

Original Article

Knowledge, attitude and health behavior of dental students towards HIV patients

Venu Shan¹, Nimisha D. Shethwala², D.V.Bala³

¹ 3rd year Resident student, ² Assistant Professor, ³ Professor and Head; Department of Community Medicine, Smt. NHL Municipal Medical College, Ahmedabad

Correspondence to Vaibhavkumar Ramanuj Email- venushah@yahoo.co.in

Abstract:

Background: HIV/AIDS had profoundly affected every aspect of the health sector. Most importantly doctor's attitude of avoiding treatment of HIV patients is mainly due to their apprehensions caused by their lack of understanding of the disease and its modes of transmission.

Aims and objective: To investigate a group of dental students' knowledge about HIV infection, attitudes towards treating HIV/AIDS patients and behaviour practices.

Materials and methods: study population consisted of 150 dental students from College of Dental Science and Research Center, Bopal, Ahmedabad. who were treating patients in the clinics of the college. The survey instrument was a pre-designed and pre-tested questionnaire.

Result: Mean age of the study population is 20.5 yrs. According to them most common modes of transmission – sexual transmission and contaminated blood transfusion. Preventive measures are use of condom and safe blood transfusion and common oral manifestation are Candidiasis, Aphthous ulcer, Hairy leukoplakia. Range of score is 0-13. Mean score of knowledge regarding general and dental aspects was 9.73 and 5.08 respectively. Difference between two is statistically significant. Most of them were using gloves and mask but not using protective eye wear as Universal Work Precautions.

Conclusions: These findings highlight the importance of teaching the dental students on various aspects of the disease. Universal Work Precautions implementation should be emphasized at an early level of their curriculum and reinforced from time to time.

Key words : HIV/AIDS, Dental students, Knowledge, attitude

Introduction:

The possibility of HIV transmission in the oral health care setting is very rare, nonetheless the oral health care environment has become a helpful setting for early detection, as most lesions present orally during the first stage of the disease. Willingness to treat patients with HIV/AIDS appears to be related to the knowledge of the disease process, it's oral manifestations and modes of transmission thus influencing health care workers' attitudes and behavior towards management of such patient⁽¹⁾. A sound basis of knowledge about HIV infection is essential to allow students to develop as dentists who undertake appropriate measures during clinical practice⁽²⁾. The aim of study was to determination of knowledge, attitude of dental students towards HIV/AIDS patients.

Materials and methods:

Study design: Cross sectional

Study area: College of Dental Science and Research Center, Bopal, Ahmedabad.

Study subject: 3rd & 4th year dental students who were treating patients in clinics of college.

Study Duration: September-October 2009

Study size: 150

Study material: Pre-designed & pre-tested questionnaire was used for collection of data.

Sampling Method: Convenient Sampling

All the students who gave verbal consent to participate in the study were asked to fill up a self administered questionnaire, each correct response was given "1" score & wrong or no answer was given "0" score. Maximum score was 13 each for general knowledge of HIV/AIDS and oral specific score as well. General knowledge score includes the questions about awareness about the disease in general, modes of transmission and prevention etc. While oral score includes questions of oral manifestations of HIV/AIDS, risk of transmission of disease in dental practice and disinfection of dental equipment.

Results and Discussion:

Table 1. shows the distribution of the sample by age and gender. There were 79 males and 71 females students. It is observed that knowledge regarding transmission by contaminated needle, syringe and dental equipment was only in 69(46%) students and 65 (43%) knew the mother to fetus transmission of HIV.

Table 1- Distribution of the dental students by category and gender.

Students category	Male	Female	Total
Third year BDS	53	47	100
Fourth year BDS	26	24	50
Total	79	71	150

Table 2 shows the percentage of students having correct knowledge regarding preventive measure. It shows only 62% of students were aware of universal work precautions.

Table 2. Percentage of students having correct knowledge regarding HIV associated oral manifestation

Oral manifestations	Number	Percentage
Candida infection	91	61%
Apthous ulcers	64	43%
Hairy leukoplaki	63	42%
Kaposi's sarcoma	60	40%
Angular cheilitis	60	40%
Herpes	58	39%

Lymphoma	24	16%
Hyper pigmentaion	18	12%
Purpura	06	04%

*Note: more than one answer has been given by several students

Majority of the students were aware of the oral lesions associated with HIV. The knowledge was Oral candidiasis (61%), Apthous ulcers (43%), Hairy leukoplakia (42%), while the condition like Hyper pigmentation(12%), Lymphoma (16%) and Purpura (4%), were less known. These figures were much lower than that reported in other studies^(1,3).

Table 3. Average score of general knowledge of HIV and Knowledge of oral manifestation related to HIV.

Score	Average	SD
General score	9.73	1.8
Oral score	5.08	2.1

Table 4. Genderwise distribution of mean score.

Sex score	General score		Oral
	Mean	SD	Mean
Male	9.8	1.7	5.7
Female	9.6	2.0	4.2
SD	1.9	2.1	

General knowledge about HIV/AIDS and knowledge of associated oral lesions is displayed in the Table 3& 4. Overall general score was 9.73 as compared to the specific oral score which was 5.08 and the difference was statistically significant. Gender wise distribution of mean general score and mean oral score showed no significant difference.

Nearly half of the students stated that an AIDS patient should be referred to special HIV/AIDS supporting clinic to provide with dental treatment. While 18(12%) thought that

they should be treated in a public dental facility, 60(40%) opted treatment at a private dental clinic. Some studies found that increased knowledge of issues concerning HIV has led to increased willingness by dentists to treat HIV infected patients^(3,4).

Practice of Universal work precautions like wearing gloves and masks were observed in 144(96%) but protective eye wear was used by only 43(29%) students. Non-compliance to these practices put them at a higher risk of exposure. In study carried out by Al Naimi R J that 90% of the students were using all three type of barrier technique⁽⁶⁾. Dental health staff are exposed to infectious agents during work, especially when proper barrier precautions are not followed^(8,9,10).

In our study, 7(5%) of the students were exposed to the needle stick injury. This figure is much less than that reported in another study⁽¹¹⁾. This might be due to the reason that in the Askarian and in Malekmakan's study all the health care students in the university were included and not dental students alone. Almost 60% of needle stick injury occurred at the time of needle recapping. Handling of used needles or disposal of the same and unexpected patient movement each accounted for 20% causes of needle stick injury.

Conclusion:

These findings clearly highlight that knowledge of the dental students about HIV/AIDS (both general and oral in specific) was low. All the three types of barrier techniques (gloves, mask and goggles) during routine work were not undertaken by any of the students, reported infection control practices also showed a lack of compliance. The importance of teaching emphasis of dental educators on the disease is vital so that universal precaution also should be adopted through faculty policies and reinforced at early level of study. So that the barrier technique become a protocol and norm in their daily practices as clinicians. Because of certain gaps in knowledge and infection control practices among responders, a curriculum focusing on the management of HIV/ AIDS, including infection for all blood borne diseases is recommended. Therefore, teachers in the

healthcare area have an important role in diffusing knowledge to their student, future healthcare professional.

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