To Assess the Knowledge Regarding HIV/AIDS among New Entrant of the Nursing Institute in Wardha District

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Abstract

Introduction: One of the world's most significant public health issues has been HIV infections and AIDS (HIV / AIDS). The 1 percent of deaths worldwide are responsible for HIV / AIDS Knowledge of HIV / AIDS among students is crucial to the elimination of disease propagation. Besides, young adult university students may start their own families someday and some may be health care providers in the future. Data about Knowledge, regarding HIV/AIDS are needed to sensitize and create awareness among nursing students as they were becoming health care administrators and providers in the future. **Aim:** To determine the knowledge regarding HIV/AIDS among new entrants of the nursing institute. **Materials and Methods:** A cross-sectional study was carried out among new entrants of the nursing institute in Wardha district. The students were chosen randomly. This cross-sectional descriptive research was carried out by pre-designed, pre-tested, and semi-structured surveys of eligible 296 nursing students in their first year of life. First-year Basic Bsc nursing100 students, GNM100 students, ANM 96students in the age-group of 17-19 years on 1st, 4th, and 7th Oct' 2016, respectively. After the study purpose was clarified, the students received 45 minutes without shared consultation under the supervision of the investigator, to obtain informed verbal consent and maintain confidentiality. Students have been given the right to withdraw without fear or obligation from the study at any time during their data collection, but none declined to take part. The research variables included demographic variables such as sex, professional education, the difference between HIV / AIDS, routes of transmission, prevention strategies, category of behavioral risk, and antiretroviral therapy, etc. **Result:** Out of 296 total students, 123 (51.9%) were women and 103 (44.0%) were rural native students. The mean knowledge score for the professional education of ANM was 17.35± 3.59, for GNM it was 13.00± 3.61and for B.Sc. Nursing it was 17.37±4.31. The majority of the lot was aware of all four routes of infection transmission and methods of prevention. When the mean data score for the three new entrants is compared, no major statistical difference except ANM (P=.999) is noted.

Keywords: *Evaluate, Awareness, Human immunodeficiency virus infection, Fresh candidate, Nursing Institution*

Introduction

By 2030, the world has vowed to end the AIDS epidemic. Significant obstacles have yet to be met. The world's number of new HIV infections, which amounted to 36.7 million (34.0 to 39.8 million), stood at about 2.1 million [1.8 million – 2.4 million] in 2015.[1]

The latest HIV figures for India for 2015 are projected at 0.26% (0.22%–0.32%) by 2015 to include the number of adults (15–49 years), in India. In 2015, the prevalence of adult HIV among men is estimated at 0.30% and among women at 0.22%. In 2015, the most reported adult HIV prevalence of Manipur in the United States was 1.15%, followed by Mizoram (0.80%), Nagaland (0.78%), Andhra Pradesh & Telangana

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(0.66%), Karnataka (0.45%), Gujarat (0.42%) and Goa (0.40%), respectively. Apart from these States, the approximate adult HIV prevalence was higher than the national prevalence (0,26%) for the states Maharashtra, Chandigarh, Tripura, and Tamil Nadu. Odisha, Bihar, Sikkim, Delhi, Rajasthan, and Rajasthan In addition to this countries[2]

A significant public health issue in India is the human immunodeficiency virus / acquired deficiency syndrome (HIV / AIDS).[3]

HIV infection affects the body's immune system, in particular white blood cells called the CD4 cells. Human immune viruses (HIV) HIV kills these CD4 cells and weakens an individual's immunity from TB and certain cancers.[4]

The third-largest HIV outbreak in the world is India. In 2017, an additional 0.2% of adults were between 15 and 49 years of age. This number is small relative to most other middle-income nations, but 2.1 million are HIV sufferers due to the large population of India (1.3 billion people).[5]

As most people in India are considered infection-free, education in information is one of those key policy items. Therefore, knowledge training will continue to regularly assess the level of awareness about HIV / AIDS to provide policymakers with insights on how education can be better improved. A survey was carried out in this context to assess the extent of the awareness of HIV / AIDS among first-year professional university students in India for the admission year 2016

Materials and Methods: A descriptive cross-sectional study was conducted from 10th Oct 2016 to 15th Oct 2016 and the setting was selected under the ambit of Datta Meghe Institute of medical sciences, Smt. Radhikabai Meghe Memorial College of Nursing and Florence Nightingale College of Nursing in Sawangi Meghe Wardha.after getting ethical permission (Ref. no:DMIMS(DU)/IEC/2016-17/6061).By using the purposive sampling technique, 296 students of new nursing entrants of all three courses of nursing i.e. Auxiliary nurse midwifery course duration two years, General nursing and midwifery three years, and four years degree course Basic B.Sc. Nursing. The nursing students were informed and explained the objective of the study. The written informed consent dully signed individually by them was obtained. The inclusion criteria were: students who are willing to participate in the study and senior students were excluded from the study. Demographic variables were collected in terms of Age, Gender, Stream of Education in 12th standard, Stream of professional education, a previous source of information about HIV/AIDS, and Family members in the medical profession

. A semi-structured questionnaire has 30 multiple choice questions and these were classified in different areas, such as (i) the meaning of HIV/AIDS and its mode of transmission (ii) Medical management and prevention. The questionnaire was prepared based on the extensive review of the literature and clinical experiences of handling HIV patients. Each correct answer carries one mark and the total score is30. The prepared tool was validated by ten experts, out of the eight were from the nursing department, one was from the Department of medicine and one was from the physiology department. Reliability analysis was done by Guttmann split-half coefficient and was 0.90, hence the tool found reliable, valid, and feasible. The interview technique was processed for 296 samples was planned to gather demographic information and the knowledge on HIV/AIDS including the meaning of HIV/AIDS and its mode of transmission, medical management, and prevention questionnaire was administered, each sample requires meantime 30 minutes to complete the questionnaire. As collected, the responses were arranged in tabular form to conduct statistical analyzes which are mentioned in the following sections.

Statistical Analysis

The collected data were coded, tabulated, and analyzed by using descriptive statistics (mean percentage, standard deviation) and inferential statistics. Association of knowledge with demographic variables was done by one way ANOVA test and independent t-test and for the multiple comparison Tukey test has been used.

Results

Table 1: Distribution of subjects according to their demographic characteristics

n=296

Demographic Variables	No. of postgraduate health care professionals	Percentage (%)
Age(yrs)		
18-22 yrs	263	88.85
23-27 yrs	27	09.12
28 to 30 yrs	06	2.03
Gender		
Male	41	13.85
Female	255	86.15
Stream of professional education		
ANM	98	33.11
GNM	100	33.78
B.Sc.	98	33.11
Previous source of information about HIV/AIDS		
Yes	176	59.46
No	120	40.54
If your classmate got infected with HIV/AIDS, would you continue Interacting with him/her?		
Yes	234	79.05
No	62	20.95
Family members in the medical profession		
Yes	94	31.76
No	202	68.24

Table 1. Shows that up to 88.85% students age was 18–22 years,09.12% were 23–27 years of age and 28–30 years of age just 2.03%, Up to 86.15% female, and 13.85% male students, as per stream of professional education 33.78%GNM,33.11% and ANM and BSc Nursing respectively. HIV / AIDS is well known to most students,e59.46%, Most of the students is 79,05 % able to communicate with their students who have HIV / AIDS infected, The majority of family members of students 68.24 % are in the medical profession.

Table2: knowledge score of regarding HIV/AIDS among new entrant of nursing institute

n=296

Level of knowledge score	Score	Percentage score	Knowledge score	
			Frequency	Percentage
Poor	1-6	0-20%	02	0.68
Average	7-12	21-40%	72	24.32
Good	13-18	41-60%	141	47.63
Very Good	19-24	61-80%	77	26.01
Excellent	25-30	81-100%	04	1.36
Minimum score	5			
Maximum score	30			
Mean score	15.89 ±0.253			
Mean Percentage	52.96%			

Table 2. Shows that (0.68%) had poor knowledge, (24.32%) average knowledge and (47.63%) were good, (26.01%) were very good and (4%) were excellent. The minimum score was 06 and the maximum score was 30, the mean score for the test was 15.89 ±0.253, and the mean percentage of knowledge was 52.96%.

Table 3: Comparison of levels of knowledge score in professional education.

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Max-imum
					Lower Bound	Upper Bound		
ANM	98	17.35	3.59	0.36	16.63	18.07	10.00	29.00
GNM	100	13.00	3.61	0.36	12.28	13.72	5.00	22.00
B.Sc. Nursing	98	17.37	4.31	0.43	16.50	18.23	7.00	30.00

Table3: Shows that the Mean knowledge score for ANM was 17.35± 3.59, for GNM it was 13.00± 3.61and for B.Sc. nursing it was 17.37±4.31.The above findings show that B.Sc. Nursing students had good knowledge than ANM and GNM.

Table 4: Association of the knowledge score with demographic variables

	Sum of Squares	Df	Mean Square	F	P-value
Between Groups	1257.115	2	628.558	42.308	0.000, S
Within Groups	4352.980	293	14.857		
Total	5610.095	295			

Table 4:shows that by using one way ANOVA statistically significant variation was found in knowledge score amongst professional education of three new entrants of the nursing institute (F=42.308,p-value=0.000).

Table5: Multiple Comparisons: Tukey Test

Profession		Mean Difference (I-J)	Std. Error	p-value	95% Confidence Interval	
					Lower Bound	Upper Bound
ANM	GNM	4.34	0.548	0.000	3.06	5.64
	B.Sc. Nursing	0.02	0.551	0.999	1.32	1.28
GNM	ANM	4.34	0.548	0.000	5.64	3.06
	B.Sc. Nursing	4.36	0.548	0.000	5.66	3.08
B.Sc. Nursing	ANM	0.02	0.551	0.999	1.28	1.32
	GNM	4.36	0.548	0.000	3.08	5.66

Table 5.shows comparing mean knowledge score in all the three new entrants of nursing institute statistically significant difference was found among professional education of three new entrance of nursing institute. Except ANM (P=0.999) shows statistically no significant difference.

Discussion

A descriptive cross-sectional study has been conducted to evaluate newcomers to the health university in India's knowledge of HIV / AIDS. The goal of the study was to evaluate knowledge of HIV / AIDS among students of newly established medical care and sensitivity among informers as well. The mean knowledge score for the professional education of ANM was 17.35± 3.59, for GNM it was 13.00± 3.61and for B.Sc. Nursing it was 17.37±4.31. This score shows new entrants B.Sc students were well-known than students of ANM and GNM.By using one way ANOVA statistically signifiable variation was found in the knowledge score of three new entrances to the nursing institute in professional training as (F=42.308,p-value=0.000).Statistically significant differences between the professional training of three new entrants were found when the mean knowledge score was compared by using the Tukey test.

The National AIDS Control Organization's (NACO) National Behavioral Surveillance Survey (BSSA) has also reported having higher rates of familiarizations of the terms AIDS (86 percent) than HIV (72 percent) for 78,916 Indian youth (15-24 years). The majority of young people who knew about HIV / AIDS were also aware of the possibilities of transmission of HIV / AIDS through non-protected sexual contacts (92%), infected blood transfusion (95%), and use / infected needles (94%). Over two-fifths of the young people could identify correctly three common misconceptions on HIV / AIDS transmission [6]

Sadeghi M, Hakimi H (2008) studied the awareness and attitudes of Iranian dental students towards HIV / AIDS. This cross-sectional survey aimed to evaluate the knowledge and attitudes of Iranian dentists to patients with HIV / AIDS. All 750 dental students who participated in the 10th Dental Student Congress in Isfahan, Iran, were given a 53-point self-administration questionnaire. The total questionnaire response rate was 60.7%. While the majority of students had excellent knowledge (78.4%), only 1% held professional attitudes to treat HIV / AIDS patients[7]

Oliveira E.R.etal carried out a related analysis of Brazilian dental students' awareness and attitudes towards HIV infections. The dental students from the Federal University of Bahia (Brazil) treated patients in university clinics included 250 dental students. The tool consisted of 32 questions pre-coded and two open-ended questions. The findings showed that students' awareness of HIV / AIDS generally increased as the program progressed, but that they were not compatible with the entire barrier technologies used to control infection and the clinical protocol. Therefore, the perceptions and attitudes of students towards the disease need to be discussed more explicitly.[8]

Aggarwal A (2013) carried out an HIV / AIDS-related study between dentists. The purpose of this research, therefore, consisted of assessing the awareness and the actions of HIV / AIDS-related dentists among the 460 students of the Bareilly, Brazilian Institute (UP) of India. The students were conducted with a self-administered survey of 53 standardized questions. The results show that the awareness of students about HIV / AIDS has generally been improved with curricula progression; however, all barrier strategies for infection and clinical protocols have lost continuity and conformity.[9]

Conclusion: Students on various professional courses pass a competitive examination to be admitted to the medical professional university. However, with students' immediate educational background being similar (10+2), three professional streams in this study showed a clear difference in their level of knowledge. Ignorance and mistaken convictions can influence a person's behavior and communication. However, there is a sufficient chance for thorough awareness, a positive attitude and behavioral improvement to be improved by students during their training time also required greater attention to GNM and ANM students. Although this research is dedicated to evaluating knowledge depth, it has not dealt with other important factors relating to attitude, actions, and practices.

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