavior*, Rintho R. Rerung. Bandung: MEDIA SAINS INDONESIA, 2023.
- [13] E. Jaul and J. Barron, "Age-related diseases and clinical and public health implications for the 85 years old and over population," *Front Public Health*, vol. 5, p. 335, 2017.
- [14] R. Chambers, "Vulnerability, coping and policy (editorial introduction)," *IDS Bull*, vol. 37, no. 4, pp. 33–40, 2006.
- [15] Tristan V. M. Kantohe, Novie H. Rampengan, and Max F. J. Mantik, "FAKTOR-FAKTOR YANG MEMENGARUHI MINAT IMUNISASI MEASLES RUBELLA (MR) DI KECAMATAN MALALAYANG, MANADO," *Jurnal Medik dan Rehabilitasi (JMR)*, vol. 1, no. 3, 2019.
- [16] Desak Ketut Sintaasih and Wayan Gede Suparta, *Pengantar Perilaku Organisasi Teori, Kasus, dan Aplikasi Penelitian*. Denpasar: CV. Setia Bakti, 2017.
- [17] Agung Suharto, *Promosi Kesehatan Suatu Pendekatan Praktis*, Rintho R. Rerung. Media Sains Indonesia, 2022.
- [18] Aswadi Aswadi, Sukfitriyanti Syahrir, and Andi Syamsiah Adha, "Perilaku Ibu Terhadap Pemanfaatan Posyandu Balita di Wilayah Kerja Puskesmas Tarakan Kecamatan Wajo Kota Makassar," *Al-Sihah: The Public Health Science Journal*, vol. 10, no. 1, 2018.