

THE EFFECTIVENESS OF USING INTERACTIVE QUIZ CENTING (CEGAH STUNTING) ON THE KNOWLEDGE AND BEHAVIOR OF MOTHERS OF TODDLERS ABOUT STUNTING PREVENTION IN BUKIT PERENTAK VILLAGE, MERANGIN DISTRICT

Dara Afrila^{1*}, Pahrur Razi¹, Alpari Nopindra¹

¹ Health Promotion Department, Health Polytechnic of Health Ministry of Jambi

² PUI-PK Politeknik Kesehatan Kementerian Kesehatan Jambi, Jambi, Indonesia

*Corresponding author: daraafrila099@gmail.com,

ABSTRACT

Background: Stunting is one of the most troubling global health problems, occurring in many countries in both developing and developed countries. The prevalence of stunting tends to be high in countries with poverty and limited access to adequate health, education and sanitation services. One of the efforts to reduce the prevalence of stunting is health promotion using interactive quiz CENTING (Prevent Stunting). This study aims to determine the effectiveness of using the CENTING interactive quiz (prevent stunting) in increasing the knowledge and behavior of mothers of toddlers about stunting prevention in Bukit Perentak Village, Merangin Regency.

Methods: This type of research is quantitative research with a pre-experimental research design, with a one group pretest-posttest research design. Sampling in this study used total sampling technique with a total sample size of 34 people.

Results: Data analysis using the Wilcoxon test. The average score of stunting prevention knowledge is pre-test (6.85), post-test (9.53). The average results of stunting prevention behavior are pre-test (24.63), post-test (29.43). There is a difference in increasing the score of knowledge and behavior of preventing stunting in mothers of toddlers in Bukit Perentak village, Merangin Regency who are given health promotion through interactive quiz CENTING (Prevent Stunting) with a p value of 0.000 ($p < 0.05$).

Conclusion: Health promotion with CENTING interactive quiz (Prevent Stunting) is effective in increasing knowledge and behavior of preventing stunting in mothers of toddlers in Bukit Perentak village, Merangin Regency.

Keywords: Knowledge, behavior, stunting prevention, CENTING

INTRODUCTION

Stunting is one of the most troubling global health problems, occurring in various countries in both the developing and developed world. Stunting is defined as "a state of failure to thrive in children characterized by height inappropriate for their age". This condition is generally caused by chronic and/or prolonged malnutrition during a child's early growth period. The prevalence of stunting tends to be high in countries with high levels of poverty and limited access to adequate health, education and sanitation services¹.

According to WHO (2020), as many as 150.8 million or (22.2%) WHO determines five regions as the prevalence of stunting, including Indonesia, which is in the diagonal of Southeast Asia with a prevalence rate of (35.4%) (Panigoro, 2020). Based on the results of the Indonesian nutritional status survey (SSGI), the stunting rate in Indonesia is 24% in 2021 to 21.6% in 2024.

The study of Yadika et al. (2019) shows that stunting can have a negative impact on children's productivity and learning ability later in life, which in turn can affect a country's economic growth and social development,

stunting occurs when children have a height that is lower than the average height of children their age, and can have serious short- and long-term impacts on children's health and development. The prevalence of stunting tends to be high in countries with high levels of poverty and limited access to adequate health, education and sanitation services³.

This study aims to the effectiveness of the use of Quiz Interactive CENTING (prevent stunting) in increasing knowledge and behavior about the prevention of stunting in the working area of the Sungai Jering Health Center, Pangkalan Jambu District. With this research, it is hoped that it can contribute to efforts to prevent and manage stunting in the community, especially in pregnant women and toddlers. Thus, this study will use a deductive approach to explain that the use of interactive Quiz "CENTING" can be effective in increasing knowledge and behavior about stunting prevention. Through this research, it is hoped that it can make a significant contribution to efforts to prevent and manage stunting in the community, especially in pregnant women.

METHODS

This type of research is quantitative research with a pre-experimental research design, with a one group pretest-posttest research design. Sampling in this study used purposive sampling technique with a total sample of 34 people who met the inclusion criteria. Data analysis using the Wilcoxon test.

RESULTS AND DISCUSSION

RESULTS

Puskesmas Sungai Jering is the first health service located at Jl. Raya Bangko-Kerinci, Sungai Jering, Kec. Pangkalan Jambu, Merangin Regency, Jambi. With zip code 37361. The sample in this study were 50 mothers of toddlers who were in the working

area of the Sungai Jering health center, especially in Bukit Perentak village. However, at the time of the research only 34 respondents were obtained.

Table 1. Age Frequency distribution of respondents in Bukit Perentak Village, Merangin district

Age	Frequency	Percentage
20 years old	3	8.8%
22 years old	3	8.8%
23 years old	2	5.9%
24 years old	3	8.8%
26 years old	2	5.9%
27 years old	1	2.9%
28 years old	5	14.7%
32 years old	5	14.7%
33 years old	1	2.9%
34 years old	1	2.9%
35 years old	1	2.9%
36 years old	2	5.9%
38 years old	1	2.9%
40 years old	3	8.8%
41 years old	1	2.9%
Total	34	100%

Based on table 1, it is known that respondents are between 20 to 41 years old.

Table 2. Frequency distribution of gender of respondents in Sungai Baung village, Sarolangun district

Gender	Frequency	Percentage
Female	34	100
Total	34	100

Based on table 2, it can be seen that all respondents in this study were female, 34 people or (100%).

Based on table 3, it can be seen that knowledge before being given health promotion using interactive quiz media CENTING (Prevent Stunting) about stunting prevention (Pre-Test) mean value 6.85 and after being given health promotion using interactive quiz media CENTING (Prevent Stunting) about stunting prevention (Post-Test) mean value increased to 9.53 It can be seen that after being given health promotion using interactive quiz media CENTING (Prevent Stunting) about stunting prevention, respondents' knowledge has increased by 2.68. This shows that health

promotion using the CENTING interactive quiz (Prevent Stunting) is effective in increasing knowledge of stunting prevention.

Table 3. Results of Analysis of Respondents' Knowledge and Behavior About Stunting Prevention Before (Pre-Test) and After (Post-Test) Given Health Promotion Using CENTING Media (n = 34)

Variable	Treatment	Mean	Median	Std. Deviation
Stunting Preverention Knowledge	Pretest	6.85	7	.744
	Posttest	9.53	10	.706
Stunting Preverention Behavior	Pretest	24.63	25	2.008
	Posttest	29.43	30	.626

Based on table 3, it can be seen that the behavior before being given health promotion using CENTING interactive quiz media (Prevent Stunting) about stunting prevention (Pre-Test) mean value is 24.63 and after being given health promotion using CENTING interactive quiz media (Prevent Stunting) about stunting prevention (Post-Test) the mean value increases to 29.43. It can be seen that after being given health promotion using the CENTING interactive quiz media (Prevent Stunting) about preventing stunting, respondents' behavior has increased by 4.8. This shows that health promotion using the CENTING interactive quiz (Prevent Stunting) is effective in increasing stunting prevention behavior.

Table 4. Effectiveness of Using Quiz Interactive CENTING (Prevent Stunting) in Improving the Knowledge of Mothers of Toddlers about Stunting Prevention in Bukit Perentak Village, Merangin Regency

Ranks				
		N	Mean Rank	Sum of Ranks
posttest – pretest	Negative Ranks	0 ^a	.00	.00
	Positive Ranks	34 ^b	17.50	595.00
	Ties	0 ^c		
	Total	34		

a. posttest < pretest

b. posttest > pretest

c. posttest = pretest

a. Negative Ranks or the difference (negative) between the results of the effectiveness of the use of interactive quiz CENTING (Prevent Stunting) in increasing the knowledge of mothers of toddlers about stunting prevention in Bukit Perentak Village, Merangin Regency for Pre-Test and Post-Test is 0, both in the N value, Mean Rank, and Sum Rank. This 0 value indicates no decrease (reduction) in knowledge from the Pre-Test value to the Post-Test value.

b. Positive Ranks or the difference (positive) between the results of the effectiveness of the use of interactive quiz CENTING (Prevent Stunting) in increasing the knowledge of mothers of toddlers about stunting prevention in Bukit Perentak Village, Merangin Regency for Pre-Test and Post-Test. Here there are 34 positive data (N), which means that 34 mothers of toddlers experienced an increase in the results of using the CENTING interactive quiz (Prevent Stunting) in increasing the knowledge of mothers of toddlers about stunting prevention in Bukit Perentak Village, Merangin Regency from the Pre-Test value to the Post-Test value. The Mean Rank or average increase is 17.50 for knowledge, while the number of positive ranks or Sum of Ranks is 595.00 for knowledge.

c. Ties is the similarity of Pre-Test and Post-Test values, here the Ties value is 0, so it can be said that there are no equal values between Pre-Test and Post-Test.

Table 5. Effectiveness of Using Quiz Interactive CENTING (Prevent Stunting) in Improving the Behavior of Mothers of Toddlers about Stunting Prevention in Bukit Perentak Village, Merangin Regency

		Ranks		
		N	Mean Rank	Sum of Ranks
posttest – pretest	Negative Ranks	0 ^a	.00	.00
	Positive Ranks	32 ^b	16.50	528.00
	Ties	0 ^c		
	Total	32		

a. posttest < pretest

b. posttest > pretest

c. posttest = pretest

- a. Negative Ranks or the difference (negative) between the results of the effectiveness of the use of interactive quiz CENTING (Prevent Stunting) in improving the behavior of mothers of toddlers about stunting prevention in Bukit Perentak Village, Merangin Regency for Pre-Test and Post-Test is 0, both in the N value, Mean Rank, and Sum Rank. This 0 value indicates no decrease (reduction) in behavior from the Pre-Test value to the Post-Test value.
- b. Positive Ranks or the difference (positive) between the results of the Effectiveness of Using interactive quiz CENTING (Prevent Stunting) in improving the Behavior of Mothers of Toddlers About Stunting Prevention in Bukit Perentak Village, Merangin Regency for Pre-Test and Post-Test. Here there are 34 positive data (N), which means that 34 mothers of toddlers experienced an increase in the results of using the CENTING interactive quiz (Prevent Stunting) in improving the Behavior of Mothers of Toddlers About Stunting Prevention in Bukit Perentak Village, Merangin Regency from the Pre-Test value to the Post-Test value. The Mean Rank or average increase is 17.50 for behavior, while the number of positive

ranks or Sum of Ranks is 595.00 for behavior.

- c. Ties is the similarity of Pre-Test and Post-Test values, here the Ties value is 0, so it can be said that there are no equal values between Pre-Test and Post-Test.

3.2. Discussion

3.2.1. Effectiveness of Using Quiz Interactive CENTING (Prevent Stunting) in Improving the Knowledge of Mothers of Toddlers about Stunting Prevention in Bukit Perentak Village, Merangin Regency

Based on the results of statistical tests using the Wilcoxon test, a significant value of p value = 0.000 < 0.05 was obtained and it was known that the amount of increase between the pre-test and post-test on the respondents was 2.68. Based on these results it can be seen that with interactive quiz media CENTING (Prevent Stunting) there is a significant increase in knowledge. In line with Okva's research (2022) The results of statistical tests using the Wilcoxon test obtained p value = 0.000 < 0.05 using a confidence level of 95% which means that there is an effectiveness of using quiz to increase the knowledge and attitudes of PGRI 4 Padang high school students regarding SADARI.

Factors that influence the increase in knowledge are: level of education and information. This theory clearly shows how knowledge can change due to the influence of a factor²⁷.

Information provided with a simple approach through interactive quiz media also has an effect on respondents' knowledge in stunting prevention. The source of information delivered is packaged in an interesting way so that it becomes more enthusiastic. So that respondents can have broader knowledge based on the information presented.

3.2.2. Effectiveness of Using Quiz Interactive CENTING (Prevent Stunting) in Improving the Behavior of Mothers of Toddlers about Stunting Prevention in Bukit Perentak Village, Merangin Regency

Based on the results of statistical tests using the Wilcoxon test, a significant value of p value = 0.000 < 0.05 was obtained and it was known that the amount of increase between the pre-test and post-test on the respondents was 4.8. Based on these results, it can be seen that with the interactive quiz media CENTING (Prevent Stunting) there is a significant increase in behavior. In line with Rahmawati's research (2021), the results of statistical tests using the Wilcoxon test obtained p value = 0.000 < 0.05 using a 95% confidence level, which means that there is an effectiveness of education using the quiz application to improve people's behavior about the covid-19 vaccine.

According to Notoatmodjo (2014), behavior is an activity or activity of the organism (living being) concerned. Behavior is the result of all kinds of human experiences and interactions with the environment. The form can be in the form of knowledge, attitudes, and actions. Human behavior tends to be comprehensive (holistic), and basically consists of psychological, physiological, and social perspectives.

After being given health promotion with CENTING interactive quiz media, all mothers experienced an increase in the average behavior score from before to after. This is because the use of CENTING interactive quiz media as educational media has an attractive design, quizzes are designed with attractive colors and images and by using simple language and does not take a long time so that mothers will not be bored.

CONCLUSION

There is a difference in increasing the score of knowledge and behavior of preventing stunting in mothers of toddlers in Bukit Perentak village, Merangin Regency who are given health promotion through interactive quiz CENTING (Prevent Stunting) with a p value of 0.000 (p < 0.05). Health promotion with CENTING interactive quiz (Prevent Stunting) is effective in increasing knowledge and behavior of preventing stunting in mothers of toddlers in Bukit Perentak village, Merangin Regency. Suggestions from researchers that stunting prevention can continue to be carried out to reduce the incidence of stunting by using new media innovations.

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CONFLICT OF INTEREST

The authors declare no conflicts of interest.

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