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THE EFFECT OF HIV/AIDS CARD MATCH (HAICAMAT) ON STUDENT'S KNOWLEDGE ABOUT HIV/AIDS IN MTSN 5 NGAWI

Hudzaifah Alief Fath Azizah
Midwifery Study Program, Faculty of Medicine, Sebelas Maret University Surakarta

Nurul Jannatul Wahidah
Midwifery Study Program, Faculty of Medicine, Sebelas Maret University Surakarta

Ika Sumiyarsi Sukamto
Midwifery Study Program, Faculty of Medicine, Sebelas Maret University Surakarta

Niken Bayu Argaheni
Midwifery Study Program, Faculty of Medicine, Sebelas Maret University Surakarta

Atriany Nilam Sari *
Midwifery Study Program, Faculty of Medicine, Sebelas Maret University Surakarta
atriany.ns@staff.uns.ac.id

Abstract

Human Immunodeficiency Virus (HIV) is a deadly disease that has spread to various countries including Indonesia, one of which is the province of East Java, especially Ngawi district. The high number of HIV/AIDS transmission cases that occur can be caused by low knowledge in adolescent groups so that they are vulnerable to myths and misinformation about reproductive health, especially about HIV/AIDS continuous increase in cases due to the lack of provision of health information about HIV/AIDS to the public, especially adolescents. The purpose of this study was to determine the effect of HIV/AIDS card match (haicamat) on the knowledge of MTsN 5 Ngawi students. This study is a quasi-experimental research with a non-equivalent control group design. A sampling with simple random sampling was performed on 48 students. Data analysis used is the Mann-Whitney test which received the results of p-value <0.05. There is an effect of HIV/AIDS card match (HAICAMAT) on knowledge about HIV/AIDS in MTsN 5 Ngawi students.

Keywords: Card Match, HIV/AIDS, Knowledge

INTRODUCTION

The *Human Immunodeficiency Virus* (HIV) was first reported in 1981 and has spread to various countries including Indonesia with an alarming number of infected people, which tends to increase (Kemenkes RI, 2020). HIV is called the *silent killer* because people tend not to realize they are infected with HIV until after it develops into *Acquired Immune Deficiency Syndrome* (AIDS). The most common case of AIDS is when the productive age is 20-29 years. However, in reality, there are still few adolescents who have comprehensive knowledge about HIV/AIDS (BPS, 2018).

The Ministry of Health (2021) reported that East Java ranks second in the number of

people living with HIV/AIDS (PLWHA) after DKI Jakarta and is one of the provinces with the highest number of AIDS after Papua. Since 2003, East Java Province has been designated as a concentrated epidemic area. Data from the Central Bureau of Statistics (BPS) of East Java Province, in 2018, there was an increase of 829 HIV/AIDS cases compared to the previous year. The highest incidence of AIDS is contributed by the age group 30-39 years and has occurred in children (0-14 years) as many as 29 children (BPS, 2018). Ngawi Regency was recorded as contributing to the increase in HIV/AIDS cases, this was evident in 2020 as many as 788 experienced these cases with the majority occurring in Paron District with 120 people. United Nations Program on HIV/AIDS states that HIV infection is contributed by adolescents by 27% (NurwatI, 2019). The high number of HIV/AIDS transmission cases that occur can be caused by low knowledge in adolescent groups so that they are vulnerable to myths and misinformation about reproductive health, especially about HIV/AIDS (Plantika, 2019), A total of 92% of women and 86% of men aged between 15-24 years have heard about HIV/AIDS but very few have comprehensive knowledge about HIV/AIDS, namely 16% of women and 13% of men (Zhang T, 2019).

WHO has recommended that education on reproductive health be included in the context of health promotion in schools. Based on the Regulation of the Minister of Health (Permenkes) No. 1464/Menkes/Per/X/2010 concerning Permits and Implementation of Midwife Practices, midwives have the authority to perform women's reproductive health services by providing reproductive health counseling and counseling, one of which is to carry out early detection, referral, and provide health education on Sexually Transmitted Infections (STIs) and other diseases. One of the things that can influence awareness about HIV/AIDS is education (Pahlawan, 2018). In essence, health education is an effort to provide messages to the public so that they can have better health knowledge. A higher level of public knowledge will have an impact on much better development and make the opening of insights broader (Rizky, 2017).

Health education on HIV/AIDS can be done with various methods. Providing health messages will be more easily accepted by adolescents if delivered in a fun way. One way is with simulation games which is a way of delivering health education material presented in the form of games to increase knowledge. In previous studies, it was stated that simulation games can effectively increase knowledge in adolescents. (Azizah, 2018). The use of simulation games can use various types of games, but there are still few previous studies that use cards as a method of delivering health messages about HIV / AIDS, especially with the card match method. Previous research shows that the use of the card match method can increase knowledge (Yulianti, 2020), (Sumayana, 2015). Based on preliminary studies conducted by researchers on 15 students at MTsN 5 Ngawi, it was found that 13 students had heard about HIV/AIDS but did not know comprehensively, especially about how to transmit and prevent. Therefore, the

researcher was encouraged to study the effect of HIV/AIDS *card match* (HAICAMAT) on knowledge about HIV/AIDS in MTsN 5 Ngawi students.

RESEARCH METHOD

The research design is a *quasi-experiment* and the form used is a *non-equivalent control group design*, where two groups have been selected as an intervention group and a control group. The intervention group will receive treatment in the form of lecture methods and simulation games, namely HIV/AIDS card match (HAICAMAT) while the control group is only given lectures.

The population in this study were class VIII students at MTsN 5 Ngawi totaling 321 students. The sample size in this study was 48 students who were in accordance with the inclusion and exclusion criteria set. The sampling technique of this research is *simple random sampling*. This technique is a random sampling of the population without paying attention to the strata in the population (Sugiyono, 2019). The location of this research is MTsN 5 Ngawi with the independent variable is HIV/AIDS card match (HAICAMAT) and the dependent variable in this study is the knowledge of MTsN 5 Ngawi students about HIV/AIDS.

This study used instruments in the form of *pretest- posttest* sheets. The *test* sheet in this study aims to measure the level of knowledge of students about HIV/AIDS and was compiled by researchers based on available literature sources and tested for validity and reliability. The answer choices on the test sheet use a closed guttman scale with answers provided in the form of true and false. Respondents can answer questions by ticking (√) in the appropriate column. The method of data collection is by providing interventions in the form of lectures and simulation games, namely HIV/AIDS Card Match (HAICAMAT) in the intervention group and only lectures in the control group. After that, respondents were given a pretest-posttest sheet to fill out. Respondents will be given 15-20 minutes to fill out the *pretest-posttest*.

RESULT AND DISCUSSION

Findings

Respondent characteristics were categorized based on age, gender, source information, and pocket money. The student's characteristics are presented in table 1;

Table 1. Student's Characteristics

Student's Characteristics	Intervention Group		Control Group		*p- value*
	n	%	n	%	
Age					
12 years	0	0	0	0	
13 years	6	25	2	8	0,125
14 years	18	75	22	92	
Gender					
Male	9	38	9	38	1,000
Female	15	63	15	63	
Source of Information					
Health Officer	0	0	4	17	
Magazine	0	0	0	0	
Television	0	0	0	0	
Internet/social media	3	13	16	67	0,000*
Never received information	21	88	4	17	
Pocket Money					
<Rp10,000	17	71	11	46	0,082
≥Rp10,000	7	29	13	54	

**p-value<0.05*

The results in Table 1 show the characteristics of respondents from each group. Age in both groups was dominated by students aged 14 years, namely 18 students in the intervention group and 22 students in the control group. The frequency of gender in both groups was mostly female with a total of 15 students. A total of 21 students in the intervention group tended to have never received information about HIV/AIDS, while 16 students in the control group obtained information from the internet and social media. The amount of pocket money per day in the intervention group was below Rp10,000 with 17 students while in the control group the amount of pocket money tended to be above Rp.10,000 with a total of 13 students. The table shows that there is no significant difference (p>0.05) in the characteristics of age, gender, and pocket money between the intervention group and the control group.

Then, we provided education to both groups using different methods and assessed the effect of the HIV/AIDS card match on their knowledge can be seen in table 4 below;

Table 4. The Effect of HIV/AIDS Card Match on Student Knowledge

Category	Group	N	Mean Rank	p-value
Pre-test	Intervention	24	25,00	0,775
	Control	24	24,00	
Post-test	Intervention	24	27,50	0,010*
	Control	24	21,50	

**p-value<0.05*

The results of the analysis with the Mann-Whitney Test on the *pre-test* there was no significant difference between the experimental group and the control group with a value of p>0.05 while in the *post-test* there was a significant effect (p-value <0.05).

Discussion

The results of the analysis of student characteristics showed that most student respondents were 14 years old. In the intervention group and control group, there was no significant difference in age. The higher the age of a person, the easier it is for someone to receive and filter information so that there will be additional knowledge (Rojabtiyah,2019). Of the two groups, the majority of students were female, which in the analysis results showed no difference in gender in the two groups.

In the characteristics of students' pocket money, the intervention group tended to get pocket money below Rp10,000 while in the control group the majority received pocket money above Rp10,000. The analysis showed no significant difference between the two groups. The pocket money of students in this study represents the state of economic status. Economics is also one of the factors that influence knowledge because economic status that is below average has a tendency to be difficult to increase knowledge compared to those whose economic status is above average (Rojabtiyah,2019).

As many as 46% of students in the intervention group and 50% in the control group scored below average. This shows that the knowledge of MTsN 5 Ngawi students about HIV/AIDS before being given treatment is still relatively low. Students' knowledge of HIV/AIDS which is still below average needs to be improved considering that MTsN 5 Ngawi is a school located in Paron Subdistrict which is an area that contributes the highest HIV/AIDS rate in Ngawi Regency with 120 cases in 2020. Educational institutions play a role in providing knowledge about HIV/AIDS to students to prevent a surge in HIV/AIDS cases in Indonesia, especially in Ngawi Regency.

Knowledge in adolescents can be improved by providing health education (Harefa, 2021). The addition of knowledge will trigger adolescents to think more critically about something so that it can increase caution in doing certain things. In this case, students who have knowledge will have broad insights so as to improve health status and reduce the incidence of HIV/AIDS. Providing health messages can be done

in various ways and methods but will be more acceptable to adolescents if done in a fun way.

In the characteristics of the control group, students have received information about HIV/AIDS from the use of the internet and social media where the use of the internet and social media can affect a person's knowledge (Harmawati, 2018). So that the results of the analysis of the characteristics of the two groups show that there is a significant difference in the source of information. Information about HIV/AIDS can be obtained from anywhere including mass media or previous experience. If a person gets information then his insight will increase (Harmawati, 2018). The information that has been obtained can be one of the causes of increased student knowledge because students who already have knowledge from the internet and social media, students will also recall information that has been obtained when given a lecture so that it causes a significant increase in the knowledge of the control group.

In the intervention group, after being given a lecture and continued with a simulation game, namely HIV/AIDS card match, the results showed an increase in value with a p-value <0.05. These results are supported by previous researchers by Rizky (2017) on class X adolescents at SMA PGRI 2 Jombang totaling 274 people with the results of the analysis that there is an effect of simulation games on student knowledge about HIV / AIDS. This increase is because in the simulation game there is information provision and learning process in it (Rizky,2017). Similar research was conducted by Siregar et al (2018) on students of SMA Negeri 14 Semarang City on 54 students with the result that there was an increase in knowledge about HIV/AIDS with the simulation game method, namely snakes and ladders (Siregar, 2018). The increase in student knowledge is due to discussions and questions and answers about the material so that students understand better (Anifah, 2020). There is an effect of card match method on students' knowledge. This is supported by previous research by Harefa et al (2021) on 30 class VIII students at SMP Negeri 3 Maniamolo with the result that there is an effect of the index card match method on student learning outcomes. This is because students are cognitively motivated and stimulate students to solve the answers to the questions posed (Indaryati, 2018). Similar research was also conducted by Ngestiningrum (2017) on a total of 50 students at SMPN Slahung Ponorogo with the test results that there was a significant effect of the *index card match* method on student knowledge. This is because students will study the topic given so that there is a discussion so as to increase learning activities.

In this study, the significant effect on the intervention and control group showed that the simulation game with HIV/AIDS card match was considered more effective in receiving health messages because the delivery was carried out in a fun way and increased student activeness so that it was more likely to understand the material (Widyaningsih, 2017). Students will not be easily bored or bored when given health

messages because this game involves the cognitive, affective, and psychomotor domains of students. HIV/AIDS card match will be received by students by their senses and students will feel that the material presented is more interesting so as to foster excitement in the learning process and make the atmosphere fun. HIV/AIDS card match can foster good relationships with their peers so that cooperation is formed and foster student communication. This can train students to respect other student's opinions (Nilasari, 2019). The transfer of knowledge about health does not only take place in one direction but also in two directions from the material provider to students and between students. In this process students will become aware of HIV/AIDS material and increase student's knowledge (Pertiwi, 2020). Therefore, HIV/AIDS *card match* is effective to develop student's knowledge about HIV/AIDS. The effectiveness of HIV/AIDS *card match* is considered higher because students not only listen but also discuss so that there will be strengthening of the concept of the material presented and increase learning activities so that health messages about HIV/AIDS will be more embedded and remembered by students.

CONCLUSION

HIV/AIDS Card Match (HAICAMAT) has the potential to greatly improve student's knowledge of HIV/AIDS, positioning it as an effective educational tool. It is recommended as an innovative method that should be widely adopted to enhance awareness and knowledge of HIV/AIDS among students.

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