

Original Research Article

Community insights about HIV/AIDS Transmission and awareness about Use of Dental Services Among general population and dental practitioners - A Comparative study

Dr Humaira Nazir

Dental Practitioner, Sheikh Pharmacy & Dental Clinic, Brein Nishat Srinagr, J&K

ABSTRACT

Aims and Objective: The aim of the present study is to assess current status of dental practitioners and general public knowledge and attitude towards HIV/AIDS transmission and their awareness about use of dental services. The awareness of HIV/AIDS among dental practitioners and general public coming for oral checkups in the dental clinics may have an impact on the early detection, referral and prevention of the disease. A cross-sectional questionnaire based study was undertaken to assess the knowledge of general population and dental practitioners working in different clinics and hospitals Srinagar, India, on HIV/AIDS and its preventive measures.

Materials and Methods: A Cross Sectional questionnaire based survey was conducted among 100 subjects out of which 62 were patients coming for general checkup in dental clinics and 18 were the dental practitioners and 20 subjects did not respond over a period of 6 months. Self prepared questionnaire were used which comprised of 30 closed ended questions. The data were coded and analyzed with SPSS software Version 17.

Results: Association was seen between general population and dental practitioners concern about AIDS transmission. Questions relating to knowledge of HIV/AIDS, risk factors, oral manifestations and opinions on its prevention and practices were posed. Only 80 subjects responded and returned the questionnaire. The barriers were patient acceptance, availability and also lack of knowledge. The overall result reveals a negative response in case of general public and comparatively, almost a positive awareness in case of dental practitioners.

Conclusion: Over all knowledge and attitude among general public subjects was found to be unsatisfactory.

Keywords: General public, Dental practitioners, Knowledge, Attitude, HIV/AIDS

INTRODUCTION

Human Immunodeficiency Virus is an infection that afflicts globally and the end point of it being AIDS. In 2015 there were 2.1 million new infections worldwide, adding up to a total of 36.7 million people living with HIV.¹ According to India HIV estimations 2015 report, the total number of people living with HIV in India is estimated at 21.17 lakhs, among which children accounting for 6.54% and 40.5% of infections are among females. HIV and AIDS have profoundly affected every aspect

of the public health sector and the infection constitutes an unparalleled public health challenge.^[1-3] The risk of transmission of HIV in dental setting is less, but the chance of transmission cannot be neglected. Patients infected with HIV are medically complicated and their health status can change rapidly, making it especially important that dental professionals obtain a thorough health history. Careful assessment of the patient's health can aid in determination of the potential influences of HIV disease stage on dental treatment

planning. To help determine a patient's stage of HIV disease, as much information as possible should be obtained directly from the patient. Patients are usually well-informed as to their status and state. Most can reliably report their medications, their last CD4 count, their viral load and any changes in their overall health. To prepare a complete medical assessment, it may be necessary to obtain information from the patient's primary care physician. In general, the assessment of the patient's health allows for: a) screening for medical problems, b) assessment of the risks to the patient associated with the provision of dental treatment and c) evaluation of conditions and diseases that may necessitate modification of dental treatment. A health history form for assessing any medically complex patient should be adequate for HIV-infected patients. Additional information specific to HIV disease may be included. In evaluating the HIV-infected patient, concerns can be generally classified as being related to issues of: a) hemostasis, b) infections, c) drug actions and interactions and d) ability to tolerate dental treatment. HIV infection is one of the most devastating health problem that mankind has ever faced. AIDS is the serious epidemic problem in India. HIV spreads primarily through sexual contact (85.34%).^[1-3] 60% of the respondents in the Glasgow reason questionnaire survey reported that gloves should be worn by dentist routinely, and most of them thought that the gloves were for the dentist's own protection. One third was ignorant about sterilization methods used in dentistry.^[3,4] Bowden et al. reported that most patients felt that gloves and mask should be worn routinely.^[5] They found that patients undergoing treatment in a hospital were more concerned than patients in general practice about cross – infection control.^[5,6] In 1999 a national telephone survey in the states reported that 35% of users of dental services had thought about the possibility of contracting HIV through dental treatment and almost two-thirds of them expressed concern about it.

This was more among anxious patients, very frequent attenders, and those living in areas of high AIDS prevalence.^[7,8] In both the Scottish and American studies, one third of patients perceived a risk of HIV infection from dental care, and a woman were seen to be more of the fear of dental risk as compared to men.^[9] The aim of this study is to analyse the knowledge and attitudes of dental practitioners and patients reported to dental clinics towards cross infection control measures in dental practice. To study factors influencing knowledge and attitude of dental patients and dental practitioners towards cross infection.

MATERIALS AND METHODS

A cross sectional questionnaire based survey was conducted among 100 subjects .out of which 62 were the general patients visiting the dentist for dental checkup and 18 were the dental practitioners and 20 subjects did not respond so they are excluded from the study. Sample was selected randomly from different clinics. Before starting the study informed consent was obtained from respective subject. A specially designed questionnaire consisting of 30 closed ended questions was spread among subjects to measure knowledge and attitude towards HIV/AIDS of subjects. Out of 30 questions 24 question represents knowledge of subjects like “oral health and AIDS correlation and its transmission” and “Being coughed/sneezed on may lead to AIDS. Is it true?” and 6 questions represents attitude of subjects towards HIV/AIDS like “Let the patient die of AIDS: Is it: according to you”. Chi-square test was applied by using SPSS Software Version 17.

RESULTS

As shown, dental practitioners had good knowledge but certain misconception was prevalent. Table 1 shows the knowledge of subjects regarding HIV infection from different sources. About 40 % of both dental practitioners and general subjects were not sure about treated by dentist who has the AIDS virus. 31 % of

general subjects were not sure about risk of donating blood without checked and also 40% of general subjects respondents were unaware about the unprotected sex with a person who has the AIDS virus. 29% subjects of general believed that virus would be transmitted if cook in the restaurant has HIV/AIDS. 43% of general subjects were not sure being treated in a dental clinic, Table 2 depicts the healthcare utilization variables and response categories. About 85% subjects in case of general subjects don't know about catching any disease or AIDS from the dentist while around 15% subjects of dental practitioners were somewhat concerned about it but they will continue visiting the same dentist if he had AIDS virus or was treating someone with

AIDS virus, 49% of general subjects believes that the dentists or medical experts have knowledge about its transmission. Table 3 shows knowledge about AIDS and its transmission. 91.5% general subjects believed that HIV virus spread through kissing or shaking hands while only 9% of dental practitioners subjects agreed for this fact. About 20% of general subjects were not sure about transmission of AIDS virus from infected mother to foetus while only 60% of dental practitioners subjects knows about it. Only 11% of general subjects, agreed for condom usage that can halt the transmission of AIDS while 89% of dental practitioners agreed for it. So again depicts lack of knowledge in general population.

Table 1. Subject's knowledge/perceptions of the likelihood of becoming HIV infected from different sources (%)

Source	category	Very likely	Somewhat likely	Somewhat unlikely	Very unlikely	Definitely not possible	Not sure
Being treated by a dentist who has the AIDS virus*	General	2%	4%	0.5%	1.0%	2.5%	40.5%
	Dental practitioner	5%	5.5%	0.5%	---	1.5%	39.5%
Being treated by a medical doctor who has the AIDS-Virus.*	General	1%	3.5%	0.5%	1.0%	6.5%	38.0%
	Dental practitioner		4.5%			4.5%	40.5%
Being working near someone who has the AIDS-Virus.*	General	1.0%	4.5%	-----	1.0%	6.0%	38.0%
	Dental practitioner	2.0%	3.5%	1.5%		2.0%	40.5%
Being treated in dental clinic*	General	2.0%	3.0%	-	1.5%	9.5%	34.5%
	Dental practitioner	1.5%	9.0%	0.5%		3.5%	35%
Donating blood*	General	1.5%	13.5%	-	2.0%	0.5%	33.0%
	Dental practitioner	7.0%	27.5%	2.5%	1.5%	-	11.0%
Having unprotected sex with someone having AIDS virus*	General	-	10.5%	-	-	0.5%	33.0%
	Dental practitioner	-	27.0%	-	2.5%	-	11.0%
Eating in a restaurant where cook is having AIDS virus*	General	-	9.0%	-	2.0%	7.5%	32.0%
	Dental practitioner	-	18.0%	-	3.0%	5.0%	23.5%

* <0.05(p value)

Table 2. Percent dental utilization variables and response categories

Questions	Options	General subjects	Dental practitioners	p value
1. Concerned about catching any disease at the hospital or clinic	1, Don't know	85%	-----	0.00
	2, Yes	-----	15%	
2. concerned about the possibility of getting the AIDS Virus while at the dental clinic	1. very concerned	25%	53%-	0.00
	2. Somewhat concerned	12%	-	
	3. not at all concerned	10%	-	
	4. don't know			
3. How much you think the dentist or medical experts Know about AIDS transmission	1.a lot	49%	51%	0.00
	2.a little	-	-	
	3.dont know	-	-	
	4, don't know	-	-	

Table 3. Shows Knowledge about HIV AIDS and its transmission

Questions	General subjects	Dental practitioners
1. Is Condom usage can prevent the transmission of AIDS*	11%	89%
2. Can boiling kill HIV*	55%	45%
3. No drugs to kill AIDS Virus.	68%	32%
4. Protection from AIDS by double gloving	13%	87%
5. AIDS Virus increases other infection	23%	77%
6. Kissing with exchange of saliva*	38%	62%
7. Sharing needles for drug used lead to AIDS*	22%	78%
8. Being coughed/sneezed on may lead to AIDS Is it true*	29%	71%
9. Drug abuse can be a leading factor for causing AIDS*	33%	67%
10. Can AIDS Virus transmit from Infected mother to foetus *	20%	80%
11. Is Kissing or touching on cheeks and shaking hands infective to other if one has AIDS.*	91.5%	9%

* < 0.05(p value)

Table 4 shows attitude of subjects towards HIV/AIDS. A very low percentage of subjects of both subjects showed attitude that let the patients die of AIDS than to try keep him alive, so shows their lack of knowledge as compared to dental practitioners. Only 14% of general subjects agreed that precaution can prevent spread of AIDS while a bulk of 86% dental practitioners was ready to take precaution, so that can prevent spread of AIDS.

Table 4: Shows attitude of subjects towards HIV/AIDS

Questions	General subjects	Dental practitioners	p value
1.Let the patients die of	58%	42%	0.002
2. Precaution can prevent spread of AIDS	34%	66%	0.000
3.Patient with HIV should not marry	54%	46%	0.0086
3.Avoidance of casual contact with AIDS patients can prevent spread of AIDS	62.6%	37.5%	0.00
5. Is educating the patients can prevent the spread of AIDS	14%	86%	0.00

DISCUSSION

The public and even the scientific community are often confused about the division between fact, knowledge, insights, and opinion. [10] There is limited evidence on the risks of oral procedures among persons with HIV/AIDS. Very few studies have been reported, of procedures used for dental investigations. From this insufficient base, there is little evidence of unusual rates or severity of complications for the procedures among persons with HIV/AIDS. The surveys found that greater attained formal education of subjects was associated with more accurate knowledge of AIDS transmission. The proportion of the subjects who were concerned about their instruments sterilization procedure is lower than expected. [7-9] Females were more likely in the current study than males to report avoiding or delaying dental visiting due to their perceived risk of cross infection. [10-14] The multivariate findings offer some insight into the shaping of community concern about cross infection control in dental field. It is also possible that problems in communication may reduce their exposure to reliable sources of information about cross infection control. [8] No statistically significant difference was seen in term of mean level knowledge and attitude towards HIV AIDS between the different ages. Hentgen V, Jaureguiberry S, Ramiliarisoa A et al in their study in 2002 among health care workers of T amative (Madagascar), 20% mentioned that AIDS patients should be isolated in quarantine while in our study only 7% reported that AIDS patients should

isolated in quarantine. [15-17] In the present survey, among dental practitioners subjects who were most knowledgeable about the likelihood, various routes for the transmission of the AIDS virus were less concerned about contracting infectious diseases in the dental office. Further, more knowledgeable subjects were less expected to report that they would change dentist because of a fear of AIDS and were more likely to respect confidentiality. In our study 86.5% had correct knowledge about sharing needles, which increases the risk of acquiring AIDS and transmission of HIV. This finding consistent in the study conducted by Barbara Gerbert in 1987 among California healthcare students.¹⁵ Approximately 69.5% of the subjects did not believe that expert were telling everything they know about the transmission of AIDS and these subjects were more likely to change dentists/doctors, resulting that public misconception shows lack of confidence in medical/dental information, erode expert credibility, and negative the positive effects associated with public education. A prime issue is the message which the profession should take from the findings of this study. Subjects' perceptions of issue such as cross infection risk in dentistry are simply the risks as they interpret them in the light of their own knowledge and its sources. They are inherently neither accurate nor inaccurate. More knowledgeable general subjects also expected to report that they would change dentist because of a fear of AIDS. These findings support the contention that

consumer education may be an important influence in fostering public understanding and appropriate behavior related to the uptake of dental services.

CONCLUSION

Understanding is important in the doctor/dentist patient's relationship and the unfavourable attitude lead to compromised care. There is need to cultivate non judgmental attitude towards the care of people infected with HIV/AIDS. This requires systemic and sensitive educational programmes. Hence for maximum effectiveness, CME/CDE Programs need to be held on a continuous basis as it has been well documented that such programs can have great impact on general public and practitioners. AIDS related knowledge and attitude. This study evaluates the attitudes of people who were relatively inaccessible; however more studies need to be done at a larger scale to evaluate their attitude.

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