Intensive Assistance Monitoring Growth and Development, Prevention and Management of Stunting Toddlers in Kalirungkut Surabaya

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Abstract

Stunting in toddlers is still a serious problem in the world and in Indonesia. Stunting in children often goes undetected and is neglected in its treatment, resulting in the risk of growth and development disorders and having an impact on the quality and future of children, so it is necessary to provide outreach on the prevention, monitoring, detection and treatment of stunting. This community service activity aims to monitor the growth and development, prevention and handling of stunting toddlers at the Kalirungkut Community Health Center, Surabaya. Community service is carried out for stunted toddlers in the form of checking and monitoring growth with WHO growth curves and development status with KPSP, counseling and handling stunting. A total of 75 participants took part in this activity, including lecturers, students, heads of community health centers and related staff, stunted toddlers and mothers as well as posyandu cadres in Kalirungkut Subdistrict, Surabaya. It was found that 23 children under five were stunted. There was an increase in participants' ability to realize the importance of regularly monitoring children's growth and development, parenting patterns, eating patterns after counseling and providing vitamins and calorie milk where there was an increase in the weight and height of stunted toddlers within 1 month afterward. Monitoring growth and development, preventing and handling stunting regularly is very effective.

Keywords: Toddlers, Monitoring, Prevention, Treatment, Stunting.

1. Introduction

Stunting is still a serious problem in the world and in Indonesia. The Riskerdas report shows that the prevalence of stunting in Indonesia in 2020 was 26.92%. The 2021 Indonesian Nutrition Status Study (SSGI) reports that East Java is included in the province with a stunting prevalence of 23.5% and requires treatment. There are five pillars of the national strategy to accelerate stunting reduction in Indonesia, one of which is convergence, coordination, consolidation of national, regional and community programs. This acceleration must be followed by a strategy involving local government, health services, community health centers, cadres, the community and the academic community to create healthy Indonesian children (1,2).

The stunting case in East Java still needs to be addressed. Based on the 2021 SSGI survey, the stunting rate in Surabaya is quite high, reaching 28.9 percent, still above the prevalence of 24.4 percent. Stunting is not only associated with child level characteristics but also family and community level characteristics. Therefore,

interventions to reduce stunting must also consider family and community characteristics to achieve effective results. One of the areas in the city of Surabaya is Kalirungkut Village, which is one of the areas that has stunting incidents in toddlers. Various programs from Community Health Centers have been developed but still need support from universities to be involved in community service in reducing the incidence of stunting (1-3).

2. Implementation Method

This community service activity was carried out on 2 May 2023, 16 June 2023, 24 July 2023, and 22 August 2023. As of December 2023, it was recorded that the number of stunted toddlers had decreased from 23 children to 12 stunted toddlers in Kalirungkut District, Surabaya. This health center is located on Jalan Rungkut Puskesmas No.1, Rungkut District, Surabaya City, East Java 60293. The implementation method is carried out through activities, namely the preparation, implementation and evaluation stages.

2.1 Preparation Stage

The preparation stage is the first stage that will be carried out before carrying out community service activities by the proposing team to partners, including the planning stage. First of all, the proposing team will coordinate with students who will contribute to help carry out this community service. The purpose of this coordination is to provide team debriefing and discuss planning activities that will be carried out directly at local partners, namely at the Kalirungkut Community Health Center so that later it will produce a description of the tasks for each member, as follows:

- Coordinate again with partners to determine the place, facilities, schedule and date of activities to be carried out there.
- Determine the preparation of tools and materials for anthropometric and developmental examinations, as well as nutrition in the form of milk and vitamins.
- Determine instructors and examiners to carry out examinations, treatment and counseling related to monitoring children's growth and development independently in an effort to prevent stunting in mothers of toddlers and cadres.
- Divide teams assigned to activities in each task.
- Rearranging all series of activity events according to the schedules of relevant resource persons and partners.
- Prepare coordination with the provision of nutritional support
- Communication with editors for the publication of national scientific articles
- Prepare questionnaires in order to identify the level of knowledge of extension participants and cadres

2.2 Implementation Stage

At this stage, the proposing team and students will be directly involved in carrying out community service carried out by the relevant partners. The activities of the solution offered will be explained in detail regarding the methods or steps for implementation which will be explained through the activity objectives, activity content, strategy methods, evaluation and output targets for each activity.

a. Growth (anthropometric) and development (KPSP) examinations and stunting treatment are carried out by pediatricians, a team of lecturers and medical students.
   - Activity Objectives: Monitoring the growth and development of stunted toddlers in Kalirungkut Surabaya.
   - Activity Contents: Checking growth and development and finding growth and development

problems in toddlers. Follow-up monitoring of stunted toddlers in the previous program as well as finding cases of stunting toddlers and following up on previously handled stunting toddlers and handling stunting problems.

- Method : Examination of the growth and development of toddlers in Kalirungkut Village and treatment of stunting toddlers.
- Evaluation: Filling out the satisfaction questionnaire for mothers of toddlers and cadres regarding the services for examining and handling their toddlers. Satisfaction target of 80% is very satisfied.

b. Counseling carried out by pediatricians regarding stunting prevention, understanding and implementation of growth and development monitoring for mothers of toddlers and cadres using the KIA book guidelines.
   - Activity objectives: providing information and education regarding the content, function and how to implement the KIA book for caring for toddlers, monitoring growth and development to prevent stunting so as to increase knowledge among mothers of toddlers to implement stunting prevention behavior in their children.
   - Activity content: Presentation of material regarding the KIA book, its contents and implementation, definition of stunting, causes of stunting, main factors causing stunting in children, the importance of preventing stunting in children, how to prevent stunting in children, monitoring children's growth and development, feeding healthy babies and children.
   - Method: With two-way communication, providing material through lectures and discussions.
   - Evaluation: Fill out the initial knowledge and final knowledge questionnaires. The target is to increase knowledge of at least 80% of the audience present.

3. Results And Outcomes

A total of 75 participants took part in this activity, including lecturers, students, heads of community health centers and related staff, stunted toddlers and mothers as well as posyandu cadres in Kalirungkut Subdistrict, Surabaya. There were 23 stunted toddlers, 23 stunted toddler mothers and 15 stunted toddler cadres who came to this activity. The rest are lecturers and students from the Faculty of Medicine, Wijaya Kusuma University, Surabaya (FK UWKS) as Community Service Implementers along with the Head of the Community Health Center and staff related to the stunting program. The Community Service Implementation Team from FK UWKS follows, supervises and carries out Ab activities.

Table 1. Data on Growth and Development Characteristics of Stunted Toddlers at the Kalirungkut Community Health Center, Surabaya.

Characteristics	n	%
Gender:		
Male	9	39.1
Female	14	60.9
Age		
0 – 2 years	0	0
>2 – 5 years	23	23
>2 – 3 years	4	17.4
>3 – 4 years	13	56.5
>4 – 5 years	6	26.1
Growth Status (WHO Curve)		
Weight for age (WAZ):		
Normoweight	5	21.7
Underweight	9	39.1
Severely underweight	9	39.1
Height for age (HAZ) :		
Normoheight	0	0
Stunted	17	73.9
Severely stunted	6	26.1
Weight for height (WHZ) :		
Normal	14	60.9
Wasted	8	34.8
Severely wasted	1	4.4
Head Circumference for age (HCAZ) :		
Normal	23	100
Microcephaly/Macrocephaly	0	0
Development Status (KPSP)		
In Accordance	18	78.3
Doubtful	3	13.0
Deviation	2	8.7

Table 1 shows data on the characteristics of 23 stunted toddlers, consisting of 9 male and 14 female stunted toddlers. All stunted toddlers are over two years old, the most are 13 children aged 3-4 years, 6 children aged 4-5 years, and 4 children aged 2-3 years. Growth status was interpreted using the WHO growth curve showing WAZ normoweight in 5 toddlers, underweight in 9 toddlers, severely underweight in 9 toddlers. In HAZ measurements, there were no normoheight toddlers, 17 stunted toddlers, and 6 severely stunted toddlers. Normal weight for height was found in 14 toddlers, wasted in 8 toddlers, and severely wasted in 1 toddler. Meanwhile, HCAZ measurements showed that all toddlers were normocephalic.

Table 2 shows the characteristics of several risk factors for which data was collected during community service, namely gestational age, duration of exclusive breastfeeding, age at which complementary feeding was started, number of children, mother's employment status, child care provider, mother's education.

Table 2. Data on Characteristics of Risk Factors for Stunting Toddlers at the Kalirungkut Community Health Center, Surabaya.

Characteristics	n	%
Gestational Age:		
Aterm	19	82.6
Premature	4	17.4
Exclusive breastfeeding:		
Yes	23	100
No	0	0
M-PASI Starting Age:		
4 -6 months	19	82.6
>6 months	4	17.4
Number of Child:		
1 child	0	0
2 children	8	34.8
3 children	11	74.8
4 children	4	17.4
Mother's Employment Status		
Work	6	26.1
Doesn't Work	17	73.9
Mother's Caregiver:		
Mother	18	78.3
Apart of mother	5	21.7
Mother's education:		
Junior High School	3	13.0
Senior High School	15	65.2
Bachelor	5	21.7

Table 2 shows data on the characteristics of risk factors for stunting toddlers. Most of the toddlers were born at term, 19 toddlers and 4 toddlers were born prematurely. All toddlers receive exclusive breast milk, but there are still toddlers who start MPASI at the age of over 6 months, namely 4 toddlers. The highest number of children in a family is having 3 children, namely in a family of 11 children under five, having 2 children in a family of 11 children under five, having 4 children in a family of 4 children under five, and no one having only one child. Most of the mothers of stunted toddlers in community service are housewives, namely 18 people and 4 of them are working mothers. The highest level of education among mothers of stunted toddlers was high school at 15 people, 5 people had a bachelor's degree and 3 people had junior high school education.

The community service will continue with subsequent growth and development monitoring on 16 June 2023, 24 July 2023, and 22 August 2023. As of December 2023, it has been recorded that the number of stunted toddlers has decreased from 23 children to 12 stunted toddlers in Kalirungkut District, Surabaya.

Fig. 1. Community Service Series Activities

Stunting is a child's growth and development disorder due to malnutrition, recurrent infections, and inadequate psychosocial stimulation. Children are defined as stunted if their height for age is more than two standard deviations below the median of the WHO Child Growth Standards. Stunting is still a serious problem in the world and in Indonesia. The Riskerdas report shows that the prevalence of stunting in Indonesia in 2020 was 26.92%. The Government of the Republic of Indonesia in Presidential Regulation of the Republic of Indonesia No. 72 of 2021 has launched a program to accelerate the reduction of stunted toddlers throughout Indonesia by 14% in 2024. The 2021 Indonesian Nutrition Status Study reports that Surabaya has a prevalence of stunted toddlers of 28.9%, including in the 10 largest provinces. prevalence of stunting in Indonesia (1-5).

Stunting is not only influenced by poor nutrition, inadequate nutrition, but also factors experienced by pregnant women and children under five. The main prevention that seeks to reduce the incidence of stunting is carried out in the First 1,000 Days of Life (HPK) of children under five. Stunting in toddlers is caused by various factors that can occur in the womb and after birth. This needs to be confirmed because it has different treatments (6,7). Stunting, especially in the first 1000 days from conception to two years of age, growth disorders have a detrimental impact on children. Some of these consequences include poor cognition and educational performance, low adult wages, lost productivity and, when accompanied by excessive weight gain in childhood, increased risk of nutrition-related chronic diseases in adulthood (2).

The problem of stunting in Indonesia is a serious threat that requires appropriate handling. In efforts to deal with stunting in Indonesia, the government itself has targeted the Stunting Reduction Program to be 14% by 2024. Meeting this target is a big challenge for the government and all elements of society. This can be done with cross-sectoral collaboration, including with the higher education academic community. Based on the 2021 SSGI survey, the stunting rate in Surabaya is quite high, reaching 28.9 percent, which is still above the East Java prevalence of 23.5 percent and the national prevalence of 24.4 percent. Kalirungkut sub-district

has a prevalence of stunted toddlers of 19.19% in 2020 (1-3). Previous studies have reported the complexities associated with understanding the determinants of stunting. Stunting is not only associated with child level characteristics but also family and community level characteristics. Therefore, interventions to reduce stunting must also consider family and community characteristics to achieve effective results (4). Knowledge and understanding of the causes and risk factors for stunting in children is important for expectant mothers, women of childbearing age, mothers with toddlers, as well as health cadres/posyandu cadres who are the front line of assisting mothers at posyandu.

The government has published a book containing information and methods for implementing health and monitoring nutritional status for toddlers called the Mother and Child Health Book (KIA Book). The KIA book is a communication tool and information medium about maternal and child health starting from pregnancy, childbirth, postpartum, newborns and children up to 6 years of age. The KIA book is an important and simple tool for detecting growth and development problems in children. The MCH book has been introduced and developed in more than 30 countries in the world, which is an important strategy in order to improve newborns and children. In line with the recommendations of the World Health Organization, the MCH book is designed to be integrated with home-based records which consist of records of a series of child care such as antenatal care, intranatal care, postnatal care, vaccinations, monitoring of child growth and development, as well as related clinical visits. However, the mother's interest in reading, understanding and implementing the KIA book is still not optimal. Likewise with cadres, the integration of KIA books in various programs is not yet optimal. Training on understanding and implementing the KIA book as a tool for monitoring growth and development to prevent stunting in mothers of toddlers is something that must be done to reduce stunting rates (7-9).

Kalirungkut Village is one of the sub-districts in Surabaya which is located in the western part of East Java Province. Kali Rungkut Village is one of the sub-districts in Rungkut District. The boundaries of Kali Rungkut Village are (10,11):

- North: Long Jiwo Tenggilis Mejoyo
- South: Rungkut Kidul Rungkut
- East: Kedung Baruk Rungkut
- West: Tenggilis Mejoyo

One of the Community Health Centers in Kalirungkut Village is the Kalirungkut Community Health Center. Kalirungkut Health Center is located on Jalan Rungkut Health Center No.1, Rungkut District, Surabaya City, East Java 60293 (9,10). This Puskesmas is a Puskesmas that has outpatient services, general clinic, nutrition clinic, pregnant women clinic and serves various puskesmas programs such as health checks (check ups), emergency services, making health certificates, outpatient care, removing stitches, changing dressings, Sewing wounds, extracting teeth, blood pressure checks, ANC, pregnancy tests, maternity/delivery, baby and child examinations, vaccinations, leprosy services, TB, blood group tests, uric acid, cholesterol, physiotherapy, dental clinic, and others.

Kalirungkut Community Health Center services prioritize services with good health personnel, starting from nurses, doctors, medical equipment and medicine. This health center could be one of the choices for residents of Kalirungkut Village to meet health-related needs. Treatment prices also have affordable rates and are supported by the BPJS program for the community (10,11).

Fig. 2. Kalirungkut Community Health Center, Surabaya

Community health centers and posyandu are the front line in preventing stunting. To accelerate the reduction of stunting, community health centers and posyandu monitor the growth of toddlers, including by weighing and measuring and filling out the Healthy Way Card (KMS) in the KIA book. Prevention and management of stunting is one of the priority programs for the Surabaya City Health Service. Kalirungkut Community Health Center seeks to prevent stunting by maximizing stunting toddler screening programs, counseling for pregnant women, mothers of toddlers, young women, poly nutrition, and optimizing counseling and treatment of infectious diseases, health of pregnant women, babies and toddlers. This effort is realized with support for providing additional food (PMT) to toddlers. Apart from that, the Kalirungkut Community Health Center seeks to maximize support from networks and opportunities for collaboration with competent parties, including universities, for activities related to stunting prevention/handling programs in Kalirungkut Village.

Activities that have been carried out at the Kalirungkut Community Health Center need to receive support from a partnership program with the community so that the community is able and aware to play an active role in preventing stunting in their area. This can support the success of stunting prevention in the area through collaboration between medical personnel and the Kalirungkut Community Health Center community as the target of the partnership program with the community.

Partners in the partnership program with the community are partners who are not economically productive, namely the community at the Kalirungkut Community Health Center in the Kalirungkut Subdistrict area, Surabaya. In preventing stunting, support is needed to form a society that understands and is aware of its role. An approach from various parties is needed in dealing with the stunting problem in the region. Partnership programs are needed to achieve the SDG targets, namely the target of the Sustainable Development Goals (TPB/SDGs) which is to eliminate all forms of malnutrition by 2030. For this reason, efforts are needed to accelerate the reduction of stunting from the current condition so that the prevalence of stunting in toddlers falls to 14 % in 2024. Stunting prevention also aims to ensure healthy lives and support prosperity for all at all ages. The problems faced by partners were obtained through preliminary studies, namely:

a. The low understanding of mothers of toddlers about stunting has an impact on the lack of understanding about stunting prevention.
b. There is no awareness from mothers of toddlers regarding the understanding and implementation of monitoring their children's growth and development independently.
c. Problems with parenting patterns, nutritional consumption for toddlers and problems with distribution of aid as well as mothers of toddlers being less able to make healthy food for babies and children.
d. Mothers of toddlers still lack independence and are dependent on cadres for motivation to visit posyandu and carry out early detection of growth and development disorders in their children.
e. Cadres are not yet fully independent in answering questions about preventing and handling stunting, the contents of the KIA book and follow-up records are not yet uniform so they still need help from the community health center.

From the results of the analysis of the situation and problems experienced by partners, the solution that can be implemented is by optimizing monitoring of the growth and development of toddlers on a regular basis, communicating information and education to cadres and mothers of toddlers regarding stunting prevention. Apart from that, it is necessary to provide understanding and how to implement information and apply health advice and monitor the growth and development of babies and children, which are listed in the MCH book for mothers of toddlers and cadres as well as nutritional approaches for toddlers. This is also adjusted to the results of research carried out by the proposing team, namely that the existing problems are actually rooted in inadequate monitoring and information, which has led to a lack of attention to the problem of stunting. With adequate knowledge and motivation to monitor children's growth and development, mothers of toddlers will be able to apply it in their daily lives. This can improve the prevention and treatment process and reduce the number of stunted toddlers. With this understanding, it is hoped that people will be more concerned with health in their environment.

4. Conclusions And Recommendations

Intensive assistance, monitoring children's growth and development, preventing and handling stunting are very important and effective in reducing the number of stunted toddlers. Because of this, continuous assistance is needed in primary health facilities so that stunting and adverse impacts on toddlers can be prevented as early as possible.

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