### HEALTH PROMOTION ABOUT STUNTING MANAGEMENT THROUGH THE PRECEDE - PROCEED MODEL APPROACH

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#### ABSTRACT

Stunting is a problem of chronic malnutrition caused by insufficient nutritional intake over a long period of time due to the provision of food that is not in accordance with nutritional needs. Health cadres and mothers who have children under five are community groups who need to be equipped with stunting management including prevention, treatment and stimulation of development in children. The aim of Community Service (PKM) aims to provide health promotion in the form of education and training about stunting management through the Precede-Proceed Model approach. The method for this form of PKM activity is in the form of health promotion, simulation, and training for health cadres and mothers who have children under five in the traditional village of Cireundeu, Cimahi City which is carried out offline. The target audience for this activity is health cadres and mothers who have children under five, totaling 52 people. The results of the activity showed that there was a difference in the average knowledge scores of cadres and mothers with children under five. When the pretest showed a score of 93 and the post-test showed a score of 98 with an average increase in score of 5 points. Health promotion related to stunting management in the form of prevention and management of stunting is considered effective in increasing the knowledge and skills of mothers with children under five and health cadres. By forming community groups that can prevent stunting, the guality of growth and development in children will be more optimal.

Keywords: Health Promotion, Stunting Management, Precede Proceed Model

## 1. INTRODUCTION

According to Sarma, Rahman Khan, Asaduzzaman, M., Uddin, F., Tarannum, et al. (2017), 36% of the world's stunted or chronically malnourished children under the age of five lived in African countries while 27% did so in Asia. The World Health Organisation (WHO) estimates that about 165 million children under the age of five are stunted. According to Nahar, S., Pillai Vijayan K. (2019), Asia is the continent with the largest percentage of malnourished children in the world, accounting for over 70% of all malnourished children. According to research conducted in Ethiopia, risk factors for stunting include maternal age greater than 30 years, mothers without formal education, mothers who work every day, mothers who do not perform prenatal care, and mothers who are ill during pregnancy (Agedew & Chane, 2015). The issue of stunting is also a central focus of the six global nutrition targets set for the year 2025, as outlined by the World Health Organisation in 2012. Stunting refers to a condition of impaired growth resulting from the cumulative effects of nutritional deficiencies, which persists from the prenatal period until the child reaches 24 months of age (Mustika & Syamsul, 2018).

Indonesia still confronts nutrition issues that have a severe impact on the quality of human resources. According to data from the Nutrition Status Monitoring (PSG) over the past three years, stunting has the highest prevalence compared to undernutrition, thinness, and obesity. According to data provided by the Ministry of Health RI in 2018, there has been an observed increase in the prevalence of stunting from 27.5% in 2016 to 29.6% in 2017. Nutritional issues, particularly stunting in young children, can hinder a child's development and have long-term consequences such as intellectual deterioration, susceptibility to non-communicable diseases, decreased productivity leading to poverty, and the possibility of giving birth to low birth weight babies (UNICEF, 2012; and WHO, 2012).

Nutritional problems, particularly stunting during this period, can impede the development of children and have long-lasting negative effects, such as intellectual decline, susceptibility to degenerative and noncommunicable diseases, decreased productivity leading to poverty, and the risk of giving birth to infants with low birth weight. Regular measurements or monitoring of body size is recommended. This necessitates the knowledge and abilities of community members to detect, prevent, and treat childhood stunting to manage stunting in children through health promotion programs, the community—including mothers of children under five and posyandu cadres, community groups that actively support the implementation of government health programs—needs to be educated on the subject.

# 2. PROBLEMS

Health promotion is one of the promotive interventions that can be an important part of stunting management in the form of prevention and management of stunting in children. It is considered effective in increasing knowledge and skills, in this case of health cadres and mothers of young children. Based on the situation analysis, problems can be formulated:

- a. The knowledge of cadres and mothers of young children about to with to concerning the prevention and management of stunting is still low.
- b. The skills of health cadres and mothers of young children in the prevention and management of COVID-19 are still low.



Figure 1. Map of the implementation area of the Community Service Programme: Cimahi - West Java

# 3. LITERATURE REVIEW

Stunting is a condition in which a person is shorter than other individuals of the same age (Ministry of Village, Development of Disadvantaged Regions and Transmigration, 2017). Child development is adversely affected by stunting. As adults, children who suffer from stunting are at risk for developing degenerative diseases. Stunting effects children's intelligence levels in addition to their health (Kemenkes RI 2018).

## 4. METHOD

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Community service projects addressing the issue of stunting are implemented by following the Precede and Proceed framework proposed by Lawrence Green. This theoretical framework looks at behavioral issues, the causes that contribute to them, and how to modify or change behavior to move in a more constructive path. Although there are a variety of models used in health promotion, research demonstrates that the Precede-Proceed model is the most helpful model for practitioners when building health promotion initiatives.

The total number of individuals involved in the execution of this community service initiative amounted to 62 participants. However, only 52 people expressed their willingness to partake in both the pre-test and post-test assessments. This community service activity in the form of health promotion was carried out offline on Tuesday, 15 August 2023 at the Posyandu RW 10 A building located in the Circundeu traditional village to health cadres and mothers who have toddlers in RW 10 A Leuwigajah Village in the working area of Puskesmas Leuwigajah Cimahi City in the form of activities ranging from beginning to conduct growth screening through weighing and measuring height in children under five, Pre-test, Health The aforementioned action was conducted between the hours of 7:30 and 14:30.

The execution of Personal Knowledge Management (PKM) operations encompasses multiple phases, which include:

a. Preparation.

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The first step in preparation involves developing the concept for the activities by assembling the committee for carrying out PKM activities, gathering resources, assembling resource people, and selecting the training and health promotion techniques to be employed. During this stage, the process that is being conducted is:

- a) Coordinating the program's requirements and implementation with relevant organizations.
- b) The preparation of activities encompasses various tasks, including the licensing of administrative processes, the socialization of participants, and the procurement and preparation of necessary supplies and equipment.
- b. Implementation
  - a) Organise and inventory the activities for health promotion and training.
  - b) Facilitate the execution of the activities

The evaluation/follow-up stage is an essential component of the research process. It involves the assessment and examination of the collected data and findings to determine the validity and reliability of the research. This stage allows researchers to

This PKM activity was successfully implemented and completed on schedule. The committee gave the participants a post-test evaluation form with information regarding managing stunting, specifically about preventing and treating stunting in children, to ascertain the participants' knowledge. In addition, as a form of health education for the community, the production of modules and literature about stunting management.

c. Writing the final report on the project and creating PKM articles

#### **RESULT AND DISCUSSION** 5.

This community service program is implemented by following the schedule sequence of stages. The goal of this program is to improve the soft skills of posyandu cadres and mothers of children under the age of five so that they are more aware of the significance of knowing how to prevent and treat child stunting. The activity's results revealed an improvement in the average level of knowledge between the 93 on the pretest and the 98 on the post-test, with an average score gain of 5 points. In the implementation of this PKM activity, health promotion was carried out. Currently, there are no impediments to the seamless operation of this PKM process. The PKM activity was well-received by all participants. From the initial stages to the end of this exercise, each participant displayed a high level of excitement for their involvement in it. One measure of how well PKM activities are carried out is how engaged the participants are. The majority of participants in this activity (90%) understood the debate and took part in it.

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Figure. 2 Community Service Activities in Cireundeu Village



Figure 3. Health promotion through counseling for mothers of toddlers

The activity was opened by the Head of the Leuwigajah Health Centre, represented by the nutrition program holder, and was also attended by nursing study program lecturers from the Faculty of Sport and Health Education, Universitas Pendidikan Indonesia. The PKM Team can be seen in Fig.2, involving the nursing students, health cadres, and mothers who have children under five in the Circundeu RW 10A Traditional Village (see Fig.3).

Children are considered stunted if their height is less than -2 SD below the WHO guideline. Various factors, including economic, societal, and cultural issues, influence stunting. Cultural influences are one of the elements that have a significant impact on stunting, beginning with the eating habits used by mothers, which will have an impact on the growth and development of toddlers, so toddlers need quality food intake at this time (Martianto D, 2018).

Stunting can be caused by a variety of factors, including poor parenting practices, a lack of health services, a lack of nutritious food, and a lack of access to clean water and sanitation (Aridiyah FO, et al., 2015). Interventions on these factors can include all levels of society in preventing and reducing the prevalence of stunting, thus they must be implemented throughout the first 1000 days of a child's life. In addition, this can be accomplished by meeting the nutritional needs of pregnant women, promoting exclusive breastfeeding for the first six months of a child's life and providing adequate complementary foods after six months of age, monitoring the growth of toddlers in posyandu, and expanding access to clean water and environmental sanitation (National Team for the Acceleration of Poverty Reduction, 2017).

The impact of stunting is failure of linear growth which can cause various pathological disorders associated with increased morbidity and mortality, loss of physical growth potential, decreased neurological and cognitive development functions, as well as an increased risk of chronic diseases in adulthood which can also result in underdeveloped cognitive abilities, illness, and low competitiveness (Aramico, B., Huriyati, E., Susetyowati, & Dewi, F. S., 2020)

Specific intervention programs from the health sector can be carried out through the following programs (Lancet 2013):

Pregnant women:

- a. Iron supplementation
- b. Balanced energy and protein supplementation for undernourished pregnant women
- c. Management of helminthiasis
- d. Calcium supplementation
- e. Malaria treatment and use of mosquito nets

Breastfeeding mothers:

- a. Promotion of breastfeeding (mother's milk)
- b. Improvement of breastfeeding and complementary feeding behavior

Children 6-23 months:

- a. Zinc supplementation
- b. Diarrhoea management, including zinc supplementation
- c. Vitamin A supplementation
- d. Use of iodized salt
- e. Prevention of acute malnutrition
- f. Management of intestinal worms
- g. Use of nutrient-fortified foods
- h. Use of pesticide-treated mosquito nets

The first 1,000 days of a child's existence are 270 days (9 months) during the mother's pregnancy, plus 730 days from birth to age two. This is a glorious epoch that will not be repeated. The potential of a child can develop optimally and brain development happens quickly if their nutritional demands are addressed. Conversely, if healthy and high-quality food is not provided during this time, brain development is impaired and immunity is depleted, causing youngsters to develop noncommunicable diseases and potentially become unproductive adults. Posyandu is used to monitor growth in children under the age of five, allowing growth abnormalities to be handled early.

The fundamental focus of health promotion aims is behavior and the environment, particularly the environment that influences behavior. According to Green's theory, three factors can influence health behavior, notably First, there are predisposing factors, which are elements that assist or predispose a person's behavior, such as knowledge, attitudes, beliefs, values, traditions, and so on. Second, there are enabling factors, which are variables that enable or facilitate behavior or activity, such as infrastructure, facilities, and human resource availability. The third component is the reinforcing factor, which is a factor that encourages or reinforces behavior, such as the attitude of health personnel, the attitude of community leaders, husband support, family support, traditional leaders, and so on. This is consistent with the goals of health promotion, which are to improve health and community welfare.

To Prevent stunting, it is crucial to educate moms of young children and model proper parenting for newborns and toddlers. Mothers must have a high knowledge of nutritional knowledge and the ability to apply nutritional information in food selection and processing so that children's food intake is more secure and can help improve nutritional status in children to attain developmental maturity (Lukman, Arbie, & Humolungo, 2017). Knowledge is acquired by individuals through the utilization of human senses, namely sight, hearing, touch, and smell (Notoatmodjo, 2010). The meaning of 'knowing' in this context is that individuals' levels of knowledge increase with the frequency of their exposure to new information. The majority of a person's knowledge comes from their experiences, which they can learn from a variety of informational sources such as the news, television, computers, posters, doctors, or by conversing. A person's constructive beliefs can be formed by the knowledge acquired. The level of maternal awareness of stunting can be influenced by factors such as educational attainment, behavioral patterns, and personal beliefs. Increasing maternal knowledge is essential for combating stunting and can reduce the incidence of stunting (Hall et al., 2018). The amelioration of stunting can be achieved by the enhancement of knowledge, which in turn can lead to the improvement of children's feeding habits (Margawati & Astuti, 2018).

The nutritional status of toddlers is positively impacted by mothers who have the information necessary to choose the right sort of food and serve it to their children in a way that meets their nutritional needs (Puspasari & Andriani, 2017). There are various risk factors connected to stunting prevention initiatives. According to UNICEF, the conceptual framework for stunting, which is tailored to Indonesian conditions, states that factors that affect stunting children include access to nutrient-rich food, access to healthcare facilities, infant and child feeding, hygiene, education, access to clean water in the home, and good sanitation facilities (TP2AK,2019).

# 6. CONCLUSION

The implementation of health promotion activities about of on to stunting management in the form of prevention and management of stunting in children can substantially increase the average level of knowledge. The initiatives were successful in raising community awareness and empowering moms with young children and posyandu cadres to serve as change agents in the respondents' neighborhood by taking preventive measures.

The importance of education regarding the prevention and management of stunting in children is very important to ensure optimal growth and development of children, as well as preventing long-term impacts that can affect children's quality of life and human resources. Efforts to prevent stunting must begin during pregnancy and continue throughout the child's First 1000 Days of Life (HPK).

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