

# An Efforts to Improve Community Health Status through Stunting Prevention and PHBS in Bangorejo village, Banyuwangi

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## Abstract

**Background:** Stunting is a developmental disorder experienced by children due to poor nutrition, repeated infections, and inadequate psychosocial stimulation. PHBS is one of the efforts to prevent stunting in children all health behaviors that are carried out from personal awareness. This study mainly aimed to prevent stunting children at the Bangorejo Village, in Banyuwangi. Bangorejo Village with the socialization about stunting and PHBS that has been given to them. **Methods:** This outreach program was carried out by delivering material along with a six-step handwashing workshop, questions and answers about stunting and PHBS, and distributing questionnaires. **Results:** The results showed that total of 36 respondents (100%) answered correctly on the stunting knowledge, malnutrition, and lack of exclusive breastfeeding. Total 24 respondents (66.7%) answered correctly about the impact of stunting. Total 16 respondents (44.4%) answered correctly regarding the causes of stunting. And total 10 respondents (27.8%) answered correctly about the golden child period. Almost all participants were able to answer that they practice first aid for childbirth, wash their hands using clean water with soap, use clean water, exclusively breastfeed babies, consume vegetables or fruit, and have proper smoking etiquette. **Conclusion:** The resulting data illustrates regarding the amount of public awareness of the problem of stunting in children and PHBS can be said to be good. But there were some participants who did not quite understand the material because there were still errors in answering the statements that had been given.

Keywords: Socialization; Stunting; Health Status; PHBS; Community Empowerment.

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## 1. Introduction

Health is a condition of the position of people in the level of health or illness (Sitanggang and Nasution, 2016). Health is a very basic need for everyone. However, health is often the downstream (impact) of various problems experienced by individuals and the surrounding environment. In fact, health is the initial capital for the development of individual potential in life. Health is one of the elements of well-being that must be realized and there are also several factors that determine a person's health status.

The classical theory of H. L. Bloom states that there are 4 factors that affect health status in a row, namely: 1) lifestyle (life style); 2) environment (social, economic, political, cultural); 3) health services; and 4) genetic factors (heredity). The four determinants interact with each other and affect a person's health status (Ministry of Health, 2018). Public health status is one of the important factors that can affect the quality of human resources in supporting development in a country (Sulistiari, 2018). The state will run optimally if

the population has a good public health status. The improvement of public health status is certainly not only the task of health institutions, but also the integration of various parties and cannot be separated from the support of the community itself.

For example, in Indonesia, stunting in children under five is still a health problem that needs attention. Based on data from the Survei Status Gizi Balita Indonesia (SGBI) in 2021, the current prevalence of stunting is still at 24.4 percent or 5.33 million children under five. Every year, Indonesia has experienced a decline in the prevalence of stunting. However, the current stunting prevalence rate is still far from the 14% target that must be achieved in 2024 or 5.33 million children under five who are still stunted. In 2013, the stunting prevalence rate was 37.2%. In the next five years, this figure has decreased to 30.8%. In 2019, stunting also decreased to 27.7%. Because there is no data collection, the stunting prevalence rate in Indonesia in 2020 is estimated to decrease to 26.92%. The decline in this figure is predicted to be 0.75% compared to 2019 (27.67%). In 2021, the stunting prevalence rate is 24.4% (kemkes.go.id, 28 December 2021). Stunting is still a public health problem in Indonesia. Stunting in children under five can cause a decline in the productivity and quality of Indonesian human resources in the future. Growth retardation or stunting in children in Indonesia occurs as a result of chronic malnutrition and infectious diseases and affects 30% of children under five years of age.

Stunting according to WHO is a developmental disorder experienced by children due to poor nutrition, repeated infections, and inadequate psychosocial stimulation. Children are defined as stunted if their height for age is more than two standard deviations below the median WHO Child Growth Standards (WHO, 2015). Stunting itself is a syndrome in which linear growth failure serves as a marker of various pathological disorders associated with increased morbidity and mortality, loss of physical growth potential, decreased neurodevelopmental and cognitive function, and an increased risk of chronic disease in adulthood (de Onis and Branca, 2016). ). Linear growth failure in childhood is the most common form of malnutrition globally. It is estimated that 165 million children under 5 years of age are stunted, with a Z-score (HAZ) below 2 (i.e. more than two standard deviations below the population median), but more children with HAZ > 2 still have significant linear growth. inadequate and therefore stunting.1 Malnutrition underlies 45% of all child deaths among children <5 years (Lancet. 2013).

The World Health Organization aims to reduce stunting by 40% between 2010 and 2025. While impressive progress has been made in Asia, with a decline in the proportion of stunted children from 49% to 28% between 1990 and 2010, it is still a continent with most stunted children globally (approximately 100 million); in Africa, the prevalence of stunting has remained stagnant at around 40% and, due to population growth, the absolute number of stunted children has increased. Millennium Development Goal 1 (MDG 1), which focuses on eradicating extreme hunger and poverty, uses a lower body weight than stunting as its target.

One of the efforts to prevent stunting in children is to implement PHBS (Clean and Healthy Living Behavior). PHBS is all health behaviors that are carried out from personal awareness so that a family and all its members are able to help themselves in the health sector and have an active role in community activities (Kemenkes, 2016). PHBS material which contains how to live a healthy life is distributed through individuals, groups and the wider community with various communication channels as a medium for sharing information. Social engineering such as PHBS aims to make as many community members as possible as agents of change in order to be able to improve the quality of daily behavior with the aim of living clean and healthy.

Stunting prevention efforts and PHBS counseling are aimed at the Bangorejo Village Community. Bangorejo Village itself is one of the villages in Banyuwangi Regency out of a total of 189 villages. Bangorejo village consists of four hamlets namely Bangorejo Hamlet, Gunungsari Hamlet, Sere Hamlet, and Tamansuruh Hamlet. Bangorejo Village has physical conditions and natural resources that support activities in agriculture and plantations. While the problems that occur Children are included in the vulnerable groups

mentioned in Law no. 39 of 1999. Vulnerable groups can be defined as “the population within a country that has specific characteristics that make it a higher risk of requiring humanitarian assistance than others or of being excluded from financial and social services. In a crisis these groups will need extra assistance, which requires additional action, namely extra capacity, as part of the emergency phase of disaster management” (C.H. Alexander Kuran et al, 2020).

Based on the data exposure, it is necessary to disseminate information to the Bangorejo Village community regarding stunting prevention and counseling about PHBS in order to increase the knowledge of the Bangorejo Village community on the importance of stunting prevention. Counseling on PHBS is important for the community, because it is a form of stunting prevention. It is hoped that with this counseling about PHBS, the entire community of Bangorejo Village can apply the principles of PHBS in their daily life which is a factor in preventing stunting. In addition, it is hoped that the entire community can increase awareness and prevention of stunting.

## 2. Methods

The method used in the socialization of stunting and PHBS prevention is the method of presenting material and counseling the basics of clean and healthy living behavior to Bangorejo village residents attended by Bangorejo sub-district officials, namely Bangorejo Sub-district Head, Bangorejo Agency Service, Bangorejo Military District Command (Koramil), and also the Bangorejo Sector Police. The activity called Sobo Desa took place at the Bangorejo Village Hall. Through this work program, it is hoped that it can provide knowledge to the community on how to overcome stunting from an early age with clean and healthy living behavior (PHBS) in order to achieve a healthy and prosperous life. The series of activities are registration, opening, sobo desa sub-district activities which are followed by material delivery along with a six-step hand washing workshop, question and answer, questionnaire distribution, closing, and group photos. The material will be delivered by KKN students from the Faculty of Medicine, Universitas Airlangga.

## 3. Results

The stunting and PHBS socialization was held on July 15, 2022 at Bangorejo Village Hall. The socialization participants included 36 people from Temurejo, Kebondalem, Ringintelu, Sukorejo, Sambirejo, Sambimulyo and Bangorejo. The results of the stunting and PHBS socialization resulted in increasing the insight and knowledge of the residents of Temurejo, Kebon Dalem, Ringintelu, Sukorejo, Sambirejo, Sambimulyo and Bangorejo, Bangorejo District, Banyuwangi Regency on stunting and PHBS. The data from the results of the questionnaires that have been given to the participants of the socialization are as follows:

Table 1. Results of Questionnaire Socialization on Stunting to Residents of Temurejo, Kebondalem, Ringintelu, Sukorejo, Sambirejo, Sambimulyo and Bangorejo.

Question Points	N	%
Stunting Knowledge	36	100 %
Impact of Stunting	24	66,7 %
Causes of Stunting	16	44,4 %
Golden Period	10	27,8 %

Data from table 1, A total of 36 respondents (100%) answered correctly on the stunting knowledge question points which meant midget children, malnutrition, and lack of exclusive breastfeeding. Data were obtained as many as 24 (66.7%) respondents answered correctly about the impact of stunting. Data obtained as many as 16 (44.4%) respondents answered correctly regarding the causes of stunting. Finally, data obtained as many as 10 (27.8%) respondents answered correctly about the golden child period.

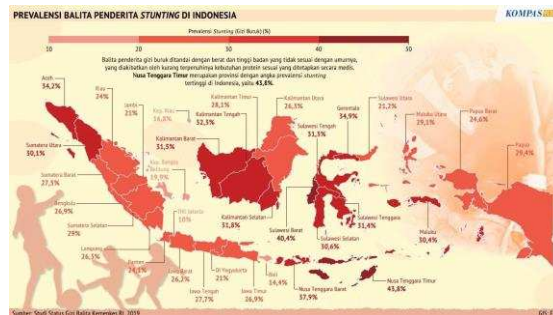


Figure 1. Prevalence of Toddlers with Stunting in Indonesia in 2019, it showed that prevalence of children with stunting spread throughout Indonesia

Table 2. Results of Questionnaire Socialization of PHBS to Residents of Temurejo, Kebondalem, Ringintelu, Sukorejo, Sambirejo, Sambimulyo and Bangorejo.

Question Points	N	%
First aid for childbirth	36	100 %
Exclusive breastfeeding for babies	32	88,7 %
Babies are weighed monthly for the last three months	12	33,4 %
Washing hands with clean water with soap	36	100 %
Use of clean water	36	100 %
Use of healthy latrines	20	55,6 %
Eradication of larvae at home	18	50 %
Household members consume vegetables and fruit every day	30	83,4 %
Physical activity	28	77,8 %
Smoking etiquette	30	83,4 %

From the results of table 2 above, it is found that the knowledge of the residents of Temurejo, Kebon Dalem, Ringintelu, Sukorejo, Sambirejo, Sambimulyo and Bangorejo regarding PHBS. There were 36 (100%) questions on the questions about first aid delivery, washing hands using clean water with soap, and using clean water. Then in the question section regarding exclusive breastfeeding for infants, 32 out of 36 respondents (88.7%) answered correctly. On the part of household members consuming vegetables 30 of 36 respondents (83.4%) and fruit every day and smoking ethics 30 of 36 respondents (83.4%) also have high

scores in answering questions correctly. However, there is still a section that has only 33.4% of respondents' scores, namely the baby is weighed every month for the last three months so that it becomes quite a problem for the residents of Temurejo, Kebon Dalem, Ringintelu, Sukorejo, Sambirejo, Sambimulyo and Bangorejo.

#### 4. Discussion

From the results of table 1 above, it can be seen how the knowledge of the residents of Temurejo, Kebon Dalem, Ringintelu, Sukorejo, Sambirejo, Sambimulyo and Bangorejo regarding stunting. A total of 36 respondents (100%) answered correctly on the stunting knowledge question points which meant midket children, malnutrition, and lack of exclusive breastfeeding. Data were obtained as many as 24 (66.7%) respondents answered correctly about the impact of stunting. Data obtained as many as 16 (44.4%) respondents answered correctly regarding the causes of stunting. Finally, data obtained as many as 10 (27.8%) respondents answered correctly about the golden child period.

From the results of the questionnaire obtained after socializing about Stunting to the participants from the villagers of Warga Temurejo, Kebondalem, Ringintelu, Sukorejo, Sambirejo, Sambimulyo and Bangorejo, it has given quite good results in the knowledge section about stunting which yielded 100% results, namely 36 out of 36 respondents answered correctly. But several other questions, the results shown are not satisfactory in the sense that there are still many people who still need insight and knowledge about this stunting. Therefore, socialization and counseling were carried out on increasing awareness from an early age, especially for mothers who are still pregnant so that they can increase and increase their knowledge before the baby is born.

According to Eko Putro Sandjojo (2017), stunting is a chronic malnutrition problem caused by inadequate nutritional intake for a long time due to feeding that is not in accordance with nutritional needs. Stunting can occur from the fetus in the womb and only appears when the child is two years old. At the point of the stunting knowledge question, the number of respondents' answers was 36 (100%) which means that the residents of Temurejo, Kebon Dalem, Ringintelu, Sukorejo, Sambirejo, Sambimulyo and Bangorejo already know and understand stunting. Stunting is a form of growth failure (growth faltering) due to the accumulation of insufficient nutrients that lasts for a long time starting from pregnancy until the age of 24 months (Hoffman et al, 2000; Bloem et al, 2013). This situation is exacerbated by inadequate catch-up growth (Kusharisupeni, 2002; Hoffman et al, 2000). The period 0-24 months is a period that determines the quality of life so it is called the golden period. This period is a sensitive period because the effects on the baby at this time will be permanent and cannot be corrected. For this reason, adequate nutrition is needed at this age (Mucha, 2013).

Fulfillment of adequate nutrients, both macronutrients and micronutrients is needed to avoid or minimize the risk of stunting. Good quality and quantity of MP-ASI is an important component in food because it contains sources of macro and micro nutrients that play a role in linear growth (Taufiqurrahman et al, 2009). Provision of foods that are high in protein, calcium, vitamin A, and zinc can stimulate children's height (Koesharisupeni, 2002). Providing adequate nutritional intake affects normal growth patterns so that they can be caught up (Rahayu, 2011). And another study by Sekiyama et al. (2012) showed that one-third of food consumed by young children in West Java, Indonesia can be categorized as snack food. High snack consumption has a detrimental effect on children's development because snacks contain mostly fat (59.6%) and energy (40%) but have a lower density of protein and micronutrients. At the point of questioning the cause of stunting, respondents answered 16 (44.4%), which according to the Ministry of Health the cause of stunting was due to chronic nutritional problems, namely lack of nutritional intake for a long time. Based on the results of the respondents' answers, it is known that there are still many residents who do not know for sure what causes stunting that appears in infants or toddlers.

The prevalence of stunting in Indonesia in 2019 was recorded at 27.67 percent. This figure is the result of the integration of the March 2019 SUSENAS (National Socio-Economic Survey) and the 2019 SSGBI. The province with the highest stunting prevalence in 2019 was East Nusa Tenggara Province at 43.82 percent, followed by West Sulawesi Province at 40.38 percent and West Nusa Tenggara Province at 43.82 percent. 37.85 percent. Meanwhile, the province with the lowest prevalence of stunting in 2019 was Bali Province at 14.42 percent, followed by Riau Islands Province at 16.82 percent and Bangka Belitung Islands Province at 19.93 percent. There are 17 provinces with stunting prevalence below the national stunting prevalence. Only 4 provinces with stunting prevalence below the WHO standard of 20 percent, namely Bangka Belitung Islands Province, Riau Islands, DKI Jakarta, and Bali (Data Publication | Prevent Stunting, 2019).

Data for 2019 shows that among the 260 priority districts/cities, the lowest prevalence of stunting is in Nduga Regency, which is only 3.18 percent. There are 28 districts/cities with stunting prevalence below 20 percent spread across several provinces from western Indonesia to eastern Indonesia. Of the 28 districts/cities with stunting prevalence below 20 percent, only 5 of them are areas with city administrative status, namely East Jakarta City, Surabaya City, Depok City, Medan City, and Sorong City. The highest prevalence of stunting is in Dogiyai Regency, which is 65.99 percent. Of the 260 districts/cities, there are 11 districts/cities with stunting prevalence above 50 percent. These districts/cities need attention and priority interventions for stunting management, without neglecting many other districts/cities whose stunting rates are 40 percent to 50 percent.

The SUSENAS (National Socio-Economic Survey) activity carried out by BPS in March 2019, contained a Study Report on the Nutritional Status of Toddlers in Indonesia in 2019. With the help of anthropometric measurements carried out at the Regency/City level, this study aims to obtain an overview of the prevalence of nutritional status. All Indonesian families with children under the age of five from all districts and cities were sampled. The sample consists of toddler-friendly houses visited by SUSENAS in March 2019. The number of samples is 32,000 samples, and each census block (CB) will have 10 households. The sample households were selected based on the 2019 BPS SUSENAS sample list. The results of the 2019 SSGBI research integrated with the March 2019 SUSENAS showed the prevalence of underweight was 16.29 percent (15.94%-16.65%), stunting 27.67 percent (27.22 %-28.11%), and wasting 7.44 percent (7.19%-7.71%).

From the results of table 2 above, it is found that the knowledge of the residents of Temurejo, Kebon Dalem, Ringintelu, Sukorejo, Sambirejo, Sambimulyo and Bangorejo regarding PHBS. There were 36 (100%) questions on the questions about first aid delivery, washing hands using clean water with soap, and using clean water. Then in the question section regarding exclusive breastfeeding for infants, 32 out of 36 respondents (88.7%) answered correctly. On the part of household members consuming vegetables 30 of 36 respondents (83.4%) and fruit every day and smoking ethics 30 of 36 respondents (83.4%) also have high scores in answering questions correctly. However, there is still a section that has only 33.4% of respondents' scores, namely the baby is weighed every month for the last three months so that it becomes quite a problem for the residents of Temurejo, Kebon Dalem, Ringintelu, Sukorejo, Sambirejo, Sambimulyo and Bangorejo.

Healthy living behavior is one of the important roles and has a positive effect on the realization of public health status. Healthy living behavior is behavior related to a person's efforts or efforts in order to maintain and improve their health status (Notoadmodjo 2007). According to Becker (1979) in Notoadmodjo (2007), classifying a healthy lifestyle are regular exercise, not smoking, eating a balanced menu, not consuming drugs and alcohol, controlling stress, getting enough rest, and having a positive lifestyle for health. According to the Ministry of Health (2002) indicators of healthy lifestyle or behavior are non-smoking behavior, regular physical activity and a balanced diet. If seen from the explanation above, the results of the questionnaire such as washing hands using clean water with soap (100%), use of clean water (100%) and family members



consuming vegetables and fruit every day (83.4%) in residents still have a value the good one. Another study from Mulyaningsih T. et al (2021), has results also show that a lack of access to Water, sanitation and Hygiene (WASH) is associated with stunting among young children in Indonesia. Secure access to WASH infrastructure is critical. Young children are more prone to diarrhea, intestinal worm infection and environmental enteropathy when households have poor WASH facilities.

The Human Population Laboratory at the California Department of Health publishes a list of habits or behaviors related to health, namely regular exercise or physical activity, adequate sleep, eating regularly, eating a good breakfast, controlling body weight, and abstaining from smoking, alcohol and drugs. illicit drugs (Sharkey, 2003). According to the Ministry of National Education in Suharjana (2012) a healthy lifestyle consists of eating foods with balanced nutrition, consuming high-fiber foods, consuming fresh fruits and vegetables every day, avoiding foods that are high in fat, sugar and salt, consuming milk or other products from milk every day. every day, always think positively, maintain body weight within normal limits, exercise regularly, get enough rest, drink 1.5–2 liters of water per day and don't smoke.

Research conducted by Guang (2002) states that 80% of chronic diseases that attack humans are caused by unhealthy living behavior. While the other 20% caused by other factors. According to WHO data in 2018, 57 million deaths occurred in the world and 63% of them or 36 million were caused by non-communicable diseases caused by unhealthy lifestyles. Approximately 9 million deaths due to non-communicable diseases occur at the age of <60 years. Deaths from non-communicable diseases are increasing. The largest increase occurred in middle and poor countries, including Indonesia. In Indonesia, non-communicable diseases have increased from 41.7% to 59.5%. In 2018 there were 481,700 women and 582,300 men who died from non-communicable diseases (Depkes RI, 2020). Therefore, every individual if they want to maintain their health status, then the individual must perform healthy behavior in their daily lives.

Public health status can be related by various factors. One of the related factors is the healthy behavior of the community. The more people behave in a healthy manner, the health status of the community will be good. This is in accordance with the research of Hapsari, et al (2009) which concluded that one of the factors related to public health status is healthy behavior. Healthy behavior in each respondent is very influential on whether or not their health status is owned. In carrying out a healthy lifestyle, consuming fruits and vegetables cannot be separated from the pattern of daily activities and also getting used to activities inside and outside the home, so that there is a significant relationship between eating vegetables and doing activities indoors and outdoors.

## 5. Discussion

Based on the results of the questionnaire data obtained regarding the amount of public awareness of the problem of stunting in children and PHBS can be said to be good. Almost all of the questionnaire participants already know the meaning of stunting itself, as well as the resulting impact. However, there were some questionnaire participants who still did not know enough about the causes of stunting and at what age did the golden child period occur.

In the second questionnaire containing questions about PHBS, participants gave satisfactory results. Almost all participants were able to answer that they practice first aid for childbirth, wash their hands using clean water with soap, use clean water, exclusively breastfeed babies, consume vegetables or fruit, and have proper smoking etiquette. However, in the practice of routine baby weighing every month it is still rarely done by the families of the questionnaire participants.

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