

Effectiveness of EDUWAP in Increasing Knowledge about Stunting

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ABSTRACT

The prevalence of stunting in Indonesia is 24.4%, East Lombok Regency is around 43.52%. Teenagers are a potential group as agents of behavior change. For this reason, teenagers need to be given education to increase their knowledge and build awareness of the impact of stunting in the future. This research aims to determine the effectiveness of EDUWAP (Education via WhatsApp) in increasing teenagers' knowledge about stunting. The type of research used was Quasy Experimental pretest and posttest with a control group. The population in this study were all young women at SMA Negeri 1 Aikmel in March 2023, with a sample of 30 people who were divided into 2 groups with 15 members each and used a purposive sampling technique. Data collection was carried out using a questionnaire to determine the level of knowledge of young women about stunting before and after the intervention. The post-test statistical results of the experimental group and control group using the Mann-Whitney technique showed Asymp. signature. (2-tailed) $0.012 < 0.050$ with a mean rank for the experimental group of 19.00 and a mean rank for the control group of 12.00. So it can be concluded that there is a significant difference in the post-test results of the experimental group and the control group which influences the increase in knowledge in the experimental group before and after being given treatment towards increasing teenagers' knowledge about stunting.

Prevalensi stunting di Indonesia sebesar 24,4%, Kabupaten Lombok Timur sekitar 43,52%. Remaja merupakan kelompok yang potensial sebagai agen perubahan perilaku. Untuk itu remaja perlu diberikan edukasi untuk menambah pengetahuan dan membangun kesadaran akan dampak stunting di masa depan. Tujuan penelitian ini adalah untuk mengetahui efektivitas EDUWAP (Edukasi melalui WhatsApp) dalam meningkatkan pengetahuan remaja tentang stunting. Jenis penelitian yang digunakan adalah Quasy Eksperimental pretest dan posttest dengan kelompok kontrol. Populasi dalam penelitian ini adalah seluruh remaja putri SMA Negeri 1 Aikmel pada bulan Maret 2023, dengan sampel sebanyak 30 orang yang dibagi menjadi 2 kelompok dengan masing-masing anggota 15 orang dan menggunakan teknik purposive sampling. Pengumpulan data dilakukan dengan menggunakan kuesioner untuk mengetahui tingkat pengetahuan remaja putri tentang stunting sebelum dan sesudah intervensi. Hasil statistik post-test kelompok eksperimen dan kelompok kontrol dengan menggunakan teknik Mann-Whitney menunjukkan Asymp. tanda tangan. (2-tailed) $0,012 < 0,050$ dengan mean rank kelompok eksperimen sebesar 19,00 dan mean rank kelompok kontrol sebesar 12,00. Jadi dapat disimpulkan terdapat perbedaan yang signifikan hasil post-test kelompok eksperimen dan kelompok kontrol yang mempengaruhi peningkatan pengetahuan pada kelompok eksperimen sebelum dan sesudah diberikan perlakuan terhadap peningkatan pengetahuan remaja tentang stunting.

Introduction

According to data from the World Health Organization (WHO), Indonesia is the fifth country with the highest prevalence of stunted toddlers in Southeast Asia (Unicef & WHO, 2020). The 2021 Indonesian Nutrition Status Survey report also shows that the prevalence of stunting in Indonesia is 24.4%. This figure is still above the threshold set by WHO, namely 20%. The target for reducing stunting by 2024 is 14%, which means reducing the prevalence of stunting by 10% in 3 years. Meanwhile, Basic Health Research (Rikesdas) shows that the stunting (short) rate in NTB Province has decreased from 48.3% (2010) to 45.3% (2013) and decreased again to 33.49% in 2018. Meanwhile, the District East Lombok is in the range of 43.52% or higher than the provincial average (Wahyudi S. 2021).

Quoted from SMA Negeri 1 Aikmel is one of the schools that is committed to contributing to efforts to prevent stunting so several related activities are centered at the school, one of which is the National Action for Nutrition Movement with the NTB Provincial Health Service which held on November 3, 2022. Several outreach activities related to stunting and other health are often carried out at SMAN 1 Aikmel with resource persons from the NTB Province BKKBN, UPT BLUD Aikmel Health Center, and other related agencies, but all use simple outreach methods (SMA Aikmel, 2023).

It is important to reduce stunting as early as possible to avoid long-term negative impacts such as the growth and development of stunted children. Stunting has an impact on brain development so children's intelligence levels are not optimal. This risks reducing productivity in adulthood. Stunting also makes children more susceptible to disease. Children who experience stunting have a higher risk of suffering from chronic diseases in adulthood. Therefore, nutritional management during adolescence is very important. Teenagers are a potential group that can be relied upon as agents of behavior change. The involvement of teenagers in overcoming stunting is important because teenagers are at the forefront of innovation and agents of change. It is at this stage of the adolescent life cycle that it is very important to intervene to prevent the prevalence of stunting. One of them is by providing information about nutritional knowledge so that teenagers can understand the nutritional needs needed (Andiani et al. 2022), efforts to meet nutrition at 1000 HPK should provide information from an early age to prospective mothers regarding the problem of stunting. Through this health education, teenagers will be able to form a good understanding regarding nutritional awareness behavior to prevent stunting (Watson et al. 2019).

In the research of Andiani, et al (2021), the results obtained were that the majority of respondents' knowledge levels were in the poor category, 37 people, and a small number were in the good category, 13 people. This is based on the lack of sufficient information regarding stunting both in the school environment and where teenagers live. Teenagers' low knowledge about stunting and its impact on the future will result in teenagers not paying attention to it. For this reason, teenagers need to be given education to increase their knowledge and build awareness of the impact of stunting in the future. Social media is an important and effective vehicle for providing education to its target audience, namely teenagers. On social media, the content uploaded is the main message regarding adolescent nutrition, and adolescent reproductive health in order to produce a superior generation and adolescent participation in stunting prevention activities. The development of digital technology in Indonesia and the popularity

of social media among teenagers make social media a suitable platform for spreading messages and generating dialogue among teenagers (Widayati & Augustinah 2019).

This research aims to determine the effectiveness of EDUWAP (Education via WhatsApp) in increasing teenagers' knowledge about stunting at SMA Negeri 1 Aikmel in 2023.

Method

This research is quantitative research with a pretest and posttest with a control group quasi-experimental research type involving an experimental group and a control group. The experimental group will be given education about stunting visually using WA (WhatsApp Messenger) and the control group will be given simple counselling. The population in this study were all young women from SMA Negeri 1 Aikmel in 2023, with a sample size of 30 people. which was divided into 2 groups with 15 members each and using a purposive sampling technique, namely taking samples according to the research objectives. Sample characteristics that can be included in the inclusion criteria for this research include: young women who have a smartphone and the WhatsApp Messenger application, are willing to be research subjects, and do not have any disorders/disabilities. This research was conducted on young women at SMA Negeri 1 Aikmel in March 2023. Data collection to determine the level of knowledge of young women about stunting before and after intervention used a questionnaire from Ayu Namirah Filayeti (2019) which was tested for validity and reliability (Filayeti, 2019). Data analysis uses Mann Whitney for data that is not normally distributed and to determine the effectiveness of EDUWAP in increasing teenagers' knowledge about stunting. This research is worth doing. Researchers obtained the Al-Azhar Islamic University ethics code number 51/EC-04/FK-66/UNIZAR/III/2023.

Results

Table. 1 Distribution of Teenagers' Knowledge Level (Group 1) Before and After Being Given Education about Stunting Through Simple Counseling.

Variable	Prat		Posttest	
	F	%	F	%
Knowledge level				
Not enough	2	13.33	0	0.00
Enough	11	73.33	4	26.67
Good	2	13.33	11	73.33
Total	15	100.0	15	100.0

Source: Primary data, March 2023

Based on Table 1, it can be seen that before simple counselling about stunting was carried out, the level of knowledge was low as many as 2 people (13.33%), quite good knowledge as \ as many as 11 people (73.33%), and quite good knowledge as many as 2 people (13.33%). Meanwhile, after carrying out simple counselling about stunting, it was found that 11 people had good knowledge (73.33%), 4 people had sufficient knowledge (26.33%), and there were no respondents with poor knowledge.

Table 2. Distribution of Teenagers' Knowledge Level (Group 2) Before and After Being Given Education about Stunting Through Simple Counseling.

Variable	Prat		Posttest	
	F	%	F	%
Knowledge level				
Not enough	8	53.33	0	0.00
Enough	6	40.00	7	46.67
Good	1	6.67	8	53.33
Total	15	53.33	15	0.00

Source: Primary data, March 2023

Based on Table 2, it can be seen that before the implementation of EDUWHAP (Education via WhatsApp) regarding stunting, there were 8 respondents (53.33%) who had a low level of knowledge, 6 people (40%) who had a sufficient level of knowledge and only 1 person (40%) who have a low level of knowledge. people (6.67%). Meanwhile, after carrying out EDUWHAP (Education via Whatsapp) regarding stunting, it was seen that 8 respondents (53.33%) had a good level of knowledge, 7 respondents (46.67%) had sufficient knowledge and no respondents had insufficient knowledge.

Table 3. Pretest and Posttest Results of the Experimental Group

Group	N	Mean±SD	p-value
Prat	15	19.93	0.002
Posttest	15	11.07	

Source: Primary data, March 2023

The posttest statistical test for the experimental group using the Mann-Whitney technique obtained a p-value of $0.002 < 0.05$, meaning that there was a significant difference between the pretest and posttest results of the group, so it was concluded that providing information with EDUWAP could influence adolescent progress. knowledge about stunting.

Table 4. Control Group Pretest and Posttest Results

Group	N	Mean±SD	p-value
Prat	15	20.27	0.001
Posttest	15	10.73	

Source: Primary data, March 2023

The pretest and posttest statistical tests for the control group using the Mann-Whitney technique produced a p-value of $0.001 < 0.05$, meaning that there was a significant difference, meaning that counselling could influence increasing teenagers' knowledge about stunting, the level of teenagers' knowledge beforehand and after being given education about stunting via WhatsApp.

Discussion

Stunting is a condition where the growth and development of children under 1000 HPK are affected by chronic malnutrition. The causes of stunting are divided into two, namely primary and secondary causes. The main causes include hereditary factors (familial stunting), pathological disorders, hormonal deficiency disorders, and chromosomal abnormalities. Secondary causes such as intrauterine growth retardation, chronic malnutrition, chronic diseases, endocrine disorders and psychosocial disorders (UNICEF, 2021).

Stunting is also caused by many factors and it is not only nutritional problems during pregnancy and toddlerhood that can cause stunting. One of them is the mother's knowledge about health and nutrition before and during pregnancy and during childbirth. According to Notoatmodjo (2016),

knowledge is the result of knowing someone after he feels an object. After carrying out simple counselling in group A about stunting, the results showed that there was an increase in the level of knowledge of respondents from sufficient to good in the number of 11 respondents (73.33%) and those who previously had a poor level of knowledge to adequate in the number of 4 people (26.33%). This finding is in line with research which states that a combination of lecture and discussion methods is the right method for education (Vinci et al. 2022).

On group B, carried out EDUWHAP (Education through WhatsApp) regarding stunting. The activities consist of providing materials condolences through videos, and comics obtained from www.komik.pendidikan.id and providing material in ppt form via the *WhatsApp* (WA) social media group. This shows that providing education through social media is quite effective in increasing teenagers' knowledge. Evaluation related to adolescent understanding given via the WA group and carried out through pre-post test measurements so you can get a percentage idea increasing knowledge of teenagers before and after providing the material and the results occur enhancement the respondent's previous level of knowledge not enough become Good a total of 8 people (53.33%) and 7 people (46.67%) have level knowledge enough. Results study This in line with Results study is also in line with research by Reni, et al (2020) which states that There has been an increase in teenagers' previous knowledge of 30% to 85% for PUP material and an increase of 59% for stunting material et al., (2020), strengthened with research findings stating that educational methods using videos and FGD (discussion and team-based learning) are very effective in increasing knowledge in line with previous research (Supriyatni et al., 2021).

The level of knowledge about something can be different for each individual. This can be obtained from many factors which can influence a person's level of knowledge, starting from internal factors (age and IQ/Intelligence Quotient) as well as external factors (education, work, information, experience and environment (Nursalam& Pariani, 2021).

Additionally, according to Notoadmojo (2016), Improvement own knowledge is influenced by several factors including mass media besides several other factors, namely education, personal or other people's experiences and environment. Social media as media which is popular and frequently used by teenagers all over the world has the potential to be used as a means of health promotion reproduction in adolescents (Pfeiffer et al., 2018).

Knowledge about nutrition is what is known about food including healthy food, healthy food for certain age groups (for example women of preconception childbearing age), and how to choose, process and prepare food properly. Women of childbearing age who have Good nutritional knowledge will be able to choose the right type of food for themselves both in terms of quantity and quality of what they consume. Thus nutritional knowledge is one of the protective factors in preparing for pregnancy or preconception (Dewi et al., 2020).

The experimental group statistical test using Mann-Whitney obtained Asymp results. S. (2-tailed) $0.02 < 0.05$ with mean rank, meaning there is a significant difference that providing information via WhatsApp (EDUWAP) can influence teenagers' knowledge about stunting. Statistical tests for the

control group using the Mann-Whitney technique obtained a p-value of $0.01 < 0.05$, meaning that providing information through counselling methods can influence teenagers' knowledge about stunting.

Providing education through online media can increase young women's knowledge about stunting. In line with the research results Supriyatni et al. (2021) which state that education influences knowledge and efforts to prevent stunting. According to Notoatmodjo (2016), Education is carried out to improve health status, prevent disease, and improve or restore health. Education focuses on the ability to implement health behavior.

Problems that occur with stunting, especially in the first 1000 days of life, can have an impact on Human Resources (HR), which in the short term will result in suboptimal growth, apart from that it can hinder cognitive and motor development and be less than optimal. physical size accompanied by disturbances in the system. metabolism. Meanwhile, in the long term, stunting also has an impact on decreased intellectual capacity, structural disorders, inactive nerve function and brain cells and can result in a decrease in the ability to absorb learning at school age which can affect productivity in adulthood. Apart from that, poor nutrition or stunting also causes growth disorders (short and/or thin) and increases the risk of non-communicable diseases such as diabetes mellitus (DM), hypertension, coronary heart disease and stroke (Fitriani et al., 2022).

Stunting prevention can be done by providing knowledge to teenagers and women in the form of prevention and promotion. It is hoped that adolescent nutrition education can contribute to the awareness of adolescents as prospective parents regarding the health of mothers and children at important moments in their lives, including breaking the chain of stunting problems. The success of nutrition education is strongly supported by the media used. Various educational media have been developed in nutrition education. However, several studies state that Android-based educational media is more effective than other media in increasing nutritional knowledge and behavior (Wulansari et al., 2021).

Apart from that, the use of media in the educational process must be adjusted to the characteristics of the respondent. The use of media in the form of the WhatsApp application is certainly not suitable for use in rural communities that do not have smartphones. Only suitable for use in groups of teenage smartphone users. Meanwhile, the use of pocketbooks and printed media (simple counselling) is certainly not suitable for illiterate teenagers. However, it is suitable for teenagers who attend Islamic boarding schools (Islamic boarding schools or Islamic boarding schools) which limit the use of smartphones. This finding is in accordance with previous research, namely that audiovisual media has been proven to be effective in increasing target knowledge (Supriyatni et al., 2021).

Conclusion

There was a significant difference *in the post-test results* of the experimental group (EDUWHAP) and the control group (simple counselling) which influenced the increase in knowledge in the experimental group before and after being given treatment towards increasing teenagers' knowledge about stunting.

Recommendation: It is hoped that adolescent nutrition education can contribute to the awareness of adolescents as prospective parents regarding the health of mothers and children at important moments in their lives, including breaking the chain of stunting problems. The success of nutrition education is strongly supported by the media used. The choice of information media can be adjusted to the characteristics of the information recipient. WhatsApp media and simple socialization can increase teenagers' knowledge about stunting.

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