Jurnal Aisyah: Jurnal Ilmu Kesehatan

Volume 8, Issue 1, March 2023, p. 167–172
ISSN 2502-4825 (print), ISSN 2502-9495 (online)

The Intervention Package Increases the Readiness of Health Post Cadres to Preventing Stunting in Children

Erna Julianti[1*)], Elni[1]

[1] Prodi Keperawatan, Universitas Bangka Belitung, Kampus UBB Pangkalpinang

ARTICLE INFO

Article history:

Received 10 October 2022
Accepted 31 January 2023
Published 20 March 2023

Keyword:

Stunting
stunting intervention package
health post cadres

**) corresponding author*

Erna Julianti, S.Kep., Ns., M.Kep., sp. Kep. An

Prodi Keperawatan, Universitas Bangka Belitung. Kampus UBB Pangkalpinang, Jl. Pulau Bangka Kel. Air Itam Kec. Bukit Intan, Prov Bangka Belitung, Tlpn: (0717) 431979

Email: erna.julianti08@gmail.com

DOI: 10.30604/jika.v8i1.1409

A B S T R A C T

Stunting is one of the priority nutrition problems in Indonesia. The incidence of stunting in 2018 to 2021 has decreased but has not yet reached the government's target of 14.4%. The intervention of stunting is very important to be done by nurses and the integrated health post cadres to prevent stunting. This study aimed to identify the effect of the stunting intervention package on the preparedness of health post cadres (knowledge and motivation) in stunting prevention. This study was a pra-experimental approach using pre-test and post-test without control. The number of samples was 30 respondents with the purposive sampling technique. The instruments in this study were characteristics and preparedness questionnaires. The health post cadre's preparedness questionnaire consisted of a questionnaire on knowledge and motivation. The analysis used in this study was the Wilcoxon test. The average knowledge and motivation of health post cadres after the stunting intervention package were higher, with a value of 11.63 and 55.20, compared to those before the intervention which were 10.23 and 52.97. The results show a significant difference between cadres' average knowledge and motivation in stunting prevention before and after the stunting intervention package was given with a p-value of 0.001 and 0.027. There is a significant difference between the average knowledge and motivation of health post cadres before and after being given the stunting intervention package. it is hoped that the cadres will consistently implement the stunting intervention package at the health post.

INTRODUCTION

Stunting in children is a condition where the children's body fails to grow during childhood due to chronic malnutrition, so they become too short at their age. Chronic malnutrition happens when the babies are in their mothers' wombs until age two (Alifariki, Rangki, Haryati, Rahmawati and Sukurni, 2020). The estimated proportion of malnourished children for the global stunting indicator in 2020 was 149.2 million (22.0%) for under-five children (WHO, 2022). Stunting becomes one of the prior problems in Indonesia. There was a decrease in the incidence rate of stunting from 2018 to 2021. Based on the data from the Indonesian Nutritional Status Study (SSGI) in 2021, the stunting prevalence saw a decline from 27.7% in 2019 to 24.4%. However, it did not reach the target set by the government of 14.4% (Kementerian Kesehatan, 2021). The stunting prevalence in under-five children in Bangka Belitung Islands, based on Basic Health Research in 2018, was 23.37% (Kementerian Kesehatan, 2018). The Health Office of Bangka Belitung Islands data in 2017 showed that the prevalence of stunted under-five children in Pangkalpinang was 26.7% (Dinas Kesehatan Provinsi Kepulauan Banka Belitung, 2017).

Many factors can cause stunting in under-five children, including mothers' poor knowledge, incorrect parenting style, malnutrition, low birth weight, and low economic status in a family. Thus, the intervention that can be performed to minimize the stunting prevalence in under-five children is a shared responsibility involving many parties, namely the government, health workers, *Posyandu* cadres as well as the under-five children's parents (Tasyrifah, 2021).

Stunting can potentially delay the brain development with a long-term impact in the form of mental retardation, low ability to learn, and the risk of being infected with chronic diseases, such as diabetes, hypertension to obesity (Daracantika, Ainin,& Besral, 2021).

Seeing the high incidence rate of stunting and the impact, the role of nurses collaborating with *Posyandu* cadres is required for the stunting prevention in children. One of the nurse roles is providing the stunting intervention package to the *Posyandu* cadres to know the cadres' readiness in stunting prevention. The result of a study conducted by Nuzula, Oktaviana, dan Yunita (2020) indicated that the cadres' knowledge of nutritional intervention specifically for stunting prevention had a significant difference before and after receiving health education. Besides, it is important for the Posyandu cadres to know the breastfeeding method, so they can inform the under-five children's mothers regarding the method. The result of a study conducted by Hafid, Taqwin, Linda, Nasrul, dan Ramadhan (2021) showed that the specific intervention in preventing stunting in children under 2 years old was breastfeeding practice. *Posyandu* cadres play a role in socializing the integration of preventing and reducing the stunting incidence rate to the public and increasing the people's awareness of stunting through the measurement of height and weight as an early detection of stunting and breastfeeding education (Kementerian Desa, Pembangunan Daerah Tertinggal, & Transmigrasi RI, 2017). The cadres as the committee of health workers in the community need a stunting intervention package provided by the health workers to understand the stunting prevention.

MATERIALS AND METHODS

Research design

This quantitative study used a pra experimental design with pre-test and post-test without control aimed at identifying differences in knowledge and motivation of health post cadres in stunting prevention before and after being given the stunting intervention package (PIS). The research location is at the Girimaya Primary Health Center in Pangkalpinang. The variables in this study are the knowledge and motivation of health post cadres

Sample

The sample in this study were 30 *Posyandu* cadres. The sampling technique was purposive sampling based on certain considerations made by the researcher in accordance with the inclusion criteria, including: Posyandu cadres on duty at table 2 for weighing and measuring height and table 4 for counseling and nutrition services. The *Posyandu* cadres were selected by the head of the nutrition sector that is the locus of stunting in the Girimaya *puskesmas* area. They were willing to become respondents and signed the agreement to become respondents. They participated in the stunting intervention package in the form of FGDs. The ethical principle adopted by the study is to respect the privacy and confidentiality of respondents. The researcher respects the rights of respondents to agree or refuse to participate in the study. Furthermore, the researcher explained the research benefits, research objectives and research procedures. This study was voluntary and without coercion. Respondents were asked to sign a consent form if they were willing to participate in the data collection process during the study.

Data collection procedures

The procedure in this study was that before being given a stunting intervention package, health post cadres were given a cadre characteristics questionnaire and a health post cadre preparedness questionnaire consisting of knowledge and motivation, only then the cadres were given a stunting intervention package for 3 days. The data collection process are two month. After that, the cadres were given the characteristics questionnaire as well as knowledge and motivation to prevent stunting questionnaire again.

Stunting intervention package is an intervention in nursing by providing education related to stunting, breast milk, growth measurement practices, and breastfeeding technique education practices in an effort to empower health post cadres to prevent stunting in children under 5 years of age for 3 days. The method of education is in the form of FGD, namely lectures, discussions, audiovisual media, and demonstrations. The first day program provides educational interventions regarding stunting and breastfeeding. The second day program provides simulations or demonstrations of how to measure height or body length and breastfeeding techniques. And, in the third day program, the cadres conducted educational simulations on stunting, breastfeeding, measuring height or body length and breastfeeding techniques. Stunting intervention package was given/delivered by implementing health protocols, namely using masks, washing hands with soap, and maintaining safe distance. Researchers developed a stunting intervention package based on Amaliyah and Mulyati's (2020) research intervention in the form of education to reduce stunting. The stunting intervention package already has intellectual property rights.

Instruments

The data collection instruments in this study were the health post cadre characteristics and preparedness questionnaires. The health post cadre's preparedness questionnaire consisted of a questionnaire on knowledge and motivation in stunting prevention. The health post cadres' knowledge questionnaire consisted of 15 questions and the cadres' motivation questionnaire consisted of 15 statements. The instrument using interval scale. The instrument of knowledge the highest score is 15 and the lowest score is 0. The instrument of motivation the highest score is 60 and the lowest score is 15. The questionnaires were tested for validity on 30 respondents with the results of 0.367-0.756 for the knowledge questionnaire and 0.412 - 0.794 for the motivation questionnaire, thus it can be concluded that both of the questionnaires were considered valid. While the reliability test results of the knowledge and motivation questionnaires were 0.848 and 0.954, so it can be concluded that the questionnaires were reliable.

Data analysis

The analysis used in this study was bivariate analysis. The bivariate analysis aims to see the average difference in knowledge and motivation of health post cadres in stunting prevention before and after being given the stunting intervention package (PIS). The statistical test used was the Wilcoxon test. The results of the normality test showed that the data was not normally distributed because the p value

was less than 0.05 so that using nonparametric analysis the Wilcoxon rank test with $\alpha < 0,05$.

Ethical Considerations

The researchers have obtained approval to pass the ethical test from the Health Research Ethics Commission of Universitas 'Aisyiyah Yogyakarta, with number 1037/ KEP.UNISA/I/ 2020 in an effort to protect the welfare of respondents. The ethical principle adopted by the study is to respect the privacy and confidentiality of respondents. The researcher respects the rights of respondents to agree or refuse to participate in the study. Furthermore, the researcher explained the research benefits, research objectives and research procedures. This study was voluntary and without coercion. Respondents were asked to sign a consent form if they were willing to participate in the data collection process during the study.

Researchers saved the respondent data with maintaining the confidentiality in the form of physical and electronic archives and destroyed after five years

RESULTS

The characteristics of health post cadres studied include the level of education and training of health post cadres as described in table 1.

Table 1. The Frequency Distribution of Respondents Characteristics by the Level of Education and Training

Respondent characteristics	n	%
Cadre Education		
Elementary/Primary (SD, SMP)	13	43.3
Secondary (SMA)	15	50
Tertiary (D3, S1, S2)	2	6.7
Cadre Training		
Have attended training	18	60
Never attended training	12	40
Total	30	100

Table 1 shows that of the 30 respondents, it was found that 50% of the health post cadres at the Girimaya Public Health Center had secondary education and 60% of the cadres had attended training.

Tabel 2. The Difference in the Mean Value of age

Variabel	$\bar{x}$	SD
Cadres age	39.6	8,5

Based on table 2, it shows that the average cadres age are 40 years old. The results of the analysis of the difference in the mean value of preparedness of cadres in the form of knowledge and motivation of health post cadres in stunting prevention before and after being given the stunting intervention package can be seen in Table 3.

Table 3. The Difference in the Mean Value of Knowledge and Motivation in Stunting Prevention Before and After being given the Stunting Intervention Package

Variable	$\bar{x}$	SD	*P value*
Cadres' Knowledge			
Before being given PIS	10.23	1.69	0.001
After being given PIS	11.63	1.56	
Cadres' Motivation			
Before being given PIS	52.97	4.29	0.027
After being given PIS	55.20	4.88	

Based on table 2, it shows that the average knowledge of cadres in stunting prevention after being given the stunting intervention package was higher by 11.63 compared to the average knowledge of cadres before being given the stunting intervention package which was 10.23. The results of the analysis show that there is a significant difference between the average knowledge of the cadres before and after the stunting intervention package was given with a p-value of 0.001.

The results of this study also show that the average motivation of cadres in stunting prevention after being given the stunting intervention package was higher at 55.20 compared to the average motivation of cadres before the stunting intervention package was given, which was 52.97. The analysis shows that there is a significant difference between the average motivation of the cadres before and after the stunting intervention package was given with a p-value of 0.027.

DISCUSSION

The preparedness of health post cadres in stunting prevention is seen from the knowledge and motivation of cadres in stunting prevention. The results of this study indicate that the average knowledge of cadres in stunting prevention after being given the stunting intervention package was higher than the average knowledge of cadres before being given the stunting intervention package. The analysis shows that there is a significant difference between the average knowledge of cadres before and after the stunting intervention package was given. This is in line with the research results put forward in Adistie, Lumbantobing, and Maryam's (2018) study in which it showed that there is a significant increase in the knowledge of health cadres after community empowerment interventions and growth stimulation are carried out.

Megawati and Wiramihardja (2019) also state that health post cadres understand better about balanced nutrition, early detection of stunting, and the important role of health post cadres in informing optimal nutrition at the first 1000 days of life as an effort to prevent stunting and to identify risk factors for stunting in the health post working area. This was obtained from the increase in the results of knowledge on the test after the health post cadre capacity training. Research results by Purnamasari, Shaluhiyah, and Kusumawati (2020) also show that there is a significant difference in the knowledge of health post cadres after being given cadre training in stunting prevention.

The stunting intervention package program is an intervention in nursing by providing related education about stunting, breastfeeding, growth measurement practices, and breastfeeding practices to prevent stunting – in an effort to empower health post cadres to detect stunting in children under 5 years of age. For health post cadres, this program is aimed to achieve the learning domain, namely the cognitive domain. The cognitive domain is a thought process that starts with the ability to know, understand, apply, perform analysis, synthesis, and evaluate stunting prevention (Kozier, Erb, Berman, & Synder, 2011). Knowledge or cognitive is a very important domain in shaping one's actions (overt behavior) (Notoatmojo, 2010), this includes the actions of health cadres in early detection, prevention, and management of stunting in children (Hendrawati, 2018). Health post cadres also understand more about balanced nutrition and the important role of health post cadres in conveying information to the community about providing optimal nutrition in the first 1000 days of life as an effort to prevent stunting. This stunting intervention package also helps cadres to identify risk factors for stunting.

The stunting intervention package was given to health post cadres through audiovisual media, demonstrations, and discussions. Learning media that are attractive and easy to imitate such as audiovisual media, can help improve the attention and retention of cadres' learning. Audiovisual media can also make it easier for cadres to convey and receive material, thoughts, and messages – and also, avoid misunderstandings. Audiovisual media also encourages a person's desire to find out more about the information s/he is studying (Mishra & Yadav, 2014). The learning media used is based on the principle that the knowledge that exists in every human being is accepted or captured by the five senses, the more senses used to receive something, the clearer the understanding will be. Something that raises attention, will provide new understanding for cadres and is an impetus for early detection and prevention of stunting (Notoatmojo, 2010)

The results of this study also show that the average motivation of health post cadres in stunting prevention after being given the stunting intervention package was higher than the average motivation of the cadres before the stunting intervention package. The analysis shows that there is a significant difference between the average motivation of the cadres before and after being given the stunting intervention package. This is in line with a study by Andriani, Rezal, and Nurzalmariah (2017) which states that there is a significant difference in motivation after being given the Mother Smart Grounding (MSG) program in stunting prevention in the working area of Puuwatu Public Health Center, Kendari City. A person's motivation is supported by a motive or a driving force, which occurs because of the desire that drives to fulfill a need from within a person; this is due to the physical and psychological demands that arise through the mechanism of the human biological system. In this study, the motives and drivers made by the researchers were the existence of health education about stunting, provision of booklet media, and demonstrations (Andriani, Rezal, & Nurzalmariah, 2017)

McClelland's theory (a theory of motivation that is closely related to the learning process) argues that individual needs are something that is learned from their cultural environment. Motivation comes from efforts to fulfill needs which are something that can be learned and taught. Most of the cadres have a need for children's health as well as a need for skills to stand more independently as the vanguard of children's health. Health post cadres are the main drivers of all activities carried out at the health post. The existence of cadres is important and strategic, as when the services provided by health post cadres get the sympathy of the community, it will have positive implications for community awareness and participation. Cadres are expected to play an active role in promotional and preventive activities and be able to be a driver, motivator, and instructor for the community (Megawati & Wiramihardja, 2019)

Motivation shapes the personality of the cadres to become more passionate in carrying out their duties and obligations as cadres. Therefore, it is important to form and maintain a cadre environment to be conducive, especially by providing moral support from the immediate family or the environment around the cadre, for example from health workers (Afifa, 2019)

Amaliyah & Mulyati (2020) state that the management of community empowerment, especially cadres, needs to be improved by instilling awareness to be involved in dealing with malnourished children under 5 years of age and malnutrition problem to turn it into normal nutritional status. This study also provides a new approach to stunting prevention in Indonesia, which can serve as an evidence base for health care policies to enhance stunting prevention programs with local communities and broadly provide cultural training to all communities through health post cadres as the first line of the health care system in Indonesia. The limitation in this study is the difficulty of focusing posyandu cadres during FGD activities, so that researchers do distractions to attract the attention of cadres. It is hoped that the cadres will consistently implement the stunting intervention package at the health post.

CONCLUSION

The average knowledge and motivation of health post cadres in stunting prevention after being given the stunting intervention package was higher than that before the stunting intervention package was given. The results of this study indicate that there is an increase in the readiness of healt post cadres after being given the stunting intervention package.

ACKNOWLEDGEMENT

The researchers would like to thank Universitas Bangka Belitung for funding support to this study. We also thank the health post cadres who participated in this study.

REFERENCES

Adistie, F., Lumbantobing, V. B. M., & Maryam, N. N. A. (2018) 'Pemberdayaan Kader Kesehatan Dalam Deteksi Dini Stunting dan Stimulasi Tumbuh Kembang pada Balita', *Media Karya Kesehatan*, 1(1), pp. 173–184. doi: https://doi.org/10.24198/mkk.v1i2.18863.

Afifa, I. (2019) 'Kinerja Kader dalam Pencegahan Stunting: Peran Lama Kerja sebagai Kader, Pengetahuan dan Motivasi', *Jurnal Kedokteran Brawijaya*, 30(4), pp. 336–341.

Amaliyah, E., & Mulyati, M. (2020) 'Effectiveness of Health Education and Nutrition Rehabilitation Toward Community Empowerment for Children Aged Less Than 5 Years with

Stunting: A Quasi-Experimental Design', *Jurnal Ners*, 15(3), pp. 173–177. doi: doi.org/10.20473/jn.v15i2.19494.

Andriani, W. O. S., Rezal, F., & Nurzalmariah, W. O. S. (2017) 'Perbedaan pengetahuan, sikap, dan motivasi ibu sesudah diberikan program mother smart grounding (msg) dalam pencegahan stunting di wilayah kerja puskesmas puuwatu kota kendari.', *Jurnal Ilmiah Mahasiswa Kesehatan Masyaraka*, 2(6).

Aprilia Daracantika, Ainin, & B. (2021) 'Pengaruh negatif stunting terhadap perkembangan kognitif anak', *Jurnal Biostatistik, Kependudukan, dan Informatika Kesehatan*, 1(2), pp. 124–134. doi: http://dx.doi.org/10.51181/bikfokes.v1i2.4647.

Dinas Kesehatan Provinsi Kepulauan Banka Belitung (2017) *Profil kesehatan Provinsi Kepulauan Bangka Belitung*. Bangka Belitung.

Fahmi Hafid, Taqwin Taqwin, Linda Linda, Nasrul Nasrul, Kadar Ramadhan, B. B. (2021) 'Specific interventions to prevent stunting in children under 2 years after the natural disaster', *Open Access Macedonian Journal of Medical Sciences*, 9(E), pp. 64–69. doi: https://doi.org/10.3889/oamjms.2021.5677.

Firdawsyi Nuzula, Maulida Nurfazriah Oktaviana, & R. D. Y. Y. (2020) 'Pendidikan kesehatan terhadap kader tentang intervensi gizi spesifik dalam pencegahan stunting', *The Indonesian Journal of Health Science*, 12(2), pp. 209–215. doi: https://doi.org/10.32528/ijhs.v12i2.4877.

Ghina Mutiara Tasyrifah (2021) 'Literature Review: Causes of Stunting in Toddlers', *Muhammadiyah International Public Health and Medicine Proceeding*, 1(1), pp. 339–346. doi: https://doi.org/10.53947/miphmp.v1i1.71.

Hendrawati, S. (2018) 'Pemberdayaan Kader Kesehatan dalam Pencegahan dan Penatalaksanaan Stunting pada Anak di Wilayah Kerja Puskesmas Jatinangor', *Dharmakarya,* 7(4), pp. 274–279. doi: https://doi.org/10.24198/dharmakarya.v7i4.19527.

Kementerian Desa, Pembangunan Daerah Tertinggal, dan T. R. I. (2017) *Buku saku desa dalam penanganan stunting.* Jakarta: Direktur Jendral Pembangunan dan Pemberdayaan Masyarakat Desa.

Kementerian Kesehatan (2018) *Riset Kesehatan Dasar (RISKESDAS) tahun 2018*. Jakarta.

Kementerian Kesehatan (2021) *Buku saku: Hasil studi status gizi Indonesia (SSGI) Tingka Nasional, Provinsi, dan Kabupaten/Kota Tahun 2021*. Jakarta.

Kozier, B., Erb, G., Berman, A., & Synder, S. J. (2011) *Buku ajar fundamental keperawatan: Konsep, proses, dan praktik*. 7th edn. Jakarta: EGC.

Megawati, G., & Wiramihardja, S. (2019) 'Peningkatan Kapasitas Kader Posyandu Dalam Mendeteksi Dan Mencegah Stunting', *Dharmakarya*, 8(3), pp. 154–159.

Mishra, S.K., & Yadav, B. (2014) 'Audio-visual aids & the secondary school teaching.', *Global Journal of Human Social Science*, 14(1), pp. 14–24.

Notoatmojo, S. (2010) *Promosi kesehatan: Teori dan aplikasi*. revisi. Jakarta: Rineka Cipta.

La Ode Alifariki, La rangki, Haryati Haryati, Rahmawati Rahmawati, S. and Sukurni, W. O. S. (2020) 'Risk factors of stunting in children age 24-59 months Old', *Media Keperawatan Indonesia*, 3(1), pp. 10–16. doi: DOI: https://doi.org/10.26714/mki.3.1.2020.10-16.

Purnamasari, H., Shaluhiyah, Z., & Kusumawati, A. (2020) 'Pelatihan kader posyandu sebagai upaya pencegahan stunting pada balita di wilayah kerja puskesmas margadana dan puskesmas tegal selatan kota tegal', *Jurnal Kesehatan Masyarakat*, 8(3), pp. 343–350.

WHO (2022) *The Global health observatory : Joint child malnutrion estimates*. Geneva.

 ISSN 2502-4825 (print), ISSN 2502-9495 (online)