

**KNOWLEDGE AND ATTITUDE OF STUDENTS MAJORING IN NURSING TOWARD
HIV/AIDS*****Yu-Kyung Park**

Dept. of Nursing, Choonhae College of Health Sciences, Ulsan, 44965, Korea.

***Corresponding Author: Yu-Kyung Park**

Dept. of Nursing, Choonhae College of Health Sciences, Ulsan, 44965, Korea.

Article Received on 21/10/2019

Article Revised on 11/11/2019

Article Accepted on 01/12/2019

ABSTRACT

It is a descriptive study conducted to offer basic data for providing effective nursing for patients with AIDS and foster professionals in the health care field by identifying the knowledge and attitude of students majoring in nursing about HIV/AIDS (AIDS). This study used 146 students majoring in nursing at a university in U city and a survey was conducted from March 1 to March 30, 2019. Data analysis was carried out using SPSS 21.0 version for windows. Knowledge scores were significantly different by age ($F=6.31, p<.001$), grade ($F=14.98, p<.001$), and AIDS education experience ($t=3.52, p<.001$). Attitude toward AIDS was significantly different by grade ($F=4.10, p<.001$) and the confidence in nursing patients with AIDS ($t=-2.26, p<.025$). There was a significant correlation ($r=.260, p<.010$) between AIDS knowledge and attitudes about AIDS. AIDS is becoming more serious worldwide, and the number of AIDS infectees is increasing in South Korea. Since knowledge about AIDS is in proportion to education level and views and attitudes are affected by knowledge, it is necessary to provide systematic education by preparing more active education programs to prevent AIDS infection of college students.

KEYWORD: HIV/AIDS, knowledge, and attitude.**I. INTRODUCTION****Need for the Study**

Human immunodeficiency virus (HIV) causes the acquired immune deficiency syndrome (AIDS) and AIDS is a disease that must be managed critically worldwide because it can change the demographic structure as well as cause economic issues such as the increase in medical expenses and poverty. Although South Korea has a relatively low AIDS infection or low incidence rate, the number of infected people has increased gradually since 1981.^[1] The number of newly AIDS infected people in 2017 was 1,191.^[1] In particular, the number of surviving AIDS infectees has been increasing since 1995-1996, when anti-retroviral therapy was introduced to treat AIDS and AIDS became a manageable chronic disease.^[2] It is estimated that the actual number of AIDS-infected Koreans is more than three times the reported number because of undiagnosed cases (no examination) and hidden infectees due to social stigma.^[3]

The United Nations Program on HIV / AIDS (UNAID) defines AIDS as a chronic disease, which means that patients with AIDS can improve their life expectancy and quality of life by rapid diagnosing, preventing, and managing the disease consistently.^[4] However, despite the change in definition, South Koreans still don't have sufficient knowledge about AIDS. Therefore, people believe that "patients with AIDS die" and "AIDS

infectees are sexually and morally corrupted".^[5] When they hear "AIDS", people often come up with negative words such as "incurable illness", "homosexual" and "disorder".^[5] These results indicate that the false perceptions of AIDS, vague fears and negative views have not been improved much.^[5]

These perceptions tend to make AIDS infectees hide their disease and isolate themselves because they are afraid of social stigma and discrimination due to the exposure of their infection.^[6] Students majoring in nursing are preliminary medical care providers who need to care for social minorities after graduation. Therefore, it is important for them to have the right attitude toward patients with AIDS as well as rich knowledge about AIDS. However, a previous study on the prejudice or attitude of students majoring in nursing toward people with AIDS indicated that their prejudice and attitude were not significantly different from those of the general public.^[7] This suggests that differentiated education is needed for these prospective caregivers who have to advocate for patients with AIDS. Moreover, while they do clinical practice, students majoring in nursing have a high risk of infection through various propagation paths because they don't have much experience in clinical technique and are not well prepared for safety accidents.^[7] Previous studies showed that more than 50% of students majoring in nursing had been exposed to the blood or body fluids of patients during clinical practice,

and it is urgent to take countermeasures.^{[8][9]} This study aimed to provide basic data for developing effective education programs for improving the knowledge and attitudes of students majoring in nursing toward AIDS by identifying their knowledge and attitude toward AIDS as preliminary health care providers supposed to take care of social minorities after graduation.

2. Study Objective

The objective of this study was to provide basic data for developing programs for offering effective nursing care for AIDS infectees and educating experts in the health care field by identifying the knowledge and attitude of students majoring in nursing toward AIDS.

II. MATERIALS AND METHODS

1. Study Subjects and Methods

It is a descriptive study conducted from March 1 to March 30, 2019, to investigate the knowledge and attitudes of students majoring in nursing toward AIDS. The study subjects were 160 students majoring in nursing at C University in U Metropolitan City. They understood the objective of this study and agreed to participate in the study. This study excluded 14 responses because their responses were not complete and analyzed 146 responses (91.2%) in the final analysis.

2. Data Analysis

The general characteristics of the subjects and their knowledge and attitudes about AIDS were analyzed by frequency, percentage, mean, and standard deviation. The differences in the knowledge and attitudes about AIDS by general characteristics were analyzed by t-test, ANOVA, and Scheffe test (post-hoc analysis). The correlation between the degrees of knowledge and attitudes about AIDS was analyzed by Pearson correlation.

3. Study Tools

The measurement tools of this study consisted of 26 questions: 11 questions about general characteristics and infection characteristics of AIDS, 12 questions regarding knowledge about AIDS, and 5 questions about the

attitude toward AIDS. The knowledge and attitudes toward AIDS were examined by using the tool developed by Shin and Hong (1996).^[10] A higher score means better knowledge about HIV / AIDS and a more positive attitude toward AIDS.

III. RESULTS

1. General Characteristics of Subjects and Characteristics Related to AIDS Infection.

The general characteristics of the subjects and characteristics related to AIDS infection are shown in Table 1. Females accounted for 90.4% of the subjects, 23.3% of them were 24 years or older, and 54.1% of them did not have religion. The subjects were mostly junior (26.7%) or senior (26.0%) students and 76.7% of the subjects responded their "subjective grades" were medium.

Regarding the characteristics related to AIDS infection, 52.7% of the subjects responded "No" and 48.6% of them responded "Yes" to "I've always thought about AIDS infection" while 89.7% of the subjects responded "No" and 11.0% of them responded "Yes" to "I can also be infected by AIDS." To the question of "I've seen an AIDS infectee", 89.7% of the subjects responded "No" and 10.3% of them responded "Yes". To the question of "If you have seen an AIDS infectee, how did you see the person?", 10.3, 5.5, 4.1, 2.1, 2.1, and 0.7% of the subjects saw an AIDS infectee through TV, internet, hospital, newspaper, school, and friends or school seniors, respectively. To the question about whether the subjects received education on AIDS, 56.8% of the subjects said "Yes" and 43.2% of them said "No". They received AIDS education through school (31.5%), newspaper (3.4%), internet (2.7%), TV (2.1%), hospital (0.7%), public agencies (0.7%), and external education organizations (0.7%). To the question of "I have taken an AIDS test", 95.2% of the subjects indicated "No" and 4.8% of them said "Yes". It was found that 56.2% of the subjects were confident in nursing patients with AIDS, while 43.8% of them were not confident in nursing patients with AIDS.

Table 1: General Characteristics (N=146).

| Variables | Categories | N(%) | M±SD |
|-----------|-------------|-----------|------------|
| Gender | male | 14(9.6) | |
| | female | 132(90.4) | |
| Age | 20 | 27(18.5) | 22.73±3.18 |
| | 21 | 24(16.4) | |
| | 22 | 30(20.5) | |
| | 23 | 31(21.2) | |
| | >24 | 34(23.3) | |
| religion | Christian | 34(23.3) | |
| | Catholic | 15(10.3) | |
| | Buddhism | 17(11.6) | |
| | No religion | 79(54.1) | |

| | | | |
|--|---------------------|-----------|--|
| grade | freshman(a) | 34(23.3) | |
| | sophomore(b) | 35(24.0) | |
| | junior(c) | 39(26.7) | |
| | senior(d) | 38(26.0) | |
| achievement | Uppera) | 16(11.0) | |
| | middleb) | 112(76.7) | |
| | lowerc) | 18(52.7) | |
| I have thought about the usual AIDS infection. | Yes | 68(46.6) | |
| | No | 771(52.7) | |
| I too can get AIDS | Yes | 15(10.3) | |
| | No | 131(89.7) | |
| I have seen someone infected with AIDS. | Yes | 62(42.5) | |
| | No | 84(57.5) | |
| How do AIDS patients know? | Public Health | 0(0) | |
| | Restaurant | 0(0) | |
| | Movie Theaters | 0(0) | |
| | Friend or senior | 1(0.7) | |
| | Public institutions | 2(1.4) | |
| | school | 3(2.1) | |
| | newspaper | 3(2.1) | |
| | Internet | 8(5.5) | |
| | hospital | 6(4.1) | |
| | TV | 15(10.3) | |
| Have you ever had AIDS education? | Yes | 83(56.8) | |
| | No | 62(42.5) | |
| Have you ever had an AIDS test? | Yes | 83(56.8) | |
| | No | 62(42.5) | |
| Are you confident in caring for AIDS patients? | Yes | 64(43.8) | |
| | No | 82(56.2) | |

2. Subjects' knowledge and attitude about AIDS. Subjects' knowledge and attitude scores about AIDS are shown in Table 2. The mean score of subjects' HIV /

AIDS knowledge was 12.36 points and that of subjects' attitude toward AIDS was 15.80 points.

Table 2: Knowledge and attitude about AIDS (N=146).

| Variables | M(±SD) | Maximum score | Minimum score |
|-----------------------|--------------|---------------|---------------|
| Knowledge of HIV/AIDS | 12.36(±4.47) | 14 | 2 |
| Attitude of HIV/AIDS | 15.80(±6.63) | 26 | 6 |

3. AIDS knowledge and attitudes about subject's general characteristics and AIDS infection-related characteristics. The knowledge and attitude toward AIDS according to the general characteristics of the subjects are shown in Table 3. The knowledge of AIDS was significantly different by age ($F=6.31$, $p<.001$), grade ($F=14.98$, $p<.001$), and AIDS education experience ($t=3.52$, $p<.001$). The attitude was significantly different by grade ($F=3.90$, $p<.001$) and confidence to nurse patients with AIDS ($t=-2.26$, $p = <. 05$).

Table 3: AIDS knowledge and attitude by subjects' general characteristics and AIDS infection characteristics.

| Variables | Categories | 지식 | | | 태도 | | |
|--|--------------|------------|----------|-----------|------------|---------|-----------|
| | | M±SD | t or F | Scheffe | M±SD | t or F | Scheffe |
| Gender | male | 11.29±6.18 | -.75 | | 13.79±8.23 | -1.21 | |
| | female | 12.55±4.43 | | | 16.04±6.43 | | |
| Age(y) | 20(a) | 10.22±5.08 | 6.31*** | b<a,c,d,e | 14.76±2.91 | .99 | b<a,c,d,e |
| | 21(b) | 9.83±5.39 | | | 12.83±3.06 | | |
| | 22(c) | 14.03±3.64 | | | 18.09±3.04 | | |
| | 23 세 d) | 13.10±4.03 | | | 16.10±4.03 | | |
| | >24(e) | 14.00±3.50 | | | 18.28±4.02 | | |
| | | | | | | | |
| religion | Christian | 13.12±4.92 | .34 | b<a,c,d | 15.94±3.37 | 1.54 | b<a,c,d |
| | Catholic | 11.93±5.13 | | | 13.06±3.67 | | |
| | Buddhism | 12.00±5.11 | | | 15.47±2.84 | | |
| | No religion | 12.35±4.34 | | | 15.83±3.06 | | |
| grade | freshman(a) | 9.94±5.15 | 14.98*** | a<b,c,d | 14.23±3.17 | 3.90*** | b<a,c,d |
| | sophomore(b) | 10.26±4.43 | | | 13.50±2.91 | | |
| | junior(c) | 15.13±3.20 | | | 18.28±4.02 | | |
| | senior(d) | 13.89±3.34 | | | 16.10±4.03 | | |
| achievement | Uppera) | 12.05±3.98 | 1.32 | a<b,c | 16.28±4.02 | 1.32 | b<a,c |
| | middleb) | 12.16±4.58 | | | 14.16±4.58 | | |
| | lowerc) | 14.06±5.20 | | | 15.06±5.20 | | |
| I have thought about the usual AIDS infection. | Yes | 13.29±3.64 | 1.13 | | 15.23±3.17 | .65 | |
| | No | 12.11±4.65 | | | 14.89±4.77 | | |
| I too can get AIDS | Yes | 12.74±1.96 | .07 | | 16.18±3.01 | 1.19 | |
| | No | 12.62±2.03 | | | 15.89±2.91 | | |
| I have seen someone infected with AIDS. | Yes | 11.74±2.91 | .83 | | 15.14±8.44 | 1.05 | |
| | No | 11.06±3.06 | | | 14.28±7.53 | | |
| Have you ever had AIDS education? | Yes | 13.57±4.22 | 3.52*** | | 15.51±7.71 | 2.17 | |
| | No | 10.94±4.75 | | | 14.08±6.28 | | |
| Have you ever had an AIDS test? | Yes | 13.29±3.64 | 1.74 | | 15.66±3.31 | .80 | |
| | No | 12.11±4.65 | | | 15.00±4.21 | | |
| Are you confident in caring for AIDS patients? | Yes | 11.87±4.60 | -.69 | | 14.97±2.03 | -2.26* | |
| | No | 12.42±4.62 | | | 17.01±1.86 | | |

* : p<.05, ** : p<.01, *** : p<.001

4. Relationship between subjects' AIDS knowledge and attitude.

The knowledge and attitude of subjects toward AIDS showed a weak positive correlation ($r=.190$ $p<.015$).

Table 4: Correlation between subjects' AIDS knowledge and attitude.

| Variables | attitude |
|-----------|------------------|
| Knowledge | .190 (P=.015) |

IV. DISCUSSION

Globally, the number of patients with AIDS tends to decrease in recent years owing to the development of effective treatment and free supply of medicine.^[1] Nevertheless, the number of people newly infected by HIV is steadily increasing.^[11] Therefore, the importance of nursing patients with AIDS will continue in the future society and during the 4th Industrial Revolution. However, it is believed that low knowledge and negative attitude toward patients with AIDS may negatively affect the quality of provided nursing. The objective of this study was to provide accurate and basic information, which will mitigate their fear against HIV infection, to students majoring in nursing and prospective health care workers.

The results of this study showed that the subjects' mean knowledge level of AIDS was 12.36 points: with 0 - 5 points (13.9%), 6 - 10 points (36.9%), 11 - 16 points (20.3%), and 17 - 22 points (28.9%) indicating more than 50% were below average. The mean attitude level related to AIDS was 15.80 points: 0-10 points (20.6%), 11-20 points (43.8%), and 21-30 points (3.5%), indicating more than 50% had a negative attitude.

Although students majoring in nursing belong to an occupational group dealing with social minorities such as patients, many of the respondents recognized AIDS negatively. Particularly, many previous studies have revealed that patients with AIDS are suffering from social prejudice rather than the burden due to the disease.^[11] Therefore, it will be necessary to develop physical, mental, and social education programs that can mitigate relieve prejudices against patients with AIDS and form a positive attitude rather than simple knowledge-based education.

The correlation analysis showed that there was a weak positive relationship ($r=.190$ $p<.015$) between AIDS knowledge and attitude toward AIDS, which indicated that people with better knowledge about AIDS had a more positive attitude toward AIDS. Since the knowledge about AIDS is in proportion to the education level and views and attitudes are influenced by the level of knowledge, it is necessary to provide systematic education by preparing more active education programs to prevent AIDS infection of college students. It is very encouraging that AIDS is on the decline all over the world due to the development of effective treatments and the free supply of medicine. However, we need to be alert to the increasing number of new AIDS infectees and establish consistent and efficient AIDS management policies.

The limitation of this study is that this study could not accurately define the characteristics of the population in selecting the subjects, so it is not possible to generalize the results of the study. Future studies need to be conducted using a larger sample size and have more repetitions.

* This study was supported by the 2018 Choonhae College Of Health Sciences Research Support.

REFERENCES

1. Center for Disease Control and Prevention. 2017 Annual report on the notified HIV/AIDS in Korea. 2017.
2. UNAIDS. Global Report: UNAIDS report on the global AIDS epidemic. 2013.
3. Y. R. Yang, "Types of AIDS Knowledge and Attitudes in a Korean Population and Their Related Factors", Korea Health Research, 2015; 41(4): 51-62.
4. UNAIDS. HIV-related stigma, discrimination and human rights violations. 2005.
5. Korea Center for Disease Control & Prevention & Korea federation for HIV/AIDS Prevention(2010, December). National Survey on HIV/AIDS Knowledge, Attitudes, Beliefs, and Behaviors in the General Population. Retrived September 9, 2015, from <http://www.nih.go.kr/CDC/cms/cmsFileDownload.jsp?fid=3445&cid=27713&fieldName=attach1&index=1>
6. Judgeo N, Moalusi KP. My secret: The social meaning of HIV/AIDS stigma. SAHARA J: Journal of Social Aspects of HIV/AIDS., 2014; 11(1): 76-83.
7. Ahn, H. M., Yoo, J. S., Park, C. G., & Kim, M.Y. HIV/AIDS-related knowledge and attitudes of nursing college students and non-nursing students. Journal of Korean Public Health Nursing, 2008; 22(1): 108-120.
8. Park, J. H., Jun, H. K., Jeong, S. H., Hwang, J. H., Lee, C. S., & Lee, H. B. Nursing students' exposure to blood and body fluids in clinical practicum. Journal of East-West Nursing Research, 2010; 16(1): 70-75.
9. Park, J. H., Jun, H. K., Jeong, S. H., Hwang, J. H., Lee, C. S., & Lee, H. B. Nursing students' exposure to blood and body fluids in clinical practicum. Journal of East-West Nursing Research, 2010; 16(1): 70-75.
10. Shin, Y. H., & Hong, Y. H. College students' knowledge and attitudes toward AIDS in Pusan and Ulsan areas. Journal of Korean Academy of Nursing, 1996; 26(1): 33-42.
11. J. S. Han, K. Park, "Phenomenological Analysis of Male AIDS Patients' Experiences on Adaptation Process", Korea Society of Psychology, 2012; 17(3): 517-534.