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Community Service

FAMILY ASSISTANCE FOR STUNTING INCIDENTS IN TENGGER CHILDREN, PASURUAN DISTRICT INDONESIA

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ABSTRACT

Backgrounds. Stunting commonly known as short stature can be interpreted as a condition where the body is short or very short below normal for age. This community service aimed to determine the relationship between the use of clean water, healthy latrines, washing hands with soap, and the incidence of stunting in children in Tengger, Pasuruan Regency.
ImplementationMethod. This community service uses family assistance with a planning-organizing-actuating-controlling (POAC) approach. The mothers of children in Tengger, Pasuruan, totaling 46 mothers and their children, accompanied them for two weeks. To prove that this community service is successful, the author examines the use of clean water, healthy latrines, and washing hands with soap to prevent the risk of stunting.
Findings. After community service, there was a significant change in behavior in the family. Mothers are more aware of their children's health status. Children use clean water, healthy latrines, use soap to wash their hands.
Conclusion. Preventing the risk of stunting is an important action to support the development of children's health status.

Keywords: Healthy Latrines, Stunting, Use Clean Water, Washing Hands with Soap.

BACKGROUND

Stunting commonly known as short stature can be interpreted as a condition where the body is short or very short below normal for age. Stunting is a condition caused by a lack of nutrition and requires time to grow and develop and recover to a child's normal height for his age [1]

The prevalence of stunting in Indonesia is ranked 5th in the world. In Regency, Pasuruan occupy order 3rd with a total of 30.7%. Data from the Pasuruan District Health Service shows that there is an increase in the prevalence of stunting in Pager Village in 2024 by 10% compared to 2023. Village Paging Subdistrict Purwosari Regency Pasuruan is assistance village University Jember Which distance 29.5 km from Study Program D-3 Nursing Faculty of Nursing Jember University Pasuruan City Campus where the majority of

the population is engaged in the agricultural sector and has 635 children with 12 stunted children.

For this reason, stunting is needed in Pager Village. The potential for Pager Village to become a Health Care Village is very large. Results of observations and interviews with Pager Village officials: the majority of people in agricultural areas have the habit of using water directly for drinking and food processing and lack of sanitation hygiene. Apart from that, information was found that village programs are still not optimal and have not reached vulnerable groups, p. This causes high levels of stunting. Our partners have a strong desire for the community to have good understanding and skills so that children in Pager Village are healthy because they are the next generation of the nation who must have resilience in the health sector, for this reason, stunting is needed through community empowerment with the Child Health Mitigation program. also supports the Village Development Index (IDM), especially the Social Resilience Index.

One of the causes of stunting is lifestyle and environmental conditions that can cause infection, for example not paying attention to the use of clean water, rarely washing hands before and after carrying out activities, and unhealthy toilet conditions. This will cause the spread of worm infections and contamination of diseases such as diarrhea and nausea will increase. These diseases and symptoms can cause fluids and nutrients in children to decrease. These cases are often found in village areas in Paging Subdistrict Purwosari Regency Pasuruan with data obtained for 635 children with 12 stunted children.

Environmental cleanliness and a healthy lifestyle are very important in preventing stunting. Sometimes a clean environment is not necessarily healthy, let alone a dirty environment. In everyday life, we will interact with other people, especially our children. If we do not pay attention to a healthy lifestyle, then we will unconsciously transmit the infection to other people, especially children, for example, after carrying out activities we immediately play with the children without washing our hands or bathing first. This can be one of the factors causing stunting in our children in addition to malnutrition. Apart from that, we also need to pay attention to the environmental conditions around our children, for example, latrines and the use of clean water because this also affects children's health. Therefore, this research aims to examine the relationship between environmental conditions and cases of stunting in children in the village Paging Subdistrict Purwosari Regency Pasuruan. The community service aims to determine the relationship between the use of clean water, healthy latrines, washing hands with soap (hereinafter called CTPS), and the

incidence of stunting in children in Pager Village, Purwosari District, Pasuruan Regency.

METHOD OF ACTIVITIES

This community service used initial survey techniques in Tengger, Pasuruan Regency, and collaborated with the local village head and 46 housewives. This activity will be carried out over the next 2 weeks. Organizing by preparing a community service team for licensing activities at the village head and preparing action activities. The action was carried out on March 17 2023 with education about risk prevention *and* how to prevent *stunting* by using clean water, healthy toilets, and washing hands with soap. Education was carried out for 30 minutes and 15 minutes for questions and answers by the team. The concept of this service is that mothers will teach their children and demonstrate the use of clean water, healthy toilets, and washing hands with soap every day to maintain good education. After another two weeks, their children underwent a post-test to measure community service concerning its goals [2].

RESULTS OF ACTIVITIES

1. Participant Characteristics

Table 1. Frequency Distribution of Participants

Characteristics of Maternal		
Age	**n**	**%**
20-35 years	30	65
35-45 years old	16	35
Total	**46**	**100**
Level of Education		
No School	10	22
Elementary School	10	22
Junior High School	10	22
Senior High School	16	34
Total	**46**	**100**
Characteristics of Child		
Age (Months)		
24-29	7	15.2
30-35	5	10.9
36-41	14	30.4
42-47	3	6.5
48-53	11	23.9
54-59	6	13.0
Total	**46**	**100**

Gender		
Boys	28	60.9
Girls	18	39.1
Total	**46**	**100**

Based on Table 1, it can be concluded that most maternal participants were 20-35 years old, 30 respondents (65%), and the least were less than 35-45 years old, 16 respondents (35%). It is known that the highest level of education of maternal participants was high school 16 respondents (34%). The highest results for the child age category are respondents who have children aged 36-41 months, 14 children (30.4%). while the lowest age group was respondents in the 42-47 months age group, 3 children (6.5%). The majority of child participants were boys, 28 respondents (60.9%).

2. Family Assistance Results

Table 2. Frequency Distribution of Participants' Behaviour

Use of Clean Water	**n**	**%**
Good	35	76.1
Not good	11	23.9
Total	**46**	**100**
Healthy Latrines	**n**	**%**
Qualify	11	23.9
Not eligible	35	76.1
Total	**46**	**100**
Wash Hands with Soap	**n**	**%**
Yes	31	67.4
No	15	32.6
Total	**46**	**100**
Nutritional Status (Height/Age)	**n**	**%**
Stunting (short)	27	41.3
Normal	19	58.7
Total	**46**	**100**

Based on Table 2, it can be concluded that 35 people (76.1%) had good use of clean water and 11 people (23.9%) had poor use of clean water. The behaviors of participants based on healthy latrines, that 35 people (76.1%) did not meet the healthy latrine requirements and 11 people (23.9%) met the healthy latrine requirements. Behaviors' participants based on CTPS 31 people (67.4%) washed their hands with soap and 15 people (32.6%) did not wash their hands with soap. Based on Stunting Incidents (height/age in

months) 27 children (41.3%) had children aged 24-59 months with a risk of stunting and 19 children (58.7%) had normal (height/age).

DISCUSSION

1. Respondent Characteristics

a. Maternal Characteristics

The results obtained in this community service were that the most respondents were 20-35 years old, namely 30 respondents, 65% and the least aged were less than 35-45 years, namely 16 respondents, 35%. Thus, psychologically, mothers aged less than 20 years and those aged more than 35 years have declining health and are susceptible to certain diseases, namely during pregnancy these diseases can disrupt blood circulation to the placenta, thereby affecting the growth and development of a child after birth [3]**.** Judging from the level of education, it shows that many respondents still have an elementary school education, namely 25 respondents, 22%. According to (Agus, 2008), one of the factors that influences the nutritional status of toddlers is parents' knowledge in choosing and providing food. Parents' knowledge influences fulfilling food supplies for their toddlers. Indirect causes of poor nutritional status include food availability at the household level, child-rearing patterns, environmental sanitation, health services, maternal education, maternal knowledge, number of family members, family income, and poverty [1]

b. Child Characteristics

The age of the children in this community service was 24-59 months. It was measured at the time of the interview whether children had normal nutritional status or were stunted. In this community service, most of the respondents were aged 36-41 months, namely 14 children 30.4%. According to this research, according to [1], in their research, the growth rate is different for each child, as well as their energy needs, this is influenced by different levels of growth and activity. In this community service, 28 children who were respondents were boys (60.9%). These results are the same as research in Peru which proves that diarrhea can cause long-term effects in the form of height growth deficits [4].

2. Family Assistance for Stunting Incidents

a. Use of Clean Water

Based on the community service results, it can be concluded that 35 people (76.1%) had good use of clean water and 11 people (23.9%) had poor use of clean water. The use of clean water in the household must meet physical, bacteriological, and chemical

requirements. The physical requirements for healthy drinking water are clear (colorless), tasteless and odorless, and a temperature below the outside air temperature, so in everyday life, recognizing water that meets these physical requirements is not difficult. The bacteriological requirement for water is that it must be free from all bacteria, especially pathogenic bacteria. Meanwhile, the chemical requirements for healthy drinking water must contain certain substances in certain amounts. Lack or excess of one of the chemicals in the water will cause physiological disorders in humans.

Drinking water sources play a role in the spread of several infectious diseases. Clean water sources are one of the sanitation suggestions related to the incidence of diarrhea. Some infectious germs that cause diarrhea are transmitted via the fecal-oral route. They can be transmitted by putting fluids or objects contaminated with feces into the mouth [5].

b. Healthy Latrines

Based on the community service, it can be concluded that there were 35 respondents (76.1%) who did not meet the requirements for healthy latrines and 11 respondents (23.9%) who met the requirements for healthy latrines. Providing latrines or places to dispose of feces is also a sanitation facility that is related to the incidence of diarrhea. A clean type of waste disposal site will shorten the chain of transmission of diarrheal disease. The use of latrines has a major impact on disease transmission. A latrine is a place to dispose of human waste for all objects or substances that are no longer used by the body and that must be removed from the body [6]The type of latrine that is widely used by the community is the gooseneck latrine because this latrine is the most qualified [6].

The results of observations in the field are that there are still many respondents who use unhealthy latrines that dispose of feces directly into the ground or into the sea for respondents who live in coastal areas. This condition can cause the emergence of infectious diseases in children under five because feces that are not buried tightly will attract flies which will have an impact on environmental health.

A latrine is a building that is used to dispose of human waste including urine, where a healthy latrine can avoid as much as possible the negative consequences caused by human waste [7]. The requirements for waste disposal that meet health regulations are that it does not pollute the surface of the surrounding land, does not contaminate the surrounding surface water, does not contaminate the water in the surrounding soil, the feces must not be exposed so that it can be used as a place for vectors to lay their eggs and breed.

Several studies state that having a healthy toilet is not related to the incidence of stunting. However, these studies show that having a healthy toilet is a protective factor. This shows that having a healthy toilet is not the only factor that causes stunting. Several studies have found that exclusive breastfeeding helps protect babies from various infectious diseases and maintain optimal body growth [8]. From the results of this community service, it can be assumed that there is no relationship between healthy latrines and the incidence of stunting in Pager Village, Purwosari District in 2024.

c. Wash Hands with Soap

The results of the community service can be concluded that 31 respondents (67.4%) washed their hands with soap and those who did not 15 people (32.6%) washed their hands with soap. Habits related to personal hygiene that are important in the transmission of diarrhea germs are washing hands with soap. Wash your hands with soap, especially after defecating. Having to throw away the child's feces before feeding the child food and after eating has an impact on the incidence of diarrhea [9]. Based on observations in the field, there is still a lack of awareness among mothers to wash their hands with soap at five crisis times, namely before eating, after eating, after defecating, after changing the child's diaper, and before giving the child food.

Community service shows the potential for stunting is reduced if interventions focus on changing behavior in sanitation and hygiene. Studies show that access to good sanitation contributes 27 percent to reducing stunting. How to break the chain of poor sanitation and hygiene which is closely related to stunting, so every pregnant mother and child needs to live in a clean environment. There are two simple ways to improve cleanliness and sanitation, namely by not defecating carelessly and washing your hands with soap [10].

This community service is in line with (Herawati, et al, 2020) which shows there is no significant relationship between the behavioral quality of residents with stunting incidents. However, washing hands with mother's soap which does not meet the requirements is a risk factor for stunting because it has OR>1. This means that children in the 6-24 month age group who live in homes that do not meet the requirements for washing their hands with mother's soap are at 3,923 times the risk of experiencing stunting. The quality of hand washing with soap in this community service has no relationship with the incidence of stunting, because the control group had 68.4% of respondents who did not have quality hand washing habits with soap that met the requirements, this percentage was not too different from the case group which had 89. 5% of respondents do not have quality hand

washing habits with soap that meet the requirements. Apart from that, in this community service, it was found that the factors of sanitation facilities and occupant behavior had a greater OR than the quality of washing hands with soap, namely 31.875 and 18.417. The group of cases who do not have the quality habit of washing their hands with soap that meets the requirements can be exposed to other factors that cause stunting, such as the quality of sanitation facilities that do not meet the requirements and the behavior of residents who do not meet the requirements, thus making their children more at risk of stunting and experiencing stunting.

From the community service results, it can be assumed that in Pager Village, Purwosari District, in 2023, some people washed their hands with soap, but this is because the community still are mothers of toddlers who do not wash their hands in running water using soap. There is some information about washing their hands with soap but the steps for washing hands are not perfect, such as the 6 steps for washing hands in running water.

c. Stunting (TB/U)

Based on the results it can be concluded that 27 children (41.3%) had stunted children aged 24-59 months (height/age) and 19 children (58.7%) had normal (height/age). A child's nutritional status is an indicator of a child's health. Healthy children grow older, gain weight, increase in height, and develop well according to their age. The general rule for measuring nutritional status is to use standard anthropometric parameters [11].

Measuring nutritional status using length/height indicators is done by determining age in months, and then measuring the child's length or height. In children aged 24 months, the child is measured standing, if a child is measured lying down then the measurement results are corrected by subtracting 0.7 cm. The height results will be linked to the child's age in months so that children with the nutritional status classification of short (stunted) and very short (severely stunted) are obtained and children with normal height[12].

Based on the results of observations in the field, it can be explained that the water conditions in Pager Village, especially in agricultural areas, people often use water directly, both in processing drinks and food. This triggers diarrhea, when a child experiences diarrhea, nutrients cannot be absorbed properly by the child. The majority of respondents' use of clean water was not good, as many as 35 respondents (76.1%). Based on the results of this community service, it is known that of the respondents with normal stunting, 19 children (58.7%) had good use of clean water. Clean water is water that is used for daily purposes

and will become drinking water after being boiled first. As a limitation, clean water is water that meets the requirements of the drinking water supply system[13].

According to Minister of Health Regulation Number 416/Menkes/Per/IX/1990 clean water is water that is used for daily needs and will become drinking water after being cooked. Water has a big influence on human health, but it can also cause disease or be a source of disease transmission. The results of this community service are different from the results of research conducted by [8]in India, stunting can be prevented by increasing access to clean water and sanitation facilities, as well as maintaining environmental cleanliness. Children with poor environmental sanitation will have a greater chance of stunting than children with adequate and good environmental sanitation in temperate and mountainous ecosystem zones. Based on the results of other research which is in line with the results of community service there is no relationship between the provision of clean water and the incidence of stunting[14–16].

CONCLUSION & SUGGESTION

Based on the results of community service the clean water supply in Pager Village, Purwosari District in 2023 is not good, people use water directly, especially in agricultural communities. The description of healthy latrines that did not meet the requirements for healthy latrines was minority people. Behavior of washing hands with soap, it was found that majority people washed their hands with soap. The description of stunting showed that more half children under five had normal nutritional status.

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