

Efektivitas Pelatihan dan Penggunaan Aplikasi *Si Centing* Terhadap Pengetahuan dan Keterampilan Kader Posyandu

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Effectiveness of Training and Use of Si Centing Application on Knowledge and Skills of Posyandu Cadres

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ABSTRACT

Background: Stunting is a condition where toddlers have a length or height that is less than their age. Various efforts have been made to overcome nutritional problems in the community through optimizing the role of posyandu. Cadres are front liners in the early detection of nutritional problems within the community, so they are required to have good knowledge and skills. **Objective:** The purpose of this study is to determine the effectiveness of the training and use of the *Si Centing* Application. **Methods:** This study used a pre-experimental design with a one group pretest-posttest design. The population in this study was all posyandu cadres with a total sample of 64 people. Data collection techniques were carried out by measuring the knowledge and skills of cadres before and after receiving training and using the centing application. The data analysis technique used the T-test. **Results:** The P-Value of the statistical knowledge test was 0.000 and the p-value for attitude was 0.000. These results indicate that H_0 was rejected, so it can be concluded that there are differences in the average value of the knowledge and skills of volunteers before and after the training and use of the Centing application. **Conclusion:** There was a difference in the average value of knowledge and skills of cadres before and after the training and use of the Centing application in Singaparna District 2020. We suggest Puskesmas and Health to develop an agenda for capacity building activities for Posyandu cadres which are held regularly by using tools or promotional media of health according to the needs of the community.

Keywords: Training, application of the Centing, Knowledge, attitudes, cadre

Kata Kunci: Efikasi diri, Primigravida, Ibu Pekerja, Menyusui

INTRODUCTION

Nutrition in infants and toddlers can determine the quality of human resources since being healthy and quality human resources are the main capitals for health development that determine a nation. Indonesia is faced with a double burden of nutrition, namely over and undernutrition, where some children are obese, but some are stunted or short, thin, and even malnourished. Under-five stunting is a chronic nutritional problem caused by many factors such as socioeconomic conditions, maternal nutrition during pregnancy, disease in infants, and lack of nutritional intake in infants. Based on basic health research data, 18.8% of children aged 0-5.9 months experienced severe malnutrition, 29% experienced stunting due to chronic

malnutrition. While on the other hand, there were 1.6% of children under five who were obese (RISKESDAS: 2013).

Various efforts have been made to deal with nutritional problems in Indonesia, one of which is by creating a community-based health service forum conducted by, from, and with the community, namely *posyandu*. Integrated Service Post or Integrated Service Post (*posyandu*) is a form of Community-Based Health Efforts carried out by, from, and with the community, to empower and provide convenience for the community to obtain health services for mothers, infants, and toddlers (Ministry of Health of the Republic of Indonesia, 2012).

As implementers, cadres have an important role, one of which is to determine the success of weighing infants and toddlers. The right weighing step will

decide the quality of determining nutritional status where nutritional status itself is an indicator of the nutritional state of a community (Ministry of Health, 2011).

An effort to improve the quality of cadres can be done by providing facilities such as sending cadres to training, providing a guide book, attending health seminars, and rewarding (Ministry of Health, 2011).

From the five *neighborhood health centers*, a program of activities undertaken included the health of the child's mother or *maternal health and Children (KIA)*, family planning or *family planning (KB)*, immunization, nutrition services, and diarrhea prevention and control. In the work area of the Singaparna Health Center, the results of the survey conducted by researchers in 2019 were 73,3% of cadres stated that cadres needed cadre training to measure weight and height as well as skills to carry out counseling communications at the time of implementation of *posyandu* (Fitriani, 2020).

Therefore, training for *posyandu* cadres is a solution to the problem of suboptimal services of *posyandu*. This training is expected to produce cadres with good knowledge and skills so early detection of nutritional problems can be carried out. In addition, the use of *Si Centing* as a media for health promotion and applications helps to enforce the nutritional status of toddlers so cadres can carry out their roles and functions properly. Based on this, this research aims to determine the effectiveness of training and use of the application *Si Centing* on the knowledge and skills of *posyandu* cadres in Singaparna District in 2020.

METHODS

The research method used was pre-experimental with one group pretest posttest design. The population in this study was all cadres of *posyandu* in Cikunir Village, namely 64 people with a sampling technique of *total sampling*. The independent variables in this study were cadre training and the use of the centing

application, while the dependent variable was the knowledge and skills of *posyandu* cadres about early detection and prevention of stunting. Knowledge is defined as the ability to answer questions about the meaning of stunting prevention. The skills variable consists of the cadre's ability to measure height and weight, as well as the ability to communicate in counseling.

The instruments in this study were questionnaires and skill observation sheets. The questionnaires were designed by researcher and were tested on 20 targets that had the same characteristics as the respondents. Data collection techniques were carried out directly by measuring knowledge through filling out questionnaires and assessing the skills of cadres in weighing and measuring body weight as well as counseling before being given an intervention. Then, the respondents were given training and the use of the centing application to be re-measured after the intervention. This research has passed the research ethics test with certificate No. 044/KEPK-BTH/VI/2020. The analysis technique was carried out after the data were complete and then were tested for normality using the Kolmogorov-Smirnov test. Data analysis was carried out using t-test as the data were normally distributed.

RESULTS AND DISCUSSION

Table 1. Characteristics of respondents based on age and tenure of *posyandu* cadres in Singaparna sub-district

Variable	n	%
Age (years)		
20-35	16	25.0
36-50	33	51.6
>50	15	23.4
Service period (years)		
<1	4	6.3
1-3	24	37.5
3-5	27	42.2
>5	9	14.1
Total	64	100.0

Table 2. T-Test of Effectiveness of Training and Use of Important Applications of Knowledge and Skills

Paired Differences	t	Df	Sig. (2-
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	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		n	tailed)	
				Lower	Upper			
				Pre & post (Knowledge)	-4.453			1.490
Pre & post (Skill)	-2.141	.710	.089	-2.318	-1.963	-24.129	63	0.000

Based on the Table 1, it is found that the majority of cadres were aged 36-50, namely 51.6% and the majority of the cadres' working period were 3-5 years, namely 42.2%. 7.31 while after the intervention was 11.77. For the attitude variable, it was found that the average score of cadres' skills before the intervention was 4.20 and after the intervention was 6.34. The correlation value for the knowledge variable was 0.622 and for the attitude variable was 0.510 which means there was a very strong relationship.

Based on the Table 2, it was found that the P-Value of the knowledge statistical test was 0,000 and the P-Value for attitude was 0,000. These results indicate that the value of P-Value > (0.05) so that H_0 was rejected, so it can be concluded that there was a difference in the average value of the knowledge and skills of the cadres before and after training and the use of the *Centing* application at the 95% confidence level.

Knowledge and Skills of Cadres

Cadres are the spearhead in socialization efforts to the community. One of the cadres' duties is to provide health information in the posyandu. Cadres are a source of reference for community referrals, trusted by the community, and have close relationships with the community because these cadres are part of the community. The role of cadres in carrying out their duties as providers of health information has a major influence on behavior in the community (Pradana, 2012).

The importance of the role of cadres must of course be balanced with the knowledge of cadres and attitudes of cadres in their role in socialization or counseling related to maternal and child health. Research conducted at Pondok Betung Pondok Aren stated that the knowledge of cadres about nutrition was related to the ability of cadres to deliver counseling. Cadres need good knowledge and skills to convey important messages

about health to the community in order to form a clean and healthy lifestyle, record and report posyandu activities so as not to enter wrong data and conclude the results of posyandu activities. Research conducted in the Wonokerto Health Center area stated that knowledge had a significant influence on the practice of cadres in the implementation of posyandu. (Latif, 2010)

Knowledge of cadres can influence the behavior of cadres in carrying out tasks such as early detection of growth and development in toddlers. This is in accordance with the statement that knowledge is a predisposing factor in the formation of behavior. Knowledge is a predisposing factor that has a significant effect on the behavior of cadres in carrying out early detection of toddler development. (Eka et al., 2014). Meanwhile, skills are one of the factors in Lawrence Green's behavioral theory regarding predisposing factors or factors that facilitate cadres to behave (Notoatmodjo, 2012). This is in accordance with the results of the research which stated that there was a significant relationship between knowledge, attitude, level of education and training of cadres with cadre practices in counseling at table 4 posyandu (Pangestuti et al., 2016).

The knowledge and skills possessed by cadres include the implementation of the main tasks and functions of cadres at the posyandu on posyandu days and outside posyandu days. Cadres need to understand how to measure height and weight correctly so they can determine the nutritional status of targeted infants and toddlers. Another cadre's task is to have the ability to communicate well at the counseling desk or conduct counseling. So good knowledge is needed about the dangers of nutritional problems in infants and toddlers, as well as efforts to prevent nutritional problems in infants and toddlers. In addition, public speaking skills or counseling skills need to

be trained to help make it easier for cadres to convey health messages. (Direktorat Bina Gizi, 2011).

The Effect of Cadre Training and Use of Si-Centing Applications

Based on the results of the study, the average value of knowledge before training was 7.31 while after intervention was 11.77. For the skill variable, the average cadre skill score before the intervention was 4.20 and after the intervention was 6.34. The P-Value of knowledge statistical test is 0.000 and the P-Value of skill is 0.000. These results indicate that the P-Value value > 0.05 so that H_0 was rejected. It can be concluded that there was a difference in the average value of knowledge and skills of cadres before and after training and the use of Centing applications with 95% of confidence level. The correlation value for the knowledge variable was 0.622 and for the skill variable was 0.510, which means the relationship was very strong.

There are factors that can directly affect a person's skills, namely motivation, experience, and expertise. Where one's skills can be supported through training activities so they can help produce something more valuable more quickly (Agnes, 2015). Training activities, interactive learning, and integrated learning are clinically important to impart knowledge and skills (Bluestone *et al.*, 2013).

Training is also defined as a systematic effort to master skills, regulations, concepts, or ways of behaving that have an impact on improving performance. Experience in training is an integral part of an individual and is an integrated investment of a person in interacting effectively with the social environment and the surrounding community (Mulyawan, 2012).

In order to increase the use of posyandu in the community, the government again has launched a plan to revitalize posyandu by providing refresher/retraining, especially for new cadres. Cadre training is an activity carried out to improve the ability, knowledge, technical skills, and dedication of cadres. Posyandu services can be expanded by increasing the quality and quantity of services on open days for home visits. It can also create a conducive climate to provide health services by providing facilities, infrastructure,

reporting, and collecting data on posyandu work. Knowledge will increase the ability of doctors and puskesmas staff to provide additional support when they come to supervise. (Direktorat Bina Gizi, 2011).

The results of a study stated that increasing the capacity of posyandu cadres through training on monitoring the nutritional status of toddlers could increase the knowledge and abilities of toddler cadres, especially in measuring the weight of babies over two years old and under two years old, then measuring the height of toddlers and writing them down in the Growth Graph book (Zaki *et al.*, 2018). Another study stated that balanced nutrition training for cadres could increase the knowledge and skills of cadres by 34% (Pratiwi, 2012). The results of the research conducted in Jelbuk District found that there was a strong and positive relationship between the amount of training received by cadres and the skills of cadres in providing counseling on nutritional status. (Aini, 2019) There are several other research results that support the previous statement, namely an increase in knowledge before and after the training intervention (Purnomo *et al.*, 2018). The increase in knowledge before and after training is also shown in the results of the following study where the results before the intervention had a mean value of 19.30 and after the intervention an average of 20.36 (Akol *et al.*, 2017). The same results are shown in the following study where the value of knowledge before training was 56.2 and after was 66.8 (Febrianto *et al.*, 2019). And the results of knowledge before the training intervention were included in the sufficient category, namely 53.3% and after the training was in the good category, namely 66.1% (Murtadho, 2019). In addition to cadre training, also the use of assistive media that can facilitate cadres in carrying out their duties and functions during posyandu service through an innovative design. This is as in the following statement, in the process of entering data and concluding data on the nutritional status of cadres, it requires a fast and accurate way through the use of technology. Mobile technology can help health workers, cadres and the community in collecting data, reminder messages, facilitating health education and as a medium of communication in the

community (World Health Organization, 2011). The application of Si Centing presents as an innovation produced by one of the universities in Tasikmalaya which is developed as a means of early detection of stunting through a process of inferring nutritional status and health promotion media that can be accessed using an android phone. There are studies that utilize mobile health innovations that are expected to reach all levels of society by using online tools or prepaid systems with communication devices/media that are very close to humans such as mobile phones, tablets and the internet. The use of smartphone applications has the potential to be used as a means of health promotion that can increase one's knowledge and attitudes (Coughlin *et al.*, 2016).

The results of this study are in line with the results of research using iposyandu as a medium to increase knowledge and skills of cadres where the level of knowledge of cadres before being given an intervention of using iposyandu was good knowledge as much as 54.65% and sufficient knowledge as much as 45.34%. After being given training for cadres with iposyandu, there was an increase in good knowledge to 100% including the good category (Widarti *et al.*, 2019).

CONCLUSION

The conclusion in this study is that there was a difference in the average value of knowledge and skills of cadres before and after training and the use of the *Centing* application in Singaparna Subdistrict in 2020.

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