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**Health Education Approach Based on the Health Belief Model in an Effort to Prevent Stunting in Mothers of Toddlers**

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**ABSTRACT**

This research is intended to analyze the HealthBelief Model-based health education approach in an effort to prevent stunting in mothers under five in Wonoayu Village, Wonoayu Sidoarjo Health Center Area. This research is beginner research which is planned to be carried out over a period of 6 - 12 months. Health Belief Model (HBM) is a theory to determine individual perceptions regarding whether or not they accept their health condition or determine an individual's attitude towards health behavior, but it is hoped that it can encourage society, especially the role of mothers, to make behavioral changes to improve health in an effort to prevent stunting. Stunting is a condition that describes a person's stunted growth due to long-term malnutrition and increases the risk of morbidity and death as well as hampered mental and motor growth. Therefore, this research aims to find out how to approach health education based on the HealthBelief Model in an effort to prevent stunting in mothers of toddlers. Specifically, this research aims to: (1) identify health education programs based on the HealthBelief Model; (2) identifying the behavior of mothers of toddlers in efforts to prevent stunting; (3) analyze the effect of a HealthBelief Model-based health education program in efforts to prevent stunting in mothers of toddlers. This research design uses quasyexperimental with a pre and post test control group design approach. The research subjects were mothers who had toddlers in the Wonoayu Community Health Center working area. The number of research subjects was 30 people for the control group and 30 people for the treatment group. The data collection technique used was using a questionnaire assisted by data from the Community Health Center and a stunting smart book. Data collection techniques using non-probability sampling using purposive sampling techniques. The data were analyzed using the Mc.Nemardan statistical test to see differences using the ChiSquare test.

**Keywords:** Health Education, HBM, Stunting

**INTRODUCTION**

Basic Health Research Data (Risikesdas) in 2018 conducted by the Health Research and Development Agency (Litbangkes) showed that the incidence of stunting was around 30.8%. The incidence of stunting in East Java Province is lower than the national figure of 26.2%. However, this figure exceeds the limit set by WHO which is below 20%. HBM stands for Health Belief Model, which is a form of socio-psychological elaboration. This model was created because of health problems that can be seen from the failure

of society or individuals to accept disease prevention and healing efforts carried out by health providers (Notoatmodjo, 2012). The Health Belief Model theory emphasizes the active role of a mother in regulating her healthy behavior which explains health promotion which aims to prevent disease in this case is stunting. One way to prevent and treat stunting is to apply the theory of behavioral change, especially fulfilling nutrition for toddlers by providing knowledge to mothers and families in empowering natural resources around them to meet the nutritional needs

of families, especially stunted toddlers. In addition, increasing the motivation of health workers to improve maternal knowledge through health education about good nutritional behavior for mothers of toddlers to prevent increased stunting in toddlers. Unaddressed stunting prevention behavior will cause short-term impacts, namely increased mortality and morbidity rates and long-term impacts, namely decreased learning achievement, capacity and work productivity. The problem to be studied is how the Health Belief Model -based health education approach is in an effort to prevent stunting in mothers of toddlers. The specific objective is to analyze how the Health Belief Model -based health education approach is in an effort to prevent stunting in mothers of toddlers.

Specifically, this research will analyze how the health education approach is based on health. Belief Model in an effort to prevent stunting in mothers of toddlers. It is hoped that with this health education program approach, it can change the behavior of mothers of toddlers in paying attention to their family's health, helping health workers in preventing and overcoming stunting. To achieve the main objective of this study, this study will be carried out in 6-12 months.

#### **Research Objectives (Optional)**

Analyzing how the Health Belief Model -based health education approach can prevent stunting in mothers of toddlers

#### **RESEARCH METHOD**

This study is planned to be carried out for 6-12 months. To carry out this entire study, a preliminary study was first conducted on the incidence of stunting in Wonoayu Village, Wonoayu Health Center

Area, Sidoarjo. The subjects of this study were mothers of toddlers in the working area of the Dupak Health Center, Surabaya. Before collecting data, the researcher took care of ethical permits at the Ethics Commission of the Poltekkes, Ministry of Health, Surabaya. This study used a quasi-experimental design with a pre- and posttest control group design approach. The data collection technique used was a questionnaire and was supported by data/medical records from the Health Center and using the help of a smart stunting book. In which the research subjects were divided into 2 groups, namely the control group and the treatment group. with the inclusion criteria, namely 1) mothers of toddlers who were willing to be respondents, 2) mothers of toddlers were included in the target of the integrated health post in Wonoayu Village, Wonoayu Health Center Area, Sidoarjo, 3) mothers of toddlers in good health and the exclusion criteria were 1) mothers of toddlers were not willing to be research subjects, 2) mothers of toddlers are not the target of the Wonoayu Village Integrated Health Post in the Wonoayu Sidoarjo Health Center Area, 3) mothers of toddlers are sick and have limitations in moving, reading and writing. The technique of selecting research subjects with non- probability sampling with purposive technique sampling namely based on the researcher's wishes adjusted to the research objectives. The number of subjects studied was 60 people with each group consisting of 30 people. The independent variable in this study is a health education program based on the Health Belief Model and the dependent variable is the behavior of mothers of toddlers in an effort to prevent stunting. With research variables:

No	Variable	Operational Definition	Indicator	Measuring instrument	Scale	Criteria
1	Education-based program Health Belief Model	"Efforts to increase respondents' knowledge about stunting based on	-	extension program unit	Nominal	.Before being given health education (Code 1)

		the Health Belief Model."				2.After being given health education (Code 2)
2	behavior of mothers of toddlers in efforts to prevent stunting	action efforts to prevent stunting	Dimention Health Belief Model: Perceived Susceptability Perceived Severity Perceived Barriers Perceived Benefits Self Efficacy Cues to Action	Kuisisioner	Nominal	1.negative if the respondent's score $\leq$ is from the mean score 2.Positeve if the respondent's score is from the mean score

Then the data was analyzed using statistical tests with *Mc.Nemar* to determine the effect of the health education program approach based on *the Health Belief Model* on the behavior of mothers of toddlers in an effort to prevent stunting. Then to determine the difference between the control group and the treatment group with the *Chi Square test*.

## RESULT AND DISCUSSION

### Research Site Overview

This research was conducted in Wonoayu Village, Wonoayu District, Sidoarjo Regency. The boundaries of

Wonoayu Village are on the north side there is Mulyodadi Village, on the east side there is Jimbaran Kulon Village, on the south side there is Popoh Village and on the west side there is Semambung Village. The area of the village itself is 139.50 Ha. While the population itself is 5,205 people and around 1,230 families which are divided into 2,578 men and 2,627 women. Which this research was assisted by several parties including the Village Head and the Village Midwife and supported by the Wonoayu Health Center and Wonoayu Village health cadres. This research was conducted at the Wonoayu Village Hall by collecting respondents.

**Table 1.** Distribusi Frequency Characteristics General Respondents

	Group Intervention		Group Control		P value
	n	%	n	%	
Mother's Age					1,000
< 20 years	1	3.3	1	3.3	
20-35 years	22	73.3	22	73.3	
> 35 years	7	23.3	7	23.3	
Mother's Education					0.850
Elementary School	2	6.7	3	10	
Junior High School	6	20	8	26.7	
Senior High School	21	70	18	60	
Bachelor	1	3.3	1	3.3	
Mother's Job					0.472
Doesn't work	24	80	27	90	
Private	5	16.7	3	10	

Other	1	3.3	0	0	
Child Age					0.849
1-12 months	7	23.3	6	20	
13-24 months	9	30	7	23.3	
25-36 months	8	26.7	11	36.7	
37-48 months	6	20	6	20	
What order do you come in your family					0.407
1	11	36.7	10	33.3	
2	12	40	17	48.3	
3	6	20	3	15	
4	1	3.3	0	1.7	

Source: Primary Data

Based on table 1 above, it can be seen that the age of the toddler's mother, which is more in the age group between 20-35 years, namely 73.3% for the intervention group and 73.3% in the control group with a p value of 1,000. Then for the education of respondents, most are in high school education, namely 70% in the intervention group and 60% in the control group with a p value of 0.850. While for the work of the respondents, the most are mothers who do not work or housewives, namely 80% in the intervention group and 90% in the control

group with a p value of 0.472. While the age of the respondent's child is most at the age of 13-24 months, namely 30% for the intervention group and for the control group the age of the child is most at the age of 25-36 months, namely 36.7% with a p value of 0.849. In the table above, it is shown that the number of children owned by the respondents is the second child, for the intervention group, respondents who have a second child are 40% and in the control group as many as 56.7% with a p value of equality = 0.407.

**Table 2.** Analysis table of description of Health Education based on Health Belief Model

Variables	Intervention Group				Control Group			
	Pre		Post		Pre		Post	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Perceived Susceptibility	15.17	2,890	16.73	2,993	14.80	2,024	14.90	2,524
Perceived Severity	10.87	3,608	12.13	3,026	9.97	2,965	10.67	2,510
Perceived benefits	11.23	3,070	12.43	2,269	9.97	2,327	10.20	2,455
Perceived barriers	7.53	3,048	8.30	2,867	7.90	3,527	7.97	3,388
Self efficacy	6.27	1,639	7.07	1,856	5.90	2,107	6.40	1,610
Cues to action	12.53	1,717	13.77	2,223	11.87	2,460	12.53	1,907

Source: Primary Data

Based on table 2, the results obtained that in the intervention group in the pre-test the mean value for perceived susceptibility was 15.17 with SD 2.890 and for the post-test the mean result was 16.73 with SD 2.993. For perceived severity the mean value in the intervention group was 10.87 with SD 3.608 and for the post-test the mean value was 12.13 with SD 3.026. For perceived benefits the mean result during

the pre-test was 11.23 with SD 3.070, and during the post-test the mean became 12.42 with SD 2.269. For perceived barriers the mean value in the pre-test was 7.53 with SD 3.048 and in the post-test the mean was 8.30 with SD 2.867. In self-efficacy, the mean value in the pre-test was 6.27 with SD 1.639, while for the post-test, the mean value was 7.07 with SD 1.856. and in cues to action, the mean in the pre-test group was

12.53 with SD 1.717, and for the post-test, the mean was 13.77 with SD 2.223. while in the control group, in the pre-test on perceived susceptibility, the mean was 14.80 with SD 2.024, and for the post-test, the mean was 14.90 with SD 2.524. In perceived severity, the mean for the pre-test was 9.97 with SD 2.965, and for the post-test, the mean was 10.67 with SD 2.510. in perceived benefits, the mean was 9.97 with SD 2.327, and for the post-test, the mean was 10.20 with SD 2.455. In the perceived barriers pre-test, the mean was 7.90 with SD 3.527, for the post-test, the mean was 7.97 with SD 3.388. In self-efficacy, the mean was 5.90 with SD 2.107, for the post-test, the mean was 6.40 with SD 1.610. Meanwhile, in cues to action in the control group itself, the mean was 11.87 with SD 2.460 was obtained during the pre-test and the mean was 12.53 with SD 1.907 during the post-test.

**Table 3.** Normality in the intervention group and control group

Variables	Normality Test			
	Intervention group		Control group	
	Statistical test	p value	Statistical test	p value
Perceived Susceptibility	0.110	0.068	0.111	0.066
Perceived Severity	0.111	0.063	0.104	0.168
Perceived benefits	0.109	0.073	0.110	0.069
Perceived barriers	0.109	0.076	0.113	0.056
Self efficacy	0.113	0.057	0.109	0.076
Cues to action	0.104	0.165	0.114	0.051

Source: Primary data

Based on table 3 above, namely the normality test table, the p value is greater than 0.05, meaning the data is normally distributed so that the Paired t test can be performed.

**Table 4.** Paired T-test on the intervention group and control group

Variables	T Paired Test					
	Intervention group			Control group		
	t	df	p value	t	df	p value
Pair 1 Perceived Susceptibility	2,926	29	0.007	0.306	29	0.762
Pair 2 Perceived Severity	3,182	29	0.003	1,915	29	0.065
Pair 3 Perceived benefits	2,055	29	0.049	1,070	29	0.293
Pair 4 Perceived barriers	1,158	29	0.256	0.403	29	0.690
Pair 5 Self efficacy	1,961	29	0.060	1,980	29	0.057
Pair 6 Cues to action	2,146	29	0.040	1,790	29	0.084

Source: Primary Data

From table 4, it can be concluded that the intervention group (Health Education based on Health Belief Model) has a significant effect on perceived susceptibility, perceived severity, perceived benefits and cues to action (p value <0.05), while the intervention group (Health Education based on Health Belief Model) has no significant effect on

perceived barriers and self-efficacy (P value > 0.05). In the control group, there was no significant effect on perceived susceptibility, perceived severity, perceived benefits, perceived barriers, self-efficacy and cues to action (P value > 0.05).

**Table 5.** Normality Test

Normality Test	
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Variables	Pre-test		Post test	
	Statistical test	p value	Statistical test	p value
Perceived Susceptibility	0.113	0.056	0.108	0.078
Perceived Severity	0.130	0.053	0.112	0.060
Perceived benefits	0.092	0.200	0.098	0.200
Perceived barriers	0.093	0.200	0.113	0.050

barriers	0	3		
Self efficacy	0.113	0.055	0.112	0.059
Cues to action	0.096	0.200	0.111	0.063

Source: Primary data

Based on table 5 above, namely the normality test table, the p value is greater than 0.05, meaning the data is normally distributed so that the Independent Samples Test can be carried out.

**Table 6.** Independent Samples Test on pre-test intervention and pre-test control

Variables	F	p value	t	df	p value	Mean difference
Perceived Susceptibility	3,527	0.065	0.569	58	0.571	0.367
Perceived Severity	0.006	0.940	1,056	58	0.296	0.900
Perceived benefits	2,027	0.160	1,801	58	0.077	1,267
Perceived barriers	0.668	0.417	-0.431	58	0.668	-0.367
Self efficacy	2,174	0.146	0.752	58	0.455	0.367
Cues to action	2,910	0.093	1,217	58	0.228	0.667

Source: Primary data

Based on table 3.5 above, it can be concluded that there is no difference

between the intervention and control groups before treatment (p value > 0.05).

**Table 7.** Independent Samples Test on the intervention post test and control post test

Variables	F	p value	t	df	p value	Mean difference
Perceived Susceptibility	0.614	0.436	2,565	58	0.013	1,833
Perceived Severity	1,303	0.258	2,044	58	0.046	1,467
Perceived benefits	0.100	0.753	3,659	58	0.001	2,233
Perceived barriers	0.072	0.790	0.411	58	0.682	0.333
Self efficacy	0.459	0.501	1,486	58	0.143	0.667
Cues to action	1,966	0.166	2,306	58	0.025	1,233

Source: Primary data

It can be concluded that after the treatment was carried out, there was a significant difference between the intervention and control groups in the variables of perceived susceptibility, perceived severity, perceived benefits and cues to action (p value <0.05), and there was no significant difference between the intervention and control groups after the treatment was carried out, namely in the

variables of perceived barriers and self-efficacy (P value > 0.05).

### **The Influence of Health Education Based on the Health Belief Model (Perceived Susceptibility) in Efforts to Prevent Stunting in Mothers of Toddlers**

Based on the results of the study in the intervention group, the p value for perceived susceptibility was 0.007, which is smaller than 0.05, which means that there

is a significant influence of health education based on the health belief model (perceived susceptibility) on the efforts of mothers of toddlers in preventing stunting. The data shows that high perceived susceptibility tends to have good behavior in efforts to prevent stunting in a child carried out by the mother of the toddler. This refers to a mother's perception of the risk of getting a disease in this case stunting in her child.

There are various types of feelings of vulnerability to a disease. Personal risk or vulnerability is a stronger perception in encouraging an individual to implement behaviors that aim to prevent the occurrence of a particular disease or live a healthy life. The higher the perceived risk, the more likely the mother is to try to reduce the incidence of a disease/stunting in her child. This may also be due to one form of affection shown by a mother towards her child, where there is an intuition to protect her child. This is in accordance with the results of research from Marsela Juliawati, et al. (2020) which states that health workers believe that disease arises from certain behaviors and are aware of the body's vulnerability to disease. And also in line with the results of research from Helmy Bactiar, et al. (2017), which states that if the perception of vulnerability is high, the greater the efforts to prevent dengue fever made by the research subjects. Likewise, conversely, if the assessment of the perception of severity is lower, the worse the efforts to prevent dengue fever are.

Meanwhile, in the control group, the p value was greater than 0.05, which is 0.762, which means that there is no significant effect between health education based on the health belief model (perceived susceptibility) and the efforts of mothers of toddlers in preventing stunting. This may be influenced by the lack of motivation of mothers of toddlers in efforts to prevent disease, as well as their beliefs or perceptions of a disease that do not take a disease seriously. This may also be influenced by the demographic factors of

the respondents, namely education and also work which will later affect the income of the respondents. From this study, many respondents had a high school education (60%) where this high school education is not included in higher education, and the work of the respondents was mostly housewives/unemployed (90%), where this can affect in terms of knowledge which may be lacking and also income that is only enough from the husband so that implementing the provision of healthy and balanced food is difficult to do. This is in line with the theory of Glanz K, et al. (2015), which states that vulnerability is a subjective assessment for each individual, which can be influenced by several factors such as age, income, ethnicity, and also a person's knowledge.

#### **The Influence of Health Education Based on the Health Belief Model (Perceived Severity) in Efforts to Prevent Stunting in Mothers of Toddlers**

Based on the results of the study in the intervention group, the p value for perceived severity was 0.003, which is smaller than 0.05, which means that there is a significant influence of health education based on the health belief model (perceived severity) on the efforts of mothers of toddlers in preventing stunting. The data shows that high perceived severity tends to have good behavior in efforts to prevent stunting in a child carried out by the mother of the toddler. This refers to a mother's perception of the risk of getting a disease, in this case stunting in her child.

Perceived severity is the seriousness felt about a disease, which includes evaluating the clinical and medical consequences and possible social consequences. This refers to a person's feelings about the seriousness of contracting a disease or something that can leave an untreated disease or disease. Perceived severity is often based on medical information or knowledge, which may come from an individual's belief about the difficulty of the disease will cause or give an effect that will occur in their life so

that it will influence the respondent's behavior in this case to be more prepared in preventing stunting in their family (children) so that unwanted things do not happen in the future. This is in line with the results of research from Marsela Juliawati, et al. (2020), which states that health workers believe in the dangers of a disease and understand the importance of preventing disease by doing physical activity. And also in line with research from Utami, NW and Rahmadhena, MP (2020) which states that perceived severity is significantly related to the incidence of stunting in toddlers in the Minggir Sleman Health Center area, with a chi square test value of  $0.008 < 0.05$ .

Meanwhile, in the control group, it was found that the p value of 0.065 was greater than 0.05, which means that there is no significant effect between health education based on the health belief model (perceived severity) and the efforts of mothers of toddlers in preventing stunting. This may be influenced by several factors, including the possibility that the respondent's child does not experience a disease such as stunting, causing him to have a low perceived severity, or it could be because there were no deaths in the surrounding environment caused by stunting. And it could also be influenced by the respondent's work factor who is only a housewife whose access to information is not supportive. This is supported by the results of the study where 90% of mothers do not work or are housewives. However, this is also influenced by other perceptions held by the respondents.

#### **The Influence of Health Education Based on the Health Belief Model (*Perceived Benefits*) in Efforts to Prevent Stunting in Mothers of Toddlers**

Based on the results of the study in the intervention group, the p value for perceived benefits was 0.049, which is smaller than 0.05, which means that there is a significant influence between health education based on the health belief model (*perceived benefits*) and the efforts of

mothers of toddlers in preventing stunting. The data shows that high perceived benefits tend to have good behavior in efforts to prevent stunting in children carried out by the mothers of toddlers. This refers to the respondents' perceptions of the effectiveness of various available behaviors in reducing the threat of certain diseases or curing certain diseases. Humans tend to imitate healthy actions when they believe that these actions will be able to prevent themselves from a certain disease. In addition, there is also the possibility of being supported by efforts from related agencies in providing education given to respondents during the implementation of toddler posyandu activities. This is in line with the results of research by Helmy Bachtiar A, et al (2017), namely the greater the perception of benefits felt by respondents, the better the efforts to prevent dengue fever are carried out, and vice versa. Also supported by the statement from Setiyorini and Tatiani (2020) namely the greater the benefits a person feels, the greater the healthy behavior or preventing a disease. And in accordance with the statement from Wardani, NEK (2022), which states that a person's belief in existing efforts to reduce the threat of a disease, or the benefits that can be felt will increase positive perceptions to prevent a disease from becoming even greater.

Meanwhile, in the control group, the results showed that the p value was 0.293, where the value was more than 0.05, which means that there is no significant effect between health education based on the health belief model (*perceived benefits*) and the efforts of mothers of toddlers in preventing stunting. This is possible because the education factor is still at the high school level of 60%, it can also be due to economic factors, namely the income obtained by respondents which can ultimately influence their behavior in providing balanced nutritious food for their families. This is in line with research from Rambu Eri H, et al. (2019), which states that the perception of benefits is not



significantly related to the behavior of mothers in meeting the food needs of their children.

#### **The Influence of Health Education Based on the Health Belief Model (*Perceived Barriers*) in Efforts to Prevent Stunting in Mothers of Toddlers**

From this study, the results obtained that the p value in the intervention group was 0.256, and in the control group was 0.690, where this result is greater than the value of 0.05, which means that there is no significant influence between health education based on the health belief model (perceived barriers) and the efforts of mothers of toddlers in preventing stunting. This is due to various reasons, including the perception of obstacles in receiving health services that are difficult to access, an environment that is difficult to change both in terms of thinking and behavior, economic level, or because of lack of support from the closest family. Low income and lack of knowledge can affect a family in providing a nutritious food menu. Likewise, there is old-fashioned thinking in the surrounding environment or family, as well as the lack of family support for a mother to pay attention to her child's health which is usually influenced by old-fashioned thinking from parents and doctrines that are not right for a child's health, such as providing additional food before the child is 6 months old, throwing away the first colostrum, not wanting to attend posyandu and or immunization, where all of these activities will take a lot of time and money. This is in line with the results of research from Conner and Norman (2012), which states that if the perception of barriers is high, health behavior will not be carried out properly. This is also in accordance with the research statement from Rambu Eri H, et al. (2019), where the more respondents feel obstacles in fulfilling the need for balanced nutritious food, the higher the bad behavior in fulfilling the need for balanced nutritious food in their children.

#### **The Influence of Health Education Based**

#### **on the Health Belief Model (*Self Efficacy*) in Efforts to Prevent Stunting in Mothers of Toddlers**

From this study, the results obtained that the p value in the intervention group was 0.060, and in the control group was 0.057, where this result is greater than the value of 0.05, which means that there is no significant influence between health education based on the health belief model (*self-efficacy*) and the efforts of mothers of toddlers in preventing stunting. Not all those who have high self-efficacy have good efforts in preventing stunting. This is possible because there is no confidence in the respondents in their ability to provide, prepare and process balanced nutritious food for their families/children according to the needs at their age level, in addition, it can also be influenced by economic factors/income in the family. Where if the economic factor is low, there is no ability to provide food ingredients that suit their child's needs. This study is in line with the statement from Rambu Eri H, et al. (2019) namely that the respondents' self-efficacy is not significantly related to a mother's behavior in meeting the needs of balanced nutritious food for her child with a p value of 0.132. because self-efficacy is also influenced by other perceptions, such as perceived susceptibility, severity, benefits, barriers and also cues to action .

#### **The Influence of Health Education Based on the Health Belief Model (*Cues to Action*) in Efforts to Prevent Stunting in Mothers of Toddlers**

Based on the results of the study in the intervention group, the p value for cues to action was 0.040, which is smaller than 0.05, which means that there is a significant influence between health education based on the health belief model (cues to action) and the efforts of mothers of toddlers in preventing stunting. These data show that high cues to action tend to have good behavior in efforts to prevent stunting in a child carried out by the mother of the toddler.

Cues to action of a behavior can be

influenced by several things that become a signal for someone to do an action or behavior. These cues can be internal or external factors, for example messages on social media, billboards, advertisements on the screen, advice from friends/family/health workers, education, economy/income, surrounding environment, socio-culture, parents, religion, experience and others. In this study, it happened that data was obtained where many respondents were mothers who had a second child, so it is estimated that they already have experience and mental readiness in providing care to their children related to efforts to prevent stunting and have received a lot of information from health workers through posyandu activities or other health education activities. And it is possible that there is support from the family, especially from the husband, in making efforts to prevent stunting, namely by fulfilling nutrition for the family.

This is in accordance with the results of research by Rambu Eri H, et al. (2019) which states that physical activity carried out by research respondents is not influenced by messages in the mass media but rather because of physical activity because of their own desires. Supported by research from Aryani (2012) which states that activeness in seeking information through various forms of information media, both directly and indirectly, such as through friends, health education/counseling, print or electronic media, health workers can influence a person's way of maintaining cleanliness.

Based on the results of the study in the control group, the p value for cues to action was 0.084, which is greater than 0.05, which means that there is no significant effect between health education based on the health belief model (cues to action) and the efforts of mothers of toddlers in preventing stunting. The data shows that high cues to action tend to have good behavior in efforts to prevent stunting in children carried out by the mothers of toddlers. This could be due to economic

factors/family income where a mother can be prevented from providing and providing a nutritious/balanced nutritional menu for her child. Or it could also be due to lack of experience in serving food or there have been no cases that have caused children to die from stunting. This is in line with the results of research from Rambu Eri H, et al. (2019), which states that cues to action are not significantly related to maternal behavior in meeting nutritional needs for their children with a p value = 0.075.

### **Differences in Health Education Based on the Health Belief Model in an Effort to Prevent Stunting in Mothers of Toddlers**

Based on the results of the study after the treatment was carried out on the two research groups, namely the intervention and control groups, it showed a significant difference between the intervention and control groups in the health belief model variables which were perceived susceptibility, perceived severity, perceived benefits and cues to action, this shows that providing education with modules can have a better effect than providing leaflets. This is because there is sufficient knowledge transfer between respondents and researchers. Where every information can be given/delivered and understood and well received by respondents. So that it also has a significant effect between health education based on the Health Belief Model in an effort to prevent stunting in mothers of toddlers. While in perceived barriers and self-efficacy there was no significant difference between the intervention and control groups after being given treatment in the form of modules or leaflets, this was because in the intervention and control groups, the provision of education with modules and leaflets had no significant effect.

### **CONCLUSION AND RECOMMENDATION**

Health Belief Model -based health education approach can have an influence

on efforts to prevent stunting in mothers of toddlers.

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