

KNOWLEDGE AND ATTITUDE TOWARDS HIV/AIDS AMONGST NURSING STUDENTS IN NEPAL

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ABSTRACT

Introduction: Effective nursing care by well-trained hands and affectionate heart constitute the backbone of medical intervention in HIV/AIDS. The apprehension often articulated by health professionals while dealing with people living with HIV/AIDS hampers in health care. The purpose of the present study was to assess the extent of knowledge and attitude towards HIV/AIDS amongst nursing students.

Methodology: The present cross-sectional study was conducted among 113 selected proficiency certificate level nursing students of Parsa district of Nepal. Pre-tested anonymous questionnaire was administered to collect the responses necessary to infer the extent of knowledge on HIV/AIDS and nature of attitude towards PLWHA. The extent of knowledge was measured through an overall knowledge index constructed based on the responses to 10 objective questions. To ascertain the respondent's overall attitude, responses to various opinions were scored and summed upto form an attitude index.

Results: Almost half of the nursing students had good knowledge while almost a quintile numbers had incomplete knowledge about HIV/AIDS. Majority of them had negative attitude towards the care of PLWHA.

Conclusions: In aggregate, nearly half of the respondents had good knowledge about the various aspects of HIV/AIDS; however, majority of them had negative attitude towards the care of PLWHA. The overall knowledge and attitude of senior class was better than their junior counterparts. The training programmes for nurses should aim at confidence and skill building to deal with HIV issues.

Key words: Knowledge, Attitude, HIV/AIDS, Nursing students

INTRODUCTION

Acquired Immune Deficiency Syndrome (AIDS) is a devastating condition which is alarmingly progressing globally. HIV infection in Nepal is characterised as concentrated epidemic with the prevalence of 0.30 per cent among adult aged 15–49 years in 2011.¹The consequences of AIDS is

disastrous as the young and productive age groups of the population are at the centre of the HIV/AIDS epidemic.²Lack of universal adherence to infection control protocols, such as injection safety, poses a great risk for occupational exposure to HIV infection.³⁻⁶ Deviation from protocol in practices during nursing care of the HIV infected patients maximize the vulnerability of care providers to the HIV infection.⁷

Nursing care of HIV/AIDS patients appears to be surrounded by some form of mystique, as it is different from nursing care of other patients. Truly, the actual difference lies not in the actual care itself, but has evolved from the various psycho-social

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and ethical issues surrounding AIDS. An 'attitude' is the mental fitness to engage in the execution of the task.⁸ The process of changing attitudes requires that the individual objectively examine the critical elements of the attitude and identify those components that are valid and those that are prejudgements.⁹ The non-supportive attitude of the nurses towards the care of HIV/AIDS patients can adversely affect the nursing procedure and as such the overall case management. Positive encouragement and reassurance is of great value to the patient since many HIV/AIDS patients see their diagnosis as a death sentence.¹⁰ Considering the sensitivity of the issues involved within the nursing care of the person affected by AIDS and nursing professions itself, the authors in this study attempted to assess the knowledge and attitude among Proficiency Certificate Level (PCL) nursing students regarding HIV/AIDS.

METHODS

This was a cross-sectional quantitative study conducted among the PCL nursing students during January 2011. As per the provisions, an educational institute offers admission to a maximum of 40 students every year. A pre-tested, close ended anonymous questionnaire was distributed to all the 120 nursing students of the Parsa district of Nepal with an objective of assessing their knowledge and attitudes towards HIV/AIDS. The respondents were explained the objectives of the study and invited to participate. Written consent was taken from all the respondents after explaining the purpose of study. Ethical approval was taken from the Institutional Review Board (IRB) of National Medical College and Teaching Hospital, Birgunj, Nepal. The extent of knowledge of an individual student on HIV/AIDS was measured on the basis of the given response to 10 objective questions, the correct response to each question was given the score '1' and incorrect or not-sure response the score '0'. To categorize the student's overall level of knowledge, a knowledge index was constructed and scaled as: poor knowledge (index score ≤ 3), moderate knowledge (index score 4-6) and good knowledge (index score ≥ 7).

To ascertain the respondent's attitude, an overall attitude index was constructed based on the

individual respondent's degree of agreement or disagreement (the 5 point Likert scale was adopted) with the 10 given opinion statements. The scores obtained against each statement were summed up to assign the total index score for an individual respondent. Finally, the overall attitude index was scaled (in order to categorize an individual's overall attitude towards PLWHA) as: score < 2 : poor (negative) attitude, score 2 – 2.9: moderate (somewhat positive) attitude and score ≥ 3 : good (strong positive) attitude. Data were compiled and then entered into Microsoft excel. Thus, entered data was transferred to Statistical Package for Social Science (SPSS 16.0 version) for the analysis. P value less than 0.05 was considered significant.

RESULTS

Of the total 120 nursing students approached to participate in the present study, 113(94%) had returned the completed questionnaire.

Out of total 113 respondents who had returned the questionnaire with their responses, 38 (33.63%) were the students of first year, 35 (30.97%) were of second year and 40 (35.40%) were of the third year PLC in nursing. Their mean age was 17.56 ± 2.71 years. Majority of the participants (69.13%) had their schooling from English medium schools and most of the parents or guardians of these students (71.67%) were job holders. About three quarters of all the respondents (76.99%) knew correctly the full form of AIDS. Significant variation was noticed among students of different years. Only 55.00% students of first year as compared to 95.00% among the third year students could give the correct response. Knowledge level among various levels of students was found significantly different ($p=0.01$) as shown in table 1. Students had comparatively good knowledge on modes of transmission of HIV infection. Overall, 95.00% of students had knowledge of HIV transmission through unprotected sexual contact while 75.00% were known about the mother to child transmission. There was significant difference between the knowledge of first, second and third year nursing students on mode of HIV transmission ($p=0.01$) (table 2).

Table 1. Student's knowledge on full form of AIDS

Course Year	Correct response	Incorrect response	Total	P&df value
First (n=38)	21(55.26)	17(44.74)	38(100.00)	P=0.01, df=2
Second (n=35)	28(80.00)	7(20.00)	35(100.00)	
Third (n=40)	38 (95.00)	2(5.00)	40 (100.00)	
Total (n=113)	87(76.99)	26(23.01)	113(100.00)	

Table 2. Correct knowledge on mode of transmission of HIV infection

Course Year	Sexual contact	Blood transmission	Con-taminated needle and syringe	Infected Mother to baby	P&df value
1 st (n=38)	33(86.84)	28(73.68)	30(78.94)	18(47.37)	P=0.01 df=6
2 nd (n=35)	34(97.14)	31(88.57)	32(91.43)	27(77.14)	
3 rd (n=40)	40(100.00)	38(95.00)	36(90.00)	38(95.00)	
* Total	107(94.69)	97(85.84)	98(86.73)	83(73.45)	

*Multiple responses, Figures in the parenthesis denote percentages

Only half of the respondents had good knowledge on methods of disposal of needles and syringes after use. Only about 31.00%, 46.00% and 75.00% had good knowledge on this regard on first, second and third year students respectively. The knowledge difference between various years students was statistically significant ($p=0.001$) (table 3).

Table 3. Knowledge regarding methods of disposal of needles and syringes after use

Year	Bend the needle and through in the dustbin	Disposed in proof container with disinfectant	Throw in the dustbin directly	Recap the used needles and throw in the dustbin	P&df value
First (n=38)	10 (26.32)	12 (31.58)	8(21.05)	8 (21.05)	p=0.001 df=6
Second (n=35)	7 (20.00)	16 (45.71)	7(20.00)	5 (14.29)	
Third (n=40)	3 (7.50)	29 (72.50)	6(15.00)	2 (5.00)	
Total	20 (17.70)	57 (50.44)	21(18.58)	15(13.27)	

(Figures in the parenthesis denote percentages)

Nearly 57.00% of total respondents were aware that youths are commonly affected by HIV infection. The majority of third year students (83.00%) were aware of this fact as compared to second

year (57.00%) and first year (35.00%). These differences were statistically significant ($p=0.003$) (table 4).

Table 4. HIV/AIDS knowledge of respondents about most commonly affected age group

Commonly affected age group	First Year (n=38)		Second Year (n=35)		Third Year (n=40)		Total		P&df value
	No	%	No	%	No	%	No	%	
Infant	8	21.05	6	17.14	1	2.50	15	13.27	P=0.003, df=6
Child	12	31.58	5	14.28	4	10.00	21	18.58	
Youth	13	34.21	20	57.15	33	82.50	66	58.42	
Old age	5	13.16	4	11.43	2	5.00	11	9.73	
Total	38	100	35	100	40	100	113	100	

On the account of overall knowledge level, nearly half of the nursing students had good knowledge followed by moderate knowledge (33.00%). Surprisingly, there were nearly 17.00% of the respondents had poor knowledge on HIV/AIDS. The overall knowledge level was higher amongst the seniors nursing students than their junior counterparts and these knowledge differences were statistically significant ($p=0.03$) (figure 1). Though, majority of nursing students were having positive attitude towards the care of PLWHA in hospital, Very high proportion of nursing students had negative attitude. Many of them had fear of getting HIV infection due to their day to day clinical practices (56.70%). Many of respondents had prejudices regarding the care for PLWHA (28.40%) (table 5).

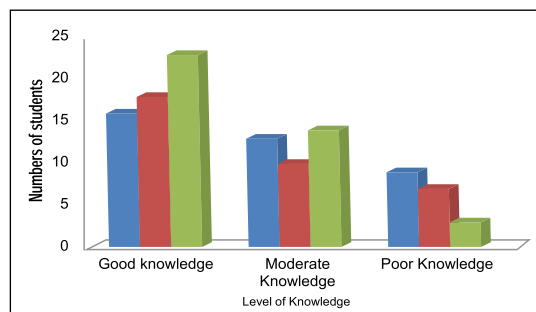


Figure 1. Knowledge among the students regarding HIV/AIDS

Attitude related statements	1st Year		2nd Year		3rd Year		Total	
	Agree/ Strongly agree	Disagree/ strongly disagree	Agree/ Strongly agree	Disagree/ strongly disagree	Agree/ Strongly agree	Disagree/ strongly disagree	Agree/ Strongly agree	Disagree /strongly disagree
A nurse should keep distance during the care of a HIV positive patient	24 (63.16)	12 (31.58)	17 (48.57)	18(51.43)	8 (20.00)	29 (72.50)	49(43.36)	59 (52.21)
The body of an AIDS patient should not be touched without wearing the gloves	19 (50.00)	14 (36.84)	13 (37.14)	21(60.00)	10(25.00)	27 (67.50)	42(37.17)	62 (54.87)
HIV patients should be referred to other centers or support groups for treatment	22 (57.9)	11 (28.95)	14 (40.00)	17 (48.57)	6 (15.00)	31 (77.50)	42(37.17)	59 (52.21)
HIV infected patients are allowed to school or work	16 (42.11)	18 (47.37)	23 (65.71)	10 (28.58)	34 (85.00)	4 (10.00)	73(64.60)	32 (28.32)
Nurses should have a right not to care for AIDS patients	26 (68.42)	8 (21.05)	14 (40.00)	22 (62.86)	5 (12.50)	30 (75.00)	45(39.82)	60 (53.10)
After graduation, you will not hesitate working on a unit that has a high numbers of HIV positive patients	9 (23.68)	23 (60.53)	27 (77.14)	7 (20.00)	38 (95.00)	1 (2.50)	74(65.49)	31 (27.43)
Because of your clinical practices, you worry about being exposed to HIV infection.	21(55.26)	7 (18.42)	12 (34.29)	21 (60.00)	3 (7.50)	36 (90.00)	36(31.86)	64 (56.64)
The nurses who work in the department having high numbers of HIV positive patients should get more salary.	23 (60.52)	9 (23.68)	14 (40.00)	17 (48.57)	6 (15.00)	32 (80.00)	43(38.05)	58 (51.33)
Even with the high precautions on infection prevention methods, HIV can be transmitted during patient care.	24 (63.18)	11 (28.95)	11 (31.43)	23 (65.71)	8 (20.00)	27 (67.50)	43(38.05)	61 (53.98)
It is better to refrain caring to PLWHA in hospital than regretting after being infected.	26 (68.42)	7 (18.42)	12 (34.29)	21 (60.00)	7 (17.50)	29 (72.50)	45(39.82)	57 (50.44)

(Figures in the parenthesis denote percentages)

Overall, 39.80% of students (23.70% of first year, 68.60% of second and 55.00% of third year) had positive attitude towards the care of AIDS patient. Nearly 31.00% of students (29.00% for first year, 31.40% of second year and 32.53% of third year) had moderate attitude towards HIV and AIDS patients. Surprisingly, a very high percentage (29.20%) of nursing students had negative

attitudes towards the care of PLWHA. The overall attitude of senior class nursing students was better than their junior counterparts and these attitude differences were statistically significant. ($p=0.01$) There was positive correlation between knowledge and attitude of all the first, second and third year nursing students having (r) values of 0.59, 0.78 and 0.81 respectively (table 6).

Table 6. Level of attitude towards HIV and PLWHA							
Year	Good		Moderate		Poor		P&df value
	No	%	No	%	No	%	
First (n=38)	9	23.68	11	28.95	18	47.37	P= 0.01 df=4
Second (n=35)	14	68.57	11	31.43	10	28.57	
Third (n=40)	22	55.00	13	32.50	5	12.50	
Total	45	39.82	35	30.97	33	29.20	

Mean knowledge score and SD of first, second and third year nursing students were 5.07 ± 1.91 , 5.71 ± 1.38 and 6.72 ± 1.56 respectively whereas attitude score and SD were 2.05 ± 0.72 , 2.48 ± 0.77 and 3.03 ± 0.52 respectively (table 7).

Table 7. Overall knowledge and attitude score of respondents					
Knowledge scores					
Variable	Mean	Median	S.D	Range	Mode
First year	5.07	5.0	1.91	7	5
Second year	5.71	6.0	1.38	6	6
Third year	6.72	7	1.56	7	8
Attitude scores					
Variable	Mean	Median	S.D	Range	Mode
First year	2.05	2.05	0.72	2.6	2
Second year	2.48	2.5	0.77	2.6	3.1
Third year	3.03	3.2	0.52	1.6	3.6

DISCUSSION

Our findings show generally good knowledge of the HIV/AIDS; however, a large number of them had incomplete knowledge and misconceptions especially with regard to full form of AIDS, pathogenicity of HIV/AIDS, mode of transmission, and methods of prevention. In aggregate, nearly half of the respondents were having good knowledge at the same time one third of all respondents were having moderate knowledge. The above observation support the findings of previous studies carried out among different categories of health care and management professionals.^{11,12} However, this observation needs attention of the health policy makers and authorities of the Nursing Colleges.

The level of knowledge was found different among various years nursing students where overall

knowledge level of senior level students was high from their junior counterpart and these knowledge differences were statistically highly significant. Similar study conducted on Turkey revealed identical findings that Scores increased parallel with students' grade.¹³

It was found a willingness of majority of nursing students to attend HIV infected and AIDS patients. This finding revealed that the majority of the nursing students have no reservation in accepting any offer in regard to caring for HIV/AIDS patients after completion of the study. (65.5%) However, few of them had prejudices regarding treatment of the HIV infected patient due to fear of transmission of HIV. However, it is apparent that additional information is required regarding the transmissibility of HIV infection; to correct the noted misconceptions such as HIV could be transmitted by shaking hands, staying in the same room, studying in the same school etc. There problem therefore, appears to be inadequate knowledge of HIV and AIDS infection control rather than lack of enthusiasm.

Majority of the nursing students have shown the interest to accept any offer in regard to caring for HIV/AIDS patients in their future nursing life which shows the commitments of the nursing students towards their profession. Their attitude and outlook really deserve appreciation. There was positive co-relationship between knowledge and attitude of the all first, second and third year nursing students which is consistent with the findings in some other studies.¹⁴⁻¹⁵ However, some researchers observed contradictory attitude of health care professionals in this regard.¹⁶⁻¹⁸ The present study findings contradict with the observation of two previous studies might be because of they are yet to be exposed to real job situation. The overall attitude of senior class was good from their junior counterpart and these attitude differences were found statistically highly significant. There was an association between the dependent variables and nursing grade levels, in that the higher the grade of the nurse, the more positive attitudes they had. Whether this is a purely educational association remains to be ascertained. Closely identical results were revealed from some other studies conducted among nursing students.¹⁹

It is apparent that many health care professionals like doctors and nurses feel they have inadequate clinical and counselling skills to deal with HIV and

its implications. Thus, the training programmes for health care professionals like nurses, doctors and other categories of health workers should aim at increasing the confidence and skills so that they can cope with HIV issues.

There were some limitations of the study such as considerably small size of study population and only inclusion of PCL nursing students from the college.

CONCLUSION

Nursing students had good knowledge in various aspects of HIV/AIDS; however, level wise differences in the knowledge were evident amongst them. In aggregate, nearly half of the respondents had good knowledge. Majority of them had negative attitude towards the care of PLWHA. The overall attitude of senior class was better than their junior counterparts. Thus, the training programmes for nurse should aim at increasing the confidence and skills so that they can cope with HIV issues.

ACKNOWLEDGEMENTS

We are very grateful to Ms. Babita Singh, Vice-Principal, NMC Birgunj and Ms. Jyoti Kapar, Nursing Instructor for helping us during collection of data.

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