

INTERVENTION USING SOCIAL MEDIA FACEBOOK AS HEALTH EDUCATION MEDIA IN INCREASING ADOLESCENT'S KNOWLEDGE AND ATTITUDE ON HIV AIDS

MunayaFauziah*, MaudiMawaddahRumaf*

**) Faculty of Medicine and Health, Muhammadiyah University of Jakarta*

munaya_f@yahoo.com

Abstrak

The number of HIV AIDS among adolescents is increasing every year. Many teens do not know about HIV AIDS. Developments in information technology can be used to conduct health education particularly on HIV AIDS. One of them is now evolving is through social media facebook. This research is aimed to know the effectiveness of social media Facebook, as health education media in increasing adolescents' knowledge and attitude of HIV & AIDS in public senior high school (PSHS) in Maluku Tenggara, 2016. This research uses quasi experimental design with the nonrandomized control group pre test post test which involve 76 participants. The questionnaire is used to measure senior high school students' knowledge and attitude. The given intervention is health education which loaded in wall post in facebook group in PSHS Tual and will be compared with leaflet media in control group in PSHS Kei Kecil. Data analysis using a dependent t test with $p < 0.05$. There are statistically significant differences in knowledge variable ($p < 0.05$) in the treatment group and the control group. Significant differences in attitude variables ($p < 0.05$) was found only in the treatment group through social media facebook. Health education through wall post in social media, facebook, increases the adolescent's knowledge and attitude of HIV & AIDS more effective than through leaflet

Keywords: *Health Education, Adolescent, HIV & AIDS, Facebook, Leaflet.*

INTRODUCTION

According to the WHO (2016) in 2014, since the beginning of the epidemic there are 78 million people infected with HIV and an estimated 39 million people died of HIV. At the end of 2013 in the world there are 35 million (33.2-37.2 million) people living with HIV with a global estimate of 0.8% in adults aged 15-49 living with HIV. The prevalence of HIV in 2013 in the Western Pacific region 0.15%, in the central eastern region of 0.1%, in the region of Southeast Asia 0.3%, 0.4% in Europe, 0.5% in the Americas region and in the African region as much as 4.5%. In 2014 the world's population living with HIV rose to 36.9 million people, in adults as many as 34.3 million people, 17.4 million women and in children (<15 years) as many as 2.6 million people are living with HIV. According to figures from the Ministry of Health (Kemenkes, 2014) cumulative number of HIV

patients from 1987 to September 2014 as many as 150.296 people, while the total cumulative AIDS cases as many as 55.799 people and the death of as many as 9.796 people.

The pattern of transmission of HIV by age group in the last 5 years (2010-2014) has not changed much, HIV infection is most prevalent in the productive age group of 25-49 years, in 2010 about 15.648 cases in 2011 as many as 15.490 cases, in 2012 as many as 15.133 cases, in 2013 as many as 20.976 cases and 2014 as many as 16.421 cases. Followed by the age group 20-24 years, in 2010 as many as 3.480 cases, in 2011 as many as 3.113 cases, in 2012 as many as 2.964 cases, in 2013 as many as 4.493 cases and 2014 as many as 3.587 cases.

The number of HIV cases in Maluku Province in 2008 was 127 cases, in 2009 decreased to 56 new cases, in 2010 increased by 178 cases, in 2011 cases of HIV increased to 210 cases, and in 2012 decreased to 146 cases. While the number of AIDS patients in the year 2008 as many as 91 cases, in 2009 as many as 144 cases, in 2010 as many as 180 cases in 2011 increased by 242 cases and in 2012 increased to 247 cases (Dinkes Maluku Tenggara, 2012).

Adolescent age range in 2013 were between the ages of 10-19 years according to WHO (2016). Meanwhile, according to Santrock, puberty begins around age 10 to 13 years and ended at about the age 18 to 22 years. Changes in the biological, cognitive and social-emotional experienced by adolescents can range from the development of sexual function to abstract thought processes until independent (Santrock, 2008). In their quest to find the identity, teenager often denied their parents since they started to have their own opinions, ideals and values that differ from their parents. They think parents can no longer be used as a guidance, in contrast they are not ready to be independent, therefore it is easy to fall into the youth group where members are peers who have the same problems (Sarwono 2012).

Another issue that bothers the teenagers is the development of sexual organs. Local culture does not allow sex outside of marriage. They find satisfaction in fantasy, read a book or seen a porn movie, access porn sites in internet and even to try to have sex with the opposite sex.

Many teenagers do not know the impact of their sexual behavior on reproductive health both in a short time and in a longer time (Notoatmodjo, 2007). This was due to the lack of reproductive health information, both from the school, and the family environment. Because of the lack of knowledge about reproductive health, not a few teens who become victims of sexual crimes, such as rape, extramarital relationships, and pregnancy at an early age and contracting sexually transmitted diseases such as gonorrhea, syphilis, and even HIV & AIDS.

In the province of Maluku, the percentage of the population at age 10 years and over who have heard of HIV and AIDS amounted to 45.7%. People with correct knowledge about HIV transmission and AIDS amounted to 26.6% and people with correct knowledge about the prevention of HIV & AIDS amounted to 54.9%. The percentage of correct knowledge about transmission is lower than the correct knowledge about the prevention of HIV and AIDS. While in Southeast Maluku residents who have heard about HIV and AIDS only 40.9%. Residents with correct knowledge about transmission only 10.8% and residents with correct knowledge about prevention only 37.7% (Depkes RI, 2008).

The spread of health information is an important aspect that can accelerate the successful achievement of the goals of health development. Information about health issues is most needed by today's society, the availability of information easily and quickly accessible is important. With the development of rapid information technology, communication and information about health education can be done through various ways one of which is now evolving is through social media facebook.

In the context of education, the messages that educate many who use the mass media to channel and distribution methods. Educational activities through the mass media to be part of the process of informal education in our society today (Iriantara, 2013).

According to the latest data from We Are Social in August 2015, active Internet users worldwide has now reached 3:17 billion. From year to year, the number of Internet users grew by 7.6%. According to the same report media active social users has now reached 2.2 billion. Interestingly, Facebook is still a social media widely used to reach nearly 1.5 billion figure (Noviandari, 2015).

Public Senior High School (PSHS)Tual is senior high school that has 310 students. Through a brief interview between the researcher and the head of PSHS Tual found that education and health promotion was very rare for students and no extracurricular programs related to adolescent reproductive health. The objective of this study was to measuring the comparison of improvement of the knowledge and attitudes of adolescents about HIV & AIDS using social media facebook and leaflets.

METHODOLOGY

This research is quantitative, with a quasi-experimental research designs (quasi-experimental design) with the nonrandomized control group per-test post-test design. The population in this study were 1115 students of PSHSTualand PSHS I Kei Kecil. Sampling in this study using purposive sampling. Number of samples in this research as many as 76 people from class X and XI. Intervention group was from PSHSTual and control from PSHS I Kei Kecil. Questionnaires were administered a questionnaire pre-test questionnaires before the intervention and post-test questionnaires given after the intervention. This data was analyzed using dependent t test and Wilcoxon signed rank test.

RESULTS

Student's Age, based on the results of the study in both of the groups, many of the students at the age 16. This is due to the age of the respondents in the class X and class XI. Age 16 years of age also fits the school, school age begins at age 7 years for first grade elementary school, so at the age of 15 or 16 years is the age when respondents enter the class X and class XI.

Table 1. Age Distribution of Intervention Group (Students of PSHSTual)

Age (years)	<i>Facebook group</i>	
	n	%
13	1	3.3
14	1	3.3
15	5	16.7
16	19	63.3
17	4	13.3
Total	30	100.0

Table 2. Age Distribution of Control Group (Students of PSHS 1 Kei Kecil)

Age (years)	<i>Leaflet group</i>	
	n	%
14	1	2.2
15	8	17.4
16	26	56.5
17	10	21.7
18	1	2.2
Total	46	100.0

The number of respondents male and female in the health education group using social media evenly respectively 15 respondents. Meanwhile, 28 students in the health education group using leaflet

were female respondents. The number of respondents in this study is influenced by the time of the study to coincide with final exams so that many students were not present.

While for sex is described in tabel as follows :

Table 3. Sex Distribution of Student's in Intervention and Control Groups

Sex	Facebook group		Leaflet group	
	n	%	n	%
Male	15	50.0	18	39.1
Female	15	50.0	28	60.9
Total	30	100.0	46	100.0

While Student's Sources of Information, as the table below :

Table 4. Distribution of Sources of Information in Intervention and Control Group

Resources information	Facebook group		Leaflet group	
	n	%	n	%
Family	1	3.3	5	10.9
Friend	1	3.3	3	6.5
Teacher	5	16.7	9	19.6
Health officials	13	43.3	12	26.1
Books, newspapers, magazine	1	3.3	0	0
TV/radio	1	3.3	3	6.5
Internet	8	26.7	14	30.4
Total	30	100.0	46	100.0

When viewed from the side knowledge :

Table 5. Student's Knowledge before Intervention of Health Education on HIV and AIDS

Media	n	Min	Max	Mean	SD	Median	95%CI
Facebook	30	48	96	74.00	13.28	78.00	69.04-78.96
Leaflet	46	37	93	67.46	13.84	70.00	63.35-71.57

Table 6. Student's Knowledge after Intervention of Health Education on HIV and AIDS

Media	n	Min	Max	Mean	SD	Median	95%CI
Facebook	30	75	100	90.87	8.12	93.00	87.83-93.90
Leaflet	46	37	89	74.30	10.86	74.00	71.08-77.53

When viewed from the side attitude, in table the following :

Table 7. Student's Attitudes Pre-Test and Post-Test about HIV and AIDS in Intervention Group

Attitude	Pre Test		Post Test	
	n	%	n	%
Negative	10	33.3	7	23.3
Positive	20	66.7	23	76.7
Total	30	100.0	30	100.0

The percentage value of pre-test respondents' attitudes on health education group through social media facebook positive in 20 respondents (66.7%) and negative ones as many as 10 respondents (33.3%). At post-test respondents positive attitude about HIV & AIDS rose to 23 respondents (76.7%) but the increase was not significant.

Table 8. Student's Attitudes Pre-Test and Post-Test about HIV and AIDS in Control Group

Attitude	Pre Test		Post Test	
	n	%	n	%
Negative	19	41.3	20	43.5
Positive	27	58.7	26	56.5
Total	46	100.0	46	100.0

The percentage value of pre-test respondents' attitudes on health education through the media group leaflet positive ie 27 respondents (58.7%) and negative ones as many as 19 respondents (41.3%). At post-test positive attitude about HIV & AIDS respondents dropped to 26 respondents (56.6%), but the decrease was not significant.

Table 9. Descriptive statistics Students' Attitudes before the intervention

Media	n	Min	Max	Mean	SD	Median	95%CI
Facebook	30	31	46	39.57	3.20	40.00	38.37-40.76
Leaflet	46	32	47	39.91	3.64	40.50	38.83-41.00

Table 10. Descriptive Statistics Student Attitudes after Intervention

Media	n	Min	Max	Mean	SD	Median	95%CI
Facebook	30	38	47	42.77	2.49	43.00	41.84-43.70
Leaflet	46	33	48	40.54	3.42	42.00	39.53-41.56

Table 11. Distribution of Knowledge and Attitude Average Score Before and After Intervention in Intervention Group

Variable	Mean	SD	SE	P value	N
Knowledge					
Pre-test	74.00	13.28	2.42	0.0005	30
Post-test	90.87	8.12	1.48		
Attitude					
Pre-test	39.57	3.20	0.58	0.0005	30
Post-test	42.77	2.48	0.45		

The average score of the students' knowledge and attitude about HIV and AIDS statistical significant with p value = 0.0005, we can conclude there is a significant difference of the knowledge of adolescents before and after intervention and there are significant differences of the attitudes of teenagers before and after intervention.

Table 12. Distribution of Knowledge Average Score Before and After Intervention in Control Group

Variable	Mean	Z _{score}	P value
Knowledge			
Pre-test	67.46	-3.12	0.002
Post-test	74.30		

Results Wilcoxon signed rank test average of students' knowledge about HIV and AIDS before intervention was 67.46. After the intervention of the average students' knowledge about HIV and

AIDS is 74.30, Z score value of -3.12 and a significance level of p value shows significant difference of the knowledge of adolescents before and after the intervention.

Table 13. Distribution of Attitude Average Score Before and After Intervention in Control Group

Variable	Mean	SD	SE	P value	n
Attitude					
Pre-test	39.91	3.64	0.54	0.3	46
Post-test	40.54	3.42	0.50		

It can be concluded there was no significant difference (p value = 0.3) of the attitudes of teenagers before and after intervention.

DISCUSSION

The study design was quasi-experimental design which have limited in the randomization. Sample in the experimental group and the control group was not conducted with randomization, also control of the variables that affect the experiment is not done. This research was conducted to coincide with the time of preparation of final exams that many students are not present anymore in school when the final exam is done, researchers did not obtain the respondents from class XII because it coincided with the time of graduation, not all students are active users of social media facebook and there are some students who take pre- test but did not follow the post-test. In doing health education intervention through social media facebook researchers should be kept up online to post and reply comments from respondents, but due to the state areas were a bit difficult to internet access then at some time researchers have not had the opportunity to post and reply comments from some respondents. Researchers did not preclude the possibility that respondents obtain information about HIV and AIDS from other source beside facebook and leaflet. Although facebook can be accessed through the handphone but learning with facebook can only be effective if you use the computer / laptop and not all students have a computer / laptop, they need to pay more for internet access, it is difficult to make the students to concentrate on learning materials, because there are a lot of other think which more attractive for students beside learning. Both of the groups have ever get information about HIV and AIDS before this research. Respondents in the group social media have the information from health professionals when making health education to their school. While the respondents in the group of media leaflet obtain more information from the internet. In modern times the current development of science and technology is developed rapidly, one result of the development of science and technology is a gadget that is currently favored by teens as easier for them to communicate and find information, the internet network contained in the gadget used by the respondent to find out information about HIV & AIDS.

Based on the research results obtained in this study, student's knowledge about HIV and AIDS were analyzed using dependent t test, the test results showed statistically significant improvement in knowledge before getting health education and after getting health education. This is demonstrated by the significant difference which is seen from the average pre-test and post-test in the health education group through social media (p value < 0.0005), with an average value of 90.87 > 74.00 (post-test > pre-test). So we can conclude there is an effect of health education on HIV and AIDS through social media facebook to the knowledge of adolescents in PSHS Tual. In comparison to the group health education through media leaflets. The results of the pre-test and post-test were analyzed using the Wilcoxon signed rank test which shows there is an increase in the average value of knowledge in this group between the pre-test and post-test, it is shown that there were significant differences seen from the pre-test and post-test with a p-value 0.002, with an average value of 74.30 > 67.46 (post-test > pre-test). So

we can conclude there is the effect of health education on HIV and AIDS through media leaflets on the adolescent knowledge in PSHS I Kei Kecil.

According to Notoatmodjo (2010) level of one's knowledge is influenced by educational factors, which is guidance from someone to someone else development so that the individual knows. The above results indicate that there has been a change in knowledge as expected from health education. This knowledge can be expected to change the attitude of high school students on the prevention of HIV and AIDS. The knowledge is increased because of the provision of information, in which there is a learning process.

The learning process according Notoatmodjo (2010) can be interpreted as a process to increase knowledge, understanding and skills that can be acquired through experience or conduct of the study (teaching and learning). By studying, the individual is expected to explore what is latent in him by encouraging to think and develop his personality by freeing themselves from ignorance.

Nugrohoi (2014) conducted a study on the effect of the provision of reproductive health through facebook group against the knowledge of adolescents in one junior high school located in the area of Surabaya Gubeng, getting the knowledge level before the intervention to be in the medium category. It concluded that there was a significant difference in the respondents' knowledge. Knowledge of respondents after the intervention increased compared knowledge before the intervention. Facebook has an influence on knowledge.

The pre-test and post-test attitude on social media facebook group analyzed with statistical test t test dependent. Statistical test results showed a significant improvement in the attitudes of respondents. This is demonstrated by the significant difference which is seen from the average pre-test and post-test in the health education group through social media facebook p-value of <0.05 ($0.0005 < 0.05$), with an average value of $42.77 > 39.57$ (post-tets $>$ pre-test). So we can conclude there is the effect of health education on HIV and AIDS through facebook social media on the attitudes of young people in PSHS Tual. This is consistent with study conducted by Mubarak and Chayatin (2008) and Purnama (2013), in changing the attitude with coaching through health education, because it can improve knowledge so that it can make the attitude better and leads to better behavior. In comparison to the group health education through media leaflets, the pre-test and post-test attitude of the media group leaflet analyzed by statistical t test dependent, test results showed no significant increase in respondents' attitudes. Using social media facebook and leaflets is improving knowledge and attitudes of youth about HIV and AIDS.

The results showed that there were changes in knowledge and attitudes after getting HIV & AIDS health education through social media facebook. Statistical test results obtained p-value $< \alpha$. It can be concluded that the use of social media as a medium for health education facebook and leaflet improve knowledge and attitudes of adolescents about HIV & AIDS in PSHS Tual. The control group which used leaflet as health education tool showed changes in the respondents' knowledge but there was no change in the attitude of the respondent. It can be concluded media leaflet increase students' knowledge about HIV and AIDS but did not increase students' attitude towards the problem of HIV and AIDS in PSHS I Kei Kecil. This study is also consistent with research conducted by Bahari (2013) in improving the knowledge and attitudes of teenagers towards the prevention of HIV and AIDS in SMA Negeri 1 Kutacane Southeast Aceh district.

Azwar (2005) which states that the factors that influence the formation of attitudes among others came from the media in which the mass media in disseminating information as their main duty, mass media bring messages containing suggestions that can lead a person's opinion. The messages carried by the suggestion that such information, if strong enough will give a basic affective in judging something until there was a certain attitude toward.

CONCLUSIONS

There is influence of health education on HIV and AIDS through social media facebook on the knowledge of adolescents in PSHS Tual and through media leaflets in PSHS I Kei Kecil.

There is influence of health education on HIV and AIDS through facebook social media on the attitudes of young people in PSHS Tual to the problems of HIV and AIDS and no effect of health education on HIV and AIDS through media leaflets on the attitudes of young people in PSHS I Kei Kecil.

Recommendations : Healthcare institutions further enhance monitoring, dissemination and provision of regular information to the public good and adolescents in schools related to the problem of HIV and AIDS and better utilize social media facebook as health education media and schools and teachers concerned to use facebook as a medium for health education.

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ABOUT THE AUTHORS

Munaya Fauziah: Researcher in the field of public health, Lecturer in the field of Epidemiology in Public Health Study Program Faculty of Medicine and Health University of Muhammadiyah Jakarta. Translator of several books, The board of the Association of Public Health Teachers and Promotor Indonesia branch Banten Province.

Mawaddah Rumaf: Student in Public Health Study Program Faculty of Medicine and Health University Muhammadiyah Jakarta

