

EFFECTIVENESS OF TRAINING AND USE GEMA BERCETING APPLICATION ON KNOWLEDGE, SKILLS, MOTIVATION OF HEALTH CADRES

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Abstract

Introduction: Stunting is a disorder of growth and development of children due to chronic malnutrition and repeated infections, which are characterized by their length or height being below standard. Based on the results of the Indonesian Nutrition Status Study (SSGI) Ministry of Health, the prevalence of stunting under five was 24.4% in 2021. The 2020-2024 National Medium Term Development Plan (RPJMN) and Presidential Regulation No. 72 of 2021 targets to reduce stunting to 14% in 2024, improve the quality of preparation for family life, ensure fulfillment of nutritional intake, and improve parenting. This study aims to prevent and reduce stunting by involving the Family Assistance Team (TPK) movement and to find out the effectiveness of training and the use of the GEMA BERCETING Application.

Methods: This research method is a pre-experimental analytic with one group pre-post-test design. The population in this study was the entire Family Assistance Team (TPK) in Peterongan District, Jombang Regency with a sample of 140 people. Data collection techniques were carried out by measuring the level of knowledge, skills, and motivation before and after receiving training and using the GEMA BERCETING application (Community Movement to Eradicate and Prevent Stunting).

Results: The results showed that there were differences in the knowledge, skills, and motivation of TPK due to the application of the GEMA BERCETING application with the independent t-test results obtained a t value of 9.09 ($p = 0.008$).

Conclusions: There are differences in the value of knowledge, skills, and motivation before and after training and the use of the GEMA BERCETING Application for TPK in Peterongan District, Jombang Regency 2022. We suggest the Peterongan Health Center and TP PKK Pokja IV Jombang Regency develop an agenda for capacity-building activities for the Family Assistance Team (TPK) in Peterongan District which is held regularly using the GEMA BERCETING application according to the needs of the community.

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INTRODUCTION

Stunting is a disorder of growth and development of children due to chronic malnutrition and repeated infections, which are characterized by their length or height being below standard (dr. Desi Fajar Susanti, M.Sc, 2022). Impaired growth and development of children due to chronic malnutrition and recurrent infections or commonly known as stunting is a global public health problem if the prevalence is > 20%. Data from the UN team for Children, WHO and the World Bank in 2019 noted that around 50% of the 10 million deaths per year in the world are caused by micronutrient deficiencies, which is also one of the causes of stunting (Andrean w., 2021). Based on the results of the Indonesian Nutrition Status Study (SSGI) Ministry of Health, the prevalence of stunting under five is 24.4% in 2021 (Kusnandar, 2022). The world has experienced positive improvements regarding stunting over the last 20 years. The United Nations International Children's Emergency Fund (UNICEF) estimates that the number of children with stunting under the age of five will be 22% or as many as 149.2 million in 2020, down 26.7% compared to 2000 which reached 203.6 million. However, the progress in tackling stunting is not evenly distributed across all regions in every country (Jayani, 2021). Lack of mother's knowledge about health and nutrition before pregnancy, as well as during the postpartum period, limited health services such as antenatal care, postnatal services and low access to nutritious food, low access to sanitation and clean water are also causes of stunting (Yuwanti et al., 2021).

Concerning the 2020-2024

National Medium-Term Development Plan (RPJMN), the Government is targeting a reduction in stunting to 14% in 2024 (Dwihestie & Hidayati, 2021). This is reinforced by Presidential Regulation No. 72 of 2021 which has implications, among others, strengthening the implementation of the National Strategy with 5 Pillars of Accelerating Stunting Reduction 2018-2024 which aims to reduce the prevalence of stunting, improve the quality of preparation for family life, ensure fulfillment of nutritional intake, improve parenting patterns, and increase access and quality of health services (Muslimah & Widjaja, 2022).

Plt. Director General of Information and Public Communication of the Ministry of Communication and Informatics Rosarita Niken Widiastuti emphasized that the government continues to reduce the prevalence of stunting or chronic malnutrition. "President Joko Widodo also said that the government continues to work to ensure that every Indonesian child can be born healthy, can grow up with adequate nutrition, free from stunting or stunted growth" (Daon, 2019). In order to increase regional commitment and capacity as well as stakeholders in planning and implementing integrated stunting reduction interventions in districts/cities, the Ministry of National Development Planning/Bappenas held a Stunting Summit event carrying the theme "Together Prevent Stunting" on March 28, 2018, at the Borobudur Hotel, Jakarta attended by 34 governors throughout Indonesia, 100 regents/mayors of priority locations reduction of stunting, 33 district heads of Community Based Health and Nutrition Project (PKGBM) locations, and 100 village heads, with a total of 1,000

participants in the Stunting Summit (Admin, 2018).

Based on the results of the 2021 toddler weighing, more than 9,700 toddlers in Jombang Regency are indicated to be stunted. The stunting rate in Jombang is still below the limit set by the Ministry of Health; it cannot be more than 14%. However, cases of stunting in Jombang Regency are still relatively high at 13.1%. The Jombang Regency Government continues to carry out various comprehensive and integrated efforts so that cases of stunting continue to decrease, and there is a decrease in the number of stunting the Jombang district, although it is not significant. According to data in 2018, cases of stunting in Jombang Regency were 20.1%, then decreased to 17.9% in 2019. Then decreased again to 16.9% in 2020 (Syaifuddin, 2022). Even though there has been a decrease in the prevalence rate, stunting is still considered a serious problem in Indonesia because the prevalence rate is still above 20%. Therefore, stunting is still a serious problem and must be addressed immediately so that the stunting rate can decrease and be in accordance with WHO recommendations (Admin, 2020).

Stunting can be caused by problems with nutritional intake consumed during the womb and toddlerhood. Lack of mother's knowledge about health and nutrition before pregnancy, as well as during the postpartum period, limited health services such as antenatal care, and postnatal services, and low access to nutritious food, and low access to sanitation and clean water are also causes of stunting. These very diverse multi-factors require the most decisive intervention, namely at 1000 HPK (1000 first days of life) (Agustina, 2022). Clean and Healthy Living Behavior (PHBS),

increasing family access to food purchasing power and medical expenses through providing employment and increasing income, increasing father's and mother's education which has an impact on knowledge and ability in implementing family health and nutrition and facilitating family access to information and providing information on child health and nutrition are some of the efforts to prevent stunting that the government can do in collaboration with the community to reduce the prevalence of stunting (Aisyah Putri, 2018).

Prevention of stunting is a form of health behavior through increased knowledge, attitudes, and actions. The results of the study stated that a good level of knowledge can improve efforts to prevent stunting in children (Zahrotul Mutingah, 2021). Increased knowledge can be through various information media. During the pre-pandemic era, residents obtained health information through direct counseling activities, but with the Covid-19 pandemic, people prefer to get information easily via the internet (Rizanna Rosemary, 2018).

Based on this, program innovation is needed, namely through a stunting prevention program that can be accessed by the public through Android cell phones. In previous research, there was research on the use of the "top" application which is known to improve people's behavior in preventing stunting. The "gasing" application is one of the media that can be used for health promotion, but it still needs developments related to influencing factors and the interventions needed (Heru Subaris Kasjono, 2020). For this reason, this study aims to reduce the prevalence of stunting while at the same time being able to increase the knowledge, skills, and motivation of TPK (Family Assistance

Team). With the development of the GEMA BERCETING Application (Community Movement to Eradicate and Prevent Stunting) which involves the main mover of the public health group, namely the Family Assistance Team or TPK, it is hoped that it will be able to tackle health problems that have the potential to spread around the community in Peterongan District, Jombang Regency. The family companion team plays a role as the spearhead of accelerating the reduction of stunting, initiating the process of accelerating the reduction of stunting from upstream, especially prevention starting from the incubation process to carrying out preventive measures from factors directly causes stunting (Porong, 2022). As many as 140 TPKs from 14 villages in Peterongan District will be fostered and given assistance so that they can guide the community to be able to improve the quality of preparing for family life, ensure the fulfillment of nutritional intake, and improve parenting patterns which are also a form of TPK's contribution in achieving the Sustainable Development Goals (SDGs) in 2030 (MUS, 2022).

METHODS

Study design

The design in this research is pre-experimental analytic. Pre-experimental is a research design that is used to look for causal relationships with the involvement of researchers in the manipulation of independent variables (Nur Salam, 2020). The research design used was the One-group-pre-post-test design which aims to reveal causal relationships by involving one group of subjects. The subject group was observed before and after the intervention (Muis, 2018).

The population in this study was

Pre-Test	Treatment	Post-Test
T1	X	T2

Source: (Nursalam, 2017)

the Family Assistance Team (TPK) in the Peterongan District, Jombang Regency, namely 140 people with a purposive sampling technique of 42 people. The population of this study is classified based on age, gender, and occupation. The independent variables in this study were education and socialization on the use of the GEMA BERCETING application, while the dependent variables were TPK's knowledge, skills, and motivation regarding stunting prevention and control. Knowledge is defined as the ability to answer questions about the meaning of preventing and overcoming stunting. The skill variable consists of the cadre's ability to use the GEMA BERCETING application.

The instrument in this study was a questionnaire that included knowledge and skill variables (No Titipale, n.d.). Questionnaires adopted from questionnaires that have passed the validity test. Data collection techniques were carried out directly by measuring knowledge through filling out questionnaires and assessing the skills of cadres in using the GEMA BERCETING application before being given intervention. Then, the respondents were given training and used the GEMA BERCETING application to be impregnated and then given a second questionnaire.

Population, samples, and sampling

The population is the subjects (e.g. humans, clients) that meet predetermined criteria (Zakaria, 2017). The population in this study was the Family Assistance Team (TPK) in 14 villages in the Peterongan District, Jombang Regency, with a total of 140 TPK members (Admin, 2021).

The sample is part of the number and characteristics possessed by the population (Farida Fitriani & 2019. P, 2019). The sample of this study was the Family Assistance Team (TPK) in the Peterongan District, Jombang Regency, consisting of 42 people.

Sampling is a way or method of taking or process of selecting a portion of the population so that it can represent the population (Midpro, 2017), This sampling technique is purposive sampling. Purposive sampling is a random sampling methodology where the sample group is targeted to have certain attributes (Admin Ip2m, 2022).

Instruments

A research instrument is a tool that is used as a tool to measure an object measure or collect data from a variable (Farida Fitriani & 2019. P, 2019). In this study, the instrument used was the Gema Berceting Smartphone application and a questionnaire to assess the knowledge, skills, and motivation of the Family Mobilization Team (PKK).

Procedure

This study analyzes the development of knowledge, skills, and motivation of the Family Assistance Team (TPK) in assisting and fostering the community to reduce and prevent stunting based on the GEMA BERCETING Application (Community Movement to Eradicate and Prevent Stunting) in Peterongan District, Jombang Regency, the research design in this study can be seen in the following table.

T1: The initial test was carried out before being given education and outreach.

X: Education and socialization of the use of the GEMA BERCETING Application to the Family Assistance Team (TPK)

T2: The final test was carried out after being given education and outreach.

Ethical clearance

The research process was carried out by following ethical principles consisting of informed consent form, anonymity, and confidentiality Number of Ethical Clearance is 0420050672/KEPK/STIKES-PEMKAB/JBG/VII/2022.

RESULTS

Table 1. Demographic Data Characteristics of Efforts to Overcome Stunting Based on the Echo Berceting Application (n=42)

Characteristics	n	%
Age		
20-30 Years	13	31
30-40 Years	20	48
40-50 Years	8	19
>50 Years	1	2
Education		
Not finished	2	5
Elementary School	8	19
Junior High School	20	48
Senior High School	10	23
Higher Education	2	5
Occupation		
Government employees	10	24
Private employees	25	59
Housewife	7	17
Other	0	0
Length joined		
<5 years	16	38
5 years	2	5
>5 years	24	57

Table 2. Distribution of TPK knowledge, skills, and motivation levels before and after treatment (n=42)

Characteristics	Pre-test f (%)	Post-test f (%)
Knowledge level		
Good	6.5	75.6
Enough	36.5	24.4
Skill level		
Good	58.7	67.8
Enough	41.3	32.2
Motivation		
Good	87	93
Enough	13	7

General data include the characteristics of respondents based on gender, age, occupation, and length of time joining the Family Assistance Team (TPK).

Table 3. Comparison distribution of pre-test and post-test scores

Variable	Mean ± SD, Min-Max	Kenai kan Skor Rata-Rata	Nilai P
Pre-test value	69.73 ± 17.7, 7-93	9.09	0.008
Post-test scores	78.82 ± 10.2 60-100		

The mean (mean) value of the cadres' pre-test was 69.73 with the lowest score being 7 and the highest being 93, while the post-test was 78.82 with the lowest post-test score being 60 and the highest score being 100. The average increase in knowledge on when pre-test and post-test of 9.09. The p-value also shows 0.008 (<0.05).

DISCUSSION

From the results of research on the effect of the echo application with increased knowledge, skills and motivation of TPK in Peterongan District, Jombang Regency. Based on the research results,

Table 4.3.4 shows that the effect of the echo application with increased TPK knowledge, skills and motivation is 9.09, which means the echo application is effective as a medium for TPK counseling in Peterongan District, Jombang Regency. GEMA BERCETING is arranged in a structured manner that contains the features needed to provide education regarding stunting prevention and reduction. The echo test application is structured to contain the features needed to provide education regarding the prevention and reduction of stunting and is designed to be as attractive and simple as possible so that the TPK (Family Assistance Team) can easily use this application.

Monitoring and evaluation activities are carried out from the beginning to the end of the activity, both in the form of monitoring and evaluation of the process and results of the activity, both at the preparatory and implementation stages, all processes are monitored to minimize failures, and improvements can be made immediately so that the activity objectives can be achieved properly. Evaluation of activities was carried out through pre-tests and post-tests, to see changes in the level of knowledge and attitudes of TPK participants before and after counseling and the introduction of the GEMA BERCETING application. One of the outputs of this community service activity is the increased knowledge of posyandu cadres about reducing stunting rates in Peterongan District, Jombang Regency by conducting counseling through the GEMA BERCETING application and by involving the main mover of the public health group, namely the Family Assistance Team (TPK). Indicators of success can be seen from whether there is an increase in knowledge and strengthening attitudes as well as the

level of participant satisfaction regarding counseling that is more effective if it is based on the Gema Berceting application.

CONCLUSIONS

Educational activities and socialization of the introduction of the GEMA BERCETING application contained material on the prevention and control of stunting involving 42 TPKs, all of whom had filled out pre-test and post-test questionnaires. The results of the pre-test and post-test showed an increase in knowledge in the good category. The statistical test results showed a significant difference, namely the increase in the average score reached 9.09.

This illustrates an increase in TPK knowledge and it can be concluded that educational activities and socialization of the introduction of the GEMA BERCETING Application can increase the knowledge and effectiveness of posyandu cadres in assisting the community to reduce stunting rates in the Peterongan District, Jombang Regency.

CONFLICT OF INTEREST

The author(s) declare(s) that there is no conflict of interest.

REFERENCES

- Admin. (2018). Stunting Summit: Komitmen Bersama Turunkan Prevalensi Stunting di Indonesia. Kementerian Perencanaan Pembangunan Nasional/ Badan Perencanaan Pembangunan Nasional (Bappenas).
- Admin. (2020). PANDEMI COVID-19, STUNTING MASIH MENJADI TANTANGAN BESAR BANGSA. KEMENTERIAN PEMBERDAYAAN PEREMPUAN DAN PERLINDUNGAN ANAK.
- Admin. (2021). Wiwin Sumrambah Ketua TP PKK Kabupaten Jombang Melantik 3 Ketua TP PKK Kecamatan. Portal Resmi

- Peemerintah Kabupaten Jombang.
- Admin Ip2m. (2022). Purposive Sampling – Definisi, Keuntungan dan Cara Melakukannya. LP2M Universitas Medan Area.
- Agustina, N. (2022). Faktor-faktor penyebab stunting pada balita. Kementrian Kesehatan Direktorat Jendral Pelayanan Kesehatan.
- Aisyah Putri. (2018). Cegah Stunting dengan Pola Hidup Bersih Sehat (PHBS). DP3ACSKB.
- Andrean w., F. (2021). Kolaborasi Turunkan Stunting. Indonesiabaik.Id.
- Daon. (2019). Kominfo ajak masyarakat turunkan Prevalensi Stunting. Kominfo.
- Dewie, S., & Shinta, S. (2012). Analisis faktor-faktor yang mempengaruhi kejadian bblr di puskesmas perkotaan kabupaten banjarnegara. Politeknik Banjarnegara, 1–6, 1–6.
- dr. Desi Fajar Susanti, M.Sc, S. . (K). (2022). Mengenal Apa Itu Stunting. Direktorat Jenderal Pelayanan Kesehatan.
- Dwihestie, L. K., & Hidayati, R. W. (2021). Pemberdayaan Kader Dalam Upaya Deteksi Dini Stunting di Kutu Kembangan Sidomulyo Bambanglipuro Bantul. Jurnal Inovasi Abdimas Kebidanan (Jiak), 1(2), 55–59.
<https://doi.org/10.32536/jiak.v1i2.174>
- Farida Fitriani, D. S., & 2019. P, 224. (2019). Effect of Internal Accounting and Control Information Systems on Employee Performance (Case Study of Pt. Beton Elemen Persada). Jurnal Akuntansi, Audit Dan Sistem Informasi Akuntansi, 3(1), 1–13.
- Heru Subaris Kasjono, E. S. (2020). Pengaruh Aplikasi Pencegahan Stunting “Gasing” Terhadap Perilaku Pencegahan Stunting pada Siswi SMA di Wilayah Kecamatan Kalibawang Kulon Progo. Jurnal Nutrisia, 22.
- Jayani, D. H. (2021). Jumlah Balita Stunting di Dunia menurun, tapi Tak Merata. Databoks Indonesia.
- Kusnandar, V. B. (2022). Stunting Balita Indonesia Masih di Atas 24% pada

2021. Databoks Indonesia.
- Midpro, J. (2017). *Jurnal Midpro*, Vol. 9 / No. 2 / Desember 2017. 9(2), 14–19.
- Muis, A. (2018). Program studi ilmu keperawatan fakultas ilmu kesehatan dan farmasi universitas muhammadiyah kalimantan timur 2018.
- MUS. (2022). BKKBN Jatim Kejar Target Penurunan Stunting di Jombang. *Mnctrijaya.Com*.
- Muslimah, R. H., & Widjaja, G. (2022). Kebijakan dan peran lintas sektor pemerintah dalam penanggulangan masalah stunting pada anak di kota samarinda. *Cross-Border*, 5(1), 308–321.
- No Tit.ϰϰle. (n.d.). 1–20.
- Nur Salam. (2020). *Metodologi Penelitian Ilmu Keperawatan*.
- Porong, K. (2022). PERAN PENDAMPING KELUARGA DALAM MENURUNKAN. 1, 120–126.
- Rizanna Rosemary. (2018). Pilihan Media Pencari Informasi Kesehatan. *Jurnal Komunikasi Global*, 7.
- Syaifuddin. (2022). Sosialisasi Gemarikan, Bupati Jombang Target Penurunan Stunting.
- Yuwanti, Y., Mulyaningrum, F. M., & Susanti, M. M. (2021). Faktor – Faktor Yang Mempengaruhi Stunting Pada Balita Di Kabupaten Grobogan. *Jurnal Keperawatan Dan Kesehatan Masyarakat Cendekia Utama*, 10(1), 74.
<https://doi.org/10.31596/jcu.v10i1.704>
- Zahrotul Mutingah, R. (2021). Hubungan Pengetahuan dan Sikap Ibu dengan Perilaku Pencegahan Stunting pada Balita. *Jurnal Keperawatan Widya Gantari Indonesia*, 5(2), 49–57.
- Zakaria, F. M. (2017). Pengaruh Kualitas Pelayanan dan Sasaran Keselamatan Pasien Terhadap Kepuasan Pasien Rumah Sakit Pria Husada Malang. *Jurnal Ilmu Manajemen Unisma*, 2(2), 98–107.