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**EFFECT OF PREVENTIVE MODUL TO IMPROVE KNOWLEDGE AND  
ATTITUDE TOWARD STUNTING PREVENTION AMONG MOTHERS :  
LITERATURE REVIEW**

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**ABSTRACT**

*Background: Accelerating the reduction of stunting in toddlers is a priority program of the Government. Educational efforts for mothers with toddlers and promotion of stunting health include nutrition/nutrition education for toddlers, children, and the whole family and clean and healthy living behaviors that must be carried out by families and all members of the community in order to create a healthy environment for children to live in. Purpose: To examine and synthesize research evidence on the effectiveness of education to increase knowledge and attitudes towards stunting prevention in mothers with toddlers. Methods: Protocol and evaluation from the literature review using the PRISMA checklist. A literature search was conducted from June to September 2022. The literature search used four databases with high and medium-quality criteria, namely Pubmed, Scient Direct, Scopus, and Garuda portal with 414 articles found. From the selection results, the number of articles discussed was 16 articles. Results: The results found 16 articles that discussed stunting education, where the results of changes in stunting prevention knowledge were very visible for the better. The results obtained from the discovery of 16 articles that discussed stunting prevention education resulted in a change in attitude toward stunting prevention being positive. Conclusion: The results of changes in stunting prevention knowledge seem to be getting better and stunting prevention education is positive. where the results of changes in stunting prevention knowledge change are very visible for the better. The results obtained from the discovery of 16 articles that discussed stunting prevention education resulted in a change in attitude toward stunting prevention being positive. Conclusion: The results of changes in stunting prevention knowledge seem to be getting better and stunting prevention education is positive. where the results of changes in stunting prevention knowledge change are very visible for the better. The results obtained from the discovery of 16 articles that discussed stunting prevention education resulted in a change in attitude toward stunting prevention being positive. Conclusion: The results of changes in stunting prevention knowledge seem to be getting better and stunting prevention education is positive.*

*Keywords* :Education, Knowledge, Attitude, Stunting

**INTRODUCTION**

Stunting is the most common form of malnutrition (PE / micronutrients), which affects babies before birth and early after birth, related to the size of the mother, nutrition during pregnancy, and fetal growth. 1 According to Sudiman in Ngaisyah, stunting in children under five is one of the indicators of chronic nutritional status that can provide an overview of disturbances in overall socio-economic conditions in the past and in the early 2 years of a child's life can have an impact that is difficult to repair. One of the socio-economic factors that influence stunting is the economic status of parents and family food security.<sup>1</sup>

Globally, based on data from the World Health Organization in 2020, as many as 149 million toddlers worldwide suffer from stunting which have an impact on other health problems. WHO data also shows that more than half of toddlers who suffer from stunting live in Asia

and Africa. However, the Asian continent only has a few countries with a stunting prevalence above 30%, including India, Nepal, Laos, and Indonesia. Indonesia has a very high stunting rate and progress is off track (not yet close to the target).<sup>2</sup>

Stunting in toddlers in developing countries can be caused by genetic factors and factor Inadequate environment for optimal child development. Indonesia has a stunting rate of 30.8% in 2018 and 27.7% in 2019. Despite the decline, Indonesia is ranked 108th out of 132 countries with the highest prevalence of stunting in the world. In various indicators, the prevention of stunting in Indonesia is also still experiencing challenges including cases of Low Birth Weight (LBW) which are still increasing (5.7% in 2013 and 6.25% in 2018), the proportion of complete basic immunization is still showing a decrease (59, 2% in 2013 and 57.9% in 2018), mothers and toddlers with energy-deficient conditions who have not yet received Supplementary Feeding (PMT) are still quite high (74.8% and 59%), and anemia in pregnant women is increasing (37.1% in 2013 and 48.9 in 2018).

Accelerating the reduction of stunting in toddlers is a priority program for the Government as set out in the 2020-2024 RPJMN. The national target for 2024 is for the prevalence of stunting to drop to 14%. The Deputy President of the Republic of Indonesia as Chair of the Steering Committee for the Acceleration of Stunting Reduction (TP2S) at the Center is tasked with providing directions regarding the establishment of policies for the implementation of the Acceleration of Stunting Reduction; as well as providing considerations, suggestions and recommendations in solving obstacles and obstacles to the implementation of the Accelerated Stunting Reduction in an effective, convergent and integrated manner by involving cross-sectors at the central and regional levels. (Ministry of Health, 2020)

Knowledge is a very important domain for the formation of one's actions. How to provide knowledge can be done by providing education, this can be done by providing education for mothers who have toddlers which aims to prevent cases of stunting. Educational efforts for mothers with toddlers and promotion of stunting health include nutrition/nutrition education for toddlers, children and the whole family and clean and healthy living behaviors that must be carried out by families and all members of the community in order to create a healthy environment for children to live in.<sup>3 4</sup>

## **RESEARCH METHODS**

A comprehensive summary in the form of a literature review on the effectiveness of the e-module to increase knowledge and attitudes towards stunting prevention in mothers with toddlers. Protocol and evaluation from literature review using PRISMA checklist. A literature search was conducted from June to September 2022. The literature search used four databases with high and medium quality criteria, namely Pubmed, Scient Direct, Scopus, and Garuda portal.

From the PubMed database, 49 articles were found, from science directive 346 articles were found, Google Scholar found 4 articles and Google Scholar 15 articles. In total, from the three databases, 414 articles were found. Out of a total of 414 articles that entered the stage 1 screening process, 253 articles were excluded, so only 365 articles were screened. From the stage 2 screening process by looking at the full text, out of 112 articles only 48 articles were filtered. And after a more thorough process by looking at the inclusion and exclusion criteria, only 16 articles were found that were eligible and included in the literature for this review.

## RESEARCH RESULT

Table 1 Results of the Revier Literature Search Based on Stunting Education on Changes in Knowledge and Attitudes

No	Author, Year	Educational Method	Results of Educational Methods		Conclusion Results
			Knowledge (%)	Attitude (%)	
1	Agritubella, et al, 2020 <sup>5</sup>	Media posters	Knowledge before education 65.3 Knowledge after education 79.00	No research done	There is a difference in the mean of the two groups with a p- value of 0.035, which means that there is an increase in the knowledge of pregnant women after being given education on the 1000 HPK Diet Pattern in preventing stunting.
2	Astarani, et al, 2020 <sup>6</sup>	Education with stunting counseling	before and after health counseling were in the good category, namely as many as 23 respondents (46.9%) to 46 respondents (93.9%) or an increase of 23 respondents (46.9%).	No research done	There is an influence of health education about stunting on the knowledge of parents of pre-school children at Setia Bakti Kediri Kindergarten.
3	Fitriami, et al, 2022 <sup>7</sup>	Android Application Based Education	Knowledge before being given android-based education 24.1% knowledge after being given android-based education 46.3%	The majority of education is negative as many as 33 people (59.3%), the frequency distribution of attitudes after being given education is mostly negative as many as 33 people (59.3%)	Stunting education using the Android application has proven to be effective but for the future it is recommended to use more than two stunting education media.
4	Medinawati, et al. <sup>8</sup>	Media "Acenting Seni"	Knowledge before and after being given art acting media education experienced a significant increase	Attitudes before and after being given media accenting art education experienced a significant increase	The media "Acenting Seni" is able to increase the knowledge and attitudes of respondents regarding preventing stunting from an early age
5	Melati, et al, 2021. <sup>9</sup>	Whatsapp Group Education	Prior knowledge 56.9% increased knowledge after being given whatsapp group education by 84.6%	Attitude before being given 65.6% Attitude after being given education 77.8%	The use of WhatsApp groups has an influence on increasing pregnant women's knowledge by 56.6% and positive attitudes to prevent stunting.
6	Mulyani, et al	Stunting counseling education (in the form of leaflets)	Prior knowledge 63.3% Knowledge after 73.3%	Attitude before experiencing an increase of 63.3%	Nutrition education by giving leaflets to anticipate stunting in children shows a significant effect on increasing mothers' knowledge and attitudes in terms of monitoring children's growth to prevent stunting in Gurah village

7	Naulia, et al, 2021. <sup>11</sup>	Education on nutrition for toddlers	Prior knowledge 75.9% Knowledge after 88.9%		Attitude before 67.5% attitude before 77.5%	Nutrition education can increase knowledge and attitudes in fulfilling nutrition so that nutrition can be an alternative intervention to improve health behavior in preventing stunting. Further research needs to be further investigated regarding mother's behavior in fulfilling toddler nutrition after receiving nutrition education
8	Nuheriana, et al, 2021. <sup>12</sup>	Diet Counseling Education	Knowledge before education 57.1% Knowledge after education 100%		Attitude after education 63.3% Attitude before education 87.8	There is an effect of dietary counseling on changes in the knowledge of mothers who have stunted children
9	Nuraini, et al, 2019. <sup>3</sup>	Education through stunting prevention learning videos	Knowledge before education 77.4% Knowledge according to education 89.9%		No research done	Education using videos can increase knowledge about stunting
10	Nyamasege et al 2018. <sup>13</sup>	Counseling	Experiencing knowledge increased		No research done	Experiencing a significant increase in knowledge after being given education about stunting
11	Rehana, et al, 2020 <sup>15</sup>	Counseling	Experience knowledge increased			increasing mother's knowledge about the meaning of stunting, the causes of stunting, how to prevent and deal with it in children under five
12	Patata, et al, 2021. <sup>14</sup>	Counseling	Experience knowledge increased		Experiencing improvement and change in attitude after counseling	there is a change in the knowledge and attitude of the prospective bride and groom after being given nutrition education, where on average the respondents have started to improve their diet to prepare for pregnancy from the nutrition education that was given before
13	Simanjuntak, et al, 2022. <sup>16</sup>	Electronic media education such as Instagram, Twitter, Facebook, and Tiktok	The average total knowledge index when the pre-test was carried out was 73.03 with a minimum value of 25 and a maximum of 100 all respondents who chose social media TikTok and Twitter had knowledge in the high category with an average index of 94.00 and 93.00 respectively.		The attitude before conducting electronic media education was that Twitter was included in the high category with an average attitude index of 96.67	The social media that produces the most changes in target knowledge is TikTok, while the most effective changes in target attitudes and behavior are through Instagram social media
14	Wahyurin, et al, 2018. <sup>18</sup>	brainstorming and audiovisual methods	Knowledge before education with results of medium scores (3-4) and after (4-10)		No research done	Providing education with brainstorming and audiovisual methods can increase mothers' knowledge about stunting
15	Waliulu, et al, 2018. <sup>19</sup>	Stunting prevention counseling methods	Respondents' knowledge before and after education obtained mean values of 65.50 and 87.50		Are not done	Education has an effect on knowledge and efforts to prevent stunting.

## DISCUSSION

Knowledge is a stimulus in which the change from not knowing to knowing is the result of knowing and this occurs after a person has sensed a certain object. Sensing that has gone through the five human senses, namely the senses of sight, hearing, smell, taste and touch. Most of human knowledge is obtained through the eyes and ears. In this case, according to L Bloom, knowledge is divided into several parts, such as: 1) The cognitive domain can be measured from knowledge, knowledge is the result of human sensing, or the result of knowing someone about objects through their senses (eyes, nose, ears, tongue and so on). 2) The affective domain can be measured by attitude. Attitude is the readiness or willingness to act. attitude is not yet a factor but is a predisposition to closed behavior or reaction. 3) The psychomotor domain can be measured from the skills of the psychomotor domain, which is an attitude that is not necessarily manifested in factors.

Prevention of stunting can be done with various or various efforts where most people may not understand the term called stunting. Stunting is a chronic malnutrition problem caused by a lack of nutritional intake for quite a long time, resulting in impaired growth in children, namely the child's height is lower or shorter (dwarf) than the standard age. The condition of a short child's body is often said to be a hereditary factor from both parents, so that many people just accept it without doing anything to prevent it. In fact, as we know, genetics is a determinant factor for health that has the least influence when compared to behavioral, environmental (social, economic, cultural, political) factors, and health services. In other words,

This is very evident in research conducted by Naulia, et al 2021 that nutrition education can increase knowledge and attitudes in fulfilling nutrition so that nutritional nutrition can be an alternative intervention to improve health behavior in preventing stunting. Efforts to prevent stunting can be carried out by providing education to the public, especially mothers, who have toddlers. In addition, other studies state that efforts to prevent stunting by providing electronic media education are very effective in this case where the results of the post-test show that all respondents who chose social media TikTok and Twitter have knowledge in the high category with an average index each reaching 94.00 and 93.00. The low knowledge category is still filled by respondents who choose social media Instagram (6.30) and Youtube (7.70). The average post-test knowledge index as a whole reaches 86.91 with a minimum value of 55 and a maximum of 100. If sorted based on the amount of the average knowledge index achieved during the post-test, social media TikTok ranks first, followed by Twitter, Facebook, Instagram, and finally Youtube.

Seeing the results of the research that the role of electronic media such as Facebook, Twitter, Instagram and Tiktok is seen in the industrial era 4.0 where almost all of them have electronic social media. It can be used as an educational event, especially for stunting prevention. In addition, electronic media is easier to reach and can be applied in the era of society, most of whom are used to using electronic media.

From the results of another study conducted by Melati, et al 2019 where the use of the WhatsApp group had an effect on increasing the knowledge of pregnant women by 56.6% and a positive attitude to prevent stunting. The role of education in preventing stunting is felt to be very important, because it is proven from the results of various research studies, changes in mother's knowledge about stunting prevention get better results and are very significant.

## **THE EFFECTIVENESS OF EDUCATION TO IMPROVE ATTITUDES**

The causes of stunting are very diverse and complex, but in general they are categorized into three factors, namely basic factors, underlying factors, and immediate factors (Udoh, et al. in Nurkomala, et al., 2018). Basic factors consist of economic, social, political factors. Underlying factors consist of family factors and health services, while immediate factors consist of diet and health factors. Family factors that are risk factors for stunting are parents' educational level, socioeconomic conditions, and the number of children in the family. Dirty environmental conditions also affect the occurrence of stunting, because it can cause disease and even infection and inhibit growth and development.

Attitude is a reaction or response that is still closed from someone to a stimulus or object. Manifestations of attitudes cannot be seen immediately, but can only be interpreted in advance from closed behavior, attitudes actually show the connotation of appropriate reactions to stimuli in everyday life.

In the research conducted by Kustiani and Misa (2018) an increase in the percentage of attitudes of mothers who have children 6-24 months after being given counseling using pictures and prepared food with shapes, types and quantities according to the needs of children based on age. The increase in attitudes that occurred in mothers was in line with the increase in mothers' knowledge about complementary feeding, where at the beginning of the study, very few mothers had good knowledge of 14.7%, and it increased to 82.4% after nutrition counseling was carried out. An increase in attitude goes hand in hand with an increase in knowledge, because knowledge underlies changes in human attitudes and behavior. In Azzahra's study, et al., there was a significant increase in mother's attitude after being given counseling about feeding children. Education during counseling apart from increasing the mother's knowledge, will also improve the mother's attitude. The reason is, during counseling the mother will be invited to solve problems together, and will cause a stimulus reaction in the form of emotion which will affect a change in attitude.

In addition to increasing understanding of attitudes through education based on research by Nuheriana, et al, 2021, states that there is an effect of dietary counseling on changing the knowledge of mothers who have stunted children. Besides that, the importance of education in changing attitudes, where a person's response is when he gets something good, and his knowledge increases, the attitude response will change in such a way.

Education in accelerating the reduction of stunting today is very important when seen from the results of various literature searches, almost as a whole there has been a significant change in attitude, especially in research conducted by Melati et al. .6% and a positive attitude to prevent stunting. In addition, exposure to electronic media will have a pretty good impact on changing the attitude of mothers in preventing stunting for toddlers.

## **CONCLUSION**

- a. The findings found 16 articles discussing stunting education, where the results of changes in stunting prevention knowledge changed very much for the better
- b. The results of the discovery of 16 articles discussing education on stunting prevention resulted in a positive attitude change in stunting prevention.

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