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Health Education Influences Mother's Knowledge in Preventing Stunting in Infants

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ABSTRACT

Introduction: SSGI results for 2022 show that the prevalence of stunting in Indonesia has decreased from 24.4% to 21.6% from the previous year. The target that must be achieved by 2024 is to reduce the prevalence of stunting to 14%. Efforts to reduce the incidence of stunting include carrying out health promotions about stunting. **Purpose:** The aim of this research is to analyse the effect of health education on mothers' knowledge about stunting prevention in toddlers in the Malei Health Center working area, Poso Regency. **Method:** This type of research is quasi-experimental, with a pre-experiment research design and one group pretest-posttest. This research was carried out in July 2023 in the working area of the Malei Health Center, Lage District, Poso Regency. The sample size using simple random sampling was 65 people. **Result:** The results of the univariate analysis showed that the characteristics of respondents based on age were: the majority of respondents were 20–35 years old, 53.9%; the majority of respondents' education was SD–SMP, 58.5%; and the majority of respondents did not work, 72.3%. The Wilcoxon test was used for bivariate analysis because the data was not normally distributed. The results of statistical tests show that there is an increase in respondents' knowledge, with an average increase in score of 50.2 and a p-value <0.05. **Conclusion**: there is an influence of health education on maternal knowledge in preventing stunting. It is recommended to increase health promotion in the form of education about stunting.

INTRODUCTION

One of the Sustainable Development Goals (SDG) is to reduce under-five mortality to 25 deaths per 1,000 live births by 2030. If toddlers' health is given great consideration, they can be safeguarded from starvation and the risk of death, and this goal can be fulfilled (Badan Pusat Statistik, 2016). Nutritional problems, especially stunting in toddlers, can hinder a child's development, which will continue in later life, such as intellectual decline, vulnerability to non-communicable diseases, decreased productivity, causing poverty, and the risk of giving birth to babies with a low birth weight (Tim Nasional Percepatan Penanggulangan Kemiskinan, 2017).

Around 149.2 million children under the age of five experienced stunting globally in 2020. This number may increase substantially due to obstacles in obtaining essential nutrition during the COVID-19 pandemic. Around two out of every five stunted children

live in Africa, while more than half of all stunted children live in Asia (WHO, UNICEF & Group, 2018). Results of Basic Health Research (Riskedas) Riskesdas data for 2018 shows that the prevalence of stunted toddlers in Indonesia is 30.8%. Based on WHO limits, Indonesia is in the category of high stunting problems. When compared, the prevalence of stunting in Indonesia is still higher than the prevalence in Southeast Asia at 24.7% (Khairani, 2020). Results of Basic Health Research (Riskedas) Riskesdas data for 2018 shows that the prevalence of stunted toddlers in Indonesia is 30.8%. Based on WHO limits, Indonesia is in the category of high stunting problems. When compared, the prevalence of stunting in Indonesia is still higher than the prevalence in Southeast Asia at 24.7% (Pusat Data dan Informasi Kemenkes RI, 2018).

Based on the results of the 2021 Indonesian Nutrition Status Survey (SSGI), it is stated that the incidence of stunting in Indonesia is 24.4%, Central Sulawesi Province is 29.7%, and Poso Regency is 24.7% (Kementerian Kesehatan RI, 2021). In 2022, the incidence of stunting in Indonesia will decrease to 21.6%; in Central Sulawesi Province, it will decrease to 28.2%; and in Poso Regency, it will decrease to 24.6%. The incidence of stunting in Poso Regency has indeed decreased from the previous year, but only by 0.1%. Meanwhile, the target that must be achieved by 2024 is to reduce the prevalence of stunting to 14% (Kementerian Kesehatan RI, 2022).

Many factors influence the incidence of stunting, one of which is the mother's lack of knowledge about nutritional intake and nutritional status. The research results show that education influences mothers' knowledge and attitudes about IMD (Sukmawati et al., 2018). In order to lower the prevalence of stunting, preventive measures must be taken, such as providing pregnant women with supplemental nutrition (PMT), starting early breastfeeding (IMD), and promoting prolonged breastfeeding until the child or infant is 23 months old. After the infant has reached the age of six months, give MP-ASI, give worm medication, give zinc supplements, fortify food with iron, give full immunisations, and prevent and treat diarrhoea.

Aside from that, promotional efforts are needed to provide health education about stunting to the community, especially mothers who have toddler children, so that by providing health education, it is hoped that mothers will be able to know and take a stand in preventing stunting. Stunting prevention education is essentially an activity or effort to convey messages to the community, groups, or individuals in the hope of gaining better knowledge so that it can influence attitudes and behaviour (Sari et al., 2020). Stefanicia's research results stated that communication and information had no effect on antenatal care visits, but education had an effect on antenatal care visits (Stefanicia & Alestari, 2022). The conclusion of the research by Astuti et al. states that there is an influence of providing health information through booklet media on knowledge of antenatal care for pregnant women at RS TK II R.W. Mongisidi Manado (Astuti Sudjiyanto, 2022). Therefore, this study aims to determine the effect of health education on mothers' knowledge of preventing stunting in children under 2 years old.

METHODS

This type of research is quasi-experimental, using a one-group pretest-posttest design. This research was carried out in July 2023 in the working area of the Malei Health Center, Lage District, Poso Regency. The population of this study was all mothers who had children under 2 years old in the Malei Community Health Center working area, totalling 168 people. The sample for this study consisted of 65 people who were selected using a simple random sampling technique with inclusion criteria, namely mothers who had children under 2 years old, were willing to be respondents, were able to communicate well, and were able to read and write. The variables in this

research are health education and maternal knowledge about stunting. Health education is an effort to increase mothers' knowledge about stunting. Mothers' knowledge is their understanding of the meaning, causes, impacts, and ways to prevent stunting. The criteria are as follows: It is good if the answer score is 76–100%; fair if the answer score is 56-75%; poor if the answer score is 55 or less. This data was collected using KIA book records and a questionnaire with 10 statements consisting of 7 positive statements and 3 negative statements with yes and no answer options. For positive statements, if the respondent answers yes, they get a score of 1, and if they answer no, they get a score of 0. Meanwhile, for negative statements, if the respondent answers yes, they get a score of 0, and if they answer no, they get a score of 1 (if similar research is to be carried out and requires a questionnaire, you can contact correspondence). The data collection process begins by conducting a pretest for a maximum of 20 minutes to measure the mother's knowledge about stunting. On the following day we provided one health education outreach using leaflets about stunting including the meaning, causes, impacts and ways to prevent stunting. After the counseling and questions and answers were finished, respondents were given a break of 30 minutes, then continued with posttest activities. The data analysis used was univariate analysis and bivariate analysis using the Wilcoxon test, because the data obtained was not normally distributed. Data is presented in the form of tables and narratives. The significance value is if the p-value is <0.05. This research has received ethical approval from the Poltekkes Kemenkes Palu Research Ethics Commission with number 00I8/KEPK-KPK/I/2023.

RESULT

Based on the research carried out, the following results were obtained:

Table 1. Frequency Distribution of Respondent Characteristics

Variables	F	%
Age		
<20 year	3	4,6
20–35 year	35	53,9
>35 year	27	41,5
Education		
Low (SD-SMP)	38	58,5
High (SMA-PT)	27	41,5
Work		
Not work	47	72,3
Work	18	27,7
Total	65	100

According to Table 1, there were 53.9% of respondents aged 20-35, 58.5% had SD-SMP, and 72.3% of respondents did not work.

Based on Table 2, it can be seen that in the pretest, the fewest statements answered correctly by respondents were statements numbers 4, 7, and 9, namely 2 respondents (6.25%), and the most frequently answered correctly by respondents was statement number 8, amounting to 87.5%. Meanwhile, in the posttest, the statement answered most correctly by respondents was statement number 9, namely 18 respondents (56.25%), and the statement answered most correctly by respondents was statement numbers 2, 6, and 8, namely 32 respondents (100%).

Table 2. Frequency distribution of the mother's knowledge based on the number of correct answers on the pretest and posttest

No.	Questions	Answer			
		Pretest		Posttest	
		n	%	n	%
1.	Stunting is a condition where a child's growth and development fail in the first 1,000 days of life.	14	43,75	29	93,75
2.	Monitoring the growth of toddlers every month at the posyandu can detect stunting in toddlers early.	22	68,75	32	100
3.	Stunting is a disease of failure to grow and develop. The cause is a lack of carbohydrates in the child's body.	7	21,87	28	87,5
4.	A complete basic immunization program and vitamin A can prevent stunting.	2	6,25	26	81,25
5.	Children who experience stunting will have good learning abilities.	18	56,25	31	90,62
6.	Stunting can be prevented by providing exclusive breastfeeding.	19	59,37	32	100
7.	Stunted children have a low immune system, so they get sick more easily than children who are not stunted.	2	6,25	21	65,62
8.	It is best for children to be given exclusive breast milk from birth to 6 months.	28	87,5	32	100
9.	Providing complementary breast milk (MP-ASI) must be done gradually, according to the toddler's tastes.	2	6,25	18	56,25
10.	Stunting can be prevented by fulfilling the mother's balanced nutritional intake from the pre-conception period (fertilization) until the 1,000 HPK (first day of life), namely a 2-year-old baby.	14	43,75	29	93,75

Table 3: Difference in Mean Knowledge about Anemia before and after Education via Instagram Social Media

Knowledge	Mean	SD	p-value
Pretest	43,26	6,96	0,000
Post test	93,06	6,28	

The results of data analysis showed that the average knowledge score of health mothers before mentoring was 43.26 (SD = 6.960), and the average knowledge score of posyandu cadres after mentoring was 93.06 (SD = 6.280), with an average increase in score of 50.2. The results of statistical tests show that there is a significant increase in respondents' knowledge after intervention through health education in preventing stunting in toddlers, with a value of p = 0.000, meaning p <0.05.

DISCUSSION

The main problem causing the still high rate of stunting in Indonesia is a combination of low awareness about stunting, policies that have not yet converged in providing support for stunting prevention, and communication problems in changing behavior at the individual level, community level, and health service level (Kementerian Kesehatan RI, 2021).

The results of this research also show that there were still respondents' answers that were not completely correct after being given counseling about stunting. Supporting factors for this include the majority of respondents aged 20–35 years amounting to 53.9%, the majority of respondents having low education, namely elementary school and junior high school, amounting to 58.5%, and not working at 72.3%. In line with the theory that says that a person's memory is influenced by age, A person who is more mature with age has an understanding ability and a mindset toward acquiring knowledge that also improves. Likewise, education is an effort to develop personality and abilities inside and outside of school and lasts a lifetime. Education can be obtained through formal or informal education. Education influences the learning process; the higher a person's education, the easier it is for that person to obtain information (Notoatmodjo, 2012). This is in accordance with research conducted in Sumberan Sedayu Hamlet, Bantul, which states that there is a relationship between the level of education and the level of knowledge of the community, where the higher the level of education, the higher the knowledge they have (Damayanti & Sofyan, 2022). Likewise, research conducted at the Central Lampung Regional Health Center stated that there was a significant relationship between age, occupation, and the respondent's level of knowledge (Egyita Sitepu et al., 2024).

The results of this study show that health education has an influence on increasing mothers' knowledge about preventing stunting in children under 2 years of age. This can be seen in the increase in the average knowledge score of toddler mothers after being given health education about stunting prevention. Apart from that, before being given health education, there were no respondents who answered all the questions correctly, whereas after being given health education using leaflets, there were 22 respondents (33.8%) who could answer all the questions correctly. Increasing knowledge among mothers about preventing stunting in toddlers is very important, considering that research that has been carried out shows that knowledge is something that influences a person's behavior.

Health education is a learning process for individuals, groups, and communities, from not knowing about the value of health to knowing, from not being able to overcome their own health problems to being able to. The community's ability to achieve optimal health is based on individual, group, and community knowledge. According to Notoatmodjo, education is carried out for various purposes, such as improving health status, preventing disease and injury, improving or restoring health, and increasing coping abilities against health problems, such as empowerment. Education focuses on the ability to engage in healthy behavior (Notoatmodjo, 2012).

The health education process is also a process of conveying or providing information about health. Based on the results of research in Pahandut Village, it shows that theory and facts have something in common, namely that the lack of information also greatly influences the mother's level of knowledge about stunting prevention and income influences the mother's facilities for obtaining information (Suryagustina; Araya, 2018).

Sari's research suggests that stunting prevention education is essentially an activity or effort to convey messages to the community, groups, or individuals in the hope of gaining better knowledge so that it can influence attitudes and behavior. Several factors influence the educational process, namely the method, material, or message, the presenter who does it, and the tools or media used to convey the message (Sari et al., 2020). Trisnawati's research also states that education about stunting is effective in increasing the knowledge and attitudes of mothers with toddlers toward preventing stunting (Trisnawati, 2022). Mely et al., research states that the factors that can cause

stunting in children under five are family economic factors, maternal knowledge, food security, health services, and clean water and sanitation. Of the five factors, the most dominant is the mother's knowledge factor (Mely et al., 2021).

The results of research conducted by Waliulu stated that education influences knowledge and efforts to prevent stunting. Based on these results, it is hoped that preventive efforts in the community can be carried out optimally and sustainably (Waliulu, 2018). Similar to Wa Ode's research, there is a difference in mothers' knowledge before and after intervention through the Mother Smart Grounding (MSG) program in preventing stunting in the Puuwatu Health Center Working Area, Kendari City (Andriani et al., 2017). In line with research by Yuliani et al., they concluded that health education is a learning method that can increase mothers' knowledge of providing optimal MP-ASI to their babies. According to the results of research analysis conducted using PowerPoint, video, and leaflet media, there was an increase in knowledge after health education was carried out compared to before the education was carried out (Yuliani et al., 2022).

According to Notoatmojo, after someone experiences a stimulus or health object, then makes an assessment or opinion about what is known, the next process is expected to be able to implement or practice what is known and respond to it. Health education, one of which is training, is a process of change that aims to change individuals, groups, and society towards positive things in a planned manner through the learning process. These changes include knowledge, attitudes, and skills acquired through the learning process (Notoatmodjo, 2012).

This theory is strengthened by research results that state that providing information through health education has an effect on the level of knowledge (Nunung Fauziah et al., 2020). Several studies have also proven that providing health promotion education through counseling can increase knowledge (Meirani et al., 2016; Widya Sari et al., 2018).

CONCLUSIONS

Based on the findings of the research, it can be said that health education can improve mothers' knowledge of how to prevent stunting in children under 2 years. The average knowledge score of respondents increased both before and after receiving health education, according to data analysis.

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