



## Student's perception about HIV and HTLV seropositive patients of a dentistry school

Thaise Meira Gomes<sup>a</sup>, Flávia Godinho Costa Wanderley<sup>a</sup>, Marina Cartibani Santos<sup>a</sup>, Alena Ribeiro Alves Peixoto Medrado<sup>a</sup>

<sup>a</sup> Department of Oral Pathology, Bahian School of Medicine and Public Health, Salvador, Bahia, Brazil.

### Abstract

**Objectives:** This study is to describe the perception of the students of a private Dentistry School regarding the feelings and apprehensions through the everyday dealings with HIV and HTLV patients.

**Methods:** An exploratory, descriptive study was realized with a qualitative approach using the Oral Theme History to collect and analyze the data.

**Results:** The sample comprised 140 students of several semesters. The majority of students (59%) reported ever attended patients seropositive for both viruses was observed. Although HIV was more feared, 39.55% not shown knowledge about HTLV infection. 82.58% of interviewed students previously considered important to know about HIV or HTLV seropositive patients before treatment and 69.40% reported knowing the procedures performed in an accidental exposure.

**Conclusion:** However it's necessary to expand the knowledge about these infections and humanize the assistance to such patients.

**Key words:** HIV; HTLV; Epidemiology

### Percepção dos estudantes de um curso de odontologia sobre pacientes HIV e HTLV soropositivos

#### Resumo

**Objetivos:** Este estudo objetivou deprever a percepção de estudantes de uma Faculdade de Odontologia privada em relação a suas percepções e apreensões sobre o manejo diário com pacientes portadores de HIV e HTLV.

**Métodos:** Um estudo exploratório e descritivo foi realizado com abordagem qualitativa, utilizando o Oral Theme History para coletar e analisar os dados.

**Resultados:** A amostra foi composta de 140 estudantes cursando semestres variados. A maioria dos estudantes (59%) relatou já ter atendido pacientes soropositivos para ambas as viroses. Embora o HIV seja mais temido, 39,55% não mostraram conhecimento sobre a infecção por HTLV. 82,58% dos estudantes entrevistados consideraram importante saber a respeito da infecção de pacientes HIV ou HTLV antes do tratamento. 69,40% relataram saber quais os procedimentos indicados em casos de exposição acidental aos vírus.

**Conclusão:** É necessário expandir o conhecimento sobre as infecções abordadas no presente estudo, contribuindo para que a assistência a esses pacientes seja mais humanizada.

**Palavras-chave:** HIV; HTLV; Epidemiologia

**Correspondence:**  
Alena R. A. P. Medrado  
[alenedrado@hotmail.com](mailto:alenedrado@hotmail.com)

**Received:** July 17, 2014  
**Accepted:** April 30, 2015

**Conflict of Interests:** The authors state that there are no financial and personal conflicts of interest that could have inappropriately influenced their work.

**Copyright:** © 2015 Gomes et al.; licensee EDIPUCRS.

Except where otherwise noted, content of this journal is licensed under a Creative Commons Attribution 4.0 International license.



<http://creativecommons.org/licenses/by/4.0/>

## Introduction

Viral infections associated with HIV and HTLV represent a great challenge to the health system. Dissemination of these viruses has led to a high degree of tension among health workers, caused by two essential factors: on the one hand, professionals' legitimate concerns with regard to occupational risk arising from these infections, and on the other, the persistence of prejudices that contribute to increasing resistance by health services to attending patients with HIV/HTLV [1].

Infection by the HTLV virus presents as a chronic clinical condition, and although the majority of infected individuals remain asymptomatic, this factor alone has a great impact on their lives, as there is always the possibility that the disease will manifest. Within the broad spectrum of signs and symptoms related to this virus, the following are outstanding: HTLV-I associated myelopathy/ tropical spastic paraparesis (HAM/TSP) and adult T cell leukemia/ lymphoma (ATLL). In addition, it has been observed that a large number of individuals develop other important clinical conditions that interfere directly in their quality of life, such as: urinary disturbances, erectile dysfunction, dry syndrome, periodontal disease, arthropathies and infectious dermatitis [2].

Whereas, infection by the Human Immunodeficiency Virus (HIV) and consequent Acquired Immunodeficiency Syndrome (AIDS) is a huge challenge to public health in modern times. The AIDS epidemic has shown to be extremely complex and configures as a veritable mosaic of regional sub-epidemics [3]. In this context, HIV infection "carries" the symbol of marginality, shame, punishment, promiscuity and death. However, fear and shame as regards HIV/AIDS infection are stronger than the knowledge one has of the disease[4].

The main factors associated with attendance of patients with HIV/HTLV are represented by prejudice, fear of contagion, lack of technical knowledge about the infection, precarious perception of occupational risk, little previous experience with seropositive patients, age and time of professional qualification, salaries paid in the public sector, among other factors[1,2]. Moreover, the reluctance to lose other patients, should they get to know that their dentists treat HIV seropositive individuals or those with AIDS is another factor that influences the relationships between persons, patients and professionals [4,5]. The same premise may be extended to the relationship between the health professional and HTLV-seropositive individuals.

Then, there is an increasing need to know the attitudes of dentists with regard to HIV/HTLV patients, during their period of academic education. The choice of selecting this category in the oral health team is justified not only because of the role that the dentists play in the diagnosis and treatment of oral manifestations in HIV infection, but also because they may be considered strategic professional members of this team, and frequently assume leadership roles. Moreover, there is an extensive lack of knowledge

by dentists about the pathogenesis related to the HTLV virus [1].

The aim of this study was to evaluate the behavior of students from a private Dentistry School with regard to attendance of HIV/HTLV- seropositive patients, by means of holding interviews with them. In addition, the proposal of this work was to identify the main difficulties with the management of carriers of HIV and HTLV viruses by the target population of the study, creating opportunities to suggest a more humanistic approach to seropositive patients.

## Methods

### Population Sampling

The present study was approved by the Research Ethics Committee of the Bahian School of Medicine and Public Health, Protocol No. 091/2010.

A qualitative study was conducted by means of a Thematic Oral History, making use of oral documentation and a questionnaire especially constructed for analysis of the data. The target population of the study consisted of 140 undergraduates from the Dentistry Course of the Bahian School of Medicine and Public Health, Salvador-Ba., Brazil. These students were randomly selected by draw of their enrollment numbers, distributed among the fourth to tenth semester, with twenty students being selected from each semester. All of them signed an informed consent form.

All the professors responsible for these students received a letter explaining the objectives and procedures of the study, and the students signed a Term of Free and Informed Consent to participate in the research.

### Data Collection

Data was collected by means of a semi-structured script containing subjective questions, and some of an objective nature. Interviews were recorded in a private room without outside interference, and at times when there was little movement in the ambulatory clinics. The interviewers were duly calibrated and instructed not to interfere in the interviewees' responses.

### Data Analysis

For data analysis, the oral report was transcribed and put into text format, and its content was evaluated in the following stages:

1. Pre-analysis, which corresponded to organization and systematization of the ideas;
2. Exploration of the material, which could be defined as systematic transformation of the raw data of the text, by means of cutting, aggregation and enumeration, with a view to achieving a representation of the content or its expression in order to enable better understanding of the text;
3. Interpretation of the statements and categorization of similar contents by inference.

In addition, a quantitative study was conducted, comprising the percentage of students that replied to the questions of the questionnaire.

### Results

Of the 140 students participating in the research, 6 were not interviewed as they were transferred and/or desisted from the Dentistry Course.

According to the data collected, the majority of students from the 4th to 10th semesters (59%) affirmed that they had never attended patients infected with HIV and HTLV viruses, although they knew that many of these patients do not inform that they are infected with these viruses (Figures 1A and 1B).

When they were asked which of the two viruses represented greater risk of transmission to the dentist, lack of knowledge of the HTLV virus was found (Figures 2A and 2B). In their statements, some of the students affirmed: "I have never heard of HTLV"; "I don't know about HTLV"; "Are HTLV and HIV the same things?"; therefore, due to the lack of knowledge about this virus, many of the students did not know how to answer, or were undecided about answering which of the viruses represented greater risk of transmission to the dentist.

In spite of the lack of knowledge about the HTLV virus and the possibility of attending seropositive patients, 68.8% of the students affirmed that they knew how to proceed in case of accidental exposure to the virus (Figure 3).

During the interviews, some of the students freely expressed what their conduct would be in the face of accidental exposure, and 34 % reported only washing the site that was exposed to the virus. No additional information was related with respect to the protocol of washing the affected site. When asked about which Health Unit they should go to, 90% of the sample affirmed that the most indicated Health Service would be the Federal University Hospital. Moreover, no attention was outlined with regard to the procedures that should be adopted with regard to the patient who was involved in the occupational accident. Apart from this information, the students reported that they knew how to proceed only in the case of exposure to the HIV virus, and did not know the contamination pathways and biosafety rules with regard to HTLV, as exemplified in the following statements: "Seek a station to have an antiretroviral medication"; "Take the ASLO test"; "It depends on the type of exposure"; "Washing with soap and water and take a cocktail to combat infection by the HIV virus".

Of the total number of students interviewed, 54% affirmed that the biosafety rules are strictly complied with only where seropositive patients are concerned.

82.58% of the students preferred to know before attendance whether the patient was infected with the virus in question (Figure 4), alleging that in this way, they would be able to take greater "care" without, however, acting in a prejudiced manner, and justifying that they would be able to offer more specific treatment, due to the low immunity of these patients.

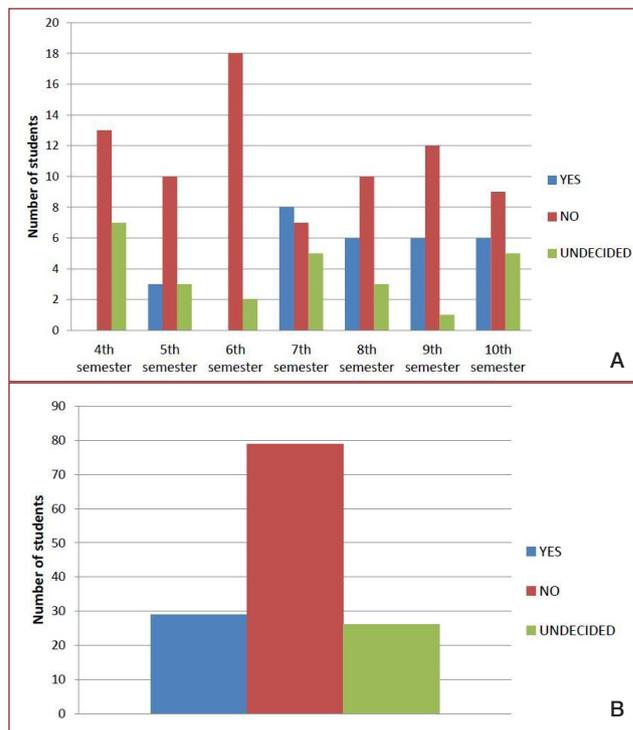


Fig. 1. A - Distribution of students categorized by their respective semesters, who answered the question "Have you ever attended an HIV or HTLV-seropositive patient?". B - General Percentage of students participating in the research who answered Question 1.

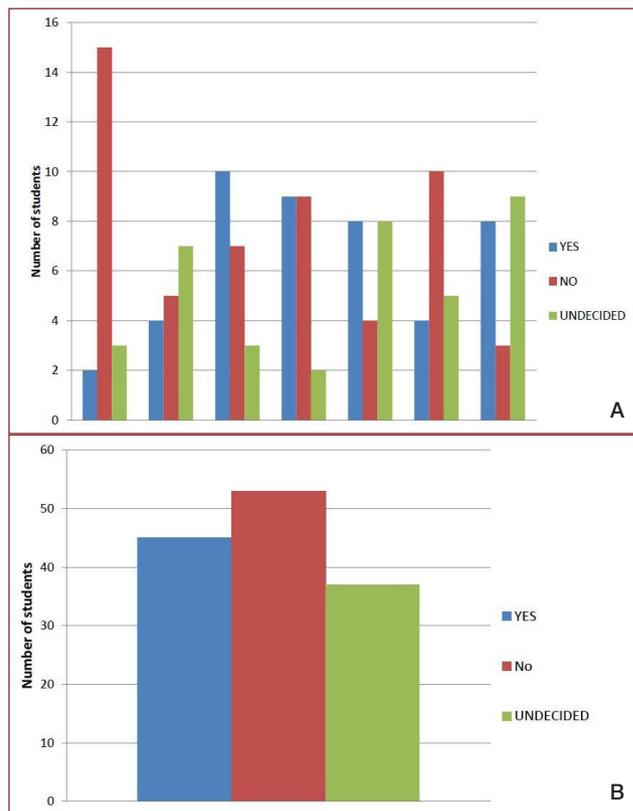


Fig. 2. A - Distribution of students categorized by their respective semesters, who answered the question "Do you know which of the two viruses represent greater risk of transmission to the dentist?". B - General Percentage of students who Answered Question 2.

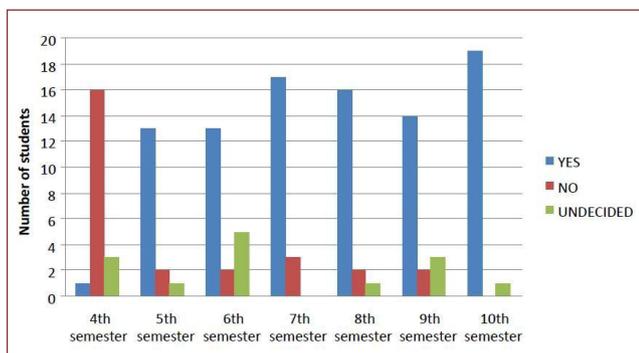


Fig. 3. Distribution of students categorized by their respective semesters, who answered the question "Do you know how to proceed in case of accidental exposure to the virus?"

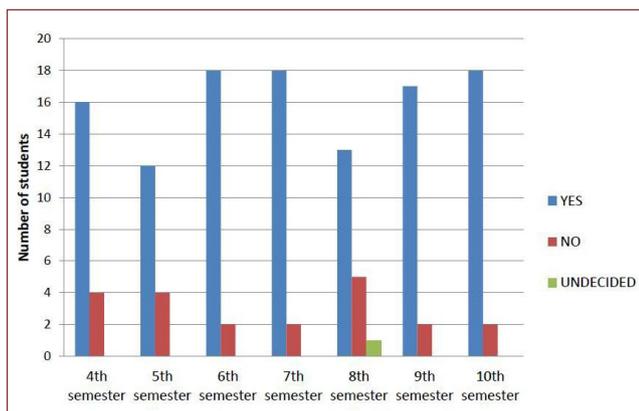


Fig. 4. Distribution of students categorized by their respective semesters, who answered the question "Do you consider it important to know whether the patient is a carrier of the virus in question before attendance?" Justify your reply.

During their statements, the students emphasized some aspects, namely: "It is very important to know whether the patient is seropositive, due to his/her systemic condition, in case it is necessary to perform some invasive procedure"; "Medication Interactions may influence the patient's treatment"; "These seropositive patients could contaminate the cleaning personnel". Although many students affirmed that they would attend seropositive patients, nevertheless, there is reluctance and fear on the part of these students, as 82.58% of them declared in the interview that they would prefer to be informed that the patient is seropositive, before the attendance.

## Discussion

In spite of the adoption of standard precautionary measures and low risk of occupational exposure to HIV, even today, health professionals including dentists have continued to deny attendance to persons who are known to be infected with HIV/AIDS [1]. The refusal to attend is masked with technical arguments and other types of evasions. Many professionals create situations that impede

the beginning or continuation of treatment, or refer the patient to another professional without a justifiable reason. The budget with degrading values is another resource used to make attendance unfeasible [6]. There is a scarcity of scientific studies that approach this subject in relation to the HTLV virus. It is therefore imperative to make future health professionals aware of this issue during the undergraduate stage of their education, as this is the time when values and attitudes are shaped, which will permeate their conduct the management of their patients.

The aim of the present study was to characterize the perception of dental students from a private Dentistry School about the management of patients with viral infections, in particular HIV and HTLV viruses. A feeling, although veiled, of reluctance in attending these individuals was observed, expressed in the declarations of many students who pointed out that they would prefer to know beforehand whether the patient in question was or was not infected with a virus, especially HIV. This attitude was described by opinions collected by means of a qualitative study conducted by means of Thematic Oral History, making use of oral documentation and a questionnaire especially constructed for analysis of these data.

Considering that many infected patients are asymptomatic and either don't know or don't reveal their diagnosis to the dentist for fear of being discriminated, it is a fact that many professionals have attended patients infected with HIV/HTLV without knowing that they have done so. Moreover, epidemiologic data indicate that there is a growing number of infected persons in Brazil and worldwide, which means that dentists are increasingly going to be faced with this group of patients [7]. Although 59% of the interviewees related that they had never attended HIV/HTLV-seropositive patients, following universal biosafety rules based on the principle that every individual could potentially be a carrier of infectious-contagious diseases, and acquiring basic knowledge about these diseases are the best ways in which a professional can work safely, and respect ethical, legal, and social questions [8]. It is known that diseases have a set of socially attributed meanings, taken from their characteristics. When an individual learns of a diagnosis, it also provides him/her with a personal meaning, thus determining an emotional response that will influence that manner in which he/she will face it. Some diseases are presented as metaphors, as they are related to some symbolism, and in addition to physical suffering, bring with them a feeling of humiliation and shame. The person infected with HTLV/HIV goes through feelings of guilt and shame, in addition to fearing a destiny with limitations and without independence<sup>2</sup>. For this reason, the majority of seropositive patients tend to omit data with respect to their infection, and health professionals frequently fail to acquire information in anamnesis.

After two decades living with that which is without doubt, a great threat to the human race, some points have become extremely clear with respect to attendance of individuals infected with HIV. The point to consider is the very question of respect for the infected individual

who, at a stage of life when he/she may be physically and psychologically debilitated, deserves a dignified attendance, in which empathy and solidarity should prevail<sup>6</sup>. As regards the treatment to be instituted for patients infected with HIV, Senna, et al. (2005) [1] have affirmed that it should comprise two aspects: traditional treatment, with the goal of controlling the most common forms of oral diseases, in addition to providing guidance on oral hygiene care; and specific treatment, which includes the management of the oral manifestations that are caused by HIV infection.

In the present study, it was perceived that the large majority of students revealed that they did not know the pathogenesis of infection by the HTLV virus. This result requires greater attention during the period of education of these students, with the purpose of training them to recognize other types of viral infections prevalent in our population, which frequently go unperceived due to lack of specific knowledge about the virus in question. With regard to the HIV virus, greater familiarity with information related to this viral agent was noted. Probably, the knowledge most disseminated by the communication media has contributed to a deeper perception of the HIV virus, including the fear and prejudice that rests on seropositive patients, as shown in the example of a declaration made by one of the students: "I have re-scheduled seropositive patients' visits several times because I was afraid of being contaminated."

For Samico, et al. (1994) [9] if a dentist is sought by a patient who has been proved to be infected with HIV or who has AIDS, the dentist should adopt one of the following procedures: in the case of urgency, the professional must attend the patient normally, within the limits of his/her situation. If the case is not urgent, or after it has been dealt with, the professional may attend normally if the patient's needs are within the scope of his/her professional activity, or immediately refer the patient for follow-up by a specialized public or private service. The important and ethical issue is that one does not deny attendance merely and simply because the patient has HIV or AIDS [10]. According to our research data, 82.58% of the students preferred to be informed that the patient is seropositive before treatment, justifying the matter as follows: "there would be greater biosafety"; "by the patient's systemic condition"; "how to proceed, if one must and when one performs invasive procedures"; "medication interactions may have an influence on treatment"; "psychological preparation"; "to be able to perform a specific treatment"; "in case of accidental exposure"; "due to lack of preparation and experience"; "not run the risk of contaminating the cleaning professional and other patients".

Dentists who showed greater willingness to provide dental attendance to patients infected with HIV/AIDS have a correct perception of the risk of occupational contamination during dental treatment. Adequate evaluation of the occupational risk of HIV is an important factor in the willingness of health professionals to attend persons infected with HIV/AIDS. Dentists who are more willing, know the post-exposure protocol for dealing with accidental exposure to biologic material [1,5].

It is fundamental to guarantee access to dental services by offering educational and oral disease prevention programs that ensure better quality of life of HIV-seropositive individuals or those with AIDS. The professional must maintain a good relationship with the patient so that he/she will feel safe and not omit any information that may interfere in the treatment. It is important for the patient to be certain that the information provided will remain confidential [6].

## Conclusion

It is common to find health professionals who still reject seropositive patients. Thus, one could perceive a great lack of preparation of these future professionals with regard to the HIV and HTLV viruses, as there must be biosafety for all, irrespective of whether or not they have any pathology.

The results of the present study suggest that adequate knowledge about infection with HIV/HTLV by dentistry undergraduates will not guarantee attendance of these seropositive patients. Therefore, permanent education programs for students and for the dental team with regard to related subjects are an important strategy for enlarging access to and improving the quality of dental attendance offered to persons who live with HIV/HTLV.

This being so, these feelings and attitudes must be emphasized as early as possible during the period of students' education, in an endeavor to humanize the attendance of individuals who are seropositive not only for HIV and HTLV, but for any other biologic agents.

## References

1. Senna MIB, Guimarães MDC, Pordeus IA. Atendimento odontológico de portadores de HIV/AIDS: fatores associados à disposição de cirurgiões-dentistas do Sistema Único de Saúde de Belo Horizonte, Minas Gerais, Brasil. *Cad Saúde Pública* 2005;21:217-25.
2. Orge G, Travassos MJ, Bonfim T. CONVIVENDO COM O HTLV-I. *Gaz méd Bahia* 2009;79:68-72.
3. De Brito AM, De Castilho EA, Szwarcwald CL. AIDS e infecção pelo HIV no Brasil: uma epidemia multifacetada. *Rev Soc Bras Med Trop* 2001;34:207-17.
4. Costa SM, Dias OV, Canela JR, Drumond JGF, Santa-Rosa TTA. Visão de discentes sobre o atendimento a pacientes HIV/AIDS. *Arq odontol* 2009;45:10-5.
5. Feltrin EE, Navarro CM, Spoto MR. Nível de informação e comportamento dos dentistas brasileiros em relação à AIDS e à infecção pelo HIV. *Rev odontol UNESP* 1997;26:287-95.
6. Discacciati JAC, Vilaça, EL. Atendimento odontológico ao portador do HIV: medo, preconceito e ética profissional. *Rev Panam Salud Publica/Pan Am J Public Health* 2001;9:234-9.
7. BRASIL. Ministério da Saúde. Controle de infecções e a prática odontológica em tempos de AIDS: manual de condutas. Brasília, 2000.
8. Corrêa EMC, Andrade ED. TRATAMENTO ODONTOLÓGICO EM PACIENTES HIV/AIDS. *Rev Odonto Ciência - Fac Odonto/PUCRS* 2005;49:281-9.
9. Samico AHR, Menezes JDV, Silva M. Aspectos Éticos e Legais do exercício da Odontologia. 2ª ed. Rio de Janeiro: Conselho Federal de Odontologia, 1994.
10. Discacciati JAC, Neves AD, Pordeus IA. AIDS e controle de infecção cruzada na prática odontológica: percepção e atitudes dos pacientes. *Rev Odontol Univ São Paulo* 1999;13:75-82.

