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Research Article

The Effectiveness of Education about the First 1000 Days of Life for Early Mothers in Preventing Stunting

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Abstract: Stunting is a type of chronic malnutrition caused by a lack of nutrient intake for a long time, causing growth problems. One of the causes of stunting is early marriage, which has an impact on a mother's knowledge. Mothers, as primary caregivers for toddlers, must get sufficient information about how to optimize child growth and development in the first 1000 days of life so that they can help prevent stunting in children. The purpose of this study was to determine whether there was an effect of education on increasing the knowledge of early childhood mothers about preventing stunting in toddlers in the village of North Bonde. The research method used is pre-experimental design research with the type of one-group pretest posttest design. The sampling technique used is non-probability sampling by means of purposive sampling, so the samples used in this study amounted to 30. The results showed that before being given education, the number of mothers who had a good level of knowledge was 1 person (3.3%), mothers with a fair level of knowledge were 6 people (20%), and those with a poor level of knowledge were 23 people (76.7%). After being given education, there were 9 mothers with a good level of knowledge (30%), 12 mothers with a fair level of knowledge (40%), and 9 mothers with a poor level of knowledge (30%). the average knowledge before being given education was 46.00, after being given education there was an increase in the average knowledge to 64.50. In the results of the analysis of the marginal homogeneity test, it was found that education has an effect on increasing the knowledge of early childhood mothers about stunting prevention among toddlers in North Bonde Village. It is recommended for respondents to be more active in seeking information and increasing their knowledge from both the media and health workers regarding stunting prevention.

Keyword: Education; 1000 HPK; Knowledge; Early mothers; Stunting.

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1. Introduction

Stunting is a type of chronic malnutrition caused by a lack of nutrient intake over a long period of time, causing growth problems (Permatasari 2018). Based on the Regulation of the Minister of Health of the Republic of Indonesia Number 2 of 2020 concerning anthropometric standards for assessing the nutritional status of children, stunting or short is a term that describes a child's nutritional status based on a height-for-age index (TB/U) with a z-score < -2 Standard Deviation (SD) (Kementerian Kesehatan RI 2020).

Based on the results of the Indonesian Nutrition Status Study (SSGI) in 2021, the prevalence of stunting in Indonesia is 24.4%. Even though it has decreased from the previous year, the percentage of stunting among toddlers in Indonesia is still above the standard set by the World Health Organization (WHO), which is 20%. In 2021 the province with the highest prevalence of stunting is East Nusa Tenggara Province, which is 37.8%, followed by West Sulawesi Province with 33.8% and Aceh Province with 33.2%. Majene Regency has the second highest prevalence of stunting in West Sulawesi Province, namely 35.7% after Polewali Mandar Regency with a prevalence of 36.0% (Kementerian Kesehatan RI 2021). Pamboang District has the highest prevalence of stunting in Majene Regency at 38.3%. One of the villages in Pamboang District with the highest prevalence of stunting is in North Bonde Village of 33.3%. The high incidence of stunting is the result of a high number of influencing factors, such as early marriage (Larasati et al. 2018). In 2018, the province with the highest prevalence of early marriage was in West Sulawesi at 19.43% (Kementerian PPPA 2020).

Early marriage has an impact on mother's knowledge. The lack of understanding of mothers about stunting prevention causes them to fail to meet the nutritional needs of their toddlers so they are at risk of experiencing stunting (Astuti, Megawati, and CMS 2018).

Mothers as the closest person who provides care for toddlers need to get adequate information about optimizing children's growth in the First 1000 Days of Life (HPK). So that it can maximize its role and cases of malnutrition in toddlers can be prevented. Stunting prevention education by optimizing 1000 HPK using effective media to increase knowledge in the hope that mothers will be able to prevent stunting as early as possible (Kurniatin, Putri, and Pramuwidya 2021).

Based on the description of the background, the high incidence of stunting in Indonesia and North Bonde Village is one of the locus of stunting areas in Majene Regency and the large number of women who have become mothers at an early age. So researchers are interested in conducting research related to "The Effectiveness of Education about the First 1000 Days of Life for Early Mothers in Preventing Stunting in Toddlers in North Bonde Village".

2. Material and Method

The research design used is the pre-experimental design with the type of one-group pretest posttest design. In this design, researchers determined research subjects non-randomly and only treated one group without a control group to see if there was a comparison between the pretest and posttest values. The sample used in this study were women who had married at an early age (<20 years) in 2022 in North Bonde Village. There were as many as 30 respondents with a sample determination formula using total sampling. The determination of the sample in this study using a non-probability sampling technique by means of purposive sampling is done by taking samples in accordance with the required sample requirements, which are in accordance with certain characteristics, criteria, or traits. The sample criteria are mothers aged < 20 years.

The instrument used in this study was a questionnaire containing questions based on variable indicators and asking subjects to write down their responses to each question item. The questionnaire used in this research is a standardized questionnaire that has been tested for validity and reliability. The First 1000 Days of Life (HPK) knowledge questionnaire. The question form of the questionnaire is multiple choice, using a Guttman scale (true = 1, wrong = 0), which consists of 5 questions related to fulfilling nutrition during pregnancy, 8 questions related to the importance of exclusive breastfeeding, and 7 questions related to complementary breastfeeding.

The data that has been collected is then processed (editing, coding, scoring, data entry, and data cleaning). Furthermore, the data were analyzed using univariate analysis to determine the frequency distribution of the characteristics of the respondents and bivariate analysis to determine the effect of education on increased knowledge. In collecting data, apply the four basic principles of research ethics (Masturoh and Anggita 2018) namely: respect or appreciation for the subject, benefits, no harm to the research subject, and fairness.

3. Result

Table 1. Distribution of Responden Characteristics

Characteristics	n	Percentage
Age		
16 years	4	13,3%
17 years	6	20%
18 years	8	26,7%
19 years	12	40%
Total	**30**	**100%**
Education		
Primary school	8	26,7%
Secondary school	18	60%
Senior high school	4	13,3%
Total	**30**	**100%**
Occupation		
Employed	1	3,3%
Unemployed	29	96,7%
Total	**30**	**100%**
Experience		
Ever	5	16,7%
Never	25	83,3%
Total	**30**	**100%**

Based on Table 1, it can be seen that 4 people (13.3%) aged 16 years old, 17 years old, 6 people (20%), 18 years old, 8 people (26.7%), and 19 years old, 12 people (40%). Mother's last education at the elementary level was 8 people (26.7%), junior high school was 18 people (60%), and high school education was 4 people (13.3%). Mothers who have a job for as many as 1 person (3.3%) and do not work for as many as 29 people (96.7%). Mothers who had heard of the First 1000 Days of Life were 5 people (16.7%) and mothers who had never heard of 1000 HPK were 25 people (83.3%).

Table 2. Level of Knowledge Pre Test and Level of Knowledge Post Test Crosstabulation

		Level of Knowledge Post Test			Total
Level of Knowledge Pre Test		**Good**	**Fair**	**Poor**	
	Good	1 (3,3%)	0 (0%)	0 (0%)	**1 (3,3%)**
	Fair	3 (10%)	3 (10%)	0 (0%)	**6 (20%)**
	Poor	5 (16,5)	9 (30%)	9 (30%)	**23 (76,6)**
Total		**9 (30%)**	**12 (40%)**	**9 (30%)**	**30 (100%)**

From table 2, it can be seen that at the level of pre-test knowledge, it was found that the number of mothers who had a good level of knowledge was 1 person (3,3%), 6 (20%) mothers with fair level knowledge, and 23 (76,6%) mothers with less knowledge. The post-test knowledge level was obtained by mothers with a good level of knowledge of as many as nine people (30%), mothers with a fair level of knowledge of as many as twelve people (40%), and mothers with a lower level of knowledge of as many as nine people (30%).

Tabel 3. The Effectiveness of Education about the First 1000 Days of Life (1000 HPK) for Early Mothers in Preventing Stunting in Toddlers in North Bonde Village

Group	Level of knowledge								Asymp. Sig.(2-*tailed*)
	Good		Fair		Poor		Total		
	n	%	n	%	n	%	n	%	
Before	1	3,3	6	20	23	76,7	30	100	0,000
After	9	30,0	12	40	9	30,0	30	100	
Total	**10**	**16,7**	**18**	**30**	**32**	**53,3**	**60**	**100**	

Before being given education, the number of mothers who had a good level of knowledge was 1 person (3.3%), mothers with a sufficient level of knowledge were 6 people (20%), and mothers with a low level of knowledge were 23 people (76.7%). After being given education, 9 mothers (30%) had good knowledge, 12 mothers (40%) had sufficient knowledge and 9 mothers (30%) had less knowledge.

The results of the Marginal Homogeneity Test bivariate analysis obtained the Asymp value. Sig.(2-tailed) is 0.000, where the p-value is < α (0.000 <0.05), so it can be said that there is an effect of education on increasing early mothers's knowledge about stunting prevention in toddlers in North Bonde Village.

4. Discussion

The Level of Knowledge of Mothers at an Early Age Before Being Given Education about Stunting Prevention for Toddlers

Research shows that out of 30 mothers at an early age, 23 mothers (76.7%) have less knowledge. In terms of the characteristics of the mother, there are four factors that influence knowledge: age, education, work, and experience. The average mother who participates in stunting prevention education activities by optimizing the First 1000 Days of Life is 18 years old. At this age, they still have less knowledge, so they still need to increase their knowledge through educational efforts. If associated with the level of knowledge, age can affect one's knowledge. The older a person is, the more his knowledge will increase according to the information obtained (Corneles and Losu 2015).

The average education possessed by early-age mothers is at the junior high school level, where the level of education influences the learning process. The higher a person's education level, the easier it is for that person to receive information. With higher education, a person will tend to get information both while studying and from other people (Corneles and Losu 2015). In this study, it was dominated by the experience of mothers who had never heard of the First 1000 Days of Life, so the level of mothers's knowledge was dominated by a lack of knowledge.

Knowledge Level of Early Mothers After Being Given Education about Stunting Prevention for Toddlers

After being given education, it was found that most mothers had a sufficient level of knowledge. The increase in knowledge can be seen from the media used, namely PowerPoint media, leaflets, and videos. Providing education using these three media

taking into account that education is by looking at the PowerPoint slides which take turns while listening to the speaker explain the contents of the slides. leaflets given to educational targets as a guide that can be read repeatedly to better understand the intent of the educational material. Video media is also used for educational activities because, by seeing an interesting video playback accompanied by music and sound explanations of the video content, the target becomes enthusiastic so that they understand more about the intent of the message being conveyed. It can also be seen in terms of the educational method used, namely the counseling method, so that there is an increase in knowledge by early-age mothers about stunting prevention. The counseling method is one of the factors that influence the achievement of an optimal counseling result (Soekidjo Notoatmodjo 2012).

In this study, there were also respondents who had less knowledge, even though they had been given education about stunting prevention. In the view of researchers, of the 30 respondents, there are still 9 (30%) who have a lower level of knowledge. This is influenced by one factor, namely the interest of the respondents. One of the factors that influences the interest of respondents in paying attention to the material provided is motivation. There are still respondents who lack motivation, so they are less interested in paying attention to the material presented. One of the factors that influence interest in learning in terms of psychological factors is attention. To achieve good learning results, one must pay attention to the material being studied; if the material or subject matter is not a concern, then interest in learning is low (Handayani 2010).

The Effect of Education on Increasing Knowledge of Early Age Mothers about Stunting Prevention

Education about stunting prevention using Power Point media, leaflets, and videos. With the counseling method, the extension time is approximately 60 minutes. It was found that the average value of an early mother's knowledge before being given education was 46.00, and after education, the average value was 64.50, with an increase of 18.50. The results of the analysis of the effect of education on increasing early mothers's knowledge about stunting prevention in toddlers in North Bonde village using the marginal homogeneity test obtained a value of p (0.000) <0.05, so it can be said that there is an effect of education on increasing early mothers's knowledge about stunting prevention in toddlers in North Bonde village. Increased knowledge that occurs after being given health education is one aspect of capabilities achieved as a result of the process. Learning is done by spreading the message and instilling confidence, so people are not only aware, know, and understand, but also willing and able to carry out a recommendation relationship with health (S Notoatmodjo 2016).

The results of this study are in line with research conducted by Waliulu et al., (2018), which shows that there is an effect of education on knowledge and efforts to prevent stunting with a p value of 0.000. In line with research conducted by Ramadhanty & Rokhaidah, (2021), the average difference in the score of mothers' knowledge before and after health education about stunting is carried out is 6.04, which means there is a change in the level of knowledge of mothers about stunting from moderate to good knowledge. and obtained a p value of 0.000 (p <0.05), which means that there is an effect

of health education with audiovisual media on mothers's knowledge about stunting in toddlers at Posyandu Melati 1, Pisangan Timur subdistrict, East Jakarta. Results of a similar study, also conducted by Ramadhanty & Rokhaidah, (2021), showed that the majority of respondents before counseling had insufficient knowledge, namely as many as 68 respondents (60%). The majority of respondents after counseling had good knowledge, namely as many as 89 respondents (78%). Thus, it can be concluded that there is an effect of being given counseling with knowledge about stunting in Cot Puuk Village, District, and Gandapura, Bireuen Regency.

5. Conclusion

Before being given education about stunting prevention in toddlers in North Bonde village, it was found that most early-age mothers had less knowledge, 23 people (76.7%). The level of knowledge of early mothers after being given education about stunting prevention in toddlers in Bonde village found that most early mothers had sufficient knowledge of 12 people (40%). The results of the analysis show that there is an effect of education on increasing the knowledge of early-aged mothers about preventing stunting in toddlers in North Bonde Village.

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