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STUNTING PREVENTION "SMART GUIDANCE MODULE AND REAL ACTION" IN CADRES, ADOLESCENTS, PREMARRIED AND PREGNANT WOMEN

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ABSTRACT

Indonesia is currently facing a "double burden of malnutrition" or double nutritional problems where on the one hand it still has to work hard to overcome the problem of malnutrition, one of which is stunting, while on the other hand the problem of excess nutrition is starting to creep up which leads to an increase in cases of non-communicable diseases (NCDs) in the adult group. The objectives to be achieved in this activity are: Identifying the knowledge of adolescents, pre-marital, and identifying the knowledge of pregnant women about preventing stunting in toddlers, providing knowledge of pregnant women about preventing stunting in toddlers. The solution provided in dealing with these problems is by providing assistance in providing education as a guide for cadres, pregnant women, adolescents and pre-marital in preventing stunting using the Smart Guidance Module and Real Action. The smart guidance module in this community service is compiled as a reference in carrying out real actions to prevent stunting through real action. The methods of this community service are lectures, discussions, and direct practice. The results of community service obtained an average target knowledge, namely cadres, pregnant women, adolescents and pre-marital, increased. It is hoped that after community service, all parties can work together in stunting convergence.

Keywords: *stunting; cadres; pregnant women; teenagers; premarital smart guidance and real action*

Introduction

Indonesia is currently facing a "double burden of malnutrition" or a double nutritional problem where on the one hand it still has to work hard to overcome the problem of malnutrition, one of which is stunting, while on the other hand the problem of excess nutrition is starting to creep up which is leading to an increase in cases of non-communicable diseases (NCDs) in the adult group.¹

Stunting refers to a child whose height is too short for his/her age. Stunted children can experience severe physical and cognitive impairments that cannot be corrected, which accompany the linear growth retardation. The

negative impacts of stunting can last a lifetime and even affect the next generation.²

The prevalence of stunting in Indonesia, the results of the Integration of the National Socio-Economic Survey and the Indonesian Toddler Nutritional Status Study in 2019, showed that the prevalence of stunting in Indonesia was 27.7%. When compared to the stunting rate in 2013, in the last 6 years there has been an average decline in stunting rates of 1.6% per year. Based on these results, more vigorous efforts are still needed from various ministries and institutions, through specific nutritional interventions and sensitive nutritional interventions so that the

target of reducing stunting by 3% per year or to 14% in 2024 can be achieved.

The stunting rate in 2022 decreased from 24.4% (in 2021) to 21.6% (in 2022). From what we calculate, to be able to reach 14% in 2024, it needs to decrease by an average of 3.8% per year. The stunting rate at birth for 2022 is 18.5%. This is for the first point. Then in the second point, the stunting rate in the age group of 6-11 months is 13.7% which rises to 22.4% in the age group of 12-23 months. It experienced a fairly sharp increase of 1.6 times. So it is an important and strategic point to intervene.³

Stunting is caused by problems with nutritional intake consumed during pregnancy and infancy. Lack of maternal knowledge about health and nutrition before pregnancy, as well as during the postpartum period, limited health services such as antenatal care, postnatal care and low access to nutritious food, low access to sanitation and clean water are also causes of stunting.⁴

Nutrition is still a frequent problem, especially in Indonesia, which ranks fifth highest in the incidence of stunting health problems in the world according to the United Nations International Children's Emergency Fund (UNICEF) in 2018. The WHO Child Growth Standard defines stunting conditions in 2013, based on the index of child body length by age (PB/U) or child height by age (TB/U) with a z-score limit below -2 SD. According to WHO, stunting is a condition where children's growth is stunted. Stunting cases can occur in children who do not have adequate nutrition, are often infected, or lack adequate psychosocial stimulation. Stunting can be said to occur in children if their height is not appropriate or does not reach the world's standard growth chart.⁵

This Posyandu service is inseparable from the participation of cadres who are the main drivers of posyandu activities. The active role of cadres is important because cadres affect the success of the Posyandu program, especially in monitoring child growth and development. Efforts to improve the quality of maternal health are not only the responsibility of individuals and families, but also the community has an important role to play in creating a conducive environment, because the number of health workers is limited and has many responsibilities. The role of cadres

who are also part of society because they come from the same group as the general public (non-health workers) can bridge communication between health workers and the community, especially pregnant women. The form of family approach and persuasive communication between cadres and the community is easier to do, so it is hoped that the role of this cadre can help the health center in selecting the target group of pregnant women (maternal) to carry out antenatal services.⁶

Optimal maternal health is an important condition for improving the quality of life of women and families. The life cycle approach is taken as the basis for determining the theme of stunting. This is related to the theory that stunting is an intergenerational/intergenerational problem, maternal health affects the quality of life and survival of the child to be born. In addition, the concept of 1000 HPK implies that the quality of toddlers is not only influenced after birth, but has started since conception. This indicates that the health of the mother during the pregnancy period also plays an important role in determining whether the child to be born is at risk of developing growth disorders or not.⁷

The problem of PKM Partners begins with the number of pregnant women who do not know about the prevention of stunting in toddlers. Based on information from the midwife, there are quite a lot of pregnant women in her area. Pregnant women in the midwife area have never received education about stunting prevention in toddlers so they do not understand how to prevent stunting in toddlers. Positive efforts are needed to increase the knowledge of pregnant women on how to prevent stunting in toddlers. The role of health workers must be improved to achieve knowledge improvement. One of the efforts offered by the proposer to increase the knowledge of pregnant women is to empower pregnant women. So far, there have been no positive efforts to prevent stunting in toddlers to involve adolescents, premarital and pregnant women maximally in increasing knowledge. Empowering pregnant women has not been fully implemented.

Based on regional data, the highest stunting rate in the city of Semarang is, North Semarang with 191 cases of stunting (Semarang City data) and the Bandarharjo Health Center is

one of the health centers in the North Semarang Region. For this reason, there is a need for synergy in the stunting handling program from the government and the educational institution of the Ministry of Health Polytechnic of the Ministry of Health, with the hope that the stunting alleviation and control program will be carried out well so that stunting cases become zero. Based on data from Bandarharjo village, there are still 6 children under five who are stunted. Stunting problems in toddlers can cause adverse effects in the short and long term.

After discussions/deliberations with partners, the problem of partners in general is the problem of stunting as long as it has existed but prevention efforts have not been maximized and the target has not been expanded, for that the target of cadres, adolescents, premarital and pregnant women is very important. The objectives to be achieved in this activity are: Identifying adolescent, pre-marriage, and identifying knowledge of pregnant women about stunting prevention in toddlers, providing knowledge of pregnant women about stunting prevention in toddlers. The solution provided in dealing with these problems is by providing educational assistance as a handle for cadres, pregnant women, adolescents and pre-marital in stunting prevention using Smart Guidance Module and Real Action. This smart guidance module in community service is prepared as a reference in carrying out real actions to prevent stunting through real action.

After providing education through the Smart Guidance Module, the trained cadres will provide assistance to pregnant women in partner areas in reminding them to provide antenatal health services through routine check-ups, reminding them to take blood-boosting tablets and maintaining adequate nutrition for maximum baby growth and development. Pregnant women can carry out integrated ANC, follow the advice of a midwife or doctor, and regularly take Fe tablets as recommended, eat nutritious meals according to the needs of the mother and fetus. In the pre-marital period, it is expected to prepare to become a mother, by knowing her reproductive health, health checks, and nutritional status. The role of adolescents through smart guidance and real action is the existence of adolescent cadres who are adolescent companions to carry out

routine examinations at the youth posyandu, physical exercise, take tablets to increase hemoglobin level.

Methods

This community service is carried out on adolescents, cadres and pregnant women so that they can increase their knowledge about stunting through smart education with modules applied through smartphones and real actions to prevent stunting, and can identify the causes and risk factors of stunting.

This activity was carried out in Bandarharjo Village, Semarang from July to August 2024, carried out through the following methods:

a. Lecture method

The lecture method is given to cadres, adolescent girls, premarital women, and pregnant women and the provision of modules for each participant, this lecture contains material on the definition of stunting, causes, risk factors, how to recognize, how to prevent, short-term and long-term impacts, and how to prevent stunting

b. Demonstration Method

This method is used to provide skills about the nutritional fulfillment of pregnant women through the contents of my plate, gymnastics for teenagers, counseling for cadres and pre-marriage

c. Discussion methods

This method is used to discuss all problems related to stunting

d. Direct practice method

It showed about examples of practice in choosing food ingredients and the contents of my plate, real action of taking tablets to increase blood in teenagers, counseling for cadres and premarital affairs.

e. Evaluation to be carried out

Evaluation in this activity is pre-test and post test with the subject after before and after the material is given. It is hoped that with this activity, the partner group can apply the information obtained in daily life.

Results and Discussion

Community service is one of the main tasks in the Tri Dharma of Higher Education. This activity involved lecturers and students from the Midwifery Department of the Ministry of Health of the Ministry of Health in partnership with Bandarharjo Village. The activity began with coordination with the Bandarharjo Village.



Figure 1. Coordination with headman of Bandarharjo Village

The steps of the activities carried out are as follows:

a. Preparation of activities

The material prepared when the community service will be carried out is the preparation of materials related to prevention efforts for adolescents, cadres, pregnant women and prospective premarital children in Bandarharjo Village. The materials that will be provided are:

- 1) Module *smart guidance dan real action*
- 2) The preparation of the material is carried out according to the activity schedule, in addition to the preparation for the auxiliary media that will be carried out in this activity, namely in the form of *smart guidance modules and real action*



Figure 2. Module educational media *smart guidance dan real action*

3) Facility Preparation

The preparation of facilities prepared before the implementation of

the activity is by preparing various necessary facilities when this activity is carried out. The preparation of facilities, which is carried out by a team of community service lecturers and assisted by a team of students involved in this community service, is as follows:

- a) Module smart guidance dan real action
- b) Tablet Fe
- c) Gymnastics videos
- d) Balanced menu
- e) BB, TB, Blood Pressure Screening Kit

b. Implementation of Activities

The implementation of this community service activity is by way of counseling, question-and-answer lectures, and real action to prevent stunting.

The main activity was held on July 27, 2025 in Bandarharjo Village in front of 30 cadres. The process begins with registration and filling out a pre-test. This activity was attended by the village, regional coach midwives and service workers.



Figure 3. community service for health cadres

Counseling carried out by the service team for health cadres was carried out by providing material on:

Chapter 1: Understanding and Impacting Stunting

Chapter 2: The Role of Cadres in Stunting Prevention

Chapter 3 : SMART Guidance – An Intelligent Guide to Stunting Prevention

Chapter 4 : Real Action

Permenkes RI No. 25 of 2014 defines cadres as people chosen by the community who

receive training to handle health problems in the community and have a close and close relationship with health services for the community. Some of the roles of posyandu cadres are as extension workers, recorders, and health movers and monitors.

The role of cadres is very important because cadres are responsible for the implementation of health programs. So that to become a cadre requires requirements, namely coming from the community, being chosen by the community itself and being able to work voluntarily, gain trust from the community and have good credibility where their behavior becomes a role model for the community, has a high spirit of service, has a fixed income, is good at reading and writing, and is able to foster the surrounding community. Health cadres have a big role in efforts to improve the ability of the community to help themselves to achieve an optimal degree of health. Cadres must also be able to mobilize the community to participate in routine activities of the Posyandu and be willing to work voluntarily, have the ability and free time so that activities can be carried out properly. These results show that cadres who are able to mobilize and increase community participation will help achieve the success of health programs. The real action carried out by cadres in Bandarharjo is to provide counseling to adolescents about balanced nutrition, exercise and drinking Fe tablets.⁸

The community service activities carried out on pregnant women were attended by 30 pregnant women. The counseling was carried out on stunting reduction material and real action on my plate. The activity began with a pre-test, then the presentation of the material, questions and answers and discussions and post tests. In addition to teaching about stunting, pregnant women are also equipped with an understanding to meet micronutrients, iron, zinc, and folic acid for optimal fetal growth and development.

The role of mothers in preventing stunting does not begin when the child is born, but long before. Stunting prevention is carried out from the first 1000 days of life, namely from the beginning of conception, pregnancy, until the child is 2 years old. During pregnancy, the mother can do the following things to reduce the risk of

malnutrition for the pregnant woman and the fetus.⁹



Figure 4. Implementation of community service for pregnant women

In order to accelerate the reduction of AKI and the prevalence of stunting under five, one of the efforts made is through improving the quality of pregnant women's health services (antenatal care) to 6 times as stated in the Regulation of the Minister of Health Number 21 of 2021 concerning Health Services for the Pre-Pregnancy, Pregnancy, Childbirth, and Postpartum Period, Contraceptive Services, and Sexual Health Services. From the routine report in October, health services for pregnant women 6 times only reached 2,583,073 pregnant women out of the target of 4,897,988 pregnant women, and a lower number of pregnant women who received Hb examination services, namely 1,474,723 mothers, who were examined by doctors at the 1st visit (K1) 771,936 mothers, and who were examined by doctors at the 5th visit (K5) as many as 543,510 mothers.¹⁰



One of the factors that causes stunting is the behavior of the mother during pregnancy. Mothers who had antenatal care visits less than four times during pregnancy were more likely to have a stunted child 0-23 months compared to four or more visits. Pregnant women's knowledge greatly affects the mother's ability to manage and obtain the necessary food in sufficient quantities and the extent to which the available environmental health and sanitation services are

used as best as possible in relation to stunting prevention.¹¹

The implementation of community service to prevent stunting in adolescents and premarital is carried out by providing education about stunting, activities begin with pre-tests, education and post tests. The real action is carried out by doing gymnastics together and taking Fe tablets.



Figure 5. Implementation of youth and pre-marriage community service

Adolescents, both boys and girls, are given knowledge about good parenting and a healthy lifestyle from puberty. This is the first step for adolescents to optimize their role in preventing stunting. If adolescents understand good nutritional intake and apply a balanced diet, it is hoped that they will be able to pass on these habits to the next generation.¹²

Figure 6. Real Action Stunting Prevention

The participants were given an understanding of stunting, which is a condition of chronic malnutrition in children, and its impact on growth and development. In addition, the service team also explained stunting mitigation measures, ranging from the importance of balanced nutrition to how adolescents can contribute in their environment to prevent stunting. Blood supplement tablets (TTD) in adolescent girls is one of the government's efforts to meet iron intake to prevent anemia which can cause a decrease in immunity so that it is susceptible to infectious diseases, decreased fitness and thinking agility due to lack of oxygen to muscle cells and brain cells, decreased learning achievement.

In the long term, if the reperta becomes a pregnant woman, it will also become an

anemic pregnant woman which will increase the risk of childbirth, maternal and infant death, and disease infection. Giving TTD at the right dose can prevent anemia and increase iron reserves in the body. TTD is administered to adolescent girls ranging from 12-18 years old in educational institutions (junior high school and high school or equivalent) through UKS/M. Preventive dose by giving one tablet of blood every week for 52 (fifty-two) weeks. In order for the consumption of TTD to be more effective to prevent anemia must be accompanied by the application of a balanced nutritious food intake, enough protein and rich in iron, drink TTD with water, consume fruits of vitamin C sources (oranges, papayas, mangoes, guava, etc.) to increase the absorption of TTD more effectively, Do not drink TTD with tea, coffee or milk as it will inhibit the absorption of iron, If the stomach feels sore, nausea and blackish stools, there is no need to worry because the body will adjust. To minimize these side effects, do not take TTD on an empty stomach.¹³

The increased knowledge of the bride-to-be includes the causes of stunting, the impact of stunting, and how to prevent stunting. Before being given health education, the bride-to-be did not know these things, but after being given health education, the bride-to-be knew the material. The bride-to-be is also very enthusiastic about preparing for her pregnancy after getting married later. The more knowledge the bride-to-be increases, the easier it will be to apply the health information received. Armed with the right information about stunting prevention, the bride-to-be will prepare specific nutritional interventions, because the right stunting prevention efforts begin when the mother-to-be will prepare for her pregnancy so that the first 1000 days of the child's life can be well prepared.¹⁴

c. Evaluation

The evaluation activity of the implementation of community service is by analyzing the level of knowledge of the target. The evaluation of the effectiveness of educational activities in improving knowledge is carried out through post-test activities after a series of educational activities are carried out smoothly.

Table 1. Changes in knowledge before and after education

Knowledge level	Mean	Minimum score	Maximum score	Standard deviation
Frame				
Pre test	8,07	7	9	0,365
Post test	9,77	9	10	0,430
Pregnant Women				
Pre test	7,63	6	9	1,066
Post test	9,6	8	10	0,675
Adolescent				
Pre test	7,92	7	9	0,480
Post test	9,57	9	10	0,504
Pre-Marriage				
Pre test	7,63	6	9	1,066
Post test	10	10	10	0,000

From table 1, it can be seen that the average knowledge of the target has increased. In cadres, the average initial knowledge is 8.07 after education to 9.77. In pregnant women, the average pretest score was 7.63 and posttest was 9.6. In adolescents, the pre test score is 7.92, and the posttest score is 9.6, while in pre-marriage the pre test score is 7.63 and the posttest is 10.

Knowledge is one of the factors that affect a person in healthy behavior. If a person is sufficiently knowledgeable in health it is expected to behave in good health as well. Good maternal knowledge about stunting is expected to increase positive attitudes and behaviors to prevent stunting.¹⁵

d. Monitoring and evaluation

Monitoring and evaluation of the results of this community outreach activity is carried out for the use of smart guidance and real action in stunting prevention activities. The service team conducted interviews with cadres related to the implementation of cadre mentoring activities carried out during pregnant women classes and youth posyandu.

Conclusion

The provision of education using "Smart Guidance Module and Real Action" to Cadres, Adolescents, Premarital Age and Pregnant

Women in stunting prevention has had an impact on increasing understanding of stunting and real action that can be taken to prevent stunting. This program can be carried out as part of sustainability in promotive and preventive efforts in stunting convergence.

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