

## THE EFFECT OF THE SAHABAT KB COMMUNITY-BASED COMMUNITY EDUCATION PROGRAM ON COMMUNITY PARTICIPATION IN KANTAN VILLAGE IN PANDIH BATU DISTRICT

Iyah Retiawatir<sup>1a</sup>, Saputera<sup>2b</sup>, and Saifullah Darlan<sup>3c</sup>

<sup>1,2,3</sup> Universitas Palangka Raya, Kota Palangka Raya, Kalimantan Tengah 74874

iretiawatir@gmail.com  
 Saputeramardi@tip.upr.ac.id  
 fuldarlan@gmail.com

(\*) Corresponding Author  
 iretiawatir@gmail.com

### ARTICLE HISTORY

**Received :** 17-02-2025  
**Revised :** 16-04-2025  
**Accepted :** 18-04-2025

### KEYWORDS

Family Planning,  
 Cadre Participation,  
 Community-Based  
 Programs,  
 Cadre Training,  
 Posyandu.

### ABSTRACT

The Friends of Family Planning program is designed to increase the participation of Posyandu cadres in supporting family planning (KB) programs through a community-based approach. This study aims to analyze the influence of the program on improving the knowledge, attitudes, and skills of cadres in delivering family planning education. The research uses a quantitative approach with a pretest-posttest design. The sample consisted of 50 Posyandu cadres in Kantan Village who were of productive age (20–45 years), selected using saturated sampling techniques. Data was collected through questionnaires, observations, and documentation, then analyzed using descriptive and inferential statistics. The results showed that the average cadre participation score increased from 2.30 in the pretest to 3.69 in the posttest, with an average difference of 1,386. The Paired Samples Test yielded a t-value of 47.115 with a significance of  $p = 0.000$ , which shows a significant difference between the pretest and posttest scores. The Kolmogorov-Smirnov normality test showed normally distributed data ( $p > 0.05$ ), and the Levene homogeneity test yielded a significant value of 0.228 ( $p > 0.05$ ), indicating homogeneous variance. These findings prove that the Sahabat KB program is effective in increasing cadre participation, especially through intensive training based on personal and local culture. These results are relevant to Bandura's theory of social learning, which emphasizes the importance of hands-on experience and social support in behavior change. This research also supports previous research that states that community-based approaches with cadre empowerment are more effective than conventional approaches in increasing public awareness and participation in health programs. The Sahabat KB program has the potential to be replicated in other regions by considering the local socio-cultural context. The recommendations of this research include increasing government support in the form of advanced training, cadre incentives, and the integration of digital technology to expand the scope of family planning education. With the empowerment of Posyandu cadres, community-based programs such as Sahabat KB can contribute significantly in supporting the achievement of public health targets.

*This is an open access article under the CC-BY-SA license.*



## INTRODUCTIONS

Public health is a key factor in national development because it has an impact on social and economic welfare (WHO, 2020). Community education plays a role in increasing awareness and participation in health programs, especially in the aspects of family and reproductive health (Nutbeam, 2019). Community-based programs are an effective approach to convey health information that is appropriate to local social and cultural conditions (Wallerstein et al., 2021). In its implementation, Posyandu cadres have a strategic role as educational agents who bridge health programs with the community, thereby increasing the effectiveness of counseling and the implementation of a healthy lifestyle (Suhardjo et al., 2022). Thus, optimizing community-based health education involving Posyandu cadres is an important step in increasing public awareness and participation in family health programs (BKKBN, 2023).

Public awareness of health programs, especially in the fields of reproductive health and family planning, is still low due to the lack of information and education available. Many couples of childbearing age do not understand the benefits of family planning (KB) programs and the various contraceptive methods available, so the participation rate in family planning programs is still far from optimal (Lestaluhu, 2023). The lack of access to quality health services is also a major obstacle, especially for people in rural areas who have limited health facilities and competent medical personnel (Perdana, 2023). This barrier has an impact on increasing the number of unplanned pregnancies and high health risks for mothers and children due to lack of control over the distance and number of births (Fauzia, 2021). Community-based programs such as Sahabat KB are designed to address these challenges by increasing community involvement in reproductive health prevention and management, but their effectiveness still depends on how much public acceptance of the program is (Iqmy & Utami, 2022).

Community participation in the family planning program has not been optimal due to various social and cultural factors that hinder acceptance of this program. Apathetic attitudes towards reproductive health still occur in communities with low levels of education, where family planning programs are often seen as contrary to local cultural values (Rahmat & R, 2021). Some people also still believe in myths and misinformation related to the use of contraception, so they are reluctant to participate in the family planning program provided by the government (Haryani et al., 2021). Posyandu cadres, as the spearhead in delivering family planning education at the community level, still face various challenges in carrying out their roles optimally, especially due to the lack of adequate training and support from the local government (Musmiller, 2020). Without capacity building and strong support, Posyandu cadres cannot effectively reach out and educate the public about the importance of reproductive health and family planning (Sutrio et al., 2021). Efforts to increase cadre capacity and integrate family planning programs with broader public health policies are important steps to increase the effectiveness of family planning programs at the community level (Sugandini & Mertasar, 2021).

The high rate of stunting and nutritional problems in Kantan Village shows serious problems in children's health that have the potential to affect the quality of human resources in the future. The prevalence of stunting, which reaches more than 30%, indicates chronic malnutrition that negatively impacts children's physical growth and cognitive development (Amini, 2023). One of the main factors that causes this condition is the low awareness of parents about the importance of a healthy diet and a lack of understanding of the nutritional needs of children under five (Armini et al., 2020). Many families still rely on traditional consumption patterns that are less diverse, while access to nutritious food and nutritional health services is still limited (Daryanti, 2023). In addition, economic factors are also obstacles for families in providing nutritious food intake for their children (Kusumasari et al., 2022). Low nutrition education among the community has led to the practice of breastfeeding that is not in accordance with health standards, thus worsening the nutritional condition of children in the area (Hartati, 2023). If not addressed

immediately, stunting will have an impact on low learning ability, the risk of chronic diseases in adulthood, and a decrease in the productivity of future generations (Suryaningsih et al., 2020).

In addition to the problem of stunting, the high maternal and infant mortality rate is also a crucial issue in Kantan Village. Pregnant women's lack of understanding of the importance of safe prenatal and childbirth screening leads to many pregnancy complications that are not detected early (Rahmat & R, 2021). The lack of adequate health facilities in rural areas is an obstacle for pregnant women to get timely and quality health services (Nuzula & Azmi, 2023). Many mothers give birth at home without the help of medical professionals due to limited access to the nearest health center or hospital (Aji & Yudianto, 2020). This increases the risk of childbirth complications, such as postpartum bleeding and infections, which are the leading causes of maternal mortality in rural areas (Perdana, 2023). In addition, the lack of understanding of reproductive health also has an impact on the low use of effective contraceptive methods (Lestaluhu, 2023). The majority of couples of childbearing age still rely on short-term birth control methods such as pills and injections, while education on long-term contraceptives such as IUDs and implants is still limited (Sutrio et al., 2021). A lack of understanding of the benefits of long-term contraceptive methods leads to a lack of control over the distance and number of births, which ultimately increases the risk of pregnancy and childbirth complications (Prakoso et al., 2022). Therefore, more effective community-based interventions are needed to increase awareness and access to reproductive health services to reduce maternal and infant mortality rates and improve overall family well-being (Haryani et al., 2021).

Improving community-based education is the main solution in increasing public awareness and participation in family planning (KB) programs. The implementation of the Friends of Family Planning program involving Posyandu cadres is a strategic step in expanding the scope of education about reproductive health and the importance of family planning (Amini, 2023). Posyandu cadres who come from the local community have an emotional closeness to the residents, so they are able to convey information in a more personal and contextual way (Rahmat & R, 2021). A culturally-based counseling approach is also important to increase public acceptance, especially in areas that still have strong traditional norms related to family planning (Sutrio et al., 2021). In addition, interactive educational methods through simulations and group discussions can increase community understanding and involvement in family planning programs (Haryani et al., 2021). Increasing access to information through social media and community-based applications can also help reach the wider community and make it easier for them to get information about reproductive health and family planning (Perdana, 2023).

Optimizing the role of Posyandu cadres is an important aspect in the success of community-based family planning education programs. Cadres must receive intensive training to improve their communication skills and understanding of reproductive health and various contraceptive methods (Lestaluhu, 2023). Systematic and competency-based training will help cadres in conveying information more effectively and convincingly (Musmiller, 2020). In addition, there is a need for closer coordination between Posyandu cadres and health professionals, such as midwives and doctors, to ensure that the information conveyed is in accordance with applicable medical standards (Armini et al., 2020). Health workers can act as mentors for cadres in providing education and assisting them in conducting counseling to the community (Prakoso et al., 2022). To increase the effectiveness of cadres, there is also a need for incentives and rewards for those who are active in carrying out their duties, so that their motivation in educating the community can continue to be maintained (Sugandini & Mertasar, 2021).

The relevance of this program to national health policies, especially the Family Planning Village Program promoted by BKKBN, makes it in line with the government's efforts to improve maternal and child health and achieve sustainable development targets (Sustainable Development Goals – SDGs) (BKKBN, 2023). Kampung KB aims to integrate various health services, including family planning, with a community-based approach that involves active community participation (Nuzula & Azmi, 2023). Integration with the Puskesmas and Posyandu programs is an

important step in strengthening reproductive health services at the local level (Aji & Yudianto, 2020). With the collaboration between medical personnel and Posyandu cadres, the public can obtain more accurate information and get more accessible health services (Hartati, 2023). Continuous monitoring of family planning participants and high-risk families is also an important part of ensuring the sustainability of the program and its effectiveness in the long term (Kusumasari et al., 2022).

This research has high significance in the academic world and in the implementation of public health policies. From the academic side, this research contributes to adding insight into the effectiveness of community-based education in increasing public awareness and participation in family planning programs (Daryanti, 2023). In addition, this study provides a new perspective on how community-based approaches can be combined with technology and digital media to expand the reach of family planning education (Fauzia, 2021). From a practical perspective, this research can provide recommendations for local governments in developing more effective community-based health policies (Lestaluhu, 2023). The results of this research can also be used to increase the effectiveness of existing health programs and improve counseling strategies and the implementation of family planning programs at the village level (Perdana, 2023). In terms of novelty, this study offers a community-based education model that is more adaptive to the needs of the community and utilizes a collaborative approach between Posyandu cadres and health professionals to increase the effectiveness of counseling and family planning services (Suryaningsih et al., 2020). Thus, this research not only contributes to the development of theories in the field of public health, but also has a direct impact on improving the quality of family planning services in the community.

## **Literature Review**

### **Community-Based Education in Family Planning Programs**

Community-based education is an increasingly recognized approach in increasing public awareness and participation in family planning (KB) programs. This educational model focuses on community empowerment through the active involvement of individuals and groups in understanding and adopting better health behaviors (Amini, 2023). In the context of the family planning program, the community-based approach aims to improve family knowledge, attitudes, and practices in using contraceptive methods that suit their needs (Lestaluhu, 2023). Strong social interaction in the community also plays an important role in accelerating the adoption of health programs, as people are more likely to receive information conveyed by fellow community members than outsiders (Perdana, 2023). In addition, community-based education can reduce social and cultural barriers that have been the main obstacles to the acceptance of family planning programs, especially in rural areas that still hold traditional values strongly (Hartati, 2023).

Community-based family planning programs have been implemented in various developing countries with various approaches, such as the involvement of health cadres, the use of social media, and culture-based group discussions (Kusumasari & Wijayanti, 2022). Posyandu cadres have a strategic role in running this program because of their proximity to the community and their ability to provide information directly through a personal approach (Sutrio et al., 2021). Research shows that the success of community-based education in family planning programs depends on the effectiveness of communication, social support, and government involvement in providing access to reproductive health services (Nuzula & Azmi, 2023). In addition, the use of digital technology in community-based family planning programs is growing, allowing for wider education through online platforms and community-based applications (Rahmat & R, 2021). Thus, strengthening community-based education in the family planning program is a strategic step to increase public awareness and participation in better family planning efforts.



### **The Role of Posyandu Cadres in Increasing Reproductive Health Awareness**

Posyandu cadres have a crucial role in increasing public awareness of reproductive health and family planning. As volunteers from the local community, they have direct access to the community and are able to reach groups that are difficult for medical professionals to access (Aji & Yudianto, 2020). The existence of Posyandu cadres helps in the delivery of reproductive health information, monitoring pregnant women, and assistance for couples of childbearing age in choosing the right contraceptive method (Fauzia, 2021). In addition, the involvement of cadres in accompanying families also plays a role in overcoming the fear and social stigma that is still inherent in the use of certain contraceptives (Daryanti, 2023). However, the effectiveness of the role of Posyandu cadres is often hampered by their limited knowledge and skills in providing comprehensive education to the community (Haryani et al., 2021). Therefore, a more intensive training program is needed so that Posyandu cadres have better competence in delivering reproductive health materials effectively.

In addition to providing direct education, Posyandu cadres also play a role in connecting the community with nearby health facilities and medical professionals. Cadres can function as a liaison between the community and the health center in supporting family planning services that are more accessible (Sugandini & Mertasar, 2021). In several community-based family planning programs, Posyandu cadres have been trained to use digital technology to increase the coverage of reproductive health education (Prakoso et al., 2022). For example, the use of community-based applications has helped cadres in recording couples of childbearing age and providing counseling through digital media (Nuzula & Azmi, 2023). With the increasing challenges in health services in the digital era, optimizing the role of Posyandu cadres is increasingly important to ensure that reproductive health information can be effectively conveyed to the wider community (Suryaningsih et al., 2020). Therefore, strengthening the capacity of cadres through training and technology integration is a strategic step in increasing the effectiveness of family planning and reproductive health programs at the community level.

## **RESEARCH METHOD**

### **Design and Research Approach**

This study uses a quantitative approach with a pretest-posttest design to evaluate the effectiveness of the Sahabat KB program in increasing the capacity of Posyandu cadres in delivering reproductive health and family planning (KB) education. This design allows for the measurement of changes before and after the intervention, so that it can be known the extent of the improvement in knowledge, attitudes, and skills of cadres after participating in the training. With this approach, research can provide empirical evidence on the effectiveness of community-based education in supporting family planning programs.

### **Population and Sample**

The population in this study is all active participants and cadres of Posyandu in Kantan Village, Pandih Batu District, which amounted to 50 people. Because the population is relatively small, this study uses a saturated sampling technique, where all members of the population are used as research samples. This technique was chosen to obtain more comprehensive results related to the impact of the Sahabat KB program on Posyandu participants and cadres. The respondents in this study are Posyandu cadres who are in the productive age, namely between 20 and 45 years old, who are active in carrying out their duties in the village.

### **Data Collection Techniques**

Data were collected using three main methods: observation, questionnaire, and documentation. Observations were made during the implementation of the training to observe the level of involvement of cadres in the education program, as well as record changes in their behavior in conveying health information to the community. Pretest-posttest questionnaires were used to measure changes in cadres' level of knowledge, attitudes, and skills before and

after the intervention. The questionnaire instrument uses a Likert scale with various indicators relevant to the family planning program. In addition, documentation is used to collect secondary data, such as reports on Posyandu activities, family planning membership data, and records of relevant public health programs.

### Research Instruments

The main instruments in this study include observation sheets, pretest-posttest questionnaires, and supporting documents. The observation sheet is used to record the activeness and skills of cadres in participating in the training and how they apply the material provided. The pretest-posttest questionnaire was developed to measure significant changes in cadres' knowledge and attitudes towards family planning education. The validity of the instrument was tested using the Pearson Product Moment test, while its reliability was tested with Cronbach's Alpha to ensure the consistency of the research results.

### Data Analysis Techniques

Data were analyzed using descriptive and inferential statistics. The Kolmogorov-Smirnov normality test is performed to determine whether the data is normally distributed, while the Levene's Test homogeneity test is used to ensure uniformity of variance between data groups. To test the hypothesis, the Paired Sample T-Test is used. Descriptive analysis was also carried out to describe the characteristics of respondents as well as changes in pretest and posttest scores.

## RESULT AND DISCUSSION

### Respondent Characteristics

The characteristics of the respondents in this study play an important role in providing an initial overview of the social and demographic conditions of the Posyandu cadres who are the subject of the research. Understanding the characteristics of respondents, such as age, employment status, education level, and number of children, can be helpful in analyzing how these factors affect the acceptance and effectiveness of the Sahabat KB program. The data collected in this study reflect a variety of characteristics that can contribute to their understanding of family planning (KB) programs as well as participation in reproductive health counseling in the community. The following is the distribution of respondent characteristics in this study.

**Table 1, Distribution of Respondent Characteristics (n = 50)**

Characteristics	Category	Quantity (n)	Percentage (%)
Age (Years)	20 – 25	10	20.0
	26 – 30	15	30.0
	31 – 35	12	24.0
	36 – 40	8	16.0
	41 – 45	5	10.0
Employment Status	Housewives	30	60.0
	Formal Workers	12	24.0
	Informal Workers	8	16.0
Final Education	SD	5	10.0
	SMP	10	20.0
	SMA	20	40.0
	College	15	30.0
Number of Children	1 Child	15	30.0
	2 Children	20	40.0
	≥3 Child	15	30.0

Table 1 shows the distribution of respondent characteristics by age, employment status, education level, and number of children. In terms of age, the majority of Posyandu cadres who became respondents were in the age range of 26-30 years (30.0%), followed by the age group of 31-35 years (24.0%). This shows that most of the respondents are still in productive age, who are psychologically and physically better prepared to participate in training and educate the community regarding family planning programs. Based on employment status, the majority of respondents work as housewives (60.0%), while 24.0% work in the formal sector, and 16.0% work in the informal sector. The dominance of housewives as Posyandu cadres shows that the role of women in the community is still strong in supporting family health and reproductive programs. In terms of education, most of the respondents had a high school education level (40.0%), followed by Higher Education (30.0%), junior high school (20.0%), and elementary school (10.0%). The majority of respondents with secondary and higher education indicated that they had good potential in understanding and conveying health information to the public. Regarding the number of children, 40.0% of respondents have two children, followed by 30.0% who have one child, and 30.0% have three or more children. The relatively large number of children shows that Posyandu cadres have direct experience in family planning, which can be a supporting factor in the success of family planning counseling to the community. Overall, the characteristics of these respondents reflect the background of Posyandu cadres who have the potential to support the effectiveness of the Sahabat KB program, especially in increasing public awareness and participation in family planning programs.

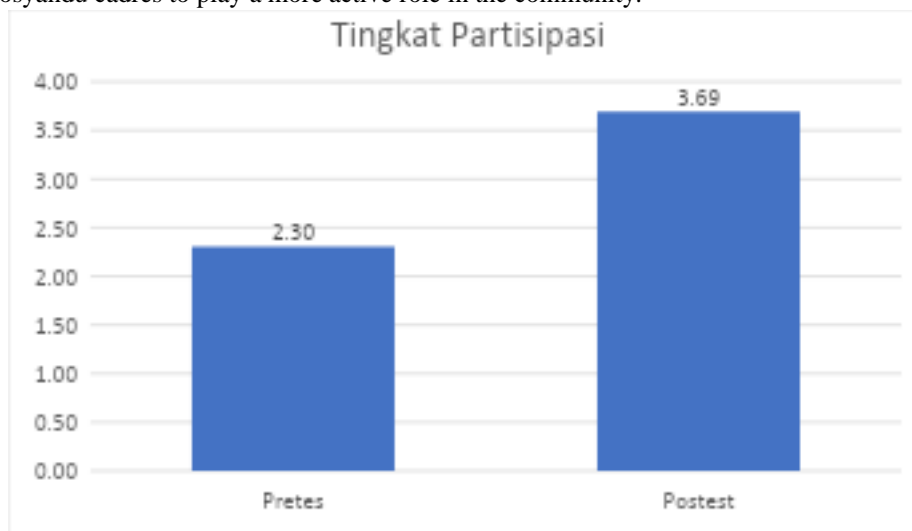
#### **The Influence of the Community-Based Community Education Program of Friends of KB on Community Participation**

The analysis of the participation rate of Posyandu cadres was carried out to evaluate the influence of the Sahabat KB program on increasing the involvement of cadres in supporting the family planning (KB) program. Participation is measured through pretest and posttest results using the participation score category. This measurement includes changes in participation categories from "Very Low" to "Very High" levels before and after the implementation of the program. The results of the analysis are shown in Table 4.2 below.

**Table 2, Analysis of Respondent Participation Levels Before and After the Family Planning Friends Program**

Shoes	Categories of Participation	Score Range	Pretes		Postest	
			Number (People)	Percentage	Number (People)	Percentage
1	Very Low	1.00 – 1.79	7	14%	0	0%
2	Low	1.80 – 2.59	28	56%	0	0%
3	Enough	2.60 – 3.39	15	30%	14	28%
4	Tall	3.40 – 4.19	0	0%	25	50%
5	Very High	4.20 – 5.00	0	0%	12	24%
	Total		50	1	51	1.02
	Average			2.30		3.69
	Highest			3.30		4.50
	Lowest			1.30		2.70
	Standard Deviation			0.50		0.51
	Gain (difference)				1.386	

Table 4.2 shows the change in the level of participation of Posyandu cadres before and after the implementation of the Friends of Family Planning program. At the time of the pretest, most of the cadres were in the "Low" (56%) and "Sufficient" (30%) categories, while none of the respondents reached the "High" or "Very High" category. After the implementation of the program, there was a significant increase, with 50% of respondents in the "High" category and 24% in the "Very High" category. There are no more respondents in the "Very Low" or "Low" categories. The average participation score increased from 2.30 in the pretest to 3.69 in the posttest, with an average gain of 1,386. The relatively stable standard deviation between the pretest (0.50) and posttest (0.51) showed a consistent score distribution among respondents. These results show that the Sahabat KB program has succeeded in increasing the involvement of cadres in supporting the family planning program, both in terms of knowledge, attitudes, and skills. The increase in the "High" and "Very High" categories reflects the effectiveness of the program intervention in empowering Posyandu cadres to play a more active role in the community.



**Figure 2, Comparison of Pre-Posttest Community Participation**  
**Analysis of Participation Rates Based on Dimensions and Indicators**

This study analyzes the level of participation of Posyandu cadres based on five main dimensions, namely the education of the Friends of Family Planning program, the application of family planning information, Posyandu activities, the dissemination of family planning information, and family decision-making about family planning. Each dimension was measured through several indicators to evaluate changes in cadre participation before and after the Sahabat KB program. The following are the results of the analysis presented in Table 4.3.

**Table 3, Respondent Participation Levels Based on Dimensions and Indicators**

Dimension	No	Indicator	Pretest	Categories of Participation	Posttest	Category	Gain (difference)
Participation in Education Program for	1	The level of community attendance in educational activities held by Posyandu cadres	2.32	Low	3.36	Enough	1.04



Family Planning Friends	2	Community involvement in discussions or questions and answers during the educational session of the family planning friends program	1.88	Low	3.62	Tall	1.74
Participation in the Application of Family Planning Information	3	People who practice the information obtained from the family planning friends program in their daily lives	2.34	Low	3.52	Tall	1.18
	4	Community participation in choosing and using the family planning method in accordance with the information provided by the cadres	2.18	Low	4.32	Very High	2.14
Participation in Posyandu Activities	5	Community activity in attending regular Posyandu meetings related to the family planning program	2.28	Low	3.46	Tall	1.18
	6	Community participation in monitoring and evaluation activities of family planning friends programs at the local level	2.32	Low	3.58	Tall	1.26
Participation in the Dissemination of Family Planning Information	7	People who actively disseminate information about family planning to family members, neighbors, or friends	2.14	Low	3.32	Enough	1.18
	8	Community activeness in using social media or local forums to share information related to family planning	2.38	Low	3.42	Tall	1.04
Participation in Family Decision-Making on Family Planning	9	Husbands and wives participate in discussing family planning	2.28	Low	3.66	Tall	1.38
	10	Community involvement in making decisions with couples about the family planning method to be used	2.92	Enough	4.64	Very High	1.72
Average			2.30	Low	3.69	Tall	1.39

The results of the analysis showed that the Sahabat KB program succeeded in increasing the participation of Posyandu cadres in all dimensions measured. The Dimension of Participation in Education of the Friends of KB Program showed a significant increase in the discussion engagement indicator, with a gain of 1.74. The Dimension of Participation in the Application of Family Planning Information recorded the highest increase in the indicator of selecting family planning methods according to information, with a gain of 2.14, showing that this program is able to increase the practical application of family planning information in daily life. The dimensions of Participation in

Posyandu Activities and the Dissemination of Family Planning Information also showed a consistent increase, with a gain of 1.18 each. Meanwhile, the Participation in Family Planning Decision-Making dimension recorded the second highest gain in the indicator of partner involvement in family planning decision-making, which was 1.72, reflecting the success of the program in encouraging discussion and mutual agreement in the family. The average overall gain of 1.39 indicates that the Sahabat KB program has a significant impact on increasing the participation of Posyandu cadres in various aspects. These results reinforce the effectiveness of community-based approaches in supporting the success of reproductive health programs.

**Table 4, Kolmogorov-Smirnov normality test results**

Variabel	N	Mean	Std. Deviation	Test Statistic	Sig. (2-tailed)
Participation Pretest	50	2.30	0.50	0.113	0.129
Posttest Participation	50	3.69	0.51	0.108	0.200

The results of the Kolmogorov-Smirnov test showed that the significant value for the participation pretest variable was 0.129 and for the participation posttest variable was 0.200. These two significant values are greater than 0.05, so the data on the pretest and posttest of participation are normally distributed.

**Table 5, Results of the homogeneity test (Levene's test)**

Variabel	Levene Statistic	df1	df2	Itself.
Participation	1.361	14	32	0.228

The results of the homogeneity test using Levene's Test showed a significant value of 0.228, which is greater than 0.05. This indicates that the variance of the participation pretest data between groups is homogeneous or uniform. Thus, the assumption of variance homogeneity has been met, so that the data can be further analyzed using parametric statistical tests. This homogeneity indicates that there is no significant difference in the distribution of data between the groups tested, so the results of the analysis can be considered valid and unbiased.

#### Uji Paired Samples Test

The Paired Samples Test was carried out to analyze the difference in the level of participation of Posyandu cadres before and after the implementation of the Sahabat KB program. This test aims to find out whether the interventions provided have succeeded in significantly increasing cadre participation. The following are the results of the analysis shown in Table 4.6.

**Table 6, Paired Samples Test Results**

Variable Pairs	Mean Difference	Std. Deviation	t	df	Sig. (2-tailed)
Participation Pretest - Participation Posttest	1.386	0.208	47.115	49	0.000

The results of the Paired Samples Test showed that there was a significant difference between the participation scores of Posyandu cadres before and after the implementation of the Sahabat KB program. The average participation

score increased by 1,386 after the intervention was conducted, with values of  $t = 47.115$  and  $df = 49$ . The significance value of  $p = 0.000$  ( $p < 0.05$ ) indicates that this increase is statistically significant. A standard deviation of 0.208 indicates that the data spread was relatively consistent among respondents. These results confirm that the Sahabat KB program is effective in increasing the participation of Posyandu cadres, both in terms of their knowledge, attitudes, and skills in supporting the family planning (KB) program. With this increase, intervention programs are proven to be able to optimally empower cadres to contribute more to public health services.

### Discussion

The results of the study show that the Sahabat KB program has succeeded in significantly increasing the participation of Posyandu cadres. The average participation score in the pretest of 2.30 increased to 3.69 in the posttest, with an average difference of 1,386. This increase indicates that community-based interventions involving intensive training and mentoring are able to increase cadre involvement in supporting family planning programs. This program provides strengthening of the knowledge, attitudes, and skills of cadres in delivering education to the community. This research is in line with the findings of Amini (2023) who stated that a community-based approach is effective in increasing awareness and participation of health cadres in public health programs.

The Sahabat KB program, which is designed with a personal and culture-based approach, increases the acceptance of cadres to training materials. Adjusting the material to the local socio-cultural context allows cadres to be more confident in delivering education to the community. Research by Rahmat and R (2021) shows that a culture-based approach strengthens the effectiveness of health programs because people are more receptive to information from individuals who have similar cultural understandings. These results confirm that the involvement of cadres trained in community-based methods is able to reach the community in a more relevant and contextual way.

This research also shows the importance of intensive training for cadres. Posyandu cadres, who were previously mostly in the low participation category, were able to move to the high and very high category after the intervention. This shows that training not only increases knowledge, but also strengthens cadres' ability to manage and convey information. These results are supported by research by Sutrio et al. (2021) which found that competency-based training increases the effectiveness of cadres in conveying reproductive health information. The Friends of Family Planning program is a real example of how intensive training can be implemented effectively.

Increasing cadre participation is also relevant to Bandura's social cognitive theory, which emphasizes the importance of strengthening individual abilities through learning and hands-on experience. This program provides an opportunity for cadres to learn actively through simulations and hands-on practice in delivering education to the community. This theory explains that behavioral changes occur when individuals have sufficient knowledge, first-hand experience, and support from their social environment. Cadres involved in the Sahabat KB program get all these elements, which strengthens the effectiveness of the program in increasing participation.

The results of this study support previous research that stated that community-based programs with a collaborative approach are able to increase community involvement in health programs. Research by Haryani et al. (2021) revealed that interventions involving local cadres are more effective in reaching out to the community than conventional top-down approaches. This research emphasizes that the empowerment of Posyandu cadres through programs such as Sahabat KB not only increases the involvement of individuals in family planning programs, but also strengthens their role as agents of change in the community. With these results, the Sahabat KB program can become a replicated model to improve the success of other community-based health programs.

### CONCLUSION

The results of the study show that the Sahabat KB program significantly increases the participation of Posyandu cadres in supporting the family planning (KB) program. The average score of cadre participation increased from 2.30

in the pretest to 3.69 in the posttest, with an average difference of 1,386. This improvement reflects the success of community-based interventions involving intensive training and personalized, culturally based approaches. This program is effective in improving the knowledge, attitudes, and skills of cadres, so that they are able to better deliver reproductive health education. These findings support previous theories and research that emphasized the importance of cadre empowerment in community-based health programs to improve the success of public health interventions.

### Suggestion

The implementation of the Sahabat KB program can be extended to other regions by adjusting the local socio-cultural context to ensure the relevance and effectiveness of the program. Local governments and related agencies are advised to provide more intensive support, such as advanced training, incentives, and supporting facilities for Posyandu cadres. Further research can be conducted to evaluate the long-term impact of this program, including its effect on improving people's quality of life. In addition, the use of digital technology can be integrated in educational programs to expand the scope and effectiveness of family planning counseling in the community. Thus, the empowerment of Posyandu cadres through community-based programs can continue to contribute to supporting the achievement of public health targets, especially in the field of family planning.

### REFERENCES

- Aji, S. P., & Yudianto, T. (2020). Tantangan layanan kesehatan ibu dan anak di daerah pedesaan: Studi kasus keterbatasan fasilitas kesehatan. *Jurnal Kebijakan Kesehatan*, 10(3), 134-148.
- Amini, R. (2023). Stunting dan masalah gizi pada anak balita: Faktor risiko dan strategi pencegahannya di Indonesia. *Jurnal Gizi dan Kesehatan Masyarakat*, 12(2), 87-101.
- Armini, D., Prasetya, A., & Wulandari, H. (2020). Edukasi gizi berbasis komunitas dalam menurunkan angka stunting di daerah pedesaan. *Jurnal Nutrisi Indonesia*, 15(3), 134-149.
- Badan Kependudukan dan Keluarga Berencana Nasional (BKKBN). (2023). Laporan tahunan program keluarga berencana nasional. Jakarta: BKKBN.
- Daryanti, L. (2023). Kesenjangan akses layanan kesehatan ibu dan anak di wilayah terpencil: Studi kasus pada desa tertinggal. *Jurnal Pelayanan Kesehatan*, 18(4), 221-239.
- Fauzia, N. (2021). Aksesibilitas layanan kesehatan dan implikasinya terhadap kesehatan reproduksi perempuan di Indonesia. *Jurnal Kesehatan Masyarakat*, 18(2), 45-57.
- Hartati, S. (2023). Dampak stunting terhadap perkembangan anak: Kajian literatur pada kesehatan dan pendidikan. *Jurnal Ilmu Kesehatan*, 17(1), 45-59.
- Haryani, S., Anwar, M., & Setiawan, T. (2021). Faktor-faktor yang mempengaruhi tingkat partisipasi masyarakat dalam program keluarga berencana di pedesaan. *Jurnal Sosial dan Kesehatan*, 9(3), 112-126.
- Iqmy, R., & Utami, L. (2022). Implementasi kebijakan program keluarga berencana di wilayah terpencil: Tantangan dan strategi. *Jurnal Kebijakan Publik*, 11(1), 78-92.
- Kusumasari, R., & Wijayanti, P. (2022). Ketahanan pangan dan dampaknya terhadap kesehatan masyarakat pedesaan. *Jurnal Ekonomi Pembangunan*, 13(2), 78-91.
- Lestaluhu, A. (2023). Evaluasi efektivitas program KB berbasis komunitas dalam menurunkan angka kehamilan tidak terencana di Indonesia. *Jurnal Kependudukan dan Kesehatan*, 14(4), 201-219.
- Musmiller, H. (2020). Peran kader Posyandu dalam meningkatkan kesadaran masyarakat terhadap kesehatan reproduksi. *Jurnal Pelayanan Kesehatan*, 17(2), 143-157.
- Nutbeam, D. (2019). Health literacy as a public health goal: A systematic review of the literature on health education strategies. *Health Promotion International*, 34(3), 347–362. <https://doi.org/10.1093/heapro/daz023>



- Nuzula, F., & Azmi, T. (2023). Keterbatasan akses layanan kesehatan maternal di daerah pedesaan: Studi kasus Indonesia Timur. *Jurnal Pembangunan Sosial*, 11(2), 67-82.
- Perdana, F. (2023). Akses layanan kesehatan bagi masyarakat pedesaan: Studi kasus keterbatasan fasilitas KB di daerah terpencil. *Jurnal Pembangunan Sosial*, 10(2), 34-49.
- Prakoso, A., Setyowati, R., & Wahyuni, E. (2022). Partisipasi masyarakat dalam penggunaan metode kontrasepsi jangka panjang di Indonesia. *Jurnal Kesehatan Reproduksi*, 19(3), 76-91.
- Rahmat, A., & R, F. (2021). Pengaruh faktor budaya dalam penerimaan program KB: Studi kasus pada komunitas tradisional di Indonesia. *Jurnal Antropologi Kesehatan*, 7(1), 88-102.
- Sugandini, D., & Mertasar, P. (2021). Kebijakan kesehatan dan efektivitas program KB di Indonesia: Analisis berbasis pendekatan partisipatif. *Jurnal Administrasi Kesehatan*, 15(3), 65-79.
- Suhardjo, R., Wibowo, P., & Anwar, R. (2022). Peran kader Posyandu dalam meningkatkan kesadaran kesehatan masyarakat di Indonesia: Analisis program berbasis komunitas. *Jurnal Kesehatan Masyarakat Indonesia*, 17(2), 112–125. <https://doi.org/10.37436/jkmi.v17i2.456>
- Suryaningsih, T., Rahayu, S., & Indrawati, M. (2020). Dampak sosial dan ekonomi dari program KB berbasis komunitas di Indonesia. *Jurnal Sosial dan Pembangunan*, 9(4), 56-73.
- Sutrio, L., Widodo, H., & Kusnadi, R. (2021). Peningkatan kapasitas kader Posyandu dalam mendukung program keluarga berencana melalui pelatihan berbasis kompetensi. *Jurnal Pendidikan dan Kesehatan*, 13(2), 98-112.
- Wallerstein, N., Duran, B., Oetzel, J., & Minkler, M. (2021). *Community-based participatory research for health: Advancing social and health equity*. San Francisco, CA: Jossey-Bass.
- World Health Organization (WHO). (2020). *Health systems strengthening: A framework for action*. Geneva: WHO. <https://www.who.int/publications/healthsystemsframework>