

Establishment of Aisyiah Stunting Cadres (KSA) with Tuina Massage Expertise in Buluspesantren Sub-district

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ABSTRACT

Nutritional problems can cause stunting in children under five which eventually affects the quality of human resources in Indonesia. Stunting is a growth and development disorder caused by poor nutrition, repeated infections, and inadequate psychosocial stimulation in children. Stunting cases reach 149.2 (22%) million children worldwide and 6.3 million children in Indonesia. Stunting is caused by a lack of knowledge, appetite, and poor feeding behavior. Tuina massage is a complementary therapy to increase appetite. This community service aims to establish Aisyiah Stunting Cadres (KSA) with Tuina massage expertise. KSA assists families with stunted children by providing Tuina massage training for mothers and distributing appetite stimulants. This activity covered 3 stages, namely KSA establishment, training, and family assistance. This involved 20 cadres who meet the criteria of women aged 20-50 years who are physically and mentally healthy. The training materials covered stunting, physical examinations, and Tuina massage. The trained cadres had to assist families and distribute appetite stimulants. This community service managed to establish KSA consisting of 20 cadres. The cadre's knowledge and skills increased after the training. KSA with insufficient knowledge and skills reduced from 30% to 5%, while KSA with sufficient knowledge and skills reduced from 60% to 30%. KSA With good knowledge and skills increased from 10% to 65%. Around 24 children received appetite stimulants. Conclusion: The establishment of KSA and the provision of appetite stimulants can be an alternative solution to address stunting in children under five.

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INTRODUCTION

Nutritional problems can cause stunting which eventually affects the quality of human resources (Sambutan, n.d.). Stunting is a growth and development disorder caused by poor nutrition, repeated infections, and inadequate psychosocial stimulation (Stunting in a Nutshell, n.d.). Children suffering from stunting have a shorter height than others (Sambutan, n.d.). Stunting is a serious problem because it is closely associated with an increased risk of illness and death as well as delays in brain and mental development (Leksono et al., 2021). Stunting cases reach 149.2 (22%) million worldwide and 6.3 million in Indonesia (Stunting Prevalence among Children under 5 Years of Age (%) (Model-Based Estimates), n.d.) (PAUD, n.d.). Over a third of children under five in Indonesia are below average height (Sambutan, n.d.).

Stunting can be caused by malnutrition during the first 1000 days of life. Therefore, fulfilling nutrition is important from pregnancy until the children aged five years. The government has tried to prevent stunting by encouraging breastfeeding until 24 months old and providing complementary foods (Daya, n.d.). The process of providing complementary foods is not as easy as imagined. Mothers often encounter problems such as eating difficulty or refusing to eat such as closing their mouth tightly when the mother feeds them or even spits out food. This eating difficulty is caused by many factors such as boredom, illness, not being hungry, or trauma to food or the food process itself ((*IDAI / Gerakan Tutup Mulut (GTM) Pada Batita*, n.d.)). In preschool children, eating difficulty occurs if they often consume snacks or candy. Eating difficulties can also be caused by congenital organ disorders, abnormalities in digestive tract function, the role of parents, the socio-economic status of the family, and feed type and method (Yulianto et al., 2022). The most common cause of poor appetite in children is impaired spleen and digestive function. In this case, food cannot be digested immediately causing food stagnation in the digestive tract indicated by frequent feeling of nausea and vomiting during feeding (Wulaningsih et al., 2022).

Tuina massage is a non-pharmacological therapy to address the problem of difficulty eating or poor appetite. This therapy is performed using gliding massage techniques (effleurage or Tui), massaging (Petrissage or Nie), tapping (Tapotement or Da), friction, pulling, rotating, shaking, and vibrating certain points which affect the flow of body energy (Wulaningsih et al., 2022). Tuina massage has been proven effective in increasing children's appetite so it can prevent difficulty eating in children under five (Wulaningsih et al., 2022).

Stunting cases in Kebumen District reached 9,062 children (11.9%) in September 2023. The case spread across 26 sub-districts. Buluspesantren Sub-district is in the 6th rank with a total of 327 children suffering from stunting spread across 21 villages. Waluyo and Bocor Villages have a high number of stunting cases, namely 24 and 20 children. Buluspesantren District is located in the southern part of Kebumen District. The majority of the population in this area are farmers with a low level of education and a fairly high poverty rate, namely 44.94% ((*Badan Pusat Statistik Kabupaten Kebumen*, n.d.)). The high number of stunting cases in Buluspesantren District is caused by a lack of knowledge about stunting and poor feeding behavior. On the other hand, the community in this district is not familiar with the Muhammadiyah organization and even some underestimate it.

Buluspesantren Aisyiah Branch Leadership (PCA) was an Aisyiah branch that had just been formed in early 2023. It has 41 members consisting of employees of Muhammadiyah Business Entity in the education and health sectors and community in general. The members and administrators are dominated by productive ages, namely 25-45 years so they are enthusiastic and energetic to participate in activities. On average, they have a higher education level, namely university graduates.

This community service aims to establish Aisyiah Stunting Cadres (KSA) with Tuina massage expertise. KSA is responsible for assisting families of children under five who suffer from stunting by providing Tuina massage training and distributing appetite stimulants or vitamins for children. This

activity greatly spreads information about Aisyiah and Muhammadiyah in Buluspesantren Sub-district. The follow-up plan for this activity is to collaborate with village midwives and local PCA to conduct Tuina massage training for mothers of toddlers in general so that mothers can directly perform Tuina massage on their children to prevent stunting.

PROBLEMS AND SOLUTIONS

The high number of stunting cases in Buluspesantren Sub-district must be prioritized. In Kebumen District, the number of stunting cases reached 9,062 children (11.9%) spread across 26 sub-districts in September 2023. Buluspesantren sub-district is in the 6th rank with 327 cases spread across 21 villages. In this sub-district, Waluyo and Bocor Villages have the highest number of stunting, namely 24 and 20 cases respectively. Buluspesantren sub-district is located in the southern part of Kebumen District, precisely on the coast of the Indian Ocean. The majority of the population are farmers with a low level of education and a fairly high poverty rate, namely 44.94% ((*Badan Pusat Statistik Kabupaten Kebumen*, n.d.). The high number of stunting cases in Buluspesantren sub-district is due to a lack of knowledge and poor feeding behavior. The high number of stunting cases is also associated with low education and poverty levels of the population. This affects knowledge and feeding behavior. Inappropriate feeding behavior will affect the child's eating patterns which can result in malnutrition and difficulty eating.

The solutions offered to solve these stunting cases covered 3 stages of activities, namely the establishment of Aisyiah Stunting Cadres (KSA), training for cadres, and distribution of appetite stimulants or vitamins for children under five. The establishment of KSA began with the recruitment of 20 cadres in Buluspesantren sub-district. The predetermined criteria for recruiting cadres were women aged 20-50 years, physically and mentally healthy, and willing to participate in the activities as cadres. The second stage was training for cadres. This training was carried out by inviting experts. Besides, this training also involved students. Training materials covered stunting, general physical examinations including height, weight, and mid-upper arm circumferences, as well as Tuina massage. The success of the training was measured using knowledge and skills assessments before and after the training. The third stage was the distribution of appetite stimulants or vitamins for 24 children under five who suffered from stunting.

LITERATURE REVIEW

Stunting

Stunting is a growth and development disorder caused by chronic malnutrition and repeated infections, which is characterized by below-standard height (Weise, n.d.). The problem of stunting does not only occur in Indonesia but also in many other countries. According to www.antaraneews.com, WHO estimated the total global prevalence of stunting reached 22 percent or 149.2 million people in 2020. The Asian Development Bank reported that the percentage of prevalence of stunting among children under five years in Indonesia reached 31.8% in 2022. Indonesia is in the 10th rank of countries with the highest stunting cases in the Southeast Asia region. The Ministry of Health of the Republic of Indonesia stated that the stunting rate has decreased to 21.6 percent in 2022 (PAUD, n.d., 2023). (Rahayu et al., n.d.)

Stunting is a growth failure in children under five due to chronic malnutrition causing them to become too short for their age. Malnutrition can occur during the pregnancy period and post-natal period but it only appears after the child is 2 years old. The nutritional status of both the mother and the child is important for the child's growth. The golden period or during the age of 0-24 months determines the quality of life of children. This is a sensitive period because the effects are permanent and cannot be corrected. In this period, children need adequate nutrition for their growth and development. Nutritional

problems can cause short-term impacts such as impaired brain development, impaired intelligence, impaired physical growth, and metabolic disorders. In the long term, the consequences can be a decrease in cognitive abilities and learning achievement, as well as decreased immunity (Rahayu et al., n.d.)

Stunting reflects impaired growth as a result of low nutritional and health status in the pre-and post-natal periods. Based on the UNICEF framework, malnutrition is caused by direct factors, namely disease and nutrient intake. They are associated with parenting factors, access to food, access to health services, and environmental sanitation. The underlying cause of all of this is at the individual and household levels, such as education level and household income. Many cross-sectional studies have revealed a close relationship between maternal education level and child nutritional status (Rahayu et al., n.d.).

WHO (2013) reports that the causes of stunting are divided into 4 large categories, namely family and household factors, inadequate complementary foods, breastfeeding, and infection. Family and household factors are further divided into maternal factors and home environmental factors. Maternal factors cover inadequate nutrition during preconception, pregnancy, and lactation, low maternal height, infection, teenage pregnancy, mental health, intrauterine growth restriction (IUGR) and preterm birth, short pregnancy intervals, and hypertension. Home environmental factors include inadequate stimulation and child activity, inadequate care, inadequate sanitation and water supplies, inadequate access and availability of foods, inappropriate food allocation in the household, and low caregiver education (Childhood Stunting, n.d.).

Suffering stunting from an early age can continue and cause the risk of stunting in adolescence. Children with poor growth at the age of 0-2 years and continues to 4-6 years have a 27 times risk of being stunted before entering puberty; conversely, children with normal growth at an early age can experience growth faltering at the age of 4-6 years and have a 14 times risk of being stunted in pre-puberty period. Therefore, stunting prevention is needed even after the first 1000 days of life (Aryastami, 2017).

Tuina Massage

Tuina massage is a specific massage technique to address eating difficulties among children under five by improving blood circulation in the spleen and digestion, and modifying acupuncture without needles, namely pressuring the body's meridian points or energy flow lines so that it is relatively easier to do than acupuncture (Tuina Massage: Benefits, Techniques, and More, n.d.)

Tuina acupressure is done by gliding (Effleurage or Tui), massaging (Petrissage or Nie), tapping (tapotement or Da), friction, pulling, rotating, shaking, and vibrating, holding, and pressing certain points so that it will affect the body's energy flow.

Tuina massage is beneficial in supporting the mental, physical, and social growth of children under five. This massage aims to provide positive stimulation, smooth the nerves to relax and refresh the body, and others. Tuina massage also provides a positive effect on eating difficulties and helps increase appetite among children (Wulaningsih et al., 2022). The intervention of Tuina massage increases children's appetite (Wulaningsih et al., 2022). Performing tuina massage helps smooth blood circulation and optimize organ function, including digestive organs. This massage will improve appetite which eventually increases the absorption of nutrients intake (Ningsih & Ramadhena, 2023).

METHOD

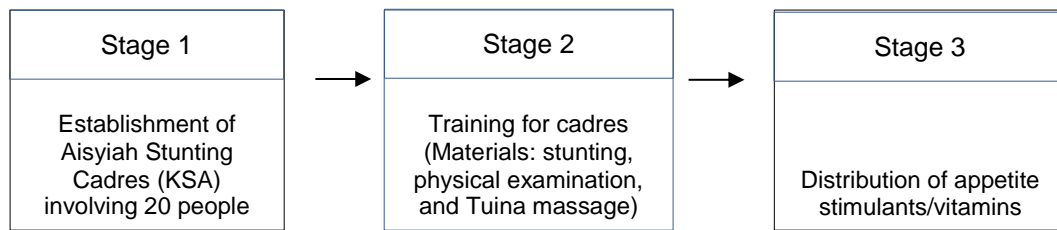


FIGURE 1. Stages of Community Service Activity

The community service method covered 3 stages of activities, namely the establishment of KSA, training for cadres, and distribution of appetite stimulants or vitamins for children under five. The establishment of KSA began with the recruitment of 20 cadres in Buluspesantren Sub-district. The predetermined criteria for the recruitment were women aged 20-50 years, physically and mentally healthy, and willing to participate in activities as cadres. The next stage was the training for cadres. This training was carried out by inviting experts. Besides, this training also involved students. Training materials covered stunting, general physical examinations including height, weight, and mid-upper arm circumferences, and tuina massage. The success of the training was measured using knowledge and skills assessments before and after the training. The third stage was the distribution of appetite stimulants or vitamins for 24 children under five suffering from stunting.

RESULTS AND DISCUSSION

The results of community service were the establishment of KSA consisting of 20 cadres with expertise in Tuina massage and the distribution of 24 packages of appetite stimulants for children under five suffering from stunting.



FIGURE 2. Delivery of materials during the training for cadres



FIGURE 3. Tuina massage training for cadres

TABLE 1. Frequency Distribution of KSA Characteristics

No	Characteristics	Frequency	
		N	%
1	Age		
	20-35 years	7	35
	36-50 years	13	65
1	Education Level		

No	Characteristics	Frequency	
		N	%
2	Elementary School	0	0
	Junior High School	6	30
	Senior High School	14	70
	University	0	0
	Occupation		
	Unemployed/housewife	12	60
	Entrepreneur	5	25
Civil servant/private employee	3	15	

Based on the table above, most cadres are aged 36-50 years (65%), have high school education levels (70%), and are unemployed (60%).

Knowledge is the result of knowing and understanding after sensing a certain object. Sensing occurs through the five senses, namely sight, hearing, smell, taste, and touch. Most knowledge is obtained through the eyes and ears. Knowledge consists of six levels, namely knowing, understanding, application, analysis, synthesis, and evaluation. Knowing is a reminder of a material that has been previously studied. Understanding can be defined as the ability to correctly explain a known object and to interpret the material correctly (Rahmawati, 2019). A person's level of knowledge can be influenced by three factors, namely age, education, and occupation. Based on the results of previous studies, knowledge can be influenced by a person's education. The higher a person's education, the higher the ability to receive information and ultimately the more knowledge possessed. One of the factors influencing a person's memory is age, where the more mature a person is, the better the ability to grasp and gain knowledge (Rahmawati, 2019).

Education can increase a person's knowledge of a disease. Besides, education can also increase a person's ability to absorb information objectively. Psychologically, a worker's knowledge is greatly influenced by his/her working environment. Thus, a person will tend to learn quickly based on the conditions in their working environment (Ekadipta et al., 2021)

When gaining knowledge, a person will pass the process of simply knowing, which then moves to understanding information to develop that knowledge. Along with the dynamic and continuous interaction process, the knowledge gained blends with the individual and influences his/her behavior (Sari & Sholihah 'Atiqoh, 2020).

TABLE 2. Level of Knowledge and Skills of Cadres

Category	Number	Pre-test	Number	Post-test
		percentage (%)		percentage (%)
Insufficient	6	30	1	5
Sufficient	12	60	6	30
Good	2	10	13	65
Total	20	100	20	100

Based on the table above, the level of knowledge and skills increases after the training, namely the insufficient category from 30% to 5%, the sufficient category from 60% to 30%, and the good category from 10% to 65%.

Training is a planned process that can improve a person's knowledge and skills. Training can also improve conceptual and human abilities (Nurasiah, 2019). Attending necessary basic education and

training enables a person to have certain abilities and skills. Guidance and training can improve the ability of an effective leader. The higher the level of training carried out, the better a person's ability to understand practical knowledge and its application in order to improve skills (Siagian & Khuzaini, 2015).

Cadres are community workers who are considered closest to the community and are expected to be able to do their work voluntarily without demanding compensation. Cadres are the main key that drives the prevention of health problems in the community. Therefore, preventing and managing stunting cases need to involve cadres.

Stunting is a condition where a person's height is shorter than the height of other people in general (Stunting in a Nutshell, n.d.). Stunting is a serious problem because it is closely associated with an increased risk of illness and death as well as impaired brain and mental development (Leksono et al., 2021). Stunting can also occur due to poor appetite.

Cadres who have certain knowledge and skills such as tuina massage are effective in handling stunting problems.

CONCLUSION

Community service in the form of the establishment of Aisyiah Stunting Cadres (KSA) with Tuina massage expertise and provision of appetite stimulants in Buluspesantren Sub-district can be an alternative solution to address stunting cases in children under five. Training activities are effective in improving the cadre's knowledge and skills in addressing stunting, practicing physical examinations, and providing Tuina massage for children under five.

SUGGESTION

This community service has some limitations concerning time and cost. Similar activities in other areas need to involve various parties including academics, community leaders, health services, and local governments for optimal efforts to prevent and address stunting cases.

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