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**THE IMPACT OF COMMUNITY HEALTH EDUCATION ABOUT STUNTING ON MOTHERS' KNOWLEDGE LEVELS****Oleh****Alicia Nayoan<sup>1</sup>, Beverlee Kawalo<sup>2</sup>, Gabriella Tulungen<sup>3</sup>, Sultan Gultom<sup>4</sup>, Carlos Sagala<sup>5</sup>, Lyna Hutapea<sup>6</sup>****1,2,3,4,5,6 Universitas Advent Indonesia****E-mail: <sup>6</sup>[lynahutapea@unai.edu](mailto:lynahutapea@unai.edu)**

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**Article History:***Received: 05-12-2022**Revised: 22-12-2022**Accepted: 03-01-2023***Keywords:***Stunting, Mothers' Knowledge, Toddlers, Community Health Education.*

**Abstract:** *Stunting has become a concern that attracts the attention of health leaders worldwide. Stunting is defined as a condition wherein a child experiences chronic inadequacy of nutrition consumption that leads them to growing slower than the others their age, manifested clearly in their height. Stunting leads to a lot of disadvantages not only for the child, but also to the family, and even further to the country's future economy. Indonesia has been found to have a number of stunting prevalence higher than what has been determined by the World Health Organization. Mothers play a great role in preventing stunting from spreading even further. The aim of this study is focused on measuring the knowledge of the mothers with toddlers about stunting and how a community health education done regarding the topic concerned can influence their fore knowledge. This study is done in the design of quantitative method, using the pretest-posttest control group design. The health education is given to mothers with toddlers living in a village named Karyawangi in West Bandung, Indonesia. The result shows that there is a positive impact found towards the knowledge of the participants before and after the health education is given. The scoring of the pre- and post- test shows a positive difference, leading to a higher value. It is then recommended that health education on stunting needs to be done more frequently to raise the awareness of mothers in regards of reducing the number of children with stunting.*

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**INTRODUCTION**

The topic of stunting has become one of the many that have caught the special attention from the government due to its increase in prevalence in Indonesia. Based on the National Nutrition Monitoring (Pemantauan Gizi) on the year of 2016, the prevalence level of stunting had reached 27,5% in Indonesia, while the borderline that had been circumscribed by the World Health Organization is <20%. This shows that approximately, around 1 out of 3 children in Indonesia undergo stunting<sup>1</sup>.

TNP2K (National Team for the Acceleration of Poverty Reduction; Tim Nasional Perepatan Penanggulangan Kemiskinan), in 2017, explained that stunting is a condition where the growth of toddlers is clearly seen to be slower than children of their age, judging from their height and weight. Stunting is the impact of long-term malnutrition. The progress of stunting does not only start when the baby has been born. It starts even when the child is still inside their mother's womb<sup>2</sup>. Not only impacting on the physical aspects, stunting can also affect mental ability of the child. Children who are stunted have a level of intelligence that is not optimal and will be more susceptible to disease<sup>3</sup>. Looking at it from a broader perspective, stunting can later affect the country's economic growth by becoming a factor in increasing poverty and reducing the labour market productivity<sup>4</sup>.

Although the impact of stunting greatly affects children's health and community welfare, there are still many among the parents who do not have required level of knowledge to increase awareness of the importance of stunting prevention. A study conducted by Rahayu et al (2021) found that only 66.7% of mothers had a moderate level of knowledge about stunting<sup>5</sup>. Stunting is the result of chronic malnutrition and therefore, mothers directly influence the adequacy or insufficiency of nutrition and nutrition for children. Mother's knowledge has a significant relationship to the prevalence of stunting in children<sup>6</sup>.

Because of the background that the researchers have concluded based on previous studies and reliable information from the government, the researchers will conduct a study that can measure the knowledge of mothers with toddlers in Karyawangi village RW 08 & 09 regarding stunting before and after a community health education, with the hope that the awareness and level of knowledge of mothers will increase. The researchers also hope that increased knowledge and awareness of the occurrence of stunting in children will have an effect on reducing the prevalence rate of stunting in children in Indonesia.

In accordance to the Interpersonal Relations Theory developed by Hildegard Peplau, the nurses take on various roles: being a resource person, teacher, surrogate, and a counsellor. The participants taking part of this study goes through the phases of orientation, wherein their needs are addressed when they fill in the pre-test questionnaire which expresses their need in knowledge about stunting. Followed by the working phase, wherein the patient becomes an active part in the care. During the community health education, participants are allowed to express any concerns and doubts present regarding the topic. The last phase is termination, wherein the nurse helps the clients foster the knowledge they have obtained and apply it into their lifestyle, in this case, especially in preventing stunting from occurring to their children. Also in this phase, nurses and clients terminates their built trusting relationship formerly shaped.

## LANDASAN TEORI

Stunting is defined as a condition in which a child fails to grow on a par with children his age<sup>6</sup>. The presence of stunting can be seen from the height or length of the child which is shorter than it should be, usually it can be seen after the child is 2 years old<sup>2</sup>. This happens due to malnutrition that can occur from the time the child is in the womb. According to WHO (2015) in an article presented by the Ministry of Health (2022), the definition of stunting has changed, not only due to chronic malnutrition, but also due to recurrent infections.

There are many bad effects that can be caused by stunting. In terms of health, children

can experience obstacles in motor and cognitive development. Stunting can also cause metabolic disorders as adults, thereby increasing the risk of non-communicable diseases such as heart disease, diabetes, obesity, etc.<sup>7</sup>

Stunting can be prevented, namely by maintaining and monitoring the health of young women, pregnant women and toddlers<sup>8</sup>. Teenage girls are encouraged to take anemia screening and consume TTB (additive iron tablets). Pregnant women are advised to visit a doctor for regular prenatal check-ups. The need for and adequacy of balanced nutrition for pregnant women must always be ensured so that the mother's health can be maintained properly which will result in good baby health as well. For toddlers, mothers are encouraged to implement early initiation of breastfeeding to facilitate exclusive breastfeeding for 6 months and continue with healthy and nutritious complementary foods. The application of complete routine immunizations must also be given great attention<sup>13</sup>. In addition to the health of young women, pregnant women and toddlers, a clean lifestyle and good sanitation must be maintained by each family in order to reduce the incidence of exposure to infection in children which is a factor in stunting<sup>7</sup>.

Mothers are also responsible in providing good nutrition for the family. Children are in an even more crucial need for nutrition and nourishments as they are not capable of providing for themselves and as they are still in their rapid years of growth. Mothers are required to know the kinds and various nutrition needed for the children. "The nutrition a child receives through daily food consumption plays an important role in the child's life"<sup>9</sup>.

In applying the above factors that can influence the occurrence of stunting, the level of knowledge of the mother plays an important role so that the right actions can be taken, especially in improving family nutrition<sup>10</sup>. According to Rahmwati (2019) in Muzayyaroh (2021), mothers' insights regarding stunting and its management can help in maintaining family health so that stunting can be prevented<sup>8</sup>. Muzzayaroh (2021) adds on, a good level of knowledge can also lead to good health behaviours, especially in terms of preventing stunting in children.

## METHODS

This research was done using the methodology of quantitative design. In order to measure the knowledge of the mothers before and after the community health education given, this study utilizes the technique of Pre-test Post-test Control Group design. The participants involved in this study were narrowed down to 42 mothers with toddlers living in the Karyawang Village, West Bandung. The title of the health education delivered to the audience was "Cegah Stunting: Gizi Seimbang, Keluarga Sehat" (Prevent Stunting: Balanced Nutrition, Health Family). Participants were given an invitation letter to the meeting for health education, and as their act of agreement they were present and signed the list of attendees. The knowledge of the mothers regarding stunting was measured before the health education was given and after the health education was done. The questionnaire used was adapted from Kushandika (2020)<sup>11</sup>.

## RESULT & DISCUSSION

The result of this study found that there are 42 mothers participating in this study, among which there are only 34 data eligible for use in obtaining the required information. It is found that the age range of the participants is 20-62 years old. On table 1, it can be seen that there are 9 participants within the age range of 20-29 (25,7%), 13 within the age range of 30-39 (37,1%), 8 belonging to the group of 40-49 age range (22,8%), and 5 participants in the 50-62 age range (14,2%).

**Table 1. Participants' Age Range**

Age Range	Number	%
20-29	9	25,7
30-39	13	37,1
40-49	8	22,8
50-62	5	14,2
<b>Total</b>	<b>34</b>	<b>100%</b>

Before the community health education was given, the knowledge of the mothers was assessed. As shown in *Table 2*, 2 participants had poor knowledge on stunting, 18 participants had good knowledge, and 14 participants have the knowledge belonging to the satisfactory group. It shows that there are still participants with no adequate knowledge on stunting, although most of the participants have satisfactory knowledge on the concerned matter.

**Table 2. Pre-Test & Post-Test Result**

	Pre-Test		Post-Test
Poor	2 (5.88%)	Poor	0 (0%)
Good	18 (52.94%)	Good	11 (32.35%)
Satisfactory	14 (41.18%)	Satisfactory	23 (67.65%)
<b>Total</b>	<b>34 (100%)</b>	<b>Total</b>	<b>34 (100%)</b>

After filling the pre-test questionnaire, the participants were invited to attend the community health education about stunting and their knowledge was measured once again, afterwards. It is found that the participants belonging to the poor knowledge reduced from 5.88% to 0%, the participants with good knowledge level reduced from 52.94% to 32.35% and the participants with the highest knowledge level, satisfactory, was increased from 42.18% to 67.65%. The result shows that there is a positive impact of the community health

education on the levels of mothers' knowledge.

## CONCLUSION

The result of this study corresponds the former studies which have found that there are still mothers who have poor knowledge on stunting. However, it has been found that most of the participants have good and satisfactory knowledge on the topic. After health education, the numbers of satisfactory knowledge level increased. It has been discovered that the community health education leaves a positive impact towards the knowledge of the mother. After the implementation of the health education, it can be seen that more participants moved from being individuals with poor and good knowledge, they then have good and more belonging to the satisfactory knowledge.

It can be concluded that community health education improves people's knowledge and has been found advantageous for the well-being of the community itself. Well-educated people experience better health and lower levels of reported morbidity, disability, and mortality<sup>12</sup>. Health education helps raise a better awareness of the health problem and therefore can contribute in helping clients prevent or even have an early detection for a sooner treatment to the said health problem. When a mother had found the signs and symptoms carried along with stunting, she can approach the nearest health centre or health workers to discuss on the treatment that can be done.

On the other hand, although the majority of the participants belonged to the good and satisfactory level, there are still found a few who has a poor knowledge on stunting. The poor knowledge indicated how the concerned topic is still unfamiliar. Discovering this, it should be enhanced to the health educators to implement health educations that can increase the knowledge of the community, specifically on stunting. The poor knowledge contributes to the poor health behaviour, not only to the individual, but also to the family, which can then lead to the health of the community.

Stunting is not a short-term-developing condition. It is a condition that develops over a long period of time. Therefore, the sooner the mother are educated, the better outcome can be expected on the actions that can be done to prevent stunting.

It is recommended for the health care centres and workers to continue on discovering the need and on addressing the concerns needed to raise the awareness of the occurrence of stunting especially in Indonesia. For the public use, the researchers highly hopes that this study will encourage the public to contribute on the health of the country. The health of a child does not only affect their well-being, but also is expected to deliver a positive impact on the health of the family, and generally, a well-being of the whole community. For the future researchers, it is recommended that further studies regarding stunting can be done in order to assess the factors that contribute to the occurrence or prevention of stunting.

## ACKNOWLEDGEMENTS

The researchers would like the acknowledge the willingness for the community of RW 08 & 09, Karyawangi village who attended and were willing to be given the health education to, including to all the village leaders who have given their warm permission. The researchers would also like to acknowledge the Profesi nursing course of Universitas Advent Indonesia,

by which we are abiding under while finishing the research.

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