

Knowledge and Attitudes of Nurses Regarding HIV/AIDS (Tehran –2010)

Mohammad Ali Cheraghi¹, Esmail Mohammad Nejad^{*2}, Jamaloddin Begjani³
Narmela Rabirad⁴, Seyyedeh Roghayeh Ehsani⁵, Mohammad Akbari Kaji⁵

Abstract

Background: HIV/AIDS is an infectious disease and the fourth cause of death in the world and Iran and other Middle East countries are suffering from it. Medical staff, particularly nurses are at risk for bloodborne pathogens especially human immunodeficiency virus. We aimed to investigate educational needs of nurses about HIV/AIDS.

Methods: In this cross-sectional study, 196 nurses of Imam Khomeini Clinical and Hospital Complex in Tehran were selected by simple random sampling method and completed self-administered two-part questionnaire, one dealing with demographic data and other inquiring knowledge and attitude of nurses about HIV/AIDS. The data was analyzed by SPSS version 16.

Results: Knowledge (66.73%) and attitude (62.19%) of nurses regarding HIV/AIDS were good condition. There was no significant relationship between age, clinical experience and employment status with knowledge and attitude scores ($p > 0.05$). There was significant relationship between history of nursing care of HIV patients and understanding ways of disease transmission ($P = 0.03$). About knowledge acquisition methods 50.51% of subjects had gained through textbooks and retraining courses. 87.75% of nurses believed that HIV/AIDS patients should be supported, helped and treated. There was significant relationship between knowledge and attitude regarding HIV/AIDS ($P = 0.003$).

Conclusions: continuing educational programs regarding AIDS for at risk groups such as nurses is recommended to maintain the ideal level of knowledge for increasing awareness.

Keywords: HIV/AIDS, Knowledge, Attitude, Nurse.

Introduction

AIDS is a disease with high mortality rate that undermines the human immune system against diseases and put the patients at high risk (1). Currently the world is experiencing the third AIDS epidemic so that the term pandemic can be used. Iran is no exception to this issue and number of AIDS patients is increasing (2, 3). This viral infection today is considered one of preventable communicable diseases (4) and is the second cause of death among 22-45 years old adults and fourth among all ages (5, 6).

Health care workers are exposed to blood borne pathogens, especially human immunodeficiency virus (7). Nurses are widely in contact with sharp and incisive devices, blood and secretions (8). Given that HIV patients are asymptomatic for a long period of time they are considered to be a potential risk for morbidity of nurses (9). Until recently there were not enough public concern about awareness of transmission and prevention of this disease and dealing with HIV patients, however

increasing disease pandemic has placed it among the priorities of health issues (10).

Although training programs increase knowledge of nurses regarding ways of transmission and prevention of HIV infection but studies show that this awareness is temporary (11). Sometimes due to shortage of nurses' knowledge about transmission ways of AIDS they have unusual attitudes regarding this disease and because of the fear of contamination they are not willing to provide nursing cares for AIDS patients (12). The most successful training programs are based on screening high risk groups, modifying high risk behaviors and maintaining these changes (13).

According to mentioned issues and researchers' experiences in nursing care of such patients in emergency and infectious wards, this research was conducted to evaluate knowledge and attitude so nurses regarding HIV/AIDS in Imam Khomeini Clinical and Hospital Complex.

Method

In this cross-sectional study, 196 nurses of Imam Khomeini Clinical and Hospital Complex in Tehran were selected by simple random sampling method. Both the accuracy and level of sampling error was considered 0/5. Data collection tool was a questionnaire prepared by review of existing textbooks and literature which consisting of samples' demographic data (Age, gender, work experience, education level, hospital ward, marital status, employment status, ways to getting information about HIV, status of exposure to AIDS and needlestick patients and follow-up plan) and their knowledge and attitudes about AIDS (14-16). We used content validity to validate the questionnaire and its reliability was determined using test re test ($r = 0.9$).

1. PhD, Assistant Professor, Faculty of Nursing and Midwifery, Tehran University of Medical Sciences, Tehran, Iran
2. Candidate of PHD in nursing, Imam Khomeini Clinical and Hospital Complex, Tehran University of Medical Sciences, Tehran, Iran
3. Candidate of PHD in nursing, Iranshahr Branch, Islamic Azad University, Iranshahr, Iran.
4. Secretary of Infection Control Committee, Tehran University of Medical Sciences, Tehran, Iran
5. MSc of Nursing, Young Researchers Club, Khorasgan Branch, Islamic Azad University, Khorasgan, Iran

Corresponding author: Esmail Mohammad Nejad;
Address: First Floor, No. 9, Kavusi Alley, Urmia St, South Eskandari St, Tehran, Iran.
Phone: 0989126124176
Email: asreno1358@yahoo.com

Knowledge questions included 21 multiple choice question with answers "yes", "No" and "Do not know" which ranged from 0 to 21 and were classified as the good (scores above 14), moderate (score 8-14) and poor (equal to or less than 7) knowledge. Attitude questions included 5 multiple choice question with answers "Agree" (score 2), "Do not know" (score 1) and "Disagree" (score 0) that range from a score of 0-15 and were classified as the good (scores above 11), moderate (score 6-10) and poor (less than 5) attitude.

The questionnaires were completed within a week by a researcher directly. To provide ethics, the questionnaire was anonymous and nurses were assured that their information is confidential and participation in this study is voluntary. All the data were analyzed by SPSS software version 16 using Independent T test, Chi square and correlation coefficient. P -Value < 0.05 was considered significant.

Results

The majority of the nurses (84.21%) were females and married (67.34%) with the mean age of 35.63 ± 0.5 . In terms of employment and work experience, nurses had mean years of 9.58 ± 0.39 work experiences, majority of them (34.69%) were contractual. Most of nurses (88.26%) had bachelor degree and majority of them (50.51%) declared that textbooks and retraining courses are the most important ways of acquiring awareness regarding HIV/AIDS (table 1). 107 (54.59%) of the nurses had a history of taking care of these patients and 14 (7.14%) had a history of using the High Anti-Retroviral Drugs (HARRT) because after needlestick injury and other therapeutic procedures.

Table1: Frequency and mean of some demographic data of nurses (N = 196)

Characteristic	NO	%
Age(years)		
<25	7	3.57
26-35	91	46.42
36-45	79	40.3
>45	19	9.69
Sex		
Male	31	15.81
Female	165	84.21
Marital status		
Single	64	32.65
married	132	67.34
Education Level		
BSc ⁹	173	88.26
MSc ¹⁰	23	11.73
Shift Type		
Fix	72	36.73
Rotation	124	63.27
hospital ward		
Emergency	74	37.75
Surgery	37	18.87
Infectious	34	17.34
internist	51	26.02

As Table 2 shows, the mean knowledge about the disease and methods of transmission of AIDS was 3.8 ± 15.1

which ranged 3-21. The mean attitude score was 11.3 ± 8.1 which ranged 2-15. Results of Pearson Correlation Coefficient indicated statistically significant relationship between knowledge and attitudes of nurses ($P=0.03$, $P=0.04$).

Table2: Average of nurses' knowledge and attitudes about AIDS

Statistical indicators Variable	Mean+SD	Range of acquired score	Range of scores in the questionnaire
knowledge about the HIV and methods of disease transmission	3.8+ 15.1	3-21	0-21
Attitude about the HIV	10.3+ 8.1	1-15	0-15

In Table(3) questions of nurses' attitudes about AIDS and in Table(4) the extent of their knowledge about the ways of the disease transmission Has been identified.

Table 3. Nurses attitude regarding AIDS

Attitude questions	Agree	Not Agree	Do not know
	Number (%)	Number (%)	Number (%)
Should prevent continuing education and working of HIV patient in the community	17(8.67)	170(86.73)	9(4.59)
HIV patients should be helped, protected and treated	172(87.75)	21(10.71)	3(1.53)
AIDS is the result of human action and should the population pay attention to this thread	42(21.42)	148(75.51)	6(3.06)
HIV patients should have civil rights like other people	169(86.22)	24(12.24)	3(1.53)
The government should isolate HIV patients from other people	49(25)	142(72.44)	5(2.55)

There was no significant relationship between the variables of gender ($P=0.61$), age ($P=1.32$), educational level ($P=0.9$), employment status ($P=1.07$) with nurses' knowledge and attitude about AIDS, however there was a significant relationship between their level of knowledge and attitude regarding AIDS and experience of nursing care to such patients ($P=0.03$). There was significant relationship between knowledge and attitude toward AIDS ($P=0/003$).

Table4. Ways of disease prevention from the perspective of nurses

Ways of AIDS prevention	Number (%) of correct answers
Condom use during coitus	178(90.81)
Drug therapy of infected mothers during pregnancy	146(74.48)
Observance of standard precautions in dealing with sharp and incisive instruments	161(82.14)
Not using shared needles and syringes	157(80.10)
Observance of sexual ethics	170(86.73)

9- Bachelor of Science

10- Master of Science

Discussion

Our findings showed that nurses' level of knowledge about AIDS and attitudes regarding ways of disease transmission and prevention was good which is unlike the results of India study(17).

Considering fundamental role of nurses in the health care system (18) and in treating and training programs of HIV patients (19) they should have enough knowledge and positive attitude towards such patients. Unfortunately, misconceptions and misinterpretations about the disease and ways of its transmission is seen among nurses. For example, 28.06%, 22.44%, 24.48% and 21.93% of nurses respectively believed that insect bites, shaking hands, sneezing, coughing and contact with the patient's body are the transmission paths. Also 15.33% of nurses believed that there is no definite treatment for AIDS which is in accordance with the Singapore study(20) and unlike to the results of India study(17).

There was no significant relationship between years of employment and nurses' knowledge about AIDS ($P=0.0132$), which is unlike the results of Beltram study (14).

Although aging accompanied by increased experience cause to increase knowledge but our results indicated no significant relationship between these variables, which was in accordance with Tanzania study (21).

One of the fundamental requirements to meet the educational needs of patients is meeting the educational needs of health care workers especially nurse. Nurses have professional responsibility regarding meeting needs of patients as one of patients' rights(22, 23). In several studies, most patients tend to have educational information(24) therefore, increasing nurses' knowledge about AIDS should be fulfilled as training programs by nursing and hospital administrators.

In the present study there was a significant relationship between the attitudes and awareness about HIV and its transmission. Although in the results of Adebago study, 96.3 percent of nurses had good knowledge about AIDS, but had a negative attitude to AIDS patients (25).

The attitude of nurses affects the quantity and quality of health care services and acceleration and effectiveness of services provided to AIDS patients(26). So we must try to improve this positive attitude and awareness among nurses. This is not achievable unless the proper educations about AIDS are accomplished with emphasis on inclusion of these programs to basic and retraining nursing programs. Also to reduce negative sensitivity for helping such patients training sessions should be considered.

Conclusion

Setting the retraining and continuing educational programs regarding AIDS for at risk groups such as nurses is recommended to maintain the ideal level of knowledge for increasing awareness.

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