# INCREASING HEALTH CADRE CAPACITY IN EDUCATION AND COUNSELING SERVICES AT POSYANDU AND POSBINDU

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#### **ABSTRACT**

The health status of Indonesian society both in toddler, adult population and elderly are still a serious concern. Community-based health services such as posyandu and posbindu become an effort to maintaining health in community. Currently, activities such as posyandu and posbindu face many diverse challenges. One of the obstacles experienced is the lack of role of health cadres. Training programs for health cadres can increasing the number of posbindu cadres, increasing the availability of health promotion media for posbindu participants, increasing cadre knowledge and skills in education and counseling. This activity aims to increase the capacity of health cadres in education and counseling services at posyandu and psbindu. The method applied in this community service is through health education. The series of activities include health education through lecture methods and question and answer discussions and at the end of the session a joint screening simulation of non-communicable diseases and counseling simulations were carried out. In this activity, the increase in cadre capacity was evaluated in terms of knowledge with pre- and post-tests. The activity was attended by 20 participants consisting of health cadres at posyandu, posbindu and youth organizations who served as youth cadres. The results of the pre- and post-test measurements showed that there was an increase in participant knowledge by 18 points with a p value of 0.001. Based on these results, it can be concluded that health education activities for cadres can increase the capacity of cadres in education and counseling services at posyandu dan posbindu.

Keywords: Education, Health Cadres, Counseling, Posbindu, Posyandu

# 1. INTRODUCTION

Indonesia has become a country with high number of maternal and child health problems. Some of the causal factors are malnutrition, infection-related problems and high-risk pregnant women. Basic health research (RISKESDAS) data in 2018 shows that Indonesia has experienced a variety of health status developments. Nutritional status in toddlers shows malnutrition at approximately 17.7%, while obesity is at 21.8%. In addition, cases of infectious diseases in the toddler population such as acute respiratory infection are 4.4%, malaria is 0.4% and the prevalence of pneumonia is 2% (Kemenkes RI, 2018).

Not only in the toddler population, health status in adult and elderly are also a major problem. Non-communicable diseases are one of the real threats. The incidence of cancer is 1.8%, stroke 10.9%, chronic kidney disease 3.8%, diabetes 8.5% and hypertension 34.1% (Kemenkes RI, 2018). The degenerative process with complex and diverse changes in various dimensions requires a lot of continuous adaptation. Prevention of various problems that arise in the adult population is very important. All aspects or dimensions must be considered starting from physical, cognitive, emotional, including parameters of self-esteem, self-confidence, well-being and depression (Carvalho et al., 2022).

Maintaining and improving the maternal and child health is one of the strategies in developing superior resources. This strategy can be carried out through posyandu and posbindu activities. Meanwhile, non-communicable diseases (NCD) are also a threat that cannot be ignored. The government has actually launched the control of NCD with the posbindu program. Posbindu for NCD is a model of community participation in controlling risk factors independently and sustainably. Development in the implementation of posyandu and posbindu is expected to be a real step in preventing NCD risk factors so that the number of NCD can be reduced (Ministry of Health Republic of Indonesia, 2012).

Community-based health services such as posyandu and posbindu become an effort to maintaining health in community. This can be preventive effort with early detection and rehabilitation so as to avoid repeated hospitalization. The implementation of posbindu is regulated through a 5-table model starting from table 1 (registration and recording of NCD risk factors), table 2 (interviews by cadres), table 3 (measuring height to waist circumference), table 4 (checking blood pressure, blood sugar, cholesterol, triglycerides, etc.) and table 5 (counseling and education and follow-up) (Ministry of Health Republic of Indonesia, 2012).

Currently, activities such as integrated health posts and integrated health posts face many challenges. Some of the obstacles experienced include the lack of role of health cadres, lack of understanding of the benefits and importance of posyandu, lack of community participation in posbindu, lack of facilities and infrastructure of posbindu and lack of cross-sector cooperation. From the various problems currently encountered in the implementation of posbindu, several alternative solutions include the need for training programs for integrated health cadres, the need for consistency in implementing integrated health post activities in the community, improving infrastructure to support implementation, and the need for advocacy to relevant stakeholders (Nurhidayah et al., 2019).

Health cadres as implementers of posyandu and posbindu activities are an important element in the successful implementation. Health cadres as people who dedicate themselves to public health have many challenges. Lack of human resources with qualified skills. Improvements are needed regarding the implementation of cadre duties and authorities. Service management is also an important point in cadres carrying out their roles in society (Priyadarshi et al., 2023).

Training programs for health cadres can increasing the number of posbindu cadres, increasing the availability of health promotion media for posbindu participants, increasing cadre knowledge and skills in conducting early detection of diseases and making cadres more responsive to problems in the surrounding community (Indarjo et al., 2019). Previous studies have also shown that training for cadres improves cadre performance which can be seen from an increase in cadre understanding by 27%, increasing cadre motivation with an increase in skills by 98% (Marufah et al., 2022).

### 2. PROBLEMS STATEMENT AND QUESTION

The health status of Indonesian society is a serious problem. Community-based health service activities such as posyandu and posbindu to be an effort to reduce the incidence of disease and improve public health independently. The resources of health cadres in the area are minimal in carrying out community-based health service activities. It is necessary to optimize the existing community and increase the capacity of health cadres in implementing posyandu and posbindu. In addition, education and counseling services during activities need to be improved in implementation. Based on the phenomenon, the community service team plans to carry out refreshment activities and increase the capacity of health cadres in implementing posyandu and posbindu as well as in education and counseling services.

Does health education can increase the capacity of health cadre in education and counseling services at posyandu and posbindu? The aim of the community service is to increasing the capacity of health cadre in education and counseling at posyandu and posbindu.

### 3. LITERATURE REVIEW

### a. Posyandu and Posbindu

Posyandu is a Community-Based Health activity managed and organized from community, by the community, and for community for maintaining health, empowering the community and providing easy access to basic health services so as to accelerate the reduction in maternal and infant mortality rates. Basic health services are health services covering at least 5 (five) activities, namely Maternal and Child Health (KIA), Family Planning (KB), immunization, nutrition, and diarrhea control (Regulation of the Minister of Home Affairs Number 13 of 2024 Concerning Intgrated Service Posts, 2024)

According to the Posyandu pocket handbook, the objectives of Posyandu are as follows (Center of Health Promotion Ministry of Health of Republic of Indonesia, 2018):

- 1) Reducing infant mortality rates (IMR), maternal mortality rates (pregnant women), childbirth and postpartum.
- 2) Cultivating NKKBS (Norms of a Happy and Prosperous Small Family)
- 3) Increasing community participation in developing health and family

- planning activities and other activities that support the achievement of a healthy and prosperous society.
- 4) Functions as a vehicle for the prosperous family reproduction movement, the family resilience movement and the prosperous family economic movement.

Posyandu activities provide many benefits to the community (Center of Health Promotion Ministry of Health of Republic of Indonesia, 2018):

- 1) Obtaining easy access to information and health services for mothers, babies and toddlers.
- 2) The growth of toddlers is monitored so that they do not suffer from malnutrition or severe malnutrition.
- 3) Babies and toddlers receive Vitamin A capsules. Babies receive complete immunization.
- 4) Pregnant women will have their weight monitored and will receive iron (Fe) tablets and Tetanus Toxoid (TT) immunization.
- 5) Postpartum mothers receive Vitamin A capsules and blood supplement (Fe) tablets.
- 6) Obtain health education related to maternal and child health.
- 7) If there are abnormalities in babies, toddlers, pregnant women, postpartum mothers and breastfeeding mothers, they can be identified immediately and referred to a community health center.
- 8) Can share knowledge and experience about maternal, infant and toddler health.

Posbindu, especially for NCD is a community participation in carrying out early detection activities and monitoring of the main NCD risk factors which are carried out in an integrated, routine, and periodic manner. Risk factors for non-communicable diseases include smoking, consumption of alcoholic beverages, unhealthy diet, lack of physical activity, obesity, stress, hypertension, hyperglycemia, hypercholesterolemia and early follow-up of risk factors found through health counseling and immediately referring to basic health service facilities (Regulation of the Minister of Home Affairs Number 13 of 2024 Concerning Intgrated Service Posts, 2024)

The implementation of Posbindu is carried out by existing health cadres or several people from each group/organization/institution/workplace who are willing to organize Posbindu, who are specially trained, fostered or facilitated to monitor NCD risk factors in each group or organization. The criteria for Posbindu Cadres include having a minimum education of high school, being willing and able to carry out activities related to Posbindu (Purnamaningrum, 2023).

Based on the type of early detection, monitoring and follow-up activities that can be carried out by Posbindu, it can be divided into 2 groups of Posbindu Types, namely;

1) Basic Posbindu includes early detection services for simple risk factors, which are carried out through targeted interviews through the use of instruments to identify a history of non-communicable diseases in the family and those that have been suffered previously, risky behavior, potential for injury and domestic violence, measurement of weight, height, waist circumference, Body mass index (BMI), body fat analysis tools, blood pressure measurements, simple lung function tests and counseling on breast self-examination

(Ministry of Health Republic of Indonesia, 2021; Rahajeng, 2020).

2) The Main Posbindu includes Basic Posbindu services plus blood sugar. triglyceride checks. cholesterol and clinical examinations, IVA (Visual Inspection of Acetic Acid) examinations, breath alcohol level examinations and urine amphetamine tests for general driver groups, with trained health workers (Doctors, Midwives, health nurses/laboratory analysts/others) in villages/subcommunity groups, institutions/agencies. For implementation of the Main Posbindu, it can be combined with the Village or Sub-district Health Post on active alert, or in community groups/agencies/institutions where the health workers are available according to their competence (Ministry of Health Republic of Indonesia, 2021; Rahajeng, 2020).

# b. Duties and Functions of Health Cadres

The 5-table system at the integrated health post according to the UPGK field officer manual is as follows (Ministry of Health Republic of Indonesia, 2021):

- 1) Table 1 (Registration)
- 2) Table 2 (Weighing)
- 3) Table 3 (Recording)
- 4) Table 4 (Counseling and Services)
- 5) Table 5 (Health services)

#### 4. METHOD

### a. Method

The method applied in this community service is through health education. The series of activities include health education through lecture methods and question and answer discussions and at the end of the session a joint screening simulation of non-communicable diseases and counseling simulations are carried out. In this activity, the increase in cadre capacity is evaluated in terms of knowledge with pre- and post-tests.

### b. Participant

Participants of this activity are cadres and prospective cadres in the hamlet area of Glutung Lor, Caturharjo, Pandak, Bantul. Participants are selected with the following criteria:

Inclusion criteria:

- 1) cadre or prospective cadre in the Glutung Lor area
- 2) Willing to take part in the entire series of activities Exclusion Criteria
- 3) Unable to attend or unable to attend until the end of the event

### c. Implementation of Community Service

The implementation of this community service activity goes through several stages, namely the preparation, implementation and reporting stages. The details of each stage are as follows:

# 1) Preparation stage

The implementation of community service activities begins from the preparation stage. This includes:

- a) Coordination of the community service team
- b) Preparation of the material to be presented by each resource person

- c) Visit and coordination with the Head of Dukuh Glutung Lor, Caturharjo, Pandak, Bantul regarding the activities to be carried out
- d) Preparation and duplication of questionnaires to be used in community service activities

### 2) Implementation stage

After the preparation stage was completed, the implementation of community service activities was carried out on Sunday, November 24, 2024 starting at 08.30 WIB at the Head of Dukuh Gluntung Lor House, Caturharjo, Pandak, Bantul. Participants / communities began arriving at the service location at 08.30 WIB. Upon arrival, participants were given a participant identity sheet and could work on a pre-test to determine the participants' knowledge of education and counseling at posyandu and posbindu before attending the counseling. The event began with an opening by the Master of Ceremony (MC) and continued with remarks from the Head of Dukuh Gluntung Lor. Then, starting with the material on optimizing table 5, material on early detection and prevention of toddler health problems in the community, material on trends and general handling of adult client health problems in the community. At the end of the session, a small group discussion session was held with a demonstration of examination activities carried out at posyandu and posbindu and continued with a demonstration of an educational and counseling roleplay session related to the results of the examination at the demonstration. The demonstration and roleplay were accompanied by resource persons and facilitators. At the end of the event, participants were asked to return to work on the post-test questions.

# 3) Reporting stage

The community service team evaluates the implementation of community service activities and assesses the pre-test and post-test completed by the participants. Furthermore, the team tabulates knowledge data. The final stage is compiling a final report on the activity.



Figure 1. Health education process



Figure 2. Group simulation process

# 5. RESULTS AND DISCUSSION

# a. Results

Community service activities were carried out in Padukuhan Glutung Lor on November 24, 2024. The activity was attended by 20 participants consisting of health cadres at posbindu and posyandu and youth organizations who served as youth cadres. The characteristics of the participants who attended the counseling activities were as follows:

Table 1. Characteristics of health counseling participants (n=20)

Characteristics		%
	n	76
Gender		
Man	0	0
Woman	20	100
Education		
Elementary School	2	10
Junior High School	4	20
Senior High School	10	50
College	4	20
Access information about previous education &		
counseling		
Yes	14	70
No	6	20
Educational & counseling information sources		
Internet	5	25
TV	3	15
Book	2	10
Chat Group	7	35
Other	7	35
Experience providing education & counseling		
Once		
No	13	65
	7	35
Age	39.5 years	

Table 2 shows that all participants of the activity were women with the majority having a high school education. The majority of participants had also received access to information about education and counseling from various media. In terms of age, the average age of the participants was 39.5 years.

In this activity, the knowledge of counseling participants related to education and counseling was also measured. Before and after the provision of materials, measurements were taken. The results of the knowledge measurement of counseling participants are presented in table 3. Based on these results, it can be seen that there was an increase in participant knowledge of 18 points with a p value of 0.001.

Table 3. Results of measuring knowledge of health education participants (n=20)

Measurement	Mean ± SD	Delta Mean	р
Before (pre-	65.7±11.9		
test)		18±0.42	0.001*
After (post)	83.7±12.3		

#### b. Discussion

Responden characteristic based on table 2 shown that all cadres are female with an average age of 39.5 years. Actually, there is no requirement that cadres must be female. However, in practice, many are dominated by women. Both men and women can become cadres and contribute significantly to improving public health. Women do dominate in various aspects of health, especially in community health practices, both in terms of secretariat, community empowerment and health (Kambarwati Nur Marwah & Putri, 2023). Table 2 also shows that more than 50% of cadres have a high school education or above. The level of formal education of health cadres in the community does vary. Basically, it is adjusted to the conditions of the surrounding community and the needs of the cadres. In general, the requirements for cadres are to be able to read and write. Cadres will then receive basic literacy related to posyandu or posbindu cadres, short training related to monitoring child growth and development, and other knowledge that improves cadre health literacy (Siswati et al., 2022).

Most cadres have received information about education and counseling before, with the most information coming from the internet and WhatsApp groups. Communication media is currently often integrated into the training process and learning media. Popular WhatsApp media can improve the knowledge of health cadres. The combination of peer mentoring with WhatsApp has been shown to be a means of increasing individual capacity (Hossain et al., 2021). WhatsApp facilities also allow for communication between health workers and cadres. This communication allows for sharing information, getting mentoring and getting feedback from each other through this media. This media can also be a means of increasing motivation with interactive and supportive communication so that there is a bond between members and satisfaction in the learning process (Nardo et al., 2016).

Table 3 shows that the measurement results obtained an increase in knowledge value of 18 points with a significance level of 0.001. These

results answer that the counseling carried out can significantly increase the knowledge of cadres about education and counseling at posyandu and posbindu. Based on previous research, training for health cadres significantly increased the knowledge, attitudes and skills of cadres. The increase varied in the ability to find stunting cases, education on various health problems found (Tampake et al., 2021). Health education for cadres can also increase the capacity of cadres in managing symptoms that appear in the community (Triyanto et al., 2023). Effective training is important for health cadres to be able to carry out their roles as counselors and educators properly. Cadres must be involved in activities that trigger an increase in their knowledge and improve cadre competence according to targets (Solikhah et al., 2018). Ongoing support is also needed to face challenges as a health cadre, such as when dealing with complex cases in the community and managing welfare (Susanti et al., 2024).

Based on the results of previous studies, training is very effective in improving cadre skills in counseling and health education. In a broader scope, counseling and health education efforts are very useful in increasing the number of community visits to posyandu and posbindu (McCarthy, 2023). The results of other studies also show that health education for cadres increases knowledge in providing services to the community. This can be done through various media, including discussions, booklets and videos (Fauziah et al., 2023). A significant increase also occurred in research using the cadre training method. A significant increase occurred in the knowledge, attitudes and communication skills of cadres in services at posyandu (Ekayanthi et al., 2022). However, there is previous research that shows that education using videos is not effective, especially in improving cadre knowledge about nutritional problems. The increase only occurred in a small range and was not significant (Willmart et al., 2024). Meanwhile, the activities carried out used a simulation process so that they were able to clarify the material presented.

In the counseling activities carried out, the team carried out various methods, both through lectures/discussions and direct practice. The team also distributed materials to cadres for further learning. Effective methods in training include lecture methods, interactive communication, demonstration sessions and the use of modules (Abdel-All et al., 2017). The achievement of increased knowledge is not only influenced by the use of training/counseling methods. Previous studies have shown that some health cadres have good knowledge, but still have low motivation. Only about a third of cadres have high motivation. This lack of motivation is closely related to the educational background, marital status and age of health cadres (Mediani et al., 2022).

# 6. CONCLUSION

Community service activities carried out in Glutung Lor, Caturharjo, Pandak, Bantul with 20 participants consisting of health cadres and youth cadres. The results of the activity showed an increase in cadre knowledge about education and counseling in integrated health service posts and integrated health posts, which was marked by an increase in knowledge of  $18 \pm 0.42$  points with a p value (0.001). Based on the results and conclusions

above, we suggest that similar programs be followed up and continued in target groups with different materials and counseling, so that the cadre's ability to organize posyandu and posbindu is more comprehensive. In addition, it is necessary to collaborate with stakeholders in related areas to be involved in similar activities in the future so that monitoring and program sustainability can be monitored properly.

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