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Research Article

Efforts to Increase Knowledge of Pregnant Women About Stunting Prevention Through Health Education in Karangmekar Village, Working Area of Central Cimahi Health Center

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Abstract

Aims: This study aims to identify changes in pregnant women's knowledge about stunting prevention through health education in the Karangmekar Subdistrict, the working area of the Central Cimahi Health Center, by modifying health education media.

Method: The research method used a pre-experiment with a group pre-post-test design, with a sampling technique was a total sampling of 33 pregnant women respondents. Data analysis used the marginal homogeneity test.

Result: The results of the univariate analysis showed that before health education, the level of knowledge of pregnant women about stunting prevention was 51.5% in the poor category, and after health education was 75.8% in the good category. The results of the bivariate analysis showed that there was an increase in pregnant women's knowledge about stunting prevention through health education with a p-Value (0.000) < α (0.05).

Conclusion: Pregnant women's knowledge about stunting prevention increased significantly before and after health education in Karangmekar Village, Cimahi Health Center work area. The choice of media as a learning aid affects the material presented, making it necessary to develop a sustainable health education program with modifications to learning media.

Keywords:

Stunting, knowledge level, health education, pregnant women

INTRODUCTION

Stunting is an irreversible growth disorder that is mostly influenced by inadequate nutritional intake status in children and repeated infections during 1000 HPK (WHO in Global Nutrition Targets 2025). Children are said to be stunted when measuring nutritional status categories using the body length index according to age (PB / U) or height according to age (TB / U) has a Z-score less than -2SD / standard deviation. Nutritional status measurement is carried out from the age of 0-59 months, because that age is an important period where

growth takes place very rapidly and stunting will be seen when children are 24 months old or 2 years old (1). Signs and symptoms in children with stunting are that the child's height does not match his age, the child looks younger for his age but his body proportions are normal, weight is lower than his age, and delayed bone and tooth growth (2)

The prevalence of stunting in Indonesia in 2021 based on data from the Indonesian Toddler Nutrition Status Survey (SSGBI) decreased by 24.4% or 5.33 million toddlers. The decrease has not met the target of the National Medium-Term Development Plan

(RPJMN) for 2020-2024 of 14% (1). The prevalence of stunting in West Java in 2019 decreased from 31.1% to 26.21%. However, unlike Cimahi City, the Cimahi City Health Office (Dinkes) recorded that the stunting rate in Cimahi City has increased in the last three years, namely in 2019 by 9.06% rose to 10.80% in 2020, and in February 2021 the number of children under five who were stunted rose to 11.05% from a total of 32,265 toddlers in Cimahi City (1). Data on the working area of the Central Cimahi Health Center until April 2022, there are 206 children identified as stunting which are divided into 2 areas, namely Cimahi Village and Karangmekar Village.

The acceleration program in reducing stunting leads to family-based interventions at risk of stunting by emphasizing the preparation of family life, mandatory exclusive breastfeeding for the first 6 months, fulfillment of nutritional intake during pregnancy and after childbirth, improvement of parenting, increasing access and quality of health services and access to drinking water and sanitation (3)

The short-term impact of stunting can increase health costs for children because children are susceptible to disease, there is an increase in morbidity and mortality, it can inhibit motor, cognitive, and verbal development in children, while the long-term impact is not optimal body posture, there is an increased risk of obesity and several other diseases, as well as learning capacity and performance that is less than optimal when school-age children (Ministry of Health, 2018). Stunting can also cause economic growth to be hampered and can reduce work productivity which in turn adds to several problems regarding income inequality.

Mother and baby factors can influence the incidence of stunting. Maternal factors are short maternal posture, pregnancy distance too close, maternal age, nutritional intake during pregnancy, low maternal knowledge, education, history of infection, socioeconomic status, and environment.

Infant factors are nutrients obtained as infants, non-implementation of Early Breastfeeding Initiation (IMD), failure of exclusive breastfeeding, early weaning process, and early breastfeeding seen from the quantity, quality, and safety of food provided (4) The baby factor also depends on the knowledge of parents about parenting, especially the mother because the mother is the closest figure to the child. Even the health of the mother also affects the health of the baby while still in the womb. The preparation of knowledge of mothers since pregnancy can affect the incidence of stunting. This knowledge has important points to prepare mothers both before pregnancy, during pregnancy, and after birth, so that it will have a positive impact on mothers or babies to get optimal quality human resources, minimize cases of maternal and infant mortality, prevent children with low birth weight, and mothers can pay more attention to the condition of their womb (5) The positive aspect of knowledge is that the higher the level of knowledge, the more someone knows, wants, and can do so (6).

The fulfillment of food and nutrition is a strategic investment in fetal growth and development by expectations. Poor nutritional status can cause impaired growth and development in the fetus, give birth to babies with low birth weight, and can subsequently have an impact on nutritional problems or intergenerational malnutrition (7) In addition to food and nutrition fulfillment problems, health services also have an important role in meeting needs during pregnancy, namely in health checks during pregnancy, immunization and administration of Fe substances, health education and good health facilities, and clean water supply (Venny, 2017). It is possible that mothers do not know or even does not know what needs must be prepared by mothers during their pregnancy, and lack of information due to low education or a less supportive environment in obtaining information is one of the causes of mothers not knowing about

the needs of mothers during their pregnancy (8)

Efforts can be made in obtaining knowledge can be obtained from formal education and informal education (9) Formal education is an educational path that has a level of education of schools in general starting from elementary school to college, while informal education is an educational path that is held outside formal education with a tiered and structured system such as the internet, television, newspapers, information from health services, health education and so on (10). Informal education for pregnant women can also be done with activities in the pregnant women class, the purpose of holding the pregnant women class itself is to increase knowledge through health education, change the behavior of mothers to understand their pregnancy, pregnancy care, needs during pregnancy, infectious disease education, and so on (11). The implementation of health education is one of the implementations of the role of nurses as educators, namely the role of educators and informers to patients and patients' families about health problems, one of which is regarding the prevention of children with stunting.

Research conducted by (12) Cikunir Village, Singaparna District, Tasikmalaya Regency in 2021 shows that there are significant differences in the knowledge and attitudes of pregnant women before and after being given a media booklet about stunting. The research is following the theory that the media is a means used to convey information so that it is easily understood by the intended target. The media used can be in the form of print, electronic, or outdoor media so that it affects the increase in

knowledge that can change their behavior in a positive direction towards health.

METHODS

Quantitative research with a research design using pre-experimental methods, namely observing the object of research before the intervention (pret-test), then re-observed after the intervention (post-test) (13). The research design used is one group pre-test and post-test design. The sample in the study was pregnant women in Karangmekar Village, the working area of the Central Cimahi Health Center in 2022. Sampling using census / total sampling techniques using a minimum sample of 33 samples (14). The instrument in the study was a knowledge questionnaire of pregnant women, given to respondents before and after health education interventions on stunting prevention. A questionnaire is in the form of multiple choices of 30 questions with 3 answer choices and a questionnaire filling time of approximately 30 minutes. The implementation of health education in this study used the media of turning sheets and booklets. The implementation of the post-test is carried out after 1 week after the provision of health education so that respondents can study the booklet provided. This research has received research ethics approval from the Faculty of Health Science and Technology, Universitas Jenderal Achmad Yani Cimahi heard letter number 23/KEPK/FITKES-UNJANI/VI/ 2022.

RESULTS AND DISCUSSION

The level of knowledge of pregnant women about stunting prevention before providing health education is illustrated in the following table:

Table 1.
The level of knowledge of pregnant women about stunting prevention before health education is implemented

Knowledge	Frequency (n)	Present (%)
Less	17	51,5
Enough	11	33,3
Good	5	15,2
Total	33	100

Based on the table above, it can be seen that of 33 respondents, 51.5% are in the category of lack of knowledge. Meanwhile, the results of knowledge of pregnant women after the implementation of health education using turning sheets and providing booklets are as follows:

Table 2.
The level of knowledge of pregnant women about stunting prevention after health education is carried out

Knowledge	Frequency (n)	Present (%)
Less	2	6,1
Enough	6	18,2
Good	25	75,8
Total	33	100

Based on the table above, it can be seen that from 33 respondents, there are 75.8% of respondents at a good level of knowledge. For measurement of increasing knowledge of pregnant women before and after the provision of health education are as follows:

Table 3.
Increasing knowledge of pregnant women about stunting prevention before and after health education

	Level of knowledge after health education			Total	p-value
	Less	Enough	Good		
Level of knowledge before health education is implemented	Less	2 (11,8%)	6 (35,3%)	9 (52,9%)	0,000
	Enough	0 (0,0%)	0 (0,0%)	11 (100,0%)	
	Good	0 (0,0%)	0 (0,0%)	5 (100,0%)	
Total	2 (6,1%)	6 (18,2%)	25 (75,8%)	33 (100,0%)	

Table 3. explains that there was an increase in knowledge of pregnant women about stunting prevention before health education was implemented, namely as many as 17 (100.0%) respondents were in the less category and increased to as many as 25 (75.8%) respondents were in a good category after health education was implemented. Based on the analysis, a p-value of 0.000 was obtained, meaning that there was a significant increase in the level of knowledge of pregnant women about stunting prevention.

This research is in line with the results of research conducted by (15) regarding the influence of health education on stunting prevention on the knowledge and attitudes of mothers in Palangka Raya Village, stating that health education influences mothers' knowledge and attitudes in stunting prevention. in this study, the Wilcoxon test

results in a P-value of 0.000 or a significant level of $P < 0.05$ is obtained, meaning that there is a difference between the level of knowledge before and after health education. This research is also in line with (16) regarding the influence of audiovisual media counseling on stunting prevention knowledge in pregnant women in Cibatok 2 Cibungbulang village, the study shows that there is an influence on pregnant women's knowledge about stunting prevention Before the intervention, from 50% who had less knowledge to 78.6% who had good knowledge after the intervention.

Health education is a learning effort given to the community so that people can take action in maintaining and improving their health status. Health education is a form of nursing independent intervention in helping patients individuals, groups, and communities in overcoming health

problems through learning activities in which nurses as educators provide health information (17) The process of health education is inseparable from the planning of material providers who are useful for achieving success and the goals to be achieved. One of the most dominant things that can affect the success of health education is the preparation for the implementation of health education in the form of Counseling Event Units (SAP). Health education media as learning aids must also be learning strategies, learning methods, and learning objectives. This research uses the media of turning sheets and booklets as learning media.

The return sheet is a medium for delivering messages or health information in the form of a book, where each sheet contains a demonstration picture shown to respondents and the reverse sheet contains an explanation related to the picture. The advantages that can be taken from this turning sheet media are that the subject matter can be prepared in advance, the order of presentation can be arranged quickly and is easy to prepare (18) Sheet-turning media involves the sense of sight in the process of delivering messages. This is the opinion(17) that human sensing can produce knowledge which is the result of a person's thinking of an object through their senses. The evaluation obtained after health education was carried out using the media of feedback sheets, respondents seemed enthusiastic during health education and there was a reciprocal process between respondents and extension workers, one of which was when the question and answer session took place, most respondents asked about nutrition for pregnant women and household PHBS. Sheet-turning media is effective as a medium for health education because it can present interesting images as a complement to the explanation from the speaker so that mutual interaction can occur. In addition, it is easy to place in health education locations and does not require electronic equipment that may not be available on-site. This is also confirmed by

research conducted by (19) that there are differences in the level of knowledge before and after health counseling is carried out for mothers under five in Kecipik Hamlet, Boteng Village. This study explains that the media used in health counseling plays an important role in the success of counseling, in this case, the return sheet media used can make mothers of toddlers pay attention, accept, and understand the material presented.

In addition to using turnback sheet media, researchers also use booklet media. Booklet media is a medium to convey health messages in the form of images, photos, and writing media that contain important information, simply, easily understood, concisely, and attractively in the form of a small book with no more than 30 pages back and forth. The advantages of this media are that it is easy to carry everywhere, raises the interest of educational targets, facilitates the delivery of educational language, can explain in detail the material presented, and so on. Booklets in this study are used as a distribution that will be given to respondents because this booklet media can be taken home so that respondents can adjust and learn independently practically because it is easy to carry around like a pocketbook. Booklets are distributed to respondents as a guide for respondents, so that information about stunting prevention is not interrupted only at the time of health education. Booklets can also help respondents better understand stunting prevention

The booklet in this study contains stunting prevention starting from pregnancy. The explanation of each point related to stunting prevention uses a common language that is easy to understand, so it is hoped that the material in the booklet can help educational achievement, and scientific development, and can increase respondents' knowledge. The results of the evaluation during the post-test, all respondents read the booklet distributed, so that respondents can better understand the material that has been previously delivered. This is following (20)

regarding differences in knowledge and attitudes of pregnant women before and after counseling about stunting using booklet media in Cikunir Village, Singaparna District, Tasikmalaya Regency. The results of statistical tests found that the p-value of knowledge was 0.002, and the value for attitudes was 0.005 which means that there was a significant difference between the average knowledge and attitudes of pregnant women before and after being given a media booklet about stunting.

The material presented through the return sheet and leaflet were about improving the nutrition of pregnant women, the need for additional food consumption for pregnant women, consumption of blood-boosting tablets, preparation for labor and early initiation of breastfeeding (IMD), exclusive breastfeeding and complementary feeding, giving vitamin A capsules to toddlers, complete basic immunization, monitoring the growth of infants and toddlers at Posyandu, to increasing PHBS and access to clean water. The selection of material is based on factors that can affect the health of pregnant women and child development, especially in 1000 HPK. Before giving the material, most mothers did not know that stunting prevention can be done from the beginning of pregnancy, even from the time of planning a pregnancy. The results of the post-test showed an increase in knowledge of all elements of the given health material.

Knowledge is the result of a person's sensing or the result of knowing someone about an object through the five senses they have, where the knowledge is influenced by the intensity of attention and perception of motorcycle taxis (17) Factors that can affect a person's level of knowledge are educational background, information or media, social, cultural, and economic, environment, experience, and age. In this study, some of the influencing factors are educational factors. Education is an effort to develop abilities and personalities inside and outside school through formal and informal education that will last as long as we live. Education is a process of changing

the behavior and attitude of a person or group and is also a process to mature humans through training and teaching. Education can affect a person's learning process, where the higher a person's education, the easier it is for the person to get or receive information (21)

The results of the analysis of respondent characteristics were obtained from 33 respondents, there were 18 (54.5%) pregnant women who had a high educational background (high school and advanced level). The results of the analysis of filling out questionnaires before health education, they have a fairly good level of knowledge and after health education has increased to a good category and even some are close to perfect, it explains that educational background influences the process of receiving one's information. The age of pregnant women is as many as 27 (81.8%) respondents are in the age range between 21-34, and as many as 12 (36.4%) respondents are first pregnancies so that from this can also affect a person's level of knowledge. In addition, pregnant women in Karangmekar Village are pregnant women who have quite busy activities because as many as 22 (66.7%) respondents are working mothers.

Increasing knowledge is not obtained from formal education alone, but can be obtained from informal education, one of which is through health education. That way health education can be one way that can be used in increasing one's knowledge in the form of informal education that can be done by health workers to increase the knowledge of pregnant women in preventing and reducing the incidence of stunting in children by providing health education that can increase the knowledge of pregnant women so that pregnant women who have a low educational background have knowledge which is good about stunting prevention.

CONCLUSION

There was an increase in knowledge of pregnant women about stunting prevention before health education was implemented,

namely as many as 17 (100.0%) respondents were in the less category, and increased to as many as 25 (75.8%) respondents were in a good category after health education was implemented. The results of the statistical test showed $p\text{-value} = 0.000$ ($\alpha < 0.05$), meaning that there was an increase in knowledge of pregnant women about stunting prevention before and after health education was carried out in Karangmekar Village, Cimahi Health Center work area. The choice of media as a learning aid also affects the achievement of the material presented. Therefore, it is necessary to develop a sustainable health education program with the modification of learning media.

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