

Parental Knowledge and Personal Hygiene Practices Associated with Stunting Incidence in Children 24-60 Months Old in Mlarak Village Ponorogo

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ABSTRACT

Stunting is a major nutritional problem worldwide. Stunting is caused by several interrelated factors such as parental knowledge about hygiene and personal hygiene practices. This study used an observational analytic design and a cross sectional design. The sampling technique used to take a sample of 68 mothers and children is purposive sampling. The independent variable of knowledge and practice of personal hygiene was taken using a questionnaire instrument while the dependent variable of stunting was observed directly during the study. The results showed that most of the mothers (58.8%) had good knowledge about hygiene, most of the toddlers (76.5%) practiced good personal hygiene; and 13 children (19.1%) were stunted. There is a correlation between parents' knowledge about hygiene (p-value:0.004) and the practice of personal hygiene (p-value (0.032) with the incidence of stunting. Stunting prevention efforts are to improve communication between health workers and the community through the development of IEC messages that are tailored to the needs of the target group, namely Households, 1,000 HPK, WUS, and young women. Various communication channels such as posyandu, parenting classes, classes for pregnant women, to adolescent reproductive counseling.

Keywords: Knowledge, Practice, Personal Hygiene, Stunting.

BACKGROUND

Stunting or short toddlers is one of the main nutritional problems worldwide. Children are the future of the nation who must be healthy, intelligent, creative, and productive. Children who are born healthy, grow well and are supported by quality education can become a productive generation in realizing the success of nation building. On the other hand, if children are born and grow up in situations of chronic malnutrition, they will become stunted. Stunting in children reflects the condition of failure to thrive in children under five years old. (K. M. Rohmah & Mufida, 2023). Stunting occurs due to chronic malnutrition since the baby is in the womb until the age of two. The high incidence of stunting is caused by lack of parental knowledge about hygiene and poor personal hygiene practices in children.

Children who have poor nutritional status and are short or very short have a risk of decreasing the level of intelligence or Intelligence Quotient (IQ) between 10-15 points (Bappenas, 2011). Based on global data in 2018-2019, it was recorded that 21.9% or 149 million children were stunted and 57.9% or 81.7 million were in the Asian region (UNICEF,

WHO, World Bank Group, 2019). Prediction The stunting prevalence rate in Indonesia in 2020 will decrease to 26.92%. The decline in the stunting rate is predicted to be 0.75% compared to 2019 (27.67%) (BPPK and BPS, 2021). This shows that government policies in encouraging the acceleration of stunting reduction in Indonesia are producing quite good results. Although there has been a decline, strategies and hard work are still needed to achieve the stunting prevalence reduction target set in the 2020-2024 RPJMN and Presidential Regulation No. 72 of 2021, namely 14 % in 2024.

The Ministry of Health released data on the stunting problem in East Java Province in 2021 which is said to reach 23.5% (Dyah, 2022). One of the districts with a high prevalence of stunting is Ponorogo. The results of the 2018 Basic Health Research (RISKESDAS) that the stunting rate in Ponorogo is 30.8%. Meanwhile, data from the weighing month of March 2021, the stunting rate is 16.26%. Mlarak Village is located in Mlarak District, Ponorogo Regency and has a fairly high stunting rate from a total of 168 children aged 0-60 months, 6 of hich are in the very short category and 8 children are classified as short toddlers while toddlers aged 24-60 months who are short are 8 toddlers and very short 6 toddlers. Based on interviews with parents of children who experience stunting, knowledge about hygiene is still lacking and has not implemented 6 steps of clean hand washing using running water.

Stunting is caused by several interrelated factors. One of the influencing factors is the mother's knowledge about hygiene. Mothers who have knowledge about poor hygiene have a tendency to set a bad example of personal hygiene in children. This tendency causes children's personal hygiene practices to be lacking so that children are susceptible to disease so that their growth and development is hampered, if this situation occurs continuously, they eventually become stunted(M. Rohmah et al., 2020) (Suhardjo, 2003). Previous research conducted from Oktaviana, 2016 showed that there was a relationship between Nutrition Knowledge and Sanitary Hygiene Behavior on Stunting Incidence in Toddlers Age 7-24 Months in Hargorejo Village, Kulon Progo.

Efforts that have been carried out by the government in improving the behavior of its people in preventing stunting are compiled in a national strategy consisting of 5 pillars of acceleration of stunting prevention, precisely in pillar 2 which reads national campaigns and communication of behavior change (Kemenkes RI, 2018). The strategy to achieve this pillar is to improve interpersonal communication through the development of messages that are tailored to the needs of the target group, namely Households of 1,000 HPK, WUS, and young women. Various communication channels such as posyandu, parenting classes, classes for pregnant women, to adolescent reproductive counseling have been used in delivering this message (TNP2K, 2019).

METHOD

This study used an observational analytic design and a cross sectional design. The research was carried out in Mlarak Village in April 2022 using a questionnaire instrument that has passed validity and reliability tests. The research variables consisted of independent (knowledge and practice of personal hygiene) and dependent (incidence of stunting). The population in this study were all parents and children aged 24-60 months in Mlarak Village Ponorogo, 108 toddlers, the sample was 68 parents according to the inclusion criteria taken using purposive sampling technique. Data analysis using chi square and this research has passed the ethical test.

RESULT

A. Characteristics of Respondents

Table 1. Frequency Distribution of Respondents Based on Age, Education, Occupation in Mlarak Village Ponorogo.

Characteristics	Description	Frequency	Percentage(%)
Age	< 20 year	10	14,7
	21-35 year	37	54,4
	>35 year	21	30,9
Total		68	100,0
Education	Basic	24	35,3
	Medium	34	50,0
	Higher	10	14,7
Total		68	100,0
Profession	Entrepreneur	15	22,1
	Private	17	25,0
	Farmer	11	16,2
	Government employees	9	13,2
	Housewife	16	23,5
Total		68	100,0

Source : Research questionnaire

Based on table 1 shows that most of the 40 mothers (58.8%) mothers have good knowledge about hygiene, most of the respondents 52 toddlers (76.5%) practice good personal hygiene, most of the 55 respondents (80.9%) not experiencing stunting from a total of 68 respondents.

B. Characteristics Variable

Tabel 2. Frequency Distribution of Respondents based on Knowledge, Personal Hygiene Practices, and Stunting Incidences in Mlarak Village Ponorogo in 2022

Variable	Description	Frequency	Percentage(%)
Knowledge	Lack of knowledge	28	41,2
	Good Knowledge	40	58,8
Total		37	100,0
Personal Hygine Practices	Lack of Practices	16	23,5
	Good Practices	52	76,5
Total		37	100,0
Stunting Incidence	Stunting	13	19,1
	Not Stunting	55	80,9
Total		37	100,0

Source: data analysis results

Based on table 2, it is known that most of the mothers (58.8%) have good knowledge about hygiene, most of the respondents (76.5%) practice good personal hygiene, and most of the respondents (80.9%) not stunted.

C. Statistical Test Results

Table 3. Results of Chi Square Knowledge and Practice of Personal Hygiene on Stunting Incidents in Mlarak Village Ponorogo in 2022

Knowledge of the incidence of stunting					
	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	8,479 ^a	1	,004		
Continuity Correction ^b	6,753	1	,009		
Likelihood Ratio	8,549	1	,003		
Fisher's Exact Test				,005	,005
Linear-by-Linear Association	8,355	1	,004		
N of Valid Cases	68				
Practice of Personal Hygiene for Stunting Incidents					
	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	4,572 ^a	1	,032		
Continuity Correction ^b	3,150	1	,076		
Likelihood Ratio	4,101	1	,043		
Fisher's Exact Test				,063	,043
Linear-by-Linear Association	4,505	1	,034		
N of Valid Cases	68				

Source: data analysis results

Based on the results of the chi square statistical test in table 2, it is known that there is a significant relationship between Parental Knowledge and Personal Hygiene Practices with Stunting Incidence in Mlarak Village, Mlarak Ponorogo District with values ($p = 0.004$ and $p = 0.032$).

DISCUSSION

A. Knowledge of Parents about Hygiene in Mlarak Village Ponorogo.

Based on the results of the study, it was known that most of the 40 mothers (58.8%) had good knowledge about hygiene from a total of 68 respondents. The age of the respondent is one of the factors that influence the mother's knowledge. (Notoatmodjo, 2012) states that the increasing age of the individual will also develop his mindset and grasping power, so that the knowledge gained by the individual will improve. According to the age of the respondents who filled out the questionnaire, it was found that the majority of mothers were 37 mothers (54.4%) aged 21-35 years and 21 mothers (30.9%) aged >35 years. This age is a sufficient age to develop a mindset and capture power of information (...).

Nurmaliza (2019) said that if parents have higher or secondary education, generally they will have a lot of knowledge and education about how to raise children according to their needs. The results showed that most of the mothers had secondary education, 34 mothers (50%) and 10 mothers (14.7%) had higher education.

Work can describe a person's level of life because it can affect some aspects of a person's life including health care (Notoatmodjo, 2012). The results showed that most of the mothers (23.5%) were housewives.

The results of the research above are supported by research (Khoirunnisa, 2018) which says that parents' knowledge of personal hygiene based on age shows that the majority of respondents aged >35 years who have sufficient knowledge are 16 people (64%). Parents'

knowledge of personal hygiene based on education level shows that the majority of respondents have a high school education of 12 (48%), with sufficient knowledge of 8 (32%).

Age affects a person's grasping power and mindset in gaining knowledge and the older you get, the more knowledge and experience you have. The higher a person's level of education, the knowledge efforts to maintain health and hygiene are also getting better. Work affects the level of knowledge, respondents who do not work have more free time so that they can be used to explore knowledge and information from any source and spend more time with their children than working parents so that they pay more attention to the health of their children. This can happen because of the reciprocal interaction that will be responded to as knowledge by each individual.

B. Practice of Personal Hygiene for Children aged 24-60 Months in Mlarak Village Ponorogo.

Based on the results of the study, it is known that most of the 52 respondents (76.5%) practice good personal hygiene out of a total of 68 respondents. The practice of personal hygiene can be influenced because most of the 40 mothers (58.8%) have good knowledge about hygiene from a total of 68 respondents.

The results of this study are supported by research (Suryani, 2019) which states that 61% of respondents have high knowledge about personal hygiene and 50% of respondents have positive and negative behaviors about personal hygiene. From the statistical test, it was found that knowledge affects behavior regarding personal hygiene during menstruation (P.value = 0.000).

Notification of information through education and counseling will increase knowledge, which in turn will raise awareness and in the end will behave in accordance with the knowledge possessed, which of course takes a long time. Before children behave positively about personal hygiene, they must first know what the meaning and benefits of these actions are for them.

C. Incidence of Stunting in Children aged 24-60 Months in Mlarak Village Ponorogo.

Based on table 4.6, it is known that 13 children (19.1%) experienced stunting from a total of 68 respondents, based on the characteristics of respondents 10 mothers (14.7%) aged < 20 years and 24 mothers (35.3%) had low education.

The results of this study are supported by the results of the analysis (Erfince & Minarni, 2019) which shows a significant relationship between the incidence of stunting under children aged 7-24 months with maternal age ($p = 0.003$; CI = 95%) and research (Agustiningrum & Rokhanawati, 2016) which states that mothers with low education are 1.2 times more at risk of having stunting children compared to mothers with higher education with an X2 value of 0.395 with a p-value of 0.530.

Factors causing stunting do not only come from the child's characteristics but it can come from the characteristics of the mother so that the age of marriage and pregnancy needs to be planned in advance, while the low education of the mother needs education related to stunting prevention from health workers.

D. Correlation of Parents' Knowledge of Hygiene with Stunting Incidence in Children aged 24-60 Months in Mlarak Village Ponorogo.

Based on the results of the study, it was found that most of the 40 mothers (58.8%) had good knowledge about hygiene and 28 mothers (41.2%) had less knowledge about hygiene. Mothers understand and understand the concept of personal hygiene, such as the definition, types, and benefits of personal hygiene. Respondents' knowledge tends to be good because it can be seen from the characteristics of the last education of respondents with secondary and higher education levels, so that it can affect their level of knowledge. The higher the level of education of a person, the efforts to maintain health and hygiene are also getting better.

According to (Notoatmodjo, 2012) education is one of the factors that affect knowledge. Education affects the learning process, where the higher a person's education, the easier it is for that person to receive information. By having education, someone will tend to get information more easily. The more information you get, the more knowledge you get.

Knowledge is defined as a person's ability to remember a material that has been studied and then able to understand it correctly and apply it properly. Knowledge of personal hygiene in this study is defined as a proper understanding of everything about personal hygiene behavior and how important personal hygiene is. Knowledge is very important for the formation of one's actions. Then a better level of knowledge of mothers is expected to provide information to their colleagues.

The results of the chi square obtained p value $(0.004) < (0.05)$, then there is a relationship between parental knowledge about hygiene with the incidence of stunting in children aged 24-60 months in Mlarak Village Ponorogo.

This study is also in line with (Khairiyah & Fayasari, 2020) which shows that toddlers who live in homes with poor knowledge have a 2,981 times greater risk of suffering from diarrhea compared to toddlers who live at home with good knowledge conditions. This study was strengthened by (Husna & Kossasy, 2019) which stated that of the 26 respondents who had a bad perception of food, 61.5% experienced stunting, while of the 40 respondents who had a good perception of food, only 27.3% experienced stunting. This can occur due to the lack of knowledge and interest of mothers in foodstuffs and habits that exist in families who do not provide these foodstuffs so that the source of nutritional fulfillment for toddlers is reduced which can cause toddlers to experience malnutrition for a long time (stunting)(M. Rohmah et al., 2022).

Health workers play an important role in making appropriate interventions for parents who have toddlers in the form of continuing to recommend to maintain and pay attention to the personal hygiene conditions of children so that they can reduce the risk of children experiencing stunting.

E. Correlation of Personal Hygiene Practices with Stunting Incidence in Children aged 24-60 Months in Mlarak Village Ponorogo.

Based on the results of the study, it was found that most of the respondents 52 toddlers (76.5%) practiced good personal hygiene, the remaining 16 toddlers were still lacking in personal hygiene practices. Personal hygiene practices include the mother's habit of applying clean behavior to her child, including body hygiene, nails, skin, teeth and mouth, and clothing hygiene. Most of the respondents have applied personal hygiene behavior to their children by bathing 2 times a day, brushing their teeth using toothpaste and washing their hands. This is related to Potter's (2005) theory, that personal hygiene is a way of human self-care to maintain their health. Maintenance of personal hygiene is necessary for individual comfort, safety and health.

The practice of personal hygiene can be said to be good related to the age of the mother who is more between 20 to 35 years. The more mature the age of the mother who has a toddler, the more the mother's behavior in behavior increases. This is in accordance with the theory (Notoatmodjo, 2012) that an adult age will increase one's wisdom and ability to make decisions, think rationally, control emotions, and tolerate other people's views, so that it affects the increase in motivation.

The results of the chi square obtained p value $(0.032) < (0.05)$, then there is a relationship between personal hygiene practices with the incidence of stunting in children aged 24-60 months in Mlarak Village Ponorogo.

Research conducted (Sutarto et al., 2021) stated that the stunting group of toddlers tended to have poorer hygiene behavior and environmental sanitation conditions than the non-stunted group. This is due to the low level of awareness of mothers or families in maintaining

personal hygiene and environmental cleanliness. This study proves that poor hygiene behavior can increase the risk of toddlers experiencing stunting. Research conducted (Zairinayati, 2019) showed that there was a relationship between the incidence of diarrhea and the incidence of stunting in children under five ($p = 0.0492$; $OR = 0.483$; 95% CI 0.370 - 0.630). With an OR value of 0.061, it means that toddlers who have diarrhea have a risk of experiencing stunting by 0.016 times greater than toddlers who do not experience diarrhea.

Scientific studies have shown that the low awareness of parents about the application of clean and healthy living behavior in children can cause children to be at risk for stunting. The results of this study are expected to develop a structured health education program, facilitate social support, and provide interventions to prevent stunting due to poor personal hygiene problems in children.

CONCLUSION

The conclusion of this study is that there is a significant relationship between Parental Knowledge and Personal Hygiene Practices with Stunting Incidence in Mlarak Village Ponorogo with a value ($p = 0.004$ and $p = 0.032$). The variable of knowledge and practice of personal hygiene is an inseparable variable because parental knowledge will affect the child's practice of personal hygiene so that it will indirectly affect the incidence of stunting.

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