THE EFFECT OF MP-ASI EDUCATION ON STUNTING PREVENTION BEHAVIOR IN TODDLERS

Agus Triwinarto*, Ainnaya Fitri Nuraliza, Aslam Nurvachlevi

Wijaya Husada Health Institute
Jl. Letjend Ibrahim Adjie, No. 180, Sindang Barang, Bogor, West Java, Indonesia
***corresponding author:** wijayahusada@gmail.com

ABSTRACT

According to the Ministry of the Republic of Indonesia, from several studies that have been conducted, the prevalence of stunting under five in Indonesia based on basic health research reports (Riskesdas), has increased from 2016 to 2018, namely 27.5% in 2016, 29.6% in 2017 and increased by 30.8% in 2018. The purpose of this study was to determine the effect before and after being given MP-ASI education on stunting prevention behavior in toddlers at the Ciawi Health Center, Bogor Regency, in 2022. The type of research used was this type of research with the Pre -Experimental using the One Group Pretest-Postest Design. The population in this study are mothers who have toddlers, at the Ciawi Bogor Health Center in 2022. The sample in this study used the "Non Probability Sampling" method with a total sampling technique where the entire population was taken as a sample of 20 people. Based on the statistical test results using the Shapiro-Wilk test, it was found that the probability value (Sig.) was 0.070, and the post test had a probability value (Sig.) was 0.010, which means that it is greater than the significance value, which is > 0.05, so it can be concluded that Education MP-ASI Against Stunting Prevention Behavior. The results in this study were that before being given MP-ASI education, 9 respondents (45%) were in the negative category. And after being given MP-ASI Education, 20 respondents (100%) were in the positive category. The results of the research statistics obtained a probability (Sing.) 0, 000 which means smaller than the significant value of < 0.05 so it can be concluded that MP-ASI Education has an effect on toddler stunting prevention behavior. The results of this study are also recommended for health workers to be able to provide a demonstration of proper complementary feeding in accordance with WHO.

Keywords: Stunting, Toddlers, MP-ASI, Education

INTRODUCTION

Stunting is one of the targets of the Sustainable Development Goals (SDGs) which includes the 2nd sustainable development goal, namely eliminating hunger and all forms of malnutrition by 2030 and achieving food security. The target set is to reduce the stunting rate by 40% by 2025. Stunting can occur as a result of malnutrition, especially during the First 1000 Days of Life (HPK). Stunting is a nutritional problem in toddlers that has become a global concern in recent years, especially in low- and middle-income countries, including Indonesia (Bukusuba et al., 2017; Hossain et al., 2017; Indonesian Ministry of Health, 2018).

Globally, there are 155 million children under five years of age (toddlers) experiencing stunting (Vonaesch et al, 2018; Batiro et al, 2017). WHO data (2018), reports that Indonesia is one of the countries contributing the third highest number of stunting cases in Southeast Asia, reaching 36.4% from 2005-2017 (Ministry of Health RI, 2018). The problem of stunting that occurs in childhood has an impact in morbidity, mortality, impaired physical growth, impaired mental development, cognitive and motor development disorders. Disturbances that occur tend to be irreversible and affect further development which can increase the risk of degenerative

diseases as adults (de Onis & Branca, 2016; WHO, 2018; Ministry of Health RI, 2018; Vonaesch et al., 2018).

Another impact that occurs due to stunting where children have less intelligence which affects learning achievement is not optimal and productivity decreases. If this continues, it will hinder the productivity development of a nation in the future (Hossain et al., 2017; Ministry of Health RI, 2018; Trihono et al, 2015). Globally WHO reports that, in 2017, more than 156 million children under the age of 5 experienced failure to thrive which was marked by stunting and 51 million experienced malnutrition and malnutrition.

One of the factors that influence the incidence of stunting is breast-feeding substitutes (MP-ASI) which are inappropriate and healthy. Mother's diet can contribute to increasing the incidence of stunting. Mothers have the primary responsibility for selecting, preparing and serving nutritious food to their children. This community empowerment is carried out as an effort to solve the nutritional problem of stunting children. The outputs expected from this program are modules for making healthy food modification menus, food products and improving the health status of families, especially children. With efforts to improve nutrition based on economical and attractive modifications of breast-feeding substitutes (MP-ASI) which have the benefit of improving children's health status, it is hoped that the stunting rate can be reduced and the community can also benefit from the program.

Treatment of stunting in Bogor Regency is carried out through specific interventions such as immunization, provision of additional food for pregnant women and toddlers, and monitoring of growth and sensitive interventions, such as providing clean water, improving sanitation, improving education, reducing poverty, and increasing gender equality.

Another factor that causes stunting is the inadequate provision of additional food, in this case, complementary feeding (MP-ASI). MP-ASI that is given late can cause the baby to experience iron deficiency because it does not get enough nutrients. Inhibition of growth in children due to lack of iron intake in toddlers, if it lasts for a long time will result in stunting, so it is necessary to pay attention to giving MP-ASI so that toddler nutrition is fulfilled. (Hanum, 2019)

Stunting is a chronic nutritional problem caused by multi-factorial and is intergenerational. In Indonesia, people often perceive short growth as a hereditary factor. Wrong perceptions in society make this problem difficult to reduce and require great effort from the government and various related sectors. The results of the study prove that the influence of hereditary factors only contributes 15%, while the biggest elements are related to problems with nutrient intake, growth hormone and the occurrence of recurrent infectious diseases. Another variable in the growth of stunting that has not been widely mentioned is the effect of exposure to cigarette smoke and smoke pollution which also affects the growth of stunting. (Aryastami, 2017) The purpose of this study was to find out from this research, namely to find out whether MP-ASI education affects stunting prevention in toddlers at the Ciawi Health Center.

RESEARCH METHODS

This study uses a pre-experimental type of research because there are no strict restrictions on randomization and it is not possible for the researcher to control all external variables that affect the implementation of the experiment. While the design used was one group pre and posttest design because before and after the intervention used the same group.

RESEARCH RESULT

1) Characteristics of Respondents
   a. Characteristics of respondents based on mother's age

Table 1 Characteristics of Respondents Based on Mother's Age

No	Age Group (Th)	Frequency	Percentage (%)
1	20-23	6	30
2	24-27	8	40
3	28-31	4	20
4	32-35	2	10
Total		20	100

Based on table 1 the characteristics of the respondents based on the age of the mother of a total of 20 respondentsit was found that 8 respondents with a percentage of 40% were aged 24-27 years.

   b. Respondents Based on Mother's Last Education

Table 2. Characteristics of Respondents Based on Mother's Last Education

No	Mother's Education	Frequency	Percentage (%)
1	Preelementary School	6	30
2	Junior High School	6	30
3	Senior High School	6	30
4	College	2	10
Total		20	100

Based on table 2 the characteristics of the respondents based on the mother's last education out of a total of 20 respondentsit was found that 18 respondents with a percentage (30%) with the last education, namely elementary, junior high.

   c. Respondents Based on Income

Table 3. Characteristics of Respondents Based on Income

No	Mother's Education	Frequency	Percentage (%)
1	<1,500,000	1	5
2	>1,500,000	19	95
Total		20	100

Based on table 3 the characteristics of respondents based on income from a total of 20 respondentsit was found that 19 respondents with a percentage (95%) with income>1,500,000.

d. Respondents Based on Number of Children

Table 4. Characteristics of Respondents Based on the Number of Children

No	Number of children	Frequency	Percentage (%)
1	1	11	55
2	2	5	25
3	3	4	20
Total		20	100

Based on table 4 the characteristics of the respondents based on the number of children out of a total of 20 respondentsit was found that 11 respondents with a percentage (55%) of respondents the number of children 1.

e. Respondents Based on Children's Age

Table 5. Characteristics of Respondents Based on the age of the child

No	Child Age	Frequency	Percentage (%)
1	0-3 Months	10	50
2	4-7 Months	6	30
3	8-11 Months	4	20
Total		20	100

Based on table 5, the characteristics of the respondents are based on the age of the child, out of a total of 20 respondentsit was found that 10 respondents with a percentage of 50% were aged 0-3 months.

2) Frequency Distribution Before Conducting MP-ASI Education on Stunting Prevention Behavior in Toddlers at the Ciawi Health Center, Bogor Regency, 2022.

Table 6 Pre test frequency distributionStunting Prevention Behavior in Toddlers

No	Behavior	Frequency	Percentage (%)
1	Positive	8	40
2	Negative	12	60
Total		20	100

Based on table 6, the distribution of pre-test frequency of stunting prevention behavior in toddlers, out of a total of 20 respondents, it was found that 12 respondents with a percentage of 60% got negative results.

Table 7.Pre-test Mean ValueStunting Prevention Behavior in Toddlers

Means	40,45

3) Frequency Distribution After Completion of ASI Education on Stunting Prevention Behavior in Toddlers at the Ciawi Health Center, Bogor Regency, 2022.

Table 8.Post Test frequency distributionStunting Prevention Behavior in Toddlers

No	Behavior	Frequency	Percentage (%)
1	Positive	20	100
2	Negative	0	0
Total		20	100

Table 9.Post Test Mean Value of Stunting Prevention Behavior in Toddlers

Means	43.65

Based on table 8 post test frequency distribution of stunting prevention behavior in toddlers from a total of 20 respondentsit was found that 20 respondents with a percentage of 100% got positive results.

4) InfluenceMP-ASI Education on Stunting Prevention Behavior in Toddlers at the Ciawi Health Center, Bogor District 2022.

For the results of the independent t-test, the effect of MP-ASI education on stunting prevention behavior in toddlers can be seen in the following table:

Table 4.10
Effect of MP-ASI Education on Stunting Prevention Behavior in Toddlers

		F	sing.
Effect of MP-ASI Education on Stunting Prevention Behavior in Toddlers	Pre Test & Post Test	27,860	0.000

Based on table 4.10 the effect of MP-ASI education on stunting prevention behavior in toddlers that 27.860 F-counts with a probability (Sig.) 0.000. Because the probability (Sig.) 0.000 <0.05 then H0 is rejected. The conclusion is that there is a significant difference in the variance of the results of MP-ASI education on stunting prevention behavior in toddlers at the Ciawi Health Center in 2022.

DISCUSSION

1. Based on the results of research on parental behavior in preventing stunting at the Ciawi Health Center in 2022, it is still lacking. It is shown from the results of this study that 12 (60%) out of 20 respondents still have negative behavior values in stunting prevention behavior.
   In accordance with the theory (Arini et al, 2017) Provision of MP-ASI which is not sufficiently

nutritious both in quality and quantity will have an impact on malnutrition, namely undernutrition/malnutrition and also the occurrence of stunting, especially in children under 2 years of age. If these nutritional problems are not treated early, children who are malnourished will become human resources with low productivity and are at risk of experiencing non-communicable diseases.

In line with research (Rosdiana, Yusnanda and Afrita, 2020) Based on the results of the study, it was obtained that before being given health education, there were 30.6% of mothers who gave MP-ASI according to the recommendations from WHO to babies aged 6-12 months.

2. **The effect of being given MP-ASI education on stunting prevention behaviour**

Based on the results of the study after being given MP-ASI education on behavior in preventing stunting in toddlers it was very good, it was shown from the results of this study that 20 (100%) of 20 respondents had positive behavioral values in stunting prevention behavior.

In accordance with the theory (Arini FA, 2017) Health education is essentially an activity or effort to convey health messages to the public or individuals. With the hope that with this message, groups or individuals can gain better knowledge about health. This knowledge is ultimately expected to influence behavior. In other words, with the existence of health promotion, it is hoped that it will have an impact on changing the behavior of the target. In a health education process that leads to achieving promotional goals (Rosdiana, Yusnanda and Afrita, 2020)

In line with research (Rosdiana, Yusnanda and Afrita, 2020) Based on the results of the study, it was obtained that after being given health education about proper MP-ASI and in accordance with WHO recommendations, the number of mothers who gave appropriate MP-ASI to babies aged 6-12 months from 30.6% increased to 52.8%.

3. **Effect of MP-ASI Education on Stunting Prevention Behavior**

Based on the results of the study, it was obtained that before being given MP-ASI education on stunting prevention behavior in toddlers at the Ciawi 2022 health center, as many as 60% of the behaviors showed negative results, whereas after being given MP-ASI education on stunting prevention behavior in toddlers at the Ciawi 2022 health center it increased to 100% of behavior that shows positive results.

The results of the analysis using the paired sample t-test showed that the effect of MP-ASI education on stunting prevention behavior in toddlers at the Ciawi Health Center in 2022 with a probability value (Sing.) of 40.43 compared to before being given MP-ASI education regarding the suitability of giving MP-ASI ASI on stunting prevention behavior in toddlers at the Ciawi Health Center in 2022 with a probability value (Sing.) of 43.65. This indicates an increase in stunting prevention behavior before and after providing education.

According to theory(Rahmawati, Nurmawati and Sari, 2019) Health education through education can increase mothers' knowledge and attitudes to prevent stunting. Increased knowledge, attitudes, and motivation occur because of the mother's willingness to follow and know the benefits of the education. Usually a person is conformist to the person he thinks is important. Personal experience and influence from other people will influence a person in stunting prevention efforts.

In line with research (Rosdiana, Yusnanda and Afrita, 2020)The results of the analysis using the Wilcoxon Signed Rank Test found that the suitability of giving MP-ASI after being given health education was higher, namely 3.15 compared to the suitability of giving MP-ASI before being given health education, which was 2.75. This shows that there is an increase in the provision of proper and appropriate MP-ASI before and after the provision of health education.

CONCLUSION

1. It is known that the frequency distribution before being given MP-ASI education on stunting prevention at the Ciawi Health Center in 2022, out of a total of 20 respondents, it was found that 12 respondents with a percentage of 60% got negative results.
2. It is known that the frequency distribution of frequency after being given MP-ASI education on stunting prevention at the Ciawi Health Center in 2022, out of a total of 20 respondents, it was found that 20 respondents with a percentage of 100% got positive results.
3. It is known that there is an effect of MP-ASI education on stunting prevention behavior in toddlers at the Ciawi Health Center in 2022 for 20 respondents, the results of the F-count for the assumption of variance are 27.860 with a probability (Sig.) 0.000. Because the probability (Sig.) 0.000 <0.05 then H0 is rejected. The conclusion is that there is a significant difference in the variance of the results of MP-ASI education on stunting prevention behavior in toddlers at the Ciawi Health Center in 2022.

SUGGESTION

1. For Educational Institutions

   It is recommended to add learning materials about this research to midwifery students so that midwifery students can add insight about stunting, and can pass on information by providing health education about MP-ASI education on stunting prevention behavior.
2. For Society

   It is suggested to Cadres and Health Workers to be able to give a demonstration on how to make MP-ASI properly.
3. For Further Researchers

   It is recommended for future researchers to be able to research the effect of breastfeeding patterns on stunting prevention. And given the limitations of this study, it is also hoped that future researchers will involve more research subjects to develop this research.

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