

Effect of the AIDS Education for College Students

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Abstract

The purpose of this study is to identify the effects of the AIDS education program on knowledge, attitude and recognition for AIDS prevention in college students. A quasi-experimental with non-equivalent control group pretest-posttest design was implemented. The participants consisted of 52 college students (experimental group:26, control group:26) The AIDS education program was developed by the investigators. The education program consisted of a 20-minute video and 30-minute lecture. Data were analyzed based on descriptive statistics, χ^2 test and paired t-test using the 21.0 Program. After the program was conducted the knowledge and attitude were significantly improved. Also, the experimental group showed a significantly increase in recognition of AIDS than the control group. The findings indicate that AIDS education program was effective in knowledge, attitude and recognition for college students.

Keywords: *AIDS, Knowledge, Attitude, Recognition*

1. Introduction

1.1. Necessity of the study

AIDS (Acquired Immune Deficiency Syndrome) is a type of disease that immune cells infected with HIV are slowly destroyed to damage the immune system and when the extent of the damage exceeds a certain level, an infectious disease due to viruses, germs, mold, protozoan or parasites that does not occur in a healthy person or a malignant tumor such as skin cancer occurs, leading to death, and it has been rapidly spreading since it was first confirmed in U.S. in 1981 [1]. Since an AIDS case appeared for the first time in Korea in 1987, the number of infected patients has continuously increased. The number of infected patients started to rapidly increase since 2000, reaching 1,000 patients for the first time in 2013, and the accumulated number of infected patients for the last 10 years is 8,967 patients [2]. According to the analysis of 1,191 HIV/AIDS infected patients in 2014, male patients account for 92.4% and female patients account for 7.6%, indicating that the gender ratio is 12.1:1. For the infection route, most respondents (99.8%) answered that they were infected by sexual transmission, and the infection caused by blood products has not been reported since 1995; the infection caused by blood transfusion has not been reported since 2006 [3].

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According to the age brackets of AIDS-infected people, those in their 20s account for 30.8% followed by those in their 30s with a rate of 23.7% [3], indicating that those in their 20s and 30s who are most sexually active show the highest infection rate. Also, university students who have strong sexual desire and are free to have a relationship are exposed to AIDS almost without protection [4].

It is impossible to cure AIDS completely and no vaccine exists for AIDS currently. Therefore, the advanced prevention of AIDS is the first priority. Also, It was reported in a study regarding AIDS that the HIV infection rate decreased in a group that received the education regarding the prevention of AIDS and the HIV infection rate increased in a group with lack of proper knowledge about AIDS [5], so it is necessary to help people to have correct recognition and attitude toward HIV/AIDS and exercise preventive health-related actions through effective education for HIV/AIDS prevention.

The general public has incorrect recognition that AIDS is a disease only for a certain group such as homosexuals or prostitutes and AIDS proves fatal, and they also have a heavy bias, impression and sense of discrimination against a person with AIDS [6]. Also, AIDS is considered a disease with socially negative recognition and strong rejection as one of typical negatively branded diseases along with mental disease, and the Korean Federation for AIDS Prevention and the Korean Association for HIV/AIDS Prevention have been continuously carrying out publicity campaigns for preventing AIDS since their establishment in 1993, but the knowledge level of regular adults regarding AIDS in Korea is significantly lower than that in Western Europe, and the attitude toward people with AIDS is relatively more negative [7].

Accordingly, this study aimed to identify the effects of HIV/AIDS related education on the recognition and attitude toward HIV/AIDS and the improvement of knowledge targeting male university students in non-health related majors who relatively lacked knowledge about HIV/AIDS.

1.2. Objective of the study

The objective of this study is to investigate the effects of AIDS education conducted targeting university students on their knowledge, recognition and attitude toward AIDS.

2. Research methods

2.1. Study design

This study is a quasi-experimental study with non-equivalent pretest-posttest control group attempted to verify the effects of the AIDS education on the relevant knowledge, attitude and recognition.

2.2. Participants and data collection

The participants of this study were students from Y university, and they were selected through convenient sampling from two departments that showed similar general characteristics but did not interact with each other with the cooperation of these departments. Before preliminary investigation, the objectives of study were explained to students and students were told to participate in the survey if they agreed to the objectives of study. The number of participants calculated, in order to secure the power of this study, using the G*power 3.1 program was 26, with a significance level (α) of 5%, a power ($1-\beta$) of 80% and an effect size (f^2) of .80; a total of 52 participants including 26 for the experimental group and 26 for the control group were selected.

In order to protect the ethical aspects of participants during the course of study, the objectives of study were explained and university students who wished to participate in the study signed the participation consent form and they were also informed that they could withdraw their participation from the study at any time if they desired.

2.3. AIDS education program

The AIDS education program lasted a total of 50 minutes: 20 minutes for watching video and 30 minutes for the lecture. The purpose of the AIDS education program was to improve the recognition for AIDS by correcting the knowledge, attitude and bias toward AIDS. The video material was produced by the Korean Association for AIDS Prevention; it covered the origin of AIDS, infection route, symptoms, examination and prevention, and treatment and care for patients. The contents of the lecture were prepared based on the consultation with 3 education experts in the Korean Association for AIDS Prevention and 2 nursing professors by emphasizing the contents regarding the current status of AIDS not mentioned in the video education material and contents that could improve the recognition on AIDS by correcting incorrect bias and other contents regarding the prevention method and the infection route highly demanded by university students for education.

2.4.1. Study procedure

Preliminary survey: The AIDS education was announced to the students in two departments that gave permission for the study, and participants were recruited. The objectives of study were explained to students and students were requested to complete the questionnaire if they intended to participate in the study since there were two measurements including the preliminary and post surveys, and they were also explained that no disadvantage was given even if they decided not to participate in the survey and the education. The questionnaires were distributed to only students who agreed to participate in the study, and their knowledge and attitude toward AIDS were investigated, and what they wished to be educated about regarding AIDS were also investigated.

AIDS education: The AIDS education was delivered to the experiment group first, and then was delivered to the control group after the preliminary and post surveys were finished so that no disadvantage was given. The education was delivered by another researcher, not the one who conducted the surveys. The participants watched video regarding AIDS for the first 20 minutes. For the next 30 minutes, PowerPoint material was used for the AIDS lecture and the question and answer session was carried out.

Post survey: The post survey regarding knowledge, attitude and recognition was conducted targeting the students who participated in the preliminary survey a week after the education. The post survey was carried out after explaining the participants that no disadvantage was given even if they decided not to participate in the post survey and receiving the consent from them.

2.4. Study tools

2.4.1. Knowledge

In the knowledge tool comprised of 23 questions produced by Shin&Hong [8] for measuring the knowledge regarding AIDS, some questions difficult for students to understand were modified based on the consultation with 2 nursing professors; the validity of questions

modified was verified by 3 experts from the Korean Association for AIDS Prevention. 1 point was given for a correct answer and 0 point was given for an incorrect answer or for the answer of "I don't know," and the average score was obtained by adding the score of each question and dividing the total score by the number of questions, and a higher score means higher knowledge.

2.4.2. Attitude

For the attitude measurement tool, 7 three-point scale questions developed by Shin&Hong [8] were used after such questions were modified based on the consultation with 2 nursing professors and supplemented through the review by 3 experts from the Korean Association for AIDS Prevention. A higher score means more positive attitude toward AIDS patients.

2.4.3. Recognition

Recognition means a clear understanding of a certain object and its meaning and making a correct judgment regarding the nature of the object by reasoning. For the recognition measurement tool in this study, the mass media containing the information regarding AIDS was summarized and 7 examples were created and organized based on such contents based on the consultation with nursing professors and 3 experts from the Korean Association for AIDS Prevention. 1 point is given if a respondent makes a correct judgment on each case and 0 point is given if not, and a higher score means that a respondent can make a judgment on AIDS more correctly.

2.5. Data analysis

The collected data were analyzed with the SPSS/WIN 21.0 program. The real number and the distribution rate were obtained for the general characteristics of participants; the general characteristics of experiment group and control group, and homogeneity of knowledge and attitude toward AIDS between experiment group and control group were verified using χ^2 -test and independent t-test. The Kolmogorov-Smirnov test was used to verify whether the dependent variables satisfied the normality assumption or not. The paired t-test was carried out for the knowledge and attitude before and after program in order to verify the effects of the program, and the recognition was verified using the independent t-test after the program was conducted.

3. Research results

3.1. Changes in the knowledge and attitude between before and after the AIDS education program

According to the analysis of the effects of AIDS education program on the knowledge and attitude using the paired t-test, the control group showed improved knowledge and attitude.

The knowledge score of the control group significantly increased from 0.61 point before participating in the education to 0.87 points after participating in the education ($t=-3.05$, $p=.005$), but the control group that did not participate in the program showed no difference ($t=-0.24$, $p=0.816$)

The attitude score of the control group significantly increased from 2.14 points before participating in the education to 2.34 points after participating in the education ($t=-2.43$, $p=0.023$), but the control group that did not participate in the program showed no difference ($t=1.84$, $p=0.078$) [Table 1].

Table 1. Changes in the knowledge and attitude between before and after the AIDS education program (N=52)

Variables	Groups	Pre	Post	t	p
		Mean(SD)	Mean(SD)		
Knowledge	Exp.(n=26)	0.61(0.10)	0.68(0.11)	-3.05	0.005
	Con.(n=26)	0.61(0.13)	0.61(0.12)	-0.24	0.816
Attitude	Exp.(n=26)	2.14(0.31)	2.34(0.35)	-2.43	0.023
	Con.(n=26)	2.24(0.30)	2.18(0.32)	1.84	0.078

3.2. Differences in the recognition after the AIDS education program

As a result of analyzing, with the Independent t-test, differences in the recognition of participants after participating in the AIDS education program, the experiment group showed a higher level of recognition than the control group.

The experiment group that participated in the AIDS education program showed 0.73 point for the recognition, indicating a statistically higher score than the control group that showed 0.40 point ($t=4.76$, $p<.001$) [Table 2].

Table 2. Differences in the recognition after participation in AIDS education program (N=52)

Variables	Exp.(n=26)	Con.(n=26)	t	p
	Mean(SD)	Mean(SD)		
Recognition	0.73(0.18)	0.40(0.31)	4.765	<0.001

4. Conclusions

This study is a quasi-experimental study with non-equivalent pretest-posttest control group, targeting university students, attempted to verify the effects of the AIDS education on the relevant knowledge, attitude and recognition.

This study was conducted targeting university students who experienced difficulty in accessing information regarding HIV/AIDS, and as a result, most of respondents answered that they did not know about HIV/AIDS well regardless of the fact that they had or did not have experience in the HIV/AIDS education. To sum up the results of this study, the AIDS education carried out in this study improved the level of knowledge, indicating that it was effective in improving the ability to judge incorrect bias toward HIV/AIDS. However, it had no significant effect in improving the attitude from negative to positive.

Since the number of infected people is currently increasing, the attitude of people toward HIV/AIDS should be switched from negative to positive along with the prevention of increase in the number of infected people and the most efficient method for cultivating positive attitude is the education through publicity campaigns. Given such aspects, a continuous and effective education is necessary for improving the level of knowledge and attitude; there is a need to develop customized life-cycle AIDS prevention education program.

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