

Dentistry and HIV: university professors' role in establishing a basis for judgment

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Abstract

The aim of this study was to determine whether there are differences in the attitudes of Dentistry School Professors from two universities, one private and one public, concerning HIV-positive patients or HIV-positive health care professionals. A questionnaire was handled to all professors at the Araçatuba Dental School of São Paulo State University - FOA-UNESP (public) and Lins Dental School of the Piracicaba Methodist University - FOL-UNIMEP (private). When asked if they would be willing to be treated by an HIV-infected health care professional, 38.9% of the 77 professors at FOA-UNESP replied that they would accept only non-invasive treatments and 13% would not accept any kind of treatment; the same applied to 42.4% and 15.2% of the 33 FOL-UNIMEP professors. Among the 54 professors at FOA-UNESP and 27 at FOL-UNIMEP providing clinical service, only 31.5% and 18.5% stated that they treat HIV-infected persons like any other patient. The results were very similar in both schools. Although they reported that they taught their students not to act in a discriminatory manner towards HIV-positive patients, the professors themselves showed prejudice towards infected patients and professionals. Consequently, this topic must be further debated in the academic milieu.

Key Words:

HIV, dentistry, professional ethics, dental education, dentist-patient relations

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Introduction

Dentistry staff are exposed to infectious agents during work, especially when proper barrier precautions are not followed¹⁻⁴. According to the Centers for Disease Control and Prevention of the United States Public Health Service⁵, the human immunodeficiency virus (HIV) transmission risk for health care professionals, after percutaneous exposure to HIV-contaminated blood was estimated to be between 0.2 and 0.5%; and following exposure to mucous, it was approximately 0.1%. In contrast, for hepatitis B virus (HBV), the transmission risk after accidental exposure is between 6 and 30%. It is estimated that after percutaneous exposure with infected instruments, 200 to 5000 HIV virus infections and 66000 HBV infections a year occur among health care professionals around the world⁴. Ignorance of the risk of HIV transmission during dental procedures has led many dentists to refuse to treat HIV-positive individuals⁶⁻¹¹ and although the possibility of blood transmission from health care professionals to their patients is considered small^{1,4,9,10-12}, infected dental care professionals have sometimes been prevented from practicing their jobs¹³. Specific legislation has not yet been enacted to provide treatment for a HIV-positive patient, or to assure an infected health care professionals' right to keep on practicing dentistry in Brazil¹⁴. The United States judicial system usually tends to defend the infected patient's right to treatment, because it realizes that infection control precautions can protect health care workers against infection^{13,15}. As for infected professionals, in 2001, the United States Court of Appeals for the 11th Circuit ruled that an infected hygienist represented a "direct threat" to patients and colleagues, individuals who may not be able to protect themselves¹⁵ and authorized the employer to prohibit the hygienist from working¹³.

Brazil's Ministry of Health¹⁶ states that health care professionals must treat infected contagious disease-carrying individuals. Infected dental surgeons "can practice dentistry, with no danger to their own health or that of their patient's, as long as they implement infection control rules and procedures recommended by the Ministry of Health".

During a dentistry procedure, all of these points should be take into consideration. Therefore, professors in the health area have an important role diffusing knowledge to their students, future health care professionals. This will probably help to reduce discrimination and improve the life quality of HIV-infected people.

The purpose of this study was to determine whether there are differences in the attitudes and practices of Dentistry School Professors from two universities, one private and one public, concerning HIV-positive patients or HIV-positive health care professionals. Their answers may provide information as regards guidance given to future health care professionals.

Material and Methods

In this study, professors at the Araçatuba Dental School of

São Paulo State University (FOA-UNESP) and Lins Dental School of Piracicaba Methodist University (FOL-UNIMEP) responded to a written multiple choice questionnaire on dental treatment of HIV-infected patients and HIV-infected professionals in dental practice, developed by the authors (Table 1). FOA-UNESP is a public university and FOL-UNIMEP a private one, both situated in State of São Paulo, Brazil.

After the questionnaire was approved by FOA-UNESP Ethics Committee, it was pre-tested with six volunteers, Doctor's degree candidates from the FOA-UNESP Preventive and Social Dentistry Program. After the appropriate modifications, the questionnaire was handled to all professors in the dental schools. The results were processed and analyzed with the Epi-Info Program, version 6.04. Percentage frequencies from the total of the responses in both schools are presented separately and descriptively.

Results

During this study, there were 82 professors at FOA-UNESP and 40 professors at FOL-UNIMEP. All of them received the questionnaire. The sample size consisted of 77 (93.9%) professors at FOA-UNESP and 33 (82.5%) at FOL-UNIMEP, who consented to participate in the study by signing a particular document and returned the fully answered questionnaire.

With regard to the time of graduation, at FOA-UNESP and FOL-UNIMEP, 7.8% (n=6) and 9.1% (n=3) of the professors had graduated from Dental School less than 10 years ago; 49.4% (n=38) and 42.4% (n=14) between 10 and 20 years ago; 42.9% (n=33) and 48.5% (n=16) over 20 years ago.

Fifty-four (70.1%) of the FOA-UNESP and twenty-seven (81.8%) of the FOL-UNIMEP professors treated patients at the Faculty clinic or at private clinics. The others did not have a clinical practice. In the questionnaire, the latter obviously did not respond to the questions related to clinical practice.

Figure 1 shows the professors' responses related to guidelines given to their students. None of the professors from FOA-UNESP and one from FOL-UNIMEP stated that they advised

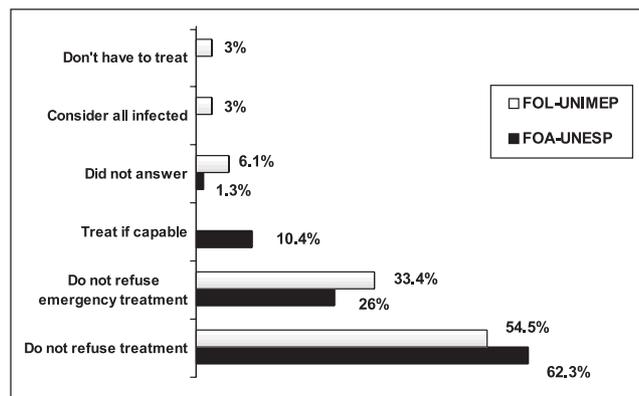


Fig. 1- Percentage distribution of the professors' responses related to guidelines given to students

Table 1 -Questionnaire answered by the professors

UNESP – São Paulo State University - Dentistry School

Dear Professor, please answer the following questions:

1- Gender: A- () male B- () female
 2- Time of graduation: A-() less than 10 years ago
 B- () between 10 and 20 years ago C- () more than 20 years ago
 3- Graduation: () Dentistry () others:_____

Answer the questions below even if you are not graduated from Dentistry School:

4 – What is your professional occupation? (more than one answer possible)
 a) () professor of theoretical subject matters
 b) () professor in practical/laboratory classes
 c) () professor in practical/clinical classes
 d) () dental clinic/office (private)

5 – What kind of orientation do you give your students related to treating HIV-positive patients?
 a) () they must not refuse to provide any kind of treatment to HIV-infected patients.
 b) () they must not refuse to provide urgent treatment to HIV-carriers, but they can direct them to another clinic if treatment is not urgent.
 c) () they can refuse to provide any kind of treatment to HIV-carriers.
 d) () another orientation:_____

6 – Would you accept to receive health treatment (dental, medical, nursing care) if you knew that the professional responsible for your treatment is infected by the HIV virus?
 a) () Yes, I would accept any kind of treatment.
 b) () Yes, I would, except for invasive treatment.
 c) () Yes, I would, but only for an appointment.
 d) () No.
 In case of negative answer, why? (more than one answer possible)
 a) () fear of contamination
 b) () fear of losing your own clients, in case they get to know about it.
 c) () fear of prejudice from workmates, students or family members in case they get to know about the situation.
 d) () another reason:_____

7 – Would you allow any family member (e.g. child, father) to be treated by an HIV-infected professional?
 a) () Yes, for any kind of treatment.
 b) () Yes, I would, but except for invasive procedure.
 c) () Yes, I would, but just in case of appointment.
 d) () No, I would not.

Answer the questions below in case you carry out clinical activities, having direct contact with patients, at the dental office and/or dentistry school:

8 – What is your criterion to treat HIV-carriers?:
 a) () I treat them by taking proper infection control steps.
 b) () I treat them like any other patient.
 c) () I do not treat them, I prefer to direct them to a specialized service. Why?_____
 d) () I treat them with a special appointment schedule. Why?_____

9 – If you found out you were infected by HIV, would you keep on carrying out your dental activities?
 a) () Yes, I would keep on carrying out my didactic and clinical activities as usual.
 b) () Yes, I would keep on carrying out my didactic and clinical activities, except for procedures with bleeding.
 c) () I would keep on carrying out my didactic activities, but I would give up my clinical activities.
 d) () I would give up carrying out my didactic and clinical activities.

10 – In case you found out you were infected by HIV, would you tell your patients about it?
 () Yes, I would.
 () No, I would not.

If your answer is negative, why? (it is possible more than one answer)
 a) () worried about prejudice from patients.
 b) () worried about prejudice from workmates and students.
 c) () worried about possibility of losing clients.
 d) () another reason _____

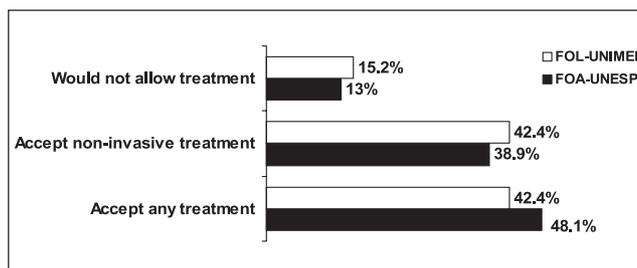


Fig. 2 - Percentage distribution of professors that would accept to be treated by HIV-infected health care professionals.

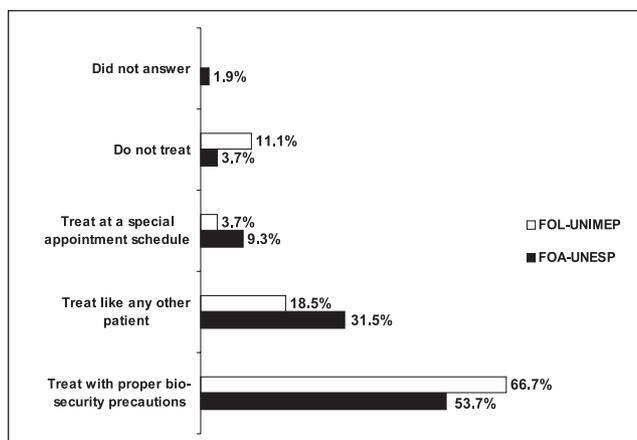


Fig. 3 - Percentage distribution of the professors' willingness to treat HIV-carriers.

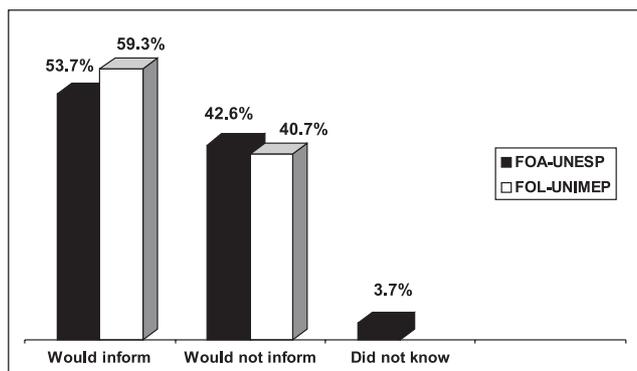


Fig. 4 - Percentage frequency of the clinicians who would inform their patients in case they contracted HIV.

their students not to treat HIV-carriers. “Consider all patients infected” was the guidance of one of the FOL-UNIMEP professors, while at FOA-UNESP, one of the professors added to his answer (do not refuse treatment) that it was “impossible to know who is infected”.

Figure 2 shows the professors responses when asked if they would be willing to be treated by an HIV-infected health care professional. Out of the 13% (n=10) and 15.2% (n=5) of professors from FOA-UNESP and FOL-UNIMEP, that would not accept any kind of treatment provided by an HIV infected professional, 80% (n=8) and 60% (n=3) asserted that the fear of being contaminated was the reason for their decision. One

professor from FOA-UNESP pointed out contamination scare and fear of losing clients, and one alleged contamination scare and fear of prejudice. Two professors from FOL-UNIMEP pointed out fear of prejudice on the part of clients, family and friends.

Figure 3 shows the responses of the 54 professors at FOA-UNESP and 27 at FOL-UNIMEP providing clinical service, about their practices related to treatment of HIV-infected patients.

Figure 4 shows the responses with regard to the attitudes of the clinicians, about whether or not to tell their patients, if they found out they themselves were infected by the HIV virus. Among the professors who would not inform others about their HIV status, 69.6% (n=16) and 72.7% (n=8) would be worried about patients', students' and coworkers' bias, and 30.4% (n=7) and 27.3% (n=3) for other reasons such as "there is no need to make the fact known", "irrelevant", "it does not interfere with treatment".

Likewise, if they found out they were HIV-infected, 50% (n=27) and 55.6% (n=15) said they would normally continue their didactic and clinical activities; 27.8% (n=15) and 22.2% (n=6) said they would continue with didactic and clinical activities, except for invasive procedures; 18.5% (n=10) and 22.2% (n=6) would give up their clinical activities. One professor from FOA-UNESP did not know what he/she would do, and another gave no answer. Among the professors who would continue their didactic and clinical activities, 44.4% (n=12) and 53.3% (n=8) said they would not inform their patients about their HIV. Of the professors who answered that they would stop doing invasive procedures only, 40% (n=6) and 33.4% (n=2) would not inform their patients of their HIV status.

Discussion

According to the Brazilian Ethics Code of Dentistry¹⁷, Article 6, § IV, "There is an ethical infringement if a patient is abandoned, except for a justifiable reason..." and Article 2: "Dentistry is a profession exercised...without discrimination of any kind".

Although there has been considerable research on AIDS, uncertainty towards the management of HIV-infected patients and refusal to treat infected patients still persists along with the fear and possibility that an HIV-infected professional might be prevented from practicing dentistry^{6-11,18,19}.

It is true that the increased knowledge of issues concerning HIV has led to increased willingness by dentists to treat HIV-infected patients^{3,9,20-22} and in this regard, health care professionals and university professors in the health care area have an important participation, because they are responsible for educating their students and other professionals.

It is interesting that among the 52 FOA-UNESP and 24 FOL-UNIMEP professors who reported treating HIV-infected patients 55.8% (n=28) and 75% (n=18) responded that they treat their patients after taking appropriate infection control

precautions; 9.6% (n=5) and 4.2% (n=1) had a special appointment schedule because they needed time to carefully prepare the dental office. Only 32.7% (n=17) of the FOA-UNESP and 20.8% (n=5) of the FOL-UNIMEP professors reported that they treat HIV-infected patients like any other patient.

Brazil's Ministry of Health¹⁶, as is done in other countries, requires all patients to be treated with the same infection control procedures that should be routinely applied in every dental treatment (sterilized instruments, non-contaminated operative field, professionals wearing gloves, masks, caps, glasses), since some HIV-infected patients do not inform their health care professional about their serological condition for fear of being refused treatment¹⁰. However, Oliveira et al.²² found that less than half of the Brazilian dental students who participated in their study agreed that they do have adequate information to maintain good infection control while treating patients at the university clinics.

Ten per cent of the FOA-UNESP professors reported that they advise their students to treat HIV-infected patient as long as they feel they are competent to do so, by taking appropriate infection control precautions and making sure that the dental office is adequately prepared for such treatment.

As dentists have the obligation to provide safe treatment for all patients, including HIV-positive individuals, the decision to treat or not treat a patient whose general status can be immunocompromised, depends on good judgment and prudence.

In this study, the professors also exhibited preconceived ideas regarding HIV-infected health care professionals, because when asked if they would be willing to be treated by an HIV-infected professional, 38.9% (n=30) of the FOA-UNESP and 42.4% (n=14) of the FOL-UNIMEP professors responded that they would accept only non-invasive treatment, and the ten (13%) professors from FOA-UNESP and five (15.2%) from FOL-UNIMEP, who responded that they would not be willing to be treated by an HIV-infected professional, were afraid of becoming infected or afraid of prejudice on the part of their family, clients and friends. According to Rissi et al.¹⁸ health care professionals that work with HIV- infected patients are discriminated by their colleagues too.

If the clinicians at FOA-UNESP and FOL-UNIMEP found out they themselves were infected by the HIV virus, 50% (n=27) and 55.6% (n=15) said they would continue with their normal didactic and clinical activities. Dentists who contract diseases that can put their patients or staff in danger should limit their activities¹³. This professional must call for technical, ethical and legal support to continue practicing²³.

Similarly, if the FOA-UNESP and FOL-UNIMEP professionals found out that they themselves were infected by the virus, 42.6% (n=23) and 40.7% (n=11) responded that they would not inform their patients about it. Of these professionals, 69.6% (n=16) and 72.7% (n=8) said that they would be worried about their patients', students' and coworkers' biases. Among those

professors who said they would continue with their normal didactic and clinical activities, 44.4% (n=12) and 53.3% (n=8) of them said they would not inform their patients about their HIV. When it comes to informing others about their serological condition, dental surgeons behave like any other person: they are afraid of prejudice, judgment and discrimination¹². As such, there is no legal obligation for HIV-infected dental health professionals to inform others about their serological status². Nevertheless, these professionals must strictly implement infection control procedures¹⁶.

In this study it was possible to conclude that while a few university professors were not willing to treat infected patients, most of them expressed the need for special infection control precautions and a few professors reported that they would treat infected patients like any other patient.

Prejudice towards infected health care professionals was also evident among the professors who responded to the questionnaire, because some of them would not be willing to be treated by an HIV-infected professional, and several professors said that they would be willing to be treated only if treatment did not involve invasive procedures.

Health care professionals are afraid of prejudice. In this study, if the participants were HIV-infected, a large number of them would not inform their patients, because they were concerned about colleagues', patients' and students' biases.

Although the professors reported that they taught their students not to act in a discriminatory manner towards HIV-positive patients, they themselves showed prejudice towards infected patients and professionals. Since the results were very similar in both schools, public or private, this topic must be further explored and debated in the Brazilian academic milieu. It is also suggested that studies similar to this should be conducted, to discuss the subject. For this purpose, validation of the questionnaire is recommended so that researches can apply it in a consistent manner in other populations.

References

1. Araujo MWB, Andreana S. Risk and prevention of transmission of infectious diseases in dentistry. *Quintessence Int.* 2002; 33: 376-82.
2. Chikte UME, Naidoo S. Ethical and legal issues around HIV/AIDS in dentistry in South Africa. *S Afr Dent J.* 2000; 55: 701-5.
3. Discacciati JAC, Pordeus IA. Você está disposto a tratar pacientes com AIDS? *Rev Cons Reg Odontol Minas Gerais.* 1997; 3: 31-6.
4. Kermodé M, Jolley D, Langkham B, Thomas MS, Crofts N. Occupational exposure to blood and risk of bloodborne virus infection among health care workers in rural north Indian health care settings. *Am J Infect Control.* 2005; 33: 34-41.
5. CDC – Centers for Disease Control and Prevention. Updated USPHS guidelines for managing occupational exposure to HBV, HCV and HIV and considerations for Dentistry. *J Am Dent Assoc.* 2002; 133: 1627-9.
6. Discacciati JAC, Villaça EL. Atendimento odontológico ao portador do HIV: medo, preconceito e ética profissional. *Rev. Panam Salud Publica.* 2001; 9: 234-9.
7. Gerbert B, Maguire B, Badner V, Greenspan D, Greenspan J, Barnes D, et al. Changing dentists' knowledge, attitudes, and behaviors relating to AIDS: a controlled educational intervention. *J Am Dent Assoc.* 1988; 116: 851-4.
8. Gerbert B, Sumser J, Chamaberlin K, Maguire BT, Greenblatt RM, Macmaster JR. Dental care experience of HIV-positive patients. *J Am Dent Assoc.* 1989; 119: 601.
9. Gerbert B. AIDS and infection control in dental practice: dentists' attitudes, knowledge and behavior. *J Am Dent Assoc.* 1987; 114: 311-4.
10. Lopes VS, Pordeus IA, Paixão HH, Discacciati JAC. Indivíduos HIV positivos: revelação de soropositividade e negação de atendimento odontológico. *Pesq Odontol Bras.* 1988; 15: 182.
11. Ramos DLP, Maruyana NT. A discriminação no atendimento odontológico a pacientes HIV+. *O mundo da Saúde.* 1996; 2: 20.
12. Rezende LR, Ramos DLP. Cirurgião-dentista, sorologia positiva para HIV: as opiniões de um segmento da categoria odontologia sobre a questão. In: *Anais do XVI Congresso Brasileiro de Medicina Legal, V Congresso Brasileiro de Odontologia Legal.* 2000; Recife (PE). Recife: Instituto Brasileiro de Ensino e Pesquisa em Medicina e Odontologia Legal; 2000.
13. Lewis BE, Vernaglia LW. The application of disabilities law to HIV-positive professionals in the dental practice setting. *J Mass Dent Soc.* 2002; 51: 8-11.
14. Spoto MR, Santos SG, Domaneschi C, Navarro CM, Onofre MA. Avaliação do conhecimento sobre a infecção HIV de estudantes de odontologia antes e após palestra informativa. *J Appl Oral Sci.* 2003; 11: 125-32.
15. Sfikas PM. HIV and discrimination: a review of the Waddel case and its implications for health care professionals. *J Am Dent Assoc.* 2002; 133: 372-4.
16. Brasil. Ministério da Saúde. Secretaria de Políticas de Saúde. Coordenação Nacional de DST/AIDS. Área Técnica de Saúde Bucal. Controle de Infecções e a prática odontológica em tempos de AIDS. Brasília: MS; 2000.
17. Conselho Federal de Odontologia. Código de Ética Odontológico. Rio de Janeiro: CFO; 2002.
18. Rissi MRR, Machado AA, Figueiredo MAC. Health care workers and AIDS: a differential study of beliefs and affects associated with accidental exposure to blood. *Cad Saude Publica.* 2005; 21: 283-91.
19. King WD, Wong, MD, Shapiro, MF, Landon BE, Cunningham WE. Does racial concordance between HIV-positive patients and their physicians affect the time to receipt of protease inhibitors? *J Gen Intern Med.* 2004; 19: 1146-53.
20. Daniel NPF, Machado PF, Sala MA, Komesu MC. Attitudes of dental students and dental professionals caring for HIV-positive patients in São Paulo, Brazil. *AIDS Patient Care STDS.* 2004; 18: 63-5.
21. Garbin CAS, Garbin AJI, Barbosa ALP, Mariano RQ. HIV: você aceitaria ser tratado por um profissional de saúde portador deste vírus? *Odontol Soc.* 2001; 3: 60-4.
22. Oliveira ER, Narendran S, Falcão A. Brazilian dental students' knowledge and attitudes towards HIV infection. *AIDS Care.* 2002; 14: 569-76.
23. Smith, CJ. HIV Infection and AIDS: educational and ethical aspects in relation to dentistry. *Br Dent J.* 1993; 175: 75-7.