

Knowledge of nursing students towards HIV/AIDS in Nepal

Sita Parajulee,¹ Valarmathi Selvaraj²

¹ Assistant Professor and Program Chief of Nursing program, ²Lecturer, Nursing program
College of Medical Sciences, Bharatpur, Nepal

Abstract

Aims

First case of Acquired Immuno Deficiency Syndrome (AIDS) in Nepal was reported in the year 1988. Nurses are an integral part of the healthcare system and should be knowledgeable in providing care to AIDS patients. This study assessed the knowledge of nursing students towards HIV/AIDS, and the association (if any) between the knowledge scores of the nursing students with their selected demographic variables.

Materials and methods

A cross sectional study was conducted evaluating the nursing student knowledge using a self designed questionnaire. The correct answers were given a score of '1' and wrong answers were given a score of '0' (total possible maximum score '18').

Results

Among the total 165 nursing students, 121 of them filled the questionnaire (response rate of 73.33%) and all of them were females. The mean \pm SD age of the respondents was 18.3 \pm 1.75 years. The median (IQR) of the overall total scores was 13.0 (11.5-15.0). There was an association between the knowledge scores of the respondents with 'age' ($p=0.000$), 'course of the study' ($p=0.001$). However, there was no statistically significant association between the knowledge scores with the 'year of study' of the respondents ($p=0.109$), 'mode of finance' (0.611) and 'native' of the students (0.173).

Conclusion

The study suggested that nursing students have a poor overall knowledge on AIDS and especially areas such as post exposure prophylaxis. The findings also suggested the need for providing adequate knowledge to the students during their regular class room teaching and clinical postings.

Key words: Knowledge , nursing students, HIV/AIDS , Nepal.

Correspondence: Ms. Valarmathi Selvaraj
Email: valarmathisubish@gmail.com

Introduction

AIDS is as an infectious disease caused by the human immunodeficiency virus (HIV). There are two variants of the HIV virus, HIV-1 and HIV-2, both of which ultimately cause AIDS.¹ AIDS is referred to as a syndrome because the range of manifestations may include a variety of opportunistic infections, neurological disorders and malignancies. The evidence on the first case of AIDS in Nepal was reported in the year 1988. By the middle of the year 2008 there were more than 1,750 cases of AIDS and more than 11,000 cases of HIV infection were officially reported. It was reported that men were affected two times more than that of women. The UNAIDS estimated that 70,000 people were living with HIV at the end of the year 2007.²

Nurses are an integral part of the healthcare system and are perceived to be knowledgeable in providing institutional and community health care to the patients. They play an important role in providing healthcare to patients, especially in rural areas of Nepal as there are less number of doctors. The role of nurses is even becomes more critical in a society that is battling to control and prevent HIV/ AIDS infection and related superinfections. Nurses are usually at the forefront of patient care. So when they are as students they need to have an adequate knowledge and a positive attitude towards healthcare problems including HIV/AIDS which has recently become a major public health concern in the country. In contrary to their roles, studies from different countries have reported a poor knowledge among the nurses regarding HIV/AIDS.^{3,4,5} Identifying the knowledge of nursing students may provide baseline data which may then be a useful source for intervention.

In Nepal, the basic nursing programs, the Diploma and Bachelor programs in Nurses lay adequate emphasis on the HIV/AIDS. However, the retention of this

knowledge among the nurses at the practitioner stage can be doubtful. Understanding these nurses knowledge can help in planning for proper training and continuous nursing programs (CNE) for the practicing nurses. The data regarding the nurses' knowledge on HIV/AIDS are limited. During or literature review we could locate only one study related to this topic carried out in Nepal. In that study authors found Nepalese nursing students to have a large knowledge gap and negative attitudes, regardless of level of education. A study done at Kathmandu Valley by Mahat and Eller suggested that curricula must include adequate and culturally relevant content on HIV/AIDS, attitudes towards people living with AIDS, and universal precautions.⁶ As there are no studies from other parts of Nepal, this study was carried out to assess the knowledge of nursing students towards HIV/AIDS and to study the association between the knowledge scores of the nursing students with their selected demographic variables.

Methodology

Study design: A cross sectional study evaluating the knowledge of the nursing students regarding HIV/AIDS.

Study site: College of Medical Sciences-Teaching Hospital (CMS-TH), a tertiary care teaching hospital that also runs a Bachelor of Science (BSc) and Proficiency Certificate Level (PCL) nursing programs.

Study subjects: The subjects were the nursing students from both BSc first year, second year and PCL first, second and third year. PCL program is three year course and BSc nursing program is four year course.

Inclusion and exclusion criteria: All the nursing students are who were present during the study period

were enrolled. The ones on leave were excluded from the study.

Study tools: A self designed questionnaire was used in the study. The questionnaire had 18 questions. This questionnaire was developed by the researchers in consultation with an expert in pharmacoepidemiology. The face and content validity was carried out through discussion among the researchers and the expert.

Method of data collection: The researchers personally went to the subjects and got the questionnaire filled by them. Adequate time (nearly 30 minutes) was given to each respondent for filling the questionnaire.

Data analysis: The filled questionnaires were collected and the data were entered in Microsoft Excel spreadsheet and were analyzed as per the study objectives. The correct answers were given a score of

‘1’ and wrong answers were given a score of ‘0’. Thus making the total possible score to be ‘18’.

Statistical analysis: The SPSS Version 16 was used to carry the statistical analysis. Mean and standard deviation were carried out for the demographic variables and Kruskal Wallis test was used to compare the mean scores with the respondents demographic variables.

Results

Demographic details of the respondents: Among the total 165 nursing students, 121 of them filled the questionnaire (response rate of 73.33%) and all of them were females. A high percentage (65.29% n=70) of them belonged to the age group 18-20 years and the mean ± sd age of the respondents was 18.3 ±1.75 years. Further details regarding the demography of the respondents are mentioned in Table 1.

Table 1. Demographic distribution of the respondents (n=121)

Parameters	Interval	Number	Percentage
Age (in years) (mean ± sd= 18.3 ±1.75)	Less than 18	38	31.40
	18 -20	79	65.29
	More than 20	4	3.31
Course	B.Sc Nursing	42	34.71
	PCL	79	65.29
Year of study	1	64	52.89
	2	28	23.14
	3	29	23.97
Year	B.Sc first year	22	18.18
	B.Sc second year	20	16.53
	PCL first year	42	34.71
	PCL second year	5	4.13
	PCL third year	32	26.45
Financing	Scholar	16	13.22
	Self	105	86.78
Native	Urban	13	10.74
	Rural	108	89.26

Comparison of respondents’ total score with demography:

The median (IQR) of the overall total scores is 13.0 (11.5-15.0).

There was an association between the knowledge scores of the respondents with ‘age’ (p=0.000) . Similarly there was also an association between the

course of the study and the total scores (p=0.001). However, there was no statistically significant association between the knowledge scores with the ‘year of study’ of the respondents (p=0.109), mode of finance (0.611) and native of the students (0.173). The details regarding the comparison of the respondents’ total score with demography are listed in Table 2.

Table 2. Total scores of the respondents with demographic variables

Parameters	Interval	Median (IQR) scores	P Value
Age	Less than 18	12 (11-13.25)	0.000 *
	18-20	14 (12-16)	
	More than 20	11.5 (8.75-12.0)	
Course	BSc	13.5(12.7-16.0)	0.001 **
	PCL	12 (11-15)	
Year of study	1	13 (11-14.75)	0.109 *
	2	13 (12-16)	
	3	14 (12-15)	
Mode of financing	Self	13 (12-15)	0.611 **
	Scholarship	12.5 (11-14.75)	
Native	Urban	13(12-15)	0.173 **
	Rural	11 (11-14)	

* Kruskal Wallis test ** Manwhitney U test

Note: Higher the score better is the knowledge

Responses of the nurses to individual statements:

It was found that all (100%) the students knew the expansion of the term ‘AIDS’. Similarly a high percentage (94.21%, n=114) of the respondents knew the ‘name of the virus which causes AIDS’ and the ‘modes of transmission of HIV virus’. It was also found

that only less than one third (28.93%, n=35) of the respondents knew the ‘time taken by the patient to develop signs and symptoms appear after expose to HIV virus’. Further details on the knowledge responses by the respondents to individual questions are listed in Table 3.

Table 3. Responses of the nurses to individual statements (n=121)

Question	Number of respondents answered correctly	Percentage of respondents answered correctly
1. Please expand the term ‘HIV/AIDS’	121	100
2. AIDS was identified first during the year	87	71.90
3. Please mention the name of the virus which causes AIDS	114	94.21
4. HIV can be transmitted through	114	94.21
5. Can a mother suffering from HIV/AIDS breast feed?	79	65.29
6. How long does it takes for the signs and symptoms to appear after expose to HIV virus?	35	28.93
7. Is HIV infection curable?	89	73.55
8. Which one of the following system is more commonly affected by HIV infection	103	85.12
9. Which one of the following drugs is used in the management of HIV/AIDS?	77	63.64
10. Which one of the following disease can easily affect the AIDS patients?	87	71.90
11. The duration of treatment of HIV/AIDS is	63	52.07
12. Please Mention any one drug used in the post exposure prophylaxis of HIV infection	67	55.37
13. One of the following is correct regarding post exposure prophylaxis of HIV infection	82	67.77
14. Which one of the following is the reason for failure of HIV/AIDS treatment?	90	74.38
15. Which one of the following is an early symptom of HIV infection?	104	85.95
16. Please mention any one method to prevent the occurrence of HIV infection among people	94	77.69
17. The death of AIDS patients occur mainly due to	84	69.42
18. Can HIV spread from one person to another by sharing utensils?	101	83.47

Note: Total number of respondents is 121

Discussion

HIV/AIDS is becoming a major public health concern in Nepal. Nurses play an important role in battling this dreadful condition. Nurses can provide health education on prevention strategies to general public, having adequate knowledge help them in overcoming social stigma associated with HIV infection, and can provide better institutional care. In order to perform their roles the nurses need to be knowledgeable on HIV/AIDS and related matters. It is also imperative for the nursing students to possess a good knowledge that would help them for a better practice while they become nursing practitioners.

In our study there were both B.Sc Nursing students and PCL nursing students. The overall scores were found to be high in case of B.Sc nursing students. The reason may be due to the fact that the BSc nursing students get admitted only after completing intermediate science(10+ 2) whereas the PCL nursing students get admission after completing class 10.

In a study from Turkey 227 nursing students from the School of Health were studied during the year 2005/2006 which showed that the students who had previous experience in caring for an AIDS patient and had known someone with HIV/AIDS were willing to care for people having HIV. Hence the need to strengthen nursing education on all aspects of HIV/AIDS.⁷

In our study nearly 75 % of the respondents answered correctly for the question 'Is HIV infection curable?' Actually AIDS is not a curable disease and hence prevention strategies are the most important methods to overcome this problem. Normally HIV spreads

through direct blood-blood contact and it is important for a nurse to know this since this may be a preventive factor for nurses to care for a HIV patient. Similarly, in case of accidental exposures the nurse should take adequate treatment and thus it is very much essential for the nurse to understand the mode of transmission of HIV virus. Similarly in our study only slightly more than half the number of respondents were aware of the drug used in post exposure prophylaxis.

Conclusion

The study suggests that nursing students have poor knowledge on AIDS/HIV and hence the need for providing adequate knowledge to the nursing students during their regular class room teaching.

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