



The Effect of Health Promotion with WhatsApp Media and Booklets on Knowledge Level and Attitude about HIV/Aids

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<http://dx.doi.org/10.18415/ijmmu.v8i7.2849>

Abstract

The purpose of this study was to determine the effect of health promotion with social media and booklets on students' knowledge and attitudes about HIV/Aids. This research uses Quasi Experimental method with pretest-posttest control group design. The sampling technique used is random sampling, and analyzed by t-test with the Stata 13 program. The population in this study were students of Kusuma Husada University Surakarta batch 2019 of the Bachelor of Nursing Study Program. The sample in this study used random sampling, with only 17 people randomized per class. Then from the total, a total of 102 sampling subjects were taken. Data collection in this study was carried out using a questionnaire instrument used to guide the interview. Questionnaires are data collection tools used in interviews containing a list of well-structured and matured questions. Questionnaires in uni research include, knowledge, attitudes. The data that has been obtained from filling out the questionnaire is then processed and analyzed using SPSS version 23 software. Based on the results of the bivariate analysis with the following results students' knowledge of HIV after the intervention for the intervention group was 51 people (Mean 27.88; SD 3.59) students' knowledge about HIV after the intervention for the control group was 51 people (Mean 22.50; SD 3.30) with a significant value of knowledge students about HIV after the intervention was ($p < 0.001$) with an effect size value ($ES = 1.55$). Bivariate analysis with the results of student attitudes about HIV after the intervention for the intervention group as many as 51 people (Mean 63.43 SD: 6.89) student attitudes about HIV after the intervention for the control group as many as 51 people (mean 44.01 SD 8.58) with a significant value of student attitudes about HIV after the intervention of ($p < 0.001$) with an effect size value ($ES = 2.39$).

Keywords: *Health Promotion; HIV/Aids; Social Media; Booklet*

Introduction

HIV (Human Immunodeficiency Virus) and AIDS (Acquired Immunodeficiency Syndrome) is a disease that continues to grow and becomes a global health problem in both developed and developing countries (Guatelli et al., 2016). HIV is caused by HPV (Human Papilloma Virus) that enters white blood cells, where HPV damages the structure of white blood cells that function as a defense against infection, resulting in a decrease in the number of white blood cells resulting in a weakened immune system and patients susceptible to various diseases (Kumalasari, 2012).

The high prevalence of HIV in Indonesia is a serious problem, so it can cause other problems in the community (Kotaki et al., 2013). In addition to the problem of increasing prevalence another problem arises namely, not all hospitals are willing to treat PLWHA because there is a fear that the hospital will not sell (Farisi Alkaff et al., 2020). Because people infected with HIV are seen as people who have negative behavior (Kartono et al., 2019). So that discrimination arises against people living with HIV who should also have the same right to health services as people who are not infected with HIV (Martiningsih et al., 2015). All of this happens because many people have given negative assessments of HIV/AIDS, PLWHA and their behavior without being able to see a more substantial problem (Aishwarya. R, Shamsiya A.H, 2015). Moreover, coupled with attitudes that link HIV/AIDS status as a moral problem, not as a public health problem that can affect all groups community (Joenputri & Suryana, 2020).

AIDS is often associated with a number of terms such as deadly diseases, infectious diseases, sexual deviations, homosexual behavior, and so on (Widiani & Sriwitati, 2019). There is even stigmatization and discrimination that AIDS is a “curse” disease or a “dirty” disease as a result of inappropriate behavior. This stigmatization makes sufferers try to hide the disease they are carrying (Puspitasari et al., 2020).

One way to increase knowledge about HIV/AIDS can be done by providing health promotion education (Astuti et al., 2020). Efforts are made to increase adolescent knowledge regarding HIV and AIDS through counseling, training and health promotion programs (Takainginan et al., 2016). HIV/AIDS health counseling using slide media can be given regularly considering that education or health promotion really needs to be given to individuals or community groups, in order to gain more knowledge (Rochmayani & Budiono, 2020).

Health promotion that can be done can be in the form of lecture method counseling, distribution of pamphlets, banner installation or through online media (Siradjuddin & Abdullah, 2019). The effectiveness of health promotion through online media has proven to be effective (Abe et al., 2014). The results showed that there was an effect of providing health promotion through social media on knowledge about the dangers of HIV/Aids with a higher level of knowledge (Ghazali & Maulida, 2019).

The use of WhatsApp in the world has increased sharply, in September 2015, WA announced that it had 900 million active users. WhatsApp is an Instant Messenger technology such as SMS using data from the internet with supporting features that are more attractive and easy to use. Learning in the current digital era is greatly helped by the presence of the WhatsApp application (Jumiatmoko, 2016).

In Indonesia alone, almost 40% of the population uses WA as a means of communication. WhatsApp is the most downloaded application by all people in Indonesia. Call it children, teenagers, to parents choose this application as a medium to communicate with friends, family, to co-workers. With so many users, which is around 1.5 billion in the world, of course it has many advantages. These advantages make Indonesians use WA. The advantages of WA include WA can send text, images, audio, voice and video orders (As Sabiq & Fahmi, 2020).

Appropriate and easy-to-understand media is needed for teenagers, including video media. Educational media with video has its own advantages, namely being able to display moving images that other learning media do not have, the concept of the story is packaged as the main subject in learning and the material used, long and difficult to convey orally can be presented in the form of films and videos that are easy for students to understand (Wegner & Stüwe, 2020).

In addition to health promotion or providing health education through WA media, booklets are also often used as a means of health promotion. Media booklets display interesting pictures, are more complete, more practical to carry and easy to learn anywhere compared to leaflets and this media also

does not require an electric current which is sometimes an obstacle for health education with slide media (Notoatmodjo, 2017).

Booklet media has several advantages, one of which is that it can lead to independent responsibility of each respondent for knowledge on the basis of information received through the media because of the booklet (Ekayani et al., 2020). Booklets are given to each individual so that they can be studied at any time (Aini & Habibi, 2020). Another advantage is that booklets can be studied at any time because they are designed in book form and contain more information (Finandita & Puspitasari, 2017).

The high prevalence of HIV in Indonesia is a serious problem, so it can cause other problems in the community. Health promotion that can be done can be in the form of lecture method counseling, distribution of pamphlets, banner installation or through online media. The effectiveness of health promotion through online media has proven to be effective. The use of WhatsApp in the world has increased sharply, in September 2015, WA announced that it had 900 million active users. WhatsApp is an Instant Messenger technology such as SMS using data from the internet with supporting features that are more attractive and easy to use. Learning in today's digital era is greatly helped by the presence of the WhatsApp application. The advantages of WA include WA can send text, images, audio, voice and video orders. Booklet media has several advantages, one of which is that it can lead to independent responsibility of each respondent for knowledge on the basis of information received through the media because of the booklet. Booklets are given to each individual so that they can be studied at any time. Another advantage is that booklets can be studied at any time because they are designed in book form and contain more information.

Methodology

The type of research used in this research is quantitative research and the research design used is quasi-experimental by means of pre-post test in the experimental group and the control group. This study aims to reveal a causal relationship by involving the control group in addition to the experimental group, but the separation of the two groups is not by random technique.

R	01	x	02
R	03	K	04

Figure 1. Pre-test post-test control group design

Information

- n : Total number of research samples
- O1 : Experimental Group before being given treatment (pre-test)
- O2 : Experimental group after being given treatment (Post-test)
- X : Treatment (Providing Leaflet promotional media)
- K : No treatment
- O3 : Initial measurement control group (Pre-test)
- O4 : Final measurement control group (post-test)

The population in this study were students of Kusuma Husada University Surakarta batch 2019 of the Bachelor of Nursing Study Program. The sample in this study used random sampling, with only 17 people randomized per class. Then from the total, a total of 102 sampling subjects were taken. Data collection in this study was carried out using a questionnaire instrument used to guide the interview. Questionnaires are data collection tools used in interviews containing a list of questions that have been well structured and mature. Questionnaires in uni research include, knowledge, attitudes. The data that

has been obtained from filling out the questionnaire is then processed and analyzed using SPSS version 23 software.

Result and Discussion

1. Univariate Analysis

Table 1. Univariate Analysis of Sample Characteristics (Continuous Data)

Characteristics	n	Mean	SD	Min	Max
Age (years)	102	20.14	1.06	19	23
HIV knowledge before intervention	102	21.85	3.16	14	26
HIV knowledge after intervention	102	25.19	4.36	15	34
Attitude towards HIV before intervention	102	44.59	9.73	26	69
Attitude towards HIV after intervention	102	53.72	12.45	26	75

From the table above, it can be concluded that the average student age is 20 years old, with a minimum age of 19 years and a maximum age of 23 years. Judging from the table of knowledge before the intervention the average was 21.85 and after being given the intervention the average was 25.19. this shows an increase and the influence of the intervention. And seen from the attitude before the intervention was given an average of 44.59 and after the intervention an average of 53.72. this shows that there is an increase and influence of the intervention.

Table 2. Univariate Analysis of Sample Characteristics (Categorical Data)

Character	n	%
Man	32	31.37
Woman	70	68.63
Parrents job	36	37.25
ASN Private Entrepreneur	34	33.33
Home	30	29.41
With parents	35	34.31
Without parents	67	65.69

Judging from the table above, it can be concluded that the knowledge and attitudes of students about HIV/Aids are seen from gender differences, with the majority being influenced by female sex with a percentage of 63.63 percent than men who are only 31.37 percent. Judging from the work of parents, it is influenced by parents with entrepreneurial work to a large extent 37.25 percent, and private 33.33 percent, and ASN 29.41 percent. Viewed from the place of residence, dominated by those who do not live with their parents by 65.69 percent.

2. Bivariate Analysis

Table 3. Bivariate Analysis The difference between the intervention group and the control group before and after the intervention

Group Variable	n	Mean	SD	p	Effect Size
HIV knowledge before intervention	51	22.49	3.04	0.041	0.40
Control invention	51	21.21	3.18		
HIV knowledge after intervention	51	27.88	3.59	< 0.001	1.55
Control invention	51	22.50	3.30		
Attitude towards HIV before intervention	51	46.11	10.48	0.115	0.31
Control invention	51	43.07	8.74		
Attitude towards HIV before intervention	51	63.43	6.89	< 0.001	2.39
Control invention	51	44.01	8.58		

The table above shows the bivariate analysis with the following results that students' knowledge of HIV before intervention for the intervention group was 51 people (Mean 22.49; SD 3.04). significance before intervention of (p 0.041) with an effect size value ($ES = 0.40$). Bivariate analysis with the following results students' knowledge of HIV after the intervention for the intervention group as many as 51 people (Mean 27.88; SD 3.59) student knowledge about HIV after the intervention for the control group as many as 51 people (Mean 22.50; SD 3.30) with a significant value of student knowledge about HIV after the intervention was ($p < 0.001$) with an effect size value ($ES = 1.55$). The mean after the intervention was greater than before the intervention. The p value is significant after the intervention and before the difference occurs. Before the intervention was not significant, after the intervention was significant. The value of the effect size after the intervention is also greater, meaning that it is greater than the effect of the WA and booklet interventions on HIV knowledge (there is an effect). There was a difference between the control group and the intervention group.

Bivariate analysis with the results of student attitudes before the intervention for the intervention group as many as 51 people (mean 46.11; SD 10.48) student attitudes for the control group as many as 51 people (mean 43.07; SD: 8.74) with a significance value before the intervention (0.115) with an effect size value ($ES = 0.31$). Bivariate analysis with the results of student attitudes about HIV after the intervention for the intervention group as many as 51 people (Mean 63.43 SD: 6.89) student attitudes about HIV after the intervention for the control group as many as 51 people (mean 44.01 SD 8.58) with a significant value of student attitudes about HIV after the intervention of ($p < 0.001$) with an effect size value ($ES = 2.39$).

The mean after the intervention was greater than before the intervention. The p value of significance after the intervention and before the intervention there was a difference. Before the intervention was not significant, after the intervention was significant. The value of the effect size after the intervention is also greater, meaning that it is greater than the effect of the WA and booklet interventions on HIV attitudes. There was a difference between the control group and the intervention group.

Adolescence is a period of transition, which is marked by physical, emotional, and psychological changes. Adolescence begins with the age of 10-19 years, where there is a period of maturation of the human reproductive organs and is often called puberty. Changes related to psychology are easy to react

even aggressively to external stimuli that affect him, like to seek attention and act without thinking first, there is a tendency to disobey parents, and prefer to go with friends rather than stay at home, tend to want to know things new things, so that the behavior of wanting to try things out, such as free sex, has a risk of HIV/AIDS transmission.

Based on a preliminary study conducted on July 1, 2020 in Surakarta by interviewing 10 students, 3 students knew correctly about the meaning, mode of transmission, prevention, and treatment of HIV/AIDS, while 7 other students did not know about the meaning, mode of transmission, prevention and treatment of HIV/AIDS. This shows that knowledge about HIV/AIDS among students is still lacking and it is necessary to provide health education to students about HIV/AIDS.

The results of the study indicate that the intervention has an influence on students' knowledge and attitudes about HIV. The difference between the control group and the experimental group that was given an intervention in the form of WhatsApp and Booklet showed a significant effect of WhatsApp and Booklet media on the level of knowledge and attitudes of students about HIV/Aids. This is in line with one of the basic characteristics of information and the presence of information technology, which is to have an influence on society and individuals. In this case there is a positive influence. WhatsApp as an online media can be a medium for health promotion through writing, images, audio and video, Booklet as another medium that provides complete information in the form of books for health promotion in this case health promotion related to HIV/Aids.

This significant influence cannot be separated from the ease of information obtained through WhatsApp and booklet media. WhatsApp with its supporting features can be maximized to carry out health promotion activities related to HIV/Aids by sending content such as prevention of HIV/Aids, Transmission of HIV/Aids. The form of education provided through these contents has been shown to provide a positive response, as can be seen from the table above. The characteristics of the booklet which contains complete information because it is designed in the form of a book and given to each individual so that it can be studied at any time can also be maximized for health promotion activities related to HIV/Aids. The form of education through booklets is proven to be able to increase in-depth knowledge regarding HIV/AIDS.

The relevance of information is one of the benchmarks for the quality of information which includes the benefits of information to the recipient. Information is considered as a need that underlies humans to adapt to their environment. The information obtained through these two media can provide a new cognitive foundation for the formation of knowledge about HIV/Aids. Increased knowledge about HIV/Aids from students includes the nature, transmission, and prevention of HIV and Aids. Students' knowledge that shows an increase contains positive aspects that determine students' attitudes towards HIV/Aids, the higher the positive aspects about HIV/Aids that are known by students, the more positive attitudes towards it are also increased. The increase in students' knowledge and attitudes towards HIV/Aids shows that WhatsApp Media and Booklets as a means of information play an effective role in increasing student awareness of the importance of HIV prevention.

In this study, health promotion was carried out by the method of providing material with booklets and WhatsApp media. Booklet itself is like a mass media capable of disseminating information in a relatively short time to many people who live far apart. Its physical form resembles a thin book and complete information, which makes it easier for the media to be carried everywhere.

Students' knowledge about HIV after the intervention was ($p < 0.001$) with an effect size value ($E=1.55$) and student attitudes about HIV after the intervention were ($p < 0.001$) with an effect size value ($ES=2.39$) which showed that the booklet and wa media had influence on knowledge and attitudes of HIV/Aids on students at Kusuma Husada University. This effect can be seen through the average value of

student knowledge before being given a booklet and was 22.49 and after being given an intervention is 27.88, and the average attitude of students before being given an intervention is 46.11 and after being given an intervention is 63.43, which means there is an increase in knowledge and attitudes. Students about after being given the intervention.

The results of this study are in accordance with the opinion of Haenlein (2010) which revealed that social media is defined as an online media where users can easily participate, share and create a work or content (content). In this study, the use of booklets and social media, namely WhatsApp, can be used as a tool to provide information, users, especially students, can share information about HIV/Aids and through the knowledge obtained, it is hoped that they can take a positive attitude about HIV/Aids, including not having free sex, do not use drugs, including the type of injection. From the description above, it can be concluded that WhatsApp social media has an effect on students' knowledge and attitudes. This media has a positive impact when used properly, for example providing information, counseling and learning.

Conclusion

Based on the results of the bivariate analysis with the following results, the knowledge of students about HIV after the intervention for the intervention group was 51 people (Mean 27.88; SD 3.59). Students about HIV after the intervention was ($p < 0.001$) with an effect size value ($ES = 1.55$). Bivariate analysis with the results of student attitudes about HIV after the intervention for the intervention group as many as 51 people (Mean 63.43 SD: 6.89) student attitudes about HIV after the intervention for the control group as many as 51 people (mean 44.01 SD 8.58) with a significant value of student attitudes about HIV after the intervention of ($p < 0.001$) with an effect size value ($ES = 2.39$).

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