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Brief

Improving Knowledge and Skills Through ECEP and Integrated Service Posts for Stunting Prevention

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ABSTRACT

Stunting is a serious health problem in Indonesia, affecting children's growth and development and the future of the younger generation. This community service aims to accompany early childhood education program (ECEP)and Integrated Service Post in implementing Early Stimulation, Detection and Intervention for Growth and Development of Children (ESDIGDC) services as an effort to prevent stunting. This activity involves training and mentoring for ECEP teachers and Integrated Service Post toddler cadres, focusing on understanding stunting, growth measurement techniques and appropriate early stimulation. The results of this program show a significant increase in participants' knowledge and skills regarding stunting and early detection. Parent participation in Integrated Service Post activities has also increased, with more children being checked regularly. In addition, several cases of stunting were detected early, allowing immediate intervention. The positive impact of this program is not only seen in stunting prevention, but also in increasing public awareness of the importance of monitoring children's growth and development and strengthening collaboration between ECEP and Integrated Service Post. Overall, this assistance has proven to be effective as a stunting prevention service intervention. It is hoped that this program can be adopted in other regions as a model in efforts to reduce stunting rates nationally.

Keywords: Mentoring; ESDIGDC; stunting

INTRODUCTION

Stunting is a chronic nutritional problem that results in stunted growth in children.[1] This community service program aims to accompany Early Childhood Education (ECEP) and integrated service post in implementing Early Growth and Development Stimulation, Detection and Intervention (ESDIGDC) services as an effort to prevent stunting in the community.[2] This program was implemented as a response to the high stunting rate in several regions of Indonesia,[3] especially in Magetan Regency. Through ECEP and Integrated Service Post toddler cadres assistance, it is hoped that it can increase the knowledge and skills of caregivers and health workers in detecting and treating stunting from an early age.[2]

Stunting is a problem that is increasingly found in developing countries, including Indonesia. The results of Basic Health Research (Riskesdas, 2018) show that 30.8% of babies under five years of age (toddlers) suffer from stunting.[4] The decline in stunting rates in Indonesia over the last 10 years has not shown any significant changes. About 40% of children in rural areas experience stunted growth.[5] The average prevalence of stunted toddlers in Indonesia in 2005-2017 was 36.4% (6). Based on Nutritional Status Monitoring (NSM) data for the last three years, shortness has the highest

prevalence compared to other nutritional problems such as malnutrition, thinness and obesity. The prevalence of short toddlers has increased from 2016, namely 27.5% to 29.6% in 2017.[6] The stunting rate in East Java based on SSGI (2021) is still quite high, reaching 23.5%. This figure exceeds the national average, namely 19.3%. Meanwhile, the stunting rate in Magetan district is based on data from the Health Service (Dinkes) from 28,130 toddlers measured in 2021, as many as 3,021 (10.73%) toddlers experienced stunting. The highest stunting rate in the working area of the Magetan Regency community health center is the Panekan Community Health Center with 397 (13.14%) children under five. The highest number of stunted toddlers in the Panekan Community Health Center working area is Sukowidi Village with 36 toddlers and Jabung Village with 33 toddlers.[7]

Factors causing stunting refer to "The Conceptual Framework of the Determinants of Child Undernutrition" "The Underlying Drivers of Malnutrition".[1] Factors causing nutritional problems in the Indonesian context "direct causes of nutritional problems in children, including stunting, are low nutritional intake and health status.[3] Apart from that, children's growth and development are influenced by environmental factors and hereditary factors. Indirect causes of the stunting problem are influenced by various factors, including income and economic disparities, trade, urbanization, globalization, food systems, social security, health systems, agricultural development, and women's empowerment. The impact of stunting at an early age, especially in the 1000 HPK period, will have an impact on the quality of Human Resources (HR).[3]

Efforts to reduce stunting are carried out through two interventions, namely specific nutritional interventions to address direct causes and sensitive nutritional interventions to address indirect causes.[4] In addition to addressing direct and indirect causes, supporting prerequisites are needed which include political and policy commitment for implementation, government and cross-sector involvement, and capacity to implement. Reducing stunting requires a comprehensive approach, which must start from fulfilling supporting prerequisites.[5]

METHODS

This community service approach will use participatory and collaborative methods, involving active participants in the training process and encouraging targets to share experiences and knowledge.[8] The targets of the activity are Kindergarten/ECEP Teachers and Integrated Service Post toddler cadres. The number of participants was 20 people. The activity was carried out in Sukowidi village, Panekan District, Magetan Regency. The training was carried out for 3 days, detailed training session times from 09.00 to 16.00, with a 1-hour lunch break. Training methods include lectures and discussions, practicums, case studies and simulations and role plays. Training evaluation methods are 1). Pre-test and Post-test, to measure participants' knowledge before and after training. 2). Questionnaires and surveys, to get feedback from participants about the training. 3). Practical observation and assessment, to evaluate the skills practiced during workshop and simulation sessions.[9]

RESULTS AND DISCUSSION

Pre-Test Implementation

The training methods used are lecture, discussion and practice methods. Before the activity of providing material to assess the level of knowledge of the training participants, it begins with a pre-test activity. The purpose of this pre-test is to determine students' initial abilities regarding the material to be presented. By knowing these initial abilities, it is easier for teachers to determine the models and methods that will be applied in learning.

An overview of the initial documentation of training activities in the context of community service is the participants' pre-test activities. The purpose of the pre-test is to determine the initial level of knowledge or skills of the training participants.

From the results of the pre-test (Table 1), it can be concluded that before the intervention was carried out, there was quite a large variation in the participants' initial knowledge or skills, with an average value of 43The fairly wide spread of data indicates that participants had varying levels of knowledge, which is important information for designing appropriate interventions. A pre-test before conducting training can ensure that the program is not only effective but also provides real benefits for the participants. The step that

needs to be taken is the implementation of a post-test to measure changes in participants' knowledge or skills after the intervention to evaluate the effectiveness of the program.

Figure 1. Pre-test activities of participants before starting training

Expert opinion states that the pre-test is carried out before training begins to assess the participant's initial level of knowledge or skills.[10] This provides baseline data that can be compared with post-test results to measure changes that occur during training.[8] The pre-test ensures that the training is not only effective in improving knowledge or skills, but also that the benefits can be measured and assessed objectively.[12]

Table 1. Pre-Test Results before training for ECEP teachers and Integrated Service Post toddler cadres

Data	Results
Range value	35
Minimum value	25
Maximum value	60
Average value	43
Standard error value	2.0356
Standard deviation value	10.31095
Variance value	106.3160
Kurtosis value	-0.9160 (Std. Error: 0.9920)

Results of Post-Test Implementation

Providing material on ESDIGDC is one of the efforts to increase the understanding of the community, ECEP Teachers and Posyandu Toddler Cadres about the importance of monitoring child growth and development from an early age. This activity aims to be able to detect growth and development disorders early, as well as provide appropriate stimulation and early intervention according to needs. A description of the material provision activities can be seen in the following Figure 2 documentation:

Figure 2. Process of providing materials by the community service team

After providing materials for 3 days, a post-test was conducted to determine the extent to which participants were able to absorb the training materials that had been delivered at that time. The results of the post-test are presented in Table 2.

Table 2. Post-Test Results after training for Kindergarten/ECEP teachers and Integrated Service Post toddler cadres

Data	Value
Range value	20
Minimum value	70
Maximum value	90
Average value	80.5110
Standard error value	1.25132
Standard deviation value	5.59605
Variance value	31.3160
Kurtosis value	-0.8580 (Std. Error: 0.9920)

Based on Table 2, the post-test data shows that after the intervention was carried out, the participants' knowledge or skills increased significantly with an average score of 80.5. The variation in post-test scores was smaller than the pre-test, indicating increased consistency in the results achieved by participants. This activity shows that the intervention carried out is effective in increasing participants' knowledge or skills. With further evaluation and continuous improvement, this program can provide greater benefits to participants and the communities served.

These post-test activities are very important because of the feedback and social support in transferring training results into practice, as well as how evaluation can be used to increase the effectiveness of training programs.[11] Another opinion states that evaluation activities are an assessment method to measure increases in knowledge and skills, as well as a technique for analyzing test result data to evaluate the effectiveness of learning programs.[12]

It can be explained that by using pre-tests and post-tests, organizations can ensure that the training provided is not only effective but also provides benefits that can be measured and assessed objectively, providing a strong foundation for improvement and development of training programs in the future.

Results of practical implementation

Learning activities for the practice of detecting the growth and development of infants and toddlers by health cadres include various aspects that focus on growth and development, including measuring weight, height, head circumference, and arm circumference. In addition, practice is also carried out on how to calculate age according to the screening table, screening preparation, how to prepare reports, and communication and education techniques. Documentation of participants' practical activities during the activity is as in Figure 3.

Figure 3. Implementation of participants' practical activities

Table 3 depicts the results of skills assessment through growth monitoring practice activities in detecting stunting status in toddlers. The assessment results showed that overall, the preparation and cleanliness in the ESDIGDC training had been carried out well by the participants. The results of the assessment of body weight measurement skills by participants showed that the skills in measuring body weight (BB) in ESDIGDC training were considered very good. The results of the assessment of participants' skills in measuring head circumference showed that skills in measuring head circumference (LK) in ESDIGDC training were considered very good. This achievement shows that the majority of participants felt very competent in taking head circumference measurements well. The assessment results show that the skills in recording and reporting in ESDIGDC training have been carried out very well by the majority of participants. In this condition, participants are considered very competent in recording and reporting well. The results of the assessment of skills in communication and education (KE) in ESDIGDC training have been carried out very well by the majority of participants.

Table 3. Results of assessment of practical training skills achievements for Kindergarten/ECEP teachers and Integrated Service Post toddler cadres

Category	Frequency	Percentage
Preparation		
Good	3	15%
Very well	17	85%
Cleanliness		
Good	3	15%
Very well	17	85%
Body Weight Measurement		
Good	1	5%
Very well	19	95%
Height Measurement		
Good	1	5%
Very well	19	95%
Head Circumference Measurement		
Good	1	5%
Very well	19	95%
Recording and Reporting		
Good	2	10%
Very well	18	90%
Communication and Education		
Good	1	5%
Very well	19	95%

The ESDIGDC training that has been implemented has succeeded in improving participants' skills in measuring children's weight. These competencies are important for effective growth monitoring and early detection of nutritional problems.[10] With assessment results indicating excellent skills, this training program can be considered successful in equipping participants with the skills necessary to carry out weight measurements accurately and consistently.[2] This contributes to public health efforts in monitoring and improving the nutritional status and development of the children served.[4]

CONCLUSION

ECEP and integrated service post assistance in ESDIGDC services has proven to be effective as a stunting prevention intervention. Through this program, the knowledge and skills of caregivers and health workers increase, early detection of stunting cases increases, and parent participation in monitoring children's growth and development improves. It is hoped that the recommendations given by this program can become a model to be implemented in other regions in efforts to prevent stunting nationally. Continuous support from all parties is very necessary to achieve this goal.

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Conflict of Interest

The authors declare no conflict of interest.

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