



Knowledge and attitude of dental students regarding HIV/AIDS in Raichur, Karnataka.

Authors:

1. Dr. Pooja Mane, (BDS, MDS), Senior lecturer, Department of Public Health Dentistry, Navodaya Dental College and Hospital, Raichur, Karnataka.
2. Professor (Dr.) Arunkumar Acharya, Private Practitioner, Public Health Dentist, Bangalore, Karnataka.
3. Dr. Rajani Komble, (BDS), Assistant Professor, Bharati Vidyapeeth Dental College and Hospital, Pune.
4. Dr. Yashodharaa Shah, (BDS, MDS), Assistant Professor, Department of Public Health Dentistry, Bharati Vidyapeeth Dental College and Hospital, Pune.
5. Dr. Anjali Gaikwad, (BDS), Assistant Professor, Bharati Vidyapeeth Dental College and Hospital, Pune.
6. Professor (Dr.) Shanthi Margabandhu, Private Practitioner, Public Health Dentist, Bangalore, Karnataka.

Corresponding author- Professor (Dr.) Shanthi Margabandhu,
Private Practitioner, Public Health Dentist, Bangalore, Karnataka

Abstract:

7393

Introduction-Fear of HIV contagion generates major concerns among health care personnel and may produce a barrier to successful educational efforts about HIV/AIDS. A better understanding of the students' knowledge and attitudes towards HIV/ AIDS will serve as a tool to create better educational programs dealing with stigma and encouraging empathy towards patients. Hence, this study assess the knowledge and attitude regarding HIV/AIDS among preclinical and clinical dental students in Raichur, Karnataka.

Material and Methods-A cross sectional study was carried out among all the dental undergraduate students including interns, of the Navodaya Dental College and Hospital and AME Dental College, Raichur. A closed ended questionnaire consisted of 35 questions (18 -knowledge and 17 – attitude) was used. All those willing to participate and who gave a written consent were included in the study.

Results-Among the 406 participants, 29.31% were male and 70.69% were females. Overall a good knowledge regarding HIV/AIDS was seen in 32.27% and only 0.74% had a poor knowledge. Percentage of interns with good knowledge was higher when compared to first to final year students and is statistically significant. Positive attitude towards treating HIV/AIDS patients was found among 53.20% participants.

Conclusion-The study showed that one third of the dental undergraduates had good amount of knowledge regarding HIV/AIDS and half of them had a positive attitude towards treating these patients. This calls for a need for reviewing and renewal of knowledge regarding HIV/AIDS, its complications and the pivotal role that a dentist plays in rehabilitating these patients.

Key words- HIV, dental students, India.

DOI Number:10.14704/nq.2022.20.8.NQ44762

NeuroQuantology 2022;20(8):7393-7399



Introduction:

Even 30 years after the first few HIV (Human Immunodeficiency Virus) cases were reported in the world, stigma and discrimination against people living with HIV and populations most associated with the epidemic remain unabated. Stigma and discrimination are universally reported and there is evidence that stigma prevents people from getting tested for HIV, and hinder access to and use of appropriate health care services. In India too, HIV-related stigma poses major challenge to the national efforts on HIV prevention and care, and accordingly, addressing stigma was identified as a key guiding principle in the third phase of the National AIDS Control Program.¹

However, due to the availability of antiretroviral therapy, today HIV is becoming a chronic disease, which means that more physicians from every medical field will encounter HIV-infected individuals throughout their medical careers. This obliges all medical staff to have both sufficient and correct knowledge regarding HIV/AIDS and a professional attitude towards the disease and the patients, unaffected by fears, stigma and misconceptions. The spread of HIV in any community is in part determined by its members' knowledge concerning safe sexual practices and prevention of HIV transmission. It is highly important that medical students be knowledgeable about HIV/AIDS and have positive attitudes towards PLWHA (Person Living With HIV/AIDS), so that they can become better physicians who will conduct themselves according to the highest standards of both medical knowledge and medical professionalism. A better understanding of the students' prior knowledge and attitudes towards HIV/AIDS will serve as a tool to create better educational programs dealing with stigma and encouraging empathy towards patients.²

It is unethical and unlawful for a dentist or dental student to refuse to treat a HIV-positive patient. Despite these recommendations, dentists are reluctant or refuse to treat

HIV/AIDS patients due to lack of knowledge and ignorance about the disease. Infectious diseases' including HIV/AIDS and cross-infection control forms a part of the curriculum of the dental course. It is expected that HIV/AIDS education and knowledge eliminates the stigma and phobia among the students and prepares them to morally accept the responsibility to provide oral healthcare to PLWHA.

Hence, present study was conducted to assess the knowledge and attitude regarding HIV/AIDS among preclinical and clinical dental students in Raichur, Karnataka.

Material and methods:

The cross-sectional survey was carried out to assess the knowledge and attitude of dental students towards HIV/AIDS in Raichur, Karnataka. There are two dental colleges in Raichur. Dental curriculum is majorly divided in two parts such as pre-clinical and clinical years. First and second year is called as pre-clinical while third, final year and compulsory rotating internship comprise of clinical years. The study was carried out on all the undergraduate dental students of Raichur, Karnataka. In the present study, the total participants were 406 students and those who gave a written consent were included. Students not willing to participate or who were not present on the day of survey were excluded from the study. The study protocol was approved by the Institutional Ethical Committee, Navodaya Dental College and Hospital, Raichur. The permission and consent was obtained from the Principals of both the dental colleges to conduct the study.

Eighteen closed questions about knowledge of HIV infection, transmission patterns, and opinions about adequacy of their own knowledge. The knowledge questions were answered using the options "Yes" and "No." All answers to either true (eleven questions) or false (seven questions) questions were yes where they were applicable and were scored as 2. A total score was obtained by adding the points given for each answer. For each correct and incorrect answer, two and zero points respectively were assigned. Hence, a student's

7394



total score could range from 0 percent (no answers correct) to 100 percent (all answers correct: $18 \times 2 = 36$). A higher score indicated a greater level of knowledge. Score between 26-36, 14-24 and less than 14 were considered as good, moderate and poor respectively. Seventeen questions addressed attitudes regarding treating HIV-positive patients, legal aspects, the right of HIV-positive health personnel to practice, and willingness to treat. The answer to each question about attitudes was rated on a five-point Likert scale (strongly agree, agree, neutral, disagree, and strongly disagree). The professional attitudes scores were computed from five to one and negative attitude, conversely. The data were evaluated by using SPSS-16. A p value of <0.05 was considered statistically significant.

Results:

Distribution of students according to gender is shown in table-01. The percentage of female was higher than the percentage of male students in first year to final B.D.S and interns. Overall, out of total 406 students, 03(0.74%) were having poor knowledge, 272(66.99%) were having average knowledge and 131(32.27%) were having good knowledge regarding HIV/AIDS (Figure 01). A higher percentage of interns (36.07%) had good knowledge of HIV/AIDS than others. No student in third year, final year and interns group was having poor knowledge regarding HIV/AIDS. A higher percentage of second year students (2.78%) had poor knowledge. The percentage of good knowledge regarding HIV/AIDS was higher among interns than that of 1st, 2ⁿ, 3rd and 4th year students. The association is statistically significant ($X^2=44.77$, $df=8$; $p=0.0001$, $p<0.001$, Figure 01).

Overall, among 406 students, 213(52.46%) had passive attitude, 193(47.54%) had positive attitude towards HIV/AIDS. No students had negative attitude towards HIV/AIDS. Positive attitude was seen highest among third year (53.33%) and lowest among second year students(43.06%) (Figure 02).

Discussion:

In the present study, out of 406 participants, 70.69% were females. The result showed that 28.08%, 17.73%, 25.86%, 13.3% and 15.03% of the students were in first, second, third, final year and interns respectively. The knowledge scores of 32.27% was good, 66.99% have average knowledge and 0.74% have poor knowledge regarding HIV/AIDS. The majority correct response was for the question "Needle stick injury can transmit HIV/ AIDS with 388 (95.56%) students answered correctly. While only 111(27.33%) students could answer correct for the question "HIV/AIDS patients can be diagnosed with oral manifestation"

Regarding attitude statement, none of the participant have negative attitude towards HIV/AIDS. Majority of students (52.46%) have passive attitude while 47.54% students showed positive attitude towards HIV/AIDS. The statement "If I know that my friend has HIV infection, I end the friendship" obtained the high positive attitude and statement "A blood test should be taken for diagnosis of HIV infection in all dental patients" obtained high negative attitude. The statement "My knowledge about infection control is enough totreat HIV/AIDS patient" and "I will do CPR if HIV/AIDS patients need it" were passively responded by the students.

In the present study, 406 students participated in survey while in study conducted in Meerut³ participants were less. Higher number of participants (750) was present in study done in Iran.⁴

In the present study all the dental undergraduates were participated from first year to interns, which is similar to the study done among Tanzanians and Sudanese medical and dental students⁵. Whereas studies done by in Meerut³, Iran⁴, NCR⁶, Sudan⁷ were on clinical students and study done in Israel² and Bhubaneshwar⁸ was on pre-clinical students.

In the present study, two third participants were female which is similar to study done in Meerut³, Iran⁴ as overall there are more girls than boys who opt for medical field. In the



study done in NCR⁶ male to female participant ratio was 1:2. There was no significant association according to gender with knowledge and with attitude. Similar results were obtained in study done in Iran⁴ regarding attitude.

Overall average knowledge was observed in present study regarding HIV/AIDS. Similar finding was observed in survey conducted in NCR⁶. Whereas good to excellent knowledge was found in studies done in Meerut³ and Iran⁴. Poor knowledge was noted in less than 1% students in the present study.

In the present study, overall passive attitude was found in more than half of the participants. None of the student have negative attitude towards HIV/AIDS which is in contrast to the study done in Meerut³, NCR⁶ and Bhubaneswar⁸ who have higher negative attitude in students towards HIV/AIDS.

Majority of students disagreed to the statement "Treatment of HIV/AIDS patients means wasting national resources." This shows acceptance and concern of students towards HIV/AIDS. Merely 13% students refused to treat HIV/AIDS patient when they are asked about it. This underlines the fact that, even among the educated, elite class like dentists, a tendency of discrimination still exists. Nearly half of the students were unsure to do CPR if HIV/AIDS patients need it. This shows that stigma and most of the misconception still exist. Half of the students felt it is their right to know if their patients are infected by HIV/AIDS.

Summary and conclusion:

The present study was carried out among 406 dental students of Raichur city, Karnataka. Nearly 3/4th students agreed that dental workers can be contaminated by the patients. This shows higher knowledge of risk of transmissible diseases from patient to dentist among the students. Majority of students had knowledge that needle stick injury can transmit HIV/AIDS. This shows good knowledge as dentist is at maximum risk and resultant occupational hazard. Lesser knowledge of diagnosis of oral manifestation with HIV/AIDS

was seen in one-fourth of students participated.

The study highlights, lack of good knowledge and urge to learn regarding HIV/AIDS. It is essential to insist and bring to practice the universal rule that, every patient is potentially infectious and all universal protocols of sterilization and asepsis needs to be followed meticulously for all. It is essential to include ethics and morality as a part of education. Setting up standards for upcoming dental professionals is an imperative need.

References:

1. Bharat S, Chakrapani V. HIV-related Stigma Research in India: Current Knowledge, Gaps, and Recommendations. *Stigma Compendium UNDP SB/VC* June, 2014.
2. Baytner-Zamir et al. Assessment of the knowledge and attitudes regarding HIV/AIDS among pre-clinical medical students in Israel. *BMC Research Notes* 2014 7:168.
3. Patil PB, Sreenivasan V, Goel A. Knowledge of HIV/AIDS and attitude of dental students towards HIV/AIDS patients: A cross-sectional survey. *J Educ Ethics Dent* 2011;1: 59-63.
4. Sadeghi M, Hakimi H. Iranian dental student's knowledge of and attitudes towards HIV/AIDS patients. *J Dent Educ* 2009; 73(6): 740-5.
5. Aström AN, Nasir EF. Predicting intention to treat HIV-infected patients among Tanzanian and Sudanese medical and dental students using the theory of planned behavior – a cross sectional study. *BMC Health Serv Res* 2009; 9: 213-20.
6. Grover N, Prakash A, Singh S, Singh N, Singh P, Nazeer J. Attitude and knowledge of dental students of National Capital Region regarding HIV and AIDS. *J Oral Maxillofac Pathol* 2014 Jan-Apr; 18(1): 9–13.
7. Nasir EF, Aström AN, David J, Ali RW. HIV and AIDS related knowledge, sources of information and reported need for further education among dental students in Sudan – a cross-sectional study. *BMC Public Health* 2008; 8: 286.



8. Chauhan AS, Hussain MA, Pati S, Nallala S, Mishra J. Knowledge and attitudes related to HIV/AIDS among medical and allied health science students. *Indian Journal of Community Health* 2011; 23(2):96-8.

Table 01: Distribution of students according to gender and their year of study-

Year of study	Male		Female		Total	
	Number	%	Number	%	Number	%
First	30	26.32	84	73.68	114	100.0
Second	23	31.94	49	68.06	72	100.0
Third	29	27.62	76	72.38	105	100.0
Final	17	31.48	37	68.52	54	100.0
Interns	20	32.79	41	67.21	61	100.0
Total	119	29.31	287	70.69	406	100.0

7397



Figure 01: Distribution of students according to their knowledge of HIV/AIDS and year of study

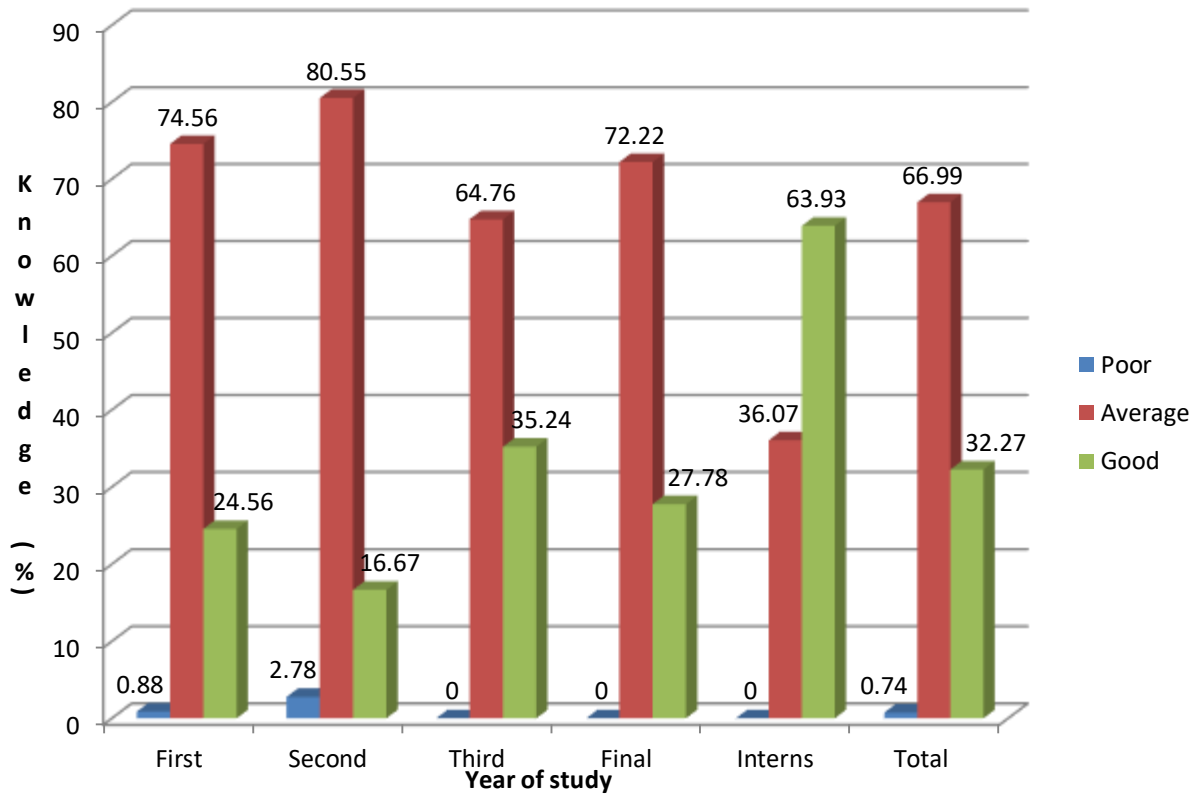
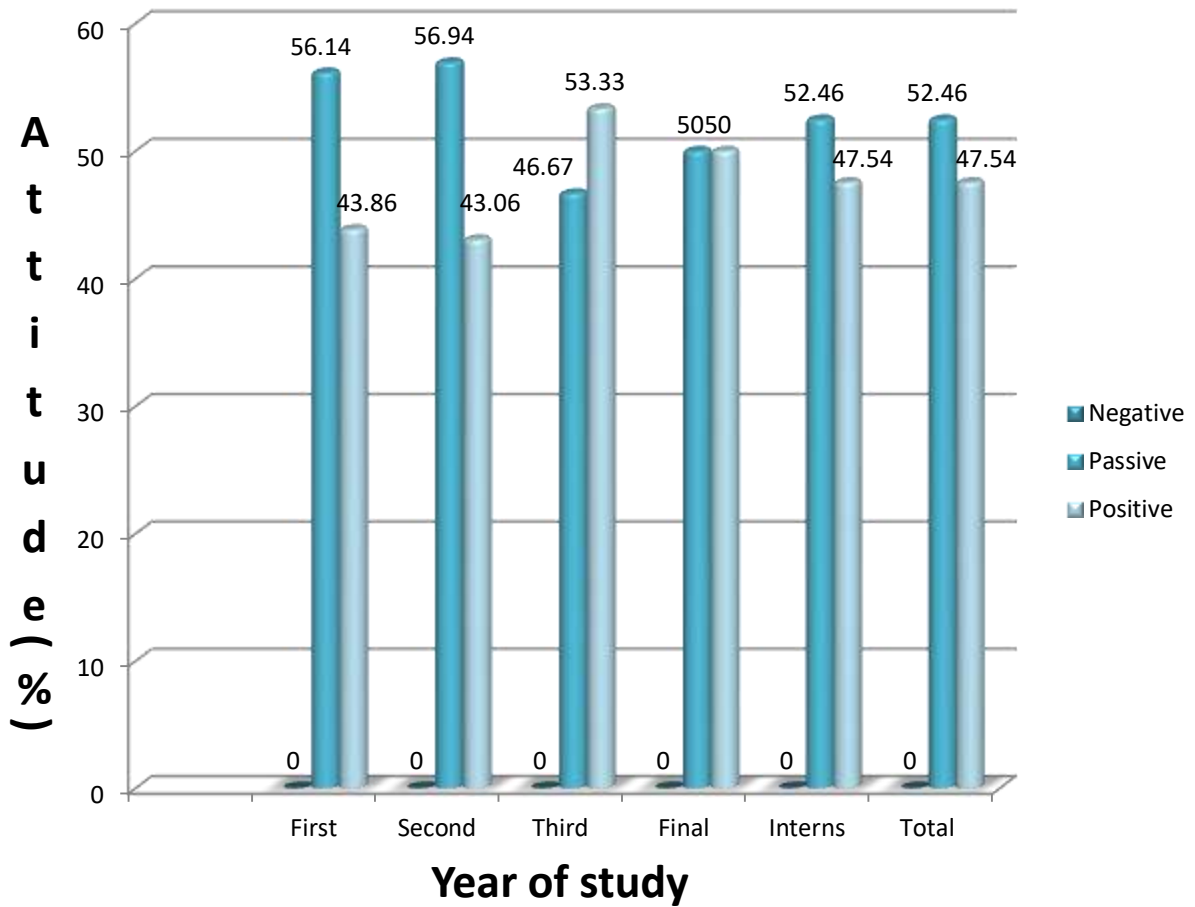


Figure 02: Distribution of students according to their attitude towards HIV/AIDS and year of study



7399

