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# PEER EDUCATOR AS A METHOD TO INCREASE THE BEHAVIOUR OF HIV/AIDS PREVENTION AMONG STUDENTS OF SMK KESEHATAN IN SAMARINDA CITY

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#### **ABSTRACT**

Increasing cases of HIV/AIDS among adolescents in the age of range 15-24 years is getting 25%. Comprehensive knowledge of HIV/AIDS prevention has not helped propel the rising of these cases. Therefore, adolescents need health education related to prevent HIV/AIDS transmission. This study was to analyze the effect of the peer educator method on the prevention of HIV/ AIDS transmission in SMK Kesehatan Samarinda City. The study was a quasi-experiment with a non-equivalent control group with pre-test post-test design. The selection of research subjects was based on purposive sampling technique, beginning with the number of peer educator recruitment as many as 6 people, and each peer educator selected a maximum of 5 peer groups so that 30 case groups were treated with peer educator methods and control of 30 students who received HIV/AIDS prevention modules. Data collection is done using a questionnaire. To see the difference in the average HIV / AIDS prevention measures using the Wilcoxon test with a significance level of p = 0.05. The results showed a statistically significant difference p < 0.05in both groups before and after treatment. The mean changes in prevention measures for HIV / AIDS transmission were higher in the group that received the peer educator method compared to the control group that received the module. The conclusion of this study is that the peer educator method is more effective in increasing prevention measures for HIV / AIDS transmission in Health Vocational students in Samarinda City.

**Keywords**: peer educator, prevention of HIV/AIDS

## **INTRODUCTION**

HIV / AIDS and its transmission are increasing rapidly. More than 2 million adolescents between 10 years and 19 years of age are living with HIV with the most risk factors for transmission through sexual transmission, injecting drugs, followed by perinatal and homosexual transmission<sup>1</sup>. Symptoms of premarital sexual behaviour have occurred in the age range of 10-24 years, both men and women<sup>2</sup>. Data from the Samarinda Indonesian Family Planning Association (PKBI) in 2014 stated that 25% of adolescents had had premarital sexual relations between the ages of 15-18 years.

The level of basic knowledge of the population aged 15-24 years about the risk of pregnancy, knowledge of the fertile period and prevention of HIV / AIDS transmission is still very low. Incessant information about HIV / AIDS so far has not been able to increase

adolescent knowledge about the disease significantly, as many as 57.5% of the population over the age of 15 have heard of HIV / AIDS but the high number does not guarantee that someone knows thoroughly about HIV transmission / AIDS and nationally the Indonesian population who have comprehensive knowledge about HIV / AIDS is only 11.4%. Efforts to protect, prevent and control HIV / AIDS in this group intensively and comprehensively need to be done and one of its efforts is in the form of health education through peer educator programs<sup>3</sup>.

HIV / AIDS prevention health education for adolescents is an effective effort and is carried out through a peer educator program known as GenRe or Youth Generation. This program is a process of communicating in the form of communication, education and information from and for peers that can help young people increase knowledge, attitudes and more positive behaviours about preventing transmission of HIV / AIDS<sup>3</sup>.

Teenagers are also very closely related to the socialization with peers, both with the opposite sex or the same sex. So that during adolescence, peers play an important role in the development of adolescent behavior in order to gain confidence, both for themselves, friends, the environment, and even family<sup>4</sup>.

Peer educator is carried out in conveying various information regarding the prevention of HIV / AIDS transmission. Peer education methods are more effective in increasing positive attitudes, self-control, and value of trust in order to reduce the risk of HIV / AIDS transmission and transmission<sup>5</sup>. A peer educator is someone who has been trained in the ability to carry out IEC for the prevention of HIV / AIDS transmission, from a target group whose purpose is to be an effective link / network / bridge for their peers to be able to encourage, support, and promote healthy living for a group / friends peers who are around this peer educator<sup>6</sup>.

#### MATERIAL AND METHOD

The design of this study is quasi-experimental or quasi-experimental design with a non-equivalent control group with pre-test and post-test. The study was conducted on two groups of Health Vocational School students classified as treatment groups, namely groups that were given health education through peer educators on prevention of HIV / AIDS transmission, and control groups who were given HIV / AIDS transmission prevention modules that were read independently. The selection of this design aims to see the differences in the actions of vocational health students before and after being given an intervention through a peer educator regarding the prevention of HIV / AIDS transmission. The subjects in this study were students of Samarinda Health Vocational level 1 as a treatment group and SMK Medika Samarinda Samarinda level 1 as a control group. The selection of research subjects was based on purposive sampling technique, beginning with the number of peer educator recruitments as many as 6 people, and each peer educator chose a maximum of 5 peer groups so that 30 groups of cases were treated with peer educator and control methods as many as 30 students who received the HIV prevention module / AIDS with inclusion criteria: 1) male or female level 2; 2) unmarried

3) aged 16-18 years; and 4) not as a member of the BKKBN Samarinda PIK (information and counselling centre); 5) willing to be involved in research.

The research variables are: 1) the dependent variable is the student's actions regarding the prevention of HIV / AIDS transmission and 2) the independent variable is the method of health education or the information and education communication (IEC) using the peer educator method about HIV / AIDS prevention. The instrument in this study was a questionnaire with closed questions as a measurement tool. The data obtained were analyzed by statistical tests with Wilcoxon test statistical test, which aims to see the difference in the average of the actions, then compare the difference in the average before and after the treatment both in the pretest, posttest 1, and posttest 2 treatment groups and control groups. The decision of testing the hypothesis of this study was based on a significance level of 5% or p-value = 0.05.

#### **RESULTS AND DISCUSSION**

Respondents in the study met the inclusion criteria in the treatment group, there were 30 people and in the control group there were 30 people. The characteristics of respondents as in Table 1 follows:

Table 1. Subject characteristics based on age and gender

	Group					
Characteristics	Treatment					
	N = 30	%	N = 30	%		
Age						
15 Years	8	26,7	7	23,3		
16 Years	21	70,0	19	63,3		
17 Years	1	3,3	4	13,4		
Gender						
Male	6	20	7	23,3		
Female	24	80	23	76,7		

Table 1 shows that most of the treatment and control groups were in middle adolescence, namely the age of 15-17 years, namely as many as 21 people with a percentage of 70% in the treatment group and a control group of 19 people with a percentage of 63.3%. Sex characteristics in both groups (treatment and control) were dominated by female sex in both the treatment and control groups.

In the bivariable analysis stage of the action, testing using the Wilcoxon test, obtained results as in the following table:

Table 2.

Wilcoxon test analysis of prevention measures for HIV / AIDS transmission at the pre-test, post-test 1, and post-test 2 stages in the treatment group

Action	Mean (SD)	Negative Ranks	Ties	Z	P
		Positive Ranks	tive Ranks		
Post-test 1	8,80	0	14	-3,589	0,00*
with	(0,7)	16			
Pretest	7,93				
	(0,7)				
Post test 2	9,10	0	11	-3,948	0,00*
with	(0,7)	19			
D	7,93				
Pre test	(0,7)				

Table 2. shows there are 16 students who have posttest 1 results greater than pretest, while the remaining 14 students do not have changes in pretest and posttest (the same), so also in posttest 2 and pretest shows an increase in the number of students who have positive ranks of 19 and 11 students did not have changes in the pretest and posttest. This means that most students improve their ability in terms of preventing HIV / AIDS transmission after receiving treatment through peer educators. Based on the Wilcoxon difference test, there are significant differences in the prevention of treatment groups before and after IEC or health education through peer educators. Pretest with posttest 1 has a value of Z = -3,589; p <0.05. Posttest 1 data (M = 8.80; SD = 0.7) had a mean greater than the pretest data (M = 7.93; SD = 0.7). That is, the peer educator method succeeded in increasing HIV / AIDS prevention measures in the treatment group.

Table 3.

Wilcoxon test analysis of HIV / AIDS prevention measures at the pre-test, post-test 1, and post-test 2 stages in the control group

		Control group			
Action	Mean	Negative Ranks	Ties	Z	P
	(SD)	Positive Ranks			
Post-test 1	7,73	0	27	-1,732	0,08
with	(0,82)	3			
Pretest	7,63				
	(0.96)				
Post test 2	7,60	4	23	-0,378	0,70
with	(0,81)	3			
Pre test	7,63				
	(0,96)				

Table 3 shows that in posttest 1 with 27 students pretest did not show changes in the posttest and pretest scores (the same) while in posttest 2 there were 4 students whose posttest scores were smaller than the pretest scores. This means that not many students in the control group have improved their abilities in terms of preventing HIV / AIDS transmission. Based on the Wilcoxon difference test, there was no significant difference in the precautions of the control group before and after the module was given as independent reading material. Pretest with posttest 1 has a value of Z = -1,732; p 0.08> 0.05. Posttest 1 data (M = 7.73; SD = 0.82) have a mean greater than pretest data (M = 7.63; SD = 0.96) but are not statistically significant, whereas posttest 2 (M = 7.60; SD = 0.81) has an average value smaller than the pretest data. This means that giving modules to the control group has not been able to improve HIV / AIDS transmission prevention measures.

Based on the results of the Wilcoxon test analysis, prevention measures in the treatment group were increased compared to the control group with a P-value = 0.00, while in the control group a p-value of 0.08 > 0.05, so it can be concluded that there are significant differences before and after treatment through peer educators on prevention measures for HIV / AIDS transmission in vocational health students (treatment groups), whereas in the control group (vocational medics) there were no significant differences.

Health promotion through peer educators in the treatment group has a positive impact on changes in prevention measures for HIV / AIDS transmission that are better. The existence of treatment through peer educators in the treatment group can increase health care measures including prevention and self-protection from HIV / AIDS transmission, the role of the peer educator is very helpful to the peer group to carry out health improvement measures. A person takes action there needs to be initial stimulation in terms of changing a person's attitude into action, this can be achieved if the facilities and infrastructure support for the creation of health action. The facilitation carried out through peer educator has become a guide in acting; the subject has taken better actions in terms of preventing transmission of HIV / AIDS compared to before.

Health behaviour is an action taken by someone to maintain, achieve, or obtain optimal health and prevent disease. Health behaviour reflects one's belief in health. The theory of health belief model (HBM) explains that health behaviour is determined by whether individuals: 1) see themselves as vulnerable to a health problem; 2) view the problem as a serious problem; 3) believe they benefit from treatment or prevention efforts; 4) recognize the need to take action and any obstacles that can interfere with this action. Through the peer educator method, health education delivered to peer groups gives the impression, is able to broaden horizons without feeling intimidated and inspires peer groups to understand better the importance of knowing about HIV / AIDS, its dangers and ways of prevention. With the existence of health education through peer educators, it is very helpful for subjects to recognize and take appropriate actions to avoid HIV / AIDS as early as possible, various obstacles are discussed and discussed by peer educators and peer groups so that the subject understands the importance of prevention of HIV / AIDS transmission compared to before receiving treatment through peer educators.

Based on the results of the analysis, there was no increase in prevention measures in the control group due to the absence of two-way communication that occurred during the process of transforming health information about prevention of HIV / AIDS transmission, the control group subjects only received modules as independent reading material containing HIV / AIDS and its prevention. In the process, the subject of independent learning is limited to reading and there needs to be a high commitment to the subject to read, understand and repeat the contents of the module until understood and understood. In addition, the control group has decreased due to the lack of repetition of a material that has been submitted, so that the information cannot always be remembered and only stored in a relatively short time, limited knowledge will affect one's attitude so as to create health actions in accordance with attitude stimulated by limited knowledge. The success of an education is influenced by the strategies used, methods and tools that can support the success of these educational activities.

#### **CONCLUSION**

There is no increase in prevention measures in the control group due to the absence of two-way communication that occurred during the process of transforming health information about prevention of HIV / AIDS transmission, the control group subjects only received modules as independent reading material containing HIV / AIDS and its prevention.

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