



IMPACT OF EMPOWERING ADOLESCENT POSYANDU CADRE ON HIV/AIDS PREVENTIVE BEHAVIOR IN KANDANG HEALTH CENTER, BENKULU CITY

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Abstract

Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS) remain global health challenges, especially among adolescents. According to data from the Bengkulu City Health Office in 2023, the Kandang Community Health Center recorded the highest number of HIV/AIDS cases in the city. Adolescents are a vulnerable group who often receive insufficient education related to HIV/AIDS prevention. One of the strategic effort to prevent HIV/AIDS among adolescents health cadres (Posyandu Remaja). This study aims to determine the effect of empowering adolescent posyandu cadres on HIV/AIDS preventive behavior in the working area of the Kandang Community Health Center in Bengkulu City. This study used a quantitative method with a pre-experimental design and a one-group pretest-posttest approach. The population included adolescents involved in the adolescent posyandu groups in the Kandang Community Health Center area, with a total sample of 37 adolescents. The results showed an increase in the average scores of knowledge, attitudes, and actions of adolescents regarding HIV/AIDS prevention after the empowerment of posyandu cadres. Statistical tests indicated a significant difference between the pretest and posttest scores. It can be concluded that empowering adolescents health cadres in HIV/AIDS prevention behavior can be an effective method for delivering health information to adolescents.

Keywords: HIV/AIDS, Cadre Empowerment, Adolescent Posyandu, Preventive Behavior

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INTRODUCTION

Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS) remain a global public health concern. According to the world Health Organization (WHO), approximately 39 million people were living with HIV worldwide at the end of 2022, with nearly 1,5 million new infections recorded annually. In Indonesia, the ministry of Health (2023) reported a continuous increase in HIV cases, especially among adolescents aged 10-19 years. This age group represents a vulnerable population due to limited awereness, lack of access to comprehensive sexual health education, and exposure to risky behaviors.

Adolescnts play a crucial role in the prevention of HIV/AIDS, especilly when empowered as health promotion agents. Empowering adolescents health cadres, particularly those engaged in Posyandu (integrated health posts), is a strategic effort to enhance peer education and preventive practices. Posyandu

cadres can act as facilitators, educators, and advocates within their peer circles, making health messages more relatable and impactful. According to UNICEF (2022). Community-based youth engagement programs have demonstrated significant improvements in knowledge, attitude, and preventive behaviors among adolescents in several low-and middle-income countries.

However, adolescents involvement in HIV/AIDS programs in Indonesia remains limited. Most HIV/AIDS prevention campaigns are directed at adults and lack culturally appropriate approaches for younger populations. The implementation of adolescents posyandu remains underutilized, particularly in rural areas. There is a pressing need to design and evaluate youth-centered health interventions that not only educate but also empower adolescents to become active participants in health promotion.

This study aims to analyze the impact of empowerment programs targeting adolescents Posyandu cadres in preventing HIV/AIDS. The program involved structured education, training, and facilitation effort to enhance the knowledge, attitudes, and practices (KAP) of adolescents cadres. Through a quasi-experimental design, this study evaluates the effectiveness of the intervention by comparing pre- and post-test data, ultimately contributing to the development of sustainable HIV/AIDS prevention strategies tailored to the adolescent population.

MATERIALS AND METHODS

This study used a quasi-experimental method with a one-group pre-test and post-test design. The population of adolescents Posyandu cadres at a community health center in Bengkulu City. A total of 37 respondents were recruited using total sampling. Inclusion criteria were : adolescents aged 12-15 years, active Posyandu members, and with parental consent.

The intervention included structured training, peer discussions, and educational materials focused on HIV/AIDS transmission, prevention, and peer education. The module was delivered over two sessions. Instrument used in this study were validated structured questionnaires: Knowledge 15 multiple-choice questions attitudes 15 statements with a likert scale practices 10 items on preventive behavior. Data were collected before and two weeks after the intervention. Wilcoxon signed rank test was used to analyze the differences using SPSS with significance level at 0,05.

RESULTS AND DISCUSSION

Results

The following are the results of the research on the empowerment of adolescents Posyandu cadres in preventing HIV/AIDS.

Characteristics Of Adolescents Posyandu Cadres

Table 1. Characteristic of Adolescents Posyandu Cadres by Age, Gender, and Education level

No	Characteristics Variables	(F)	(%)
1.	Age		
	13 Years	2	33,3 %
	14 Years	3	50,0 %
	15 Years	1	16,7 %
2.	Gender		
	Male	1	16,7 %
	Famale	5	83,3 %
3.	Education level		
	Junior High School	5	83,3 %
	Senior High School	1	16,7 %

Table 1 shows that half (50,0%) of the adolesents posyandu cadres are 14 years old. Almost all of them (83,3%) are famale, and the maority (83,3%) have an education level equitvalent to junior high school.

Characteristics of Respondents

Table 2. Characteristic of Respondents Based on Age, Gender, and Education level

No	Characteristics Variables	(F)	(%)
1.	Age		
	11 Years	5	13,5 %
	12 Years	17	45,9 %
	13 Years	9	24,3 %
	14 Years	5	13,5 %
	15 Years	1	2,7 %
2.	Gender		
	Male	5	13,5 %
	Famale	32	86,5 %
3.	Education level		
	Elementary School	5	13,5 %
	Junior High School	32	86,5 %

Table 2 shows that nearly half (45,9%) of the adolescents are 12 years old. It is also found that almost all (86,5%) are famale, and the majority (86,5%) of adolescents have a junior high school level of education.

Adolecents Knowledge of HIV/AIDS Prevention Behavior in the Working Area of Kandang Health Center, Bengkulu City

Table 3. Mean Knowledge Score of Adolescents Before and After The Empowerment of Adolescent Posyandu Cadres on HIV/AIDS

Variable	N	Mean \pm SD	Min-Max	95% CI
Before	37	3,86 \pm 1,032	30 – 70	3,51 - 4,21
After	37	8,81 \pm 0,660	70 – 100	8,59 – 9,03

Table 3, it shows an increase in the average knowledge score, which was 3,86 with a standard deviation of 1,032 before the empowerment of adolescents posyandu cadres on HIV/AIDS prevention behavior. After the empowerment, the everage knowledge score increased to 8,81 with a standard deviation of 0,660.

Adolescents Attitudes Toward HIV/AIDS Prevention Behavior in the Working Area of Kandang Health Center, Bengkulu City

Table 4. Mean Score of Adolescents Attitudes Before and After Empowerment of Adolescents Posyandu Cadres on HIV/AIDS Prevention Behavior

Variable	N	Mean \pm SD	Min-Max	95% CI
Before	37	27,22 \pm 1,931	24 – 33	26,57 – 27,86
After	37	36,95 \pm 1,053	35 – 39	36,59 – 37,30

Based on Table 4, it was found that the mean score of attitudes before the empowerment was 27,22 with a standard deviation of 1,931. After the empowerment of adolescent posyandu cadre, the mean attitude score increased to 36,95 with a standard deviation of 1,053.

Adolescents Actions Regarding HIV/AIDS Prevention Behavior in the Working Area of Kandang Health Center, Bengkulu City

Table 5. Mean Score of Adolescents Actions Before and After The Empowerment of Adolescent Posyandu Cadres on HIV/AIDS Prevention Behavior

Variable	N	Mean \pm SD	Min-Max	95% CI
Before	37	13,95 \pm 1,413	11 – 16	13,47 – 14,42
After	37	18,14 \pm 0,713	16 - 19	17,90 – 18,37

Based on Table 5, it was found that the mean score of actions before the empowerment was 13,95 with a standard deviation of 1,413. After the empowerment, the mean score of actions increased to 18,14 with standard deviation of 0,713.

The Effect of Empowering Adolescents Posyandu Cadres on HIV/AIDS Prevention Behavior in the Working Area of Kandang Health Center, Bengkulu City

Table 6. The Effect of Empowering Adolescents Posyandu cadres on HIV/AIDS Prevention Behavior

Variables	Before	After			<i>p value</i>
	Mean ± SD	Mean ± SD	Δ Mean		
Knowledge	3,86 ± 1,032	8,81 ± 0,660	4,95		0,000
Attitude	27,22 ± 1,931	36, 95 ± 1,053	9,73		0,000
Practice	27,22 ± 1,931	18,14 ± 713	4,19		0,000

Table 6 shows that the wilcoxon test for knowledge, attitude, and behavior obtained mean differences as follows, knowledge (4,95) attitude (9,73) and practice (4,19). The results of the *p-value* 0,000 (or < 0,05) indicate that the null hypothesis (HO) is rejected with a 95% confidence level. This means that the empowerment of adolescents posyandu cadres has asignificant effect on HIV/AIDS prevention behavior in the working area of Kandang Health Center, Bengkulu City.

Discussion

Characteristics of Adolescents Posyandu Cadres

The frequency distribution results of adolescents posyandu cadres characteristics show that most of the adolescents cadres are the same age as the respondents. In terms of gender , most of the cadres are female, and the education level of the adolesents posyandu cadres is generally equivalent to junior high school. According to research by Anggraini (2022), age affects one's ability to comprehend and their thought patterns. Adolescents posyandu cadres who are the same age as the respondents can act as motivators and mobilizera for other adolescents. In line with the role of cadres as motivators, Hastuti et al (2020) stated that cadres serve as activators by encouraging adolescents who frequently participate in activities, as well as those who have never attended posyandu activities, to join at least one day before te posyandu is held.

Based on research by Indari etal (2022), adolescents posyandu cadres are part of youth health cadres. Those who can be selected as adolescents posyandu cadres are adolescents aged 10-18 years, creative, committed, and willing to become cadres voluntarily, residing in the same area as the posyandu.

In a study conducted by Agung et al (2022), the activities of adolescents posyandu cadres were found to be

highly supportive of youth programs, this was proven by their 100% attendance during two days of activities and the result of increased knowledge about adolescent reproductive health and posyandu, from 64,2 to 80,0.

Characteristics of Respondents

The study shows that most of the respondents were aged between 12-13 years, the majority were female, and most had an educational level equivalent to junior high school. Adolescents at this age generally have a high level of curiosity about new things, including issues related to sexuality. At this stage, they begin to experience full physical maturation- boys begin to experience nocturnal emissions, while girls begin menstruating.

According to Mahdalena et al (2022), adolescents at this stage have a strong curiosity and a desire to be recognized for their existence. However, on the other hand, Setiani et al (2022) argue that adolescents are vulnerable to emotional instability, making them easily influenced by their social environment and peer interactions.

As for gender, Rasmaniar et al (2020) stated that gender differences do not interfere with the research process, and therefore the main objective to determine the effect of adolescents cadres empowerment on adolescents knowledge about HIV/AIDS can still be achieved.

Adolescents' Knowledge About HIV/AIDS Prevention Behavior

This study shows that the information on HIV/AIDS prevention behavior delivered through adolescent posyandu cadres can increase respondents' knowledge about HIV/AIDS prevention behavior. The respondents' level of knowledge prior to the empowerment of cadres was low, but improved after the intervention. This is evidenced by the average knowledge score before the empowerment, which was 3,86, increasing to 8,81 after the empowerment. This proves that there was an improvement in adolescents' knowledge before and after the adolescents posyandu cadres empowerment intervention.

In a study by Oktaviana (2023), there was also an increase in knowledge, with a pre-intervention score of 6,12 and a post-intervention score of 7,36, indicating a positive change. Similarly, Nugroho (2023) reported that the average knowledge score before the intervention was 56,9 and increased to 87,58 after the intervention, showing significant improvement in knowledge.

According to research conducted by Nurjanah et al (2024), there was a noticeable difference in knowledge levels before and after the educational intervention. Comprehensive education efforts can be absorbed into adolescents' personal understanding and subsequently lead to positive preventive behavior.

Research by Aisyah and Fitria (2022) stated that knowledge or cognition is a very important domain in forming attitudes and, subsequently, behavior (overt behavior). Knowledge significantly influences attitudes in HIV/AIDS prevention. Accurate knowledge can provide appropriate benefits in understanding

HIV/AIDS.

Consistent with the study by Fauziyah and Handayani (2023), it was shown that knowledge about HIV/AIDS is related to HIV/AIDS prevention. Furthermore, Nurjanah et al (2024) emphasized that knowledge is essential for understanding and fostering preventive behavior.

Adolescents Attitudes Toward HIV/AIDS Prevention Behavior

This study showed that information on HIV/AIDS prevention behavior delivered through adolescents posyandu cadre empowerment can improve respondents' attitudes toward HIV/AIDS prevention. Before the empowerment using module-based media, respondents had relatively low attitude scores, which improved after the intervention. This is evidenced by the average pre-intervention attitude score of 22,27. Which increased to 36,95 after the intervention. This indicates a significant difference in attitudes before and after the adolescent posyandu cadre empowerment.

According to Susano (2024), the average attitude score before empowerment was 1,36 and increased to 1,73 afterward. Similarly, Hariyanta (2023) reported an increase in attitude score from 54 before the intervention to 95 after, indicating a positive change.

Attitudes can influence a person's ability to prevent diseases, as attitudes play a role in health prevention behaviors. One factor that can influence attitude is personal experience. A person's attitude can be easily shaped by emotional factors, including personal experiences and the influence of others.

Aisyah and Fitria (2022) state that attitude is an evaluative process that is internal/subjective and takes place within a person, and it cannot be directly observed. Attitudes can be identified from one's knowledge, beliefs, emotions, and behavioral tendencies toward an object. In line with the study by Fauziyah and Handayani (2023), most respondents had adequate attitudes regarding HIV/AIDS is one factor that can reduce HIV/AIDS related stigma in society. It also reflects adolescents' responses toward views, feelings, and tendencies to engage in preventive actions against HIV/AIDS. Research by Nurjanah et al (2024) states that attitude is a component of thought processes and decision-making or adolescents in maintaining their health. A positive attitude will lead to positive preventive behavior.

Adolescents Preventive Actions Toward HIV/AIDS

The study shows that the delivery of HIV/AIDS prevention information through cadre empowerment can increase the respondents' preventive behavior. Before the intervention using module media, respondents exhibited lower levels of preventive behavior, which improved after indicated by the average behavior score increasing from 13,95 before empowerment to 18,14 after. This proves there was a significant difference before and after the adolescent posyandu cadre empowerment.

Susana (2024) found that the average behavior score increased from 1,47 before intervention to 1,77 afterward. Likewise, Mastuti (2023) reported an increase in average behavior from 6,115 before intervention to 8,47 after, indicating improvement.

Consistent with the study by Fauziyah and Handayani (2021), most respondents were already engaging in HIV/AIDS prevention actions. Their research showed that 52,6% of respondents demonstrated good preventive behavior, while 47,7% showed poor behavior.

Research by Nurjanah et al (2024) revealed that most adolescents respondents engaged in positive HIV/AIDS prevention behaviors. This is due to sufficient awareness of the dangers of not engaging in preventive behaviors. Additionally, these adolescents lived in positive environments that helped protect them from risky social behaviors.

The Influence of Adolescents Posyandu Cadre Empowerment on HIV/AIDS Prevention in the Kandang Health Center Area, Bengkulu City

Based on the results of the Wilcoxon test, a p-value of $0,000 < 0,05$ was obtained. Using a 95% confidence level, the alternative hypothesis (H_a) is accepted, meaning there is a significant influence of adolescents posyandu cadre empowerment on HIV/AIDS prevention behavior in the Kandang Health Center area, Bengkulu City.

Moreover, the study found that cadre empowerment had a significant influence on HIV/AIDS prevention behavior in terms of knowledge, with the intervention to 8,81 afterward. It also influenced attitudes, which improved from 22,27 before to 18,14 after the intervention.

The success of this study is closely related to the role and function of the cadres. Cadres play a crucial role in HIV/AIDS prevention among adolescents. According to Rasmaniar et al (2022), before cadre training, most adolescent posyandu participants had low knowledge, attitudes, and behaviors. However, after three months of engaging in adolescent posyandu activities following cadre training, most adolescents demonstrated improvement in knowledge, attitudes, and behavior.

CONCLUSION

1. Most of the adolescent posyandu cadres were 14 years old, and the majority had a junior high school level of education
2. Most of the respondents were aged 12-13 years, and the majority were female.
3. There was an increase in the average knowledge score regarding HIV/AIDS prevention behavior after the empowerment was provided.

4. There was an increase in the average behavior regarding HIV/AIDS prevention behavior after the empowerment was provided
5. There was an increase in the average behavior score regarding effect on HIV/AIDS prevention after the empowerment was provided.
6. The empowerment of adolescents posyandu cadres had a significant effect on HIV/AIDS prevention behavior in the working area of Kandang Health Center, Bengkulu City.

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