



# KNOWLEDGE LEVEL OF DENTISTS AND STUDENTS ON HIV PATIENT'S DENTAL TREATMENT IN BRAZIL: LITERATURE REVIEW

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## ABSTRACT

**Background:** Despite the low risk of contamination, fear and discrimination among dentists and students in relation to people infected with HIV could result in violation of some ethical precepts.

**Objective:** The objective of this study was to review the knowledge level and attitudes of dentists and students in the dental care of patients with HIV.

**Methods:** The last 20 years of specialized literature was consulted in the Virtual Health Libraries of Medline and Lilacs sources during the period between May 1999 and May 2019. A wide search strategy was used to avoid missing information: "Dentistry" and "HIV", registered in the Descriptors in Health Sciences.

**Results:** The search in the database resulted in 1058 articles. Screening of titles and abstracts resulted in 14 articles. After the complete reading, 12 articles fit the inclusion and exclusion criteria.

**Conclusion:** Based on the methodology used, it was possible to conclude that the analysis of the selected articles showed that there is still much to be done in the training and in the performance of dentists and students regarding prejudice and willingness to offer dental care for HIV patients.

**KEYWORDS:** Acquired Immunodeficiency Syndrome. Dentistry. HIV.

<http://dx.doi.org/10.19177/jrd.v8e5202046-50>

## INTRODUCTION

The acquired immunodeficiency syndrome (AIDS), caused by human immunodeficiency virus (HIV) is still a challenge to science<sup>1,2</sup>. AIDS has the potential to destroy lymphocytes, cells that are responsible for the defense of the organism, making the carrier susceptible to opportunistic infections

and diseases, including in the oral cavity<sup>3,4</sup>, attracting attention to dentistry. HIV affects a large number of countries, regardless of social classifications, with consequences in several dimensions besides health, such as culture, politics, economics and ethics<sup>5,6</sup>. In Brazil, according to the Ministry of Health, two-thirds of Brazilians with HIV do not know their

serological status<sup>7</sup>. Thus, it can be pointed that the number of infected persons is potentially higher than that reported by the estimates<sup>7</sup>.

Alongside the epidemiological context, attention to people with HIV was more focused due to factors such as increased patient survival, adoption of measures for early diagnosis, primary and secondary prophylaxis of

opportunistic diseases and introduction of highly active antiretroviral therapy<sup>8</sup>. These factors, however, have promoted new challenges for outpatient services, with clear impacts on access and quality of patient care<sup>1,3,5,7</sup>.

This change in HIV positive patient profile induced modifications in the form of providing health assistance, including oral care<sup>1,3,5</sup>. At the beginning of the epidemic, few dentists treated HIV patients due to fear of the unknown<sup>1,9</sup>. Subsequently, in a gradual approach, the number of professionals determined to assist such patients increased due to the awareness and adequacy in the biosafety measures<sup>1,9</sup>. However, there is still resistance of some professionals, and there is a clear need to increase understanding about the oral health approach of patients with HIV<sup>7</sup>.

Despite the low risk of contamination<sup>10</sup>, there is persistence of fear and discrimination among dentists in relation to people infected with HIV<sup>1</sup>, resulting in violation of some ethical precepts<sup>3,5</sup>. In this context, it is discussed the need to implement comprehensive care policies for this population, including oral health. The objective of this study was to conduct a literature review on the knowledge level of dentists and students regarding prejudices and willingness to dental care for HIV patients in Brazil.

**DEVELOPMENT**

**METHODS**

This study was conducted based on a review of the last 20 years specialized literature, carried out during the period between May 1999 and May 2019, consulted by scientific articles selected through a search in the Virtual

Health Library (BVS) website, from Medline and Lilacs databases. A wide search strategy was used to avoid missing information: "Dentistry" and "HIV", registered in the Descriptors in Health Sciences accessed through the Virtual Health Library. The inclusion criteria applied were scientific articles published in English and Portuguese; articles that presented full text available; studies that approached the access and the necessity of the dental follow-up of the patient with HIV; studies that analyze prejudices and willingness in the dental care of HIV patients. The exclusion criteria were theses; dissertations; monographs; completion work; studies that reported dental

aspects of specific diseases. After the studies were selected, they were read, their outcomes were analyzed and tabulated. Then the discussion was built based on the interpretation of the articles.

**RESULTS**

The search in the database resulted in 1058 articles. Screening of titles and abstracts resulted in 14 articles. After the complete reading, 12 articles fit the inclusion and exclusion criteria. Table 1 presents the included studies in chronological order characterizing: objectives, applied methodology and conclusions.

Table 1 – Articles included in chronological order characterizing their objectives, applied methodology and conclusions.

Authors (Year)	Objective	Methods	Conclusion
Melo; Gontijo Filho (2000)	To investigate the knowledge, attitudes, and practices regarding infection control measures among dental students.	Application of questionnaire	Additional education is required to promote a more realistic perception of the risks for HIV transmission in dental offices and among dental students.
Discacciati; Vilaça (2001)	To describe ethical aspects involved in dental care for seropositive HIV patients.	Literature review	There is still prejudice and ignorance about the risk of HIV infection by dentists and other patients.
Sposto et al. (2003)	To evaluate the general and specific knowledge of undergraduate students about HIV infection, before and after attending an informational lecture.	Application of questionnaire	Undergraduate students need a reinforcement about HIV infection, involving continuous updating of informational aspects.
Rodrigues et al. (2005)	To know the social representation of HIV built by dentists.	Application of questionnaire	Dentists are informed about HIV contamination and prevention. However, they demonstrate an incomplete knowledge, fragmented and supported by a traditional and overcome vision of biosafety, which hinders the development of strategies to overcome traditional practices.
Senna et al. (2005)	To identify factors associated with the provision for the dental care of patients with HIV among SUS dentists.	Application of questionnaire	Fear of contagion is the main source of anxiety regarding the care of patients with HIV.

## DISCUSSION

This literature review aimed to analyze the Brazilian scientific production, evaluating articles written in Portuguese and English. The purpose of this approach was to characterize the context of HIV patient access to dental care in Brazil, as well as the knowledge level presented by dentists and students on the subject. From the 12 selected articles, 11<sup>1,3,5,7,11-17</sup> were performed through questionnaires, which demonstrates the preference of this tool to evaluate the perceptions and actions accomplished by the dentists and students. Among these studies, ethical, legal and behavioral issues in dental practice were discussed on dental care in individuals carrying HIV<sup>1,3,5,7</sup>. The fact that the dentists or students, after the anamnesis is carried out, are aware that the patient is infected, could stimulate the professional to be more cautious, however, it is necessary that concepts of biosafety be applied in their entirety, independently of the diagnosis of HIV, guaranteeing the standardization of dental care<sup>18</sup>.

Among the factors evaluated by the studies, Discacciati and Vilaça<sup>9</sup> reported that there is still inexperience and prejudice about the risk of HIV contamination, both by dentists and by other patients. Educational initiation projects are necessary, in the clinics and universities that form new professionals, as well as to reinforce the role of the Regional and Federal Councils of Dentistry in clarifying the ethical stance of dentists in face of HIV infection. Sposto et al.<sup>12</sup> agree that dentistry students need to reinforce their knowledge about HIV infection, involving continuous updating.

Authors (Year)	Objective	Methods	Conclusion
Guerra et al. (2008)	To detect the main deficiencies of knowledge and behavior of dental surgeons regarding the treatment of HIV-positive children.	Application of questionnaire	Technical insecurity of the professionals was the main reason for treatment refusal of HIV seropositive children.
Garbin et al. (2009)	To evaluate the existence of discrimination through the analysis of the ethical aspects involved in the care of seropositive HIV patients.	Application of questionnaire	It is necessary to build a new conscience based on ethical principles, capable of clarifying professionals about their attitude towards HIV infection.
Camurça et al. (2010)	To contextualize the dental care of people with HIV with emphasis in primary care services.	Application of questionnaire	Dental care for HIV patients is insufficient and concentrated.
Rossi-Barbosa et al. (2014)	To identify the expectations and perceptions of dentistry academics regarding the care of patients with HIV.	Application of questionnaire	It is important to apply dental clinical practice in academic everyday life, combined with biosafety to break paradigms and prejudices with patients with HIV.
Magalhães et al. (2015)	To assess knowledge, risk perception and attitudes of Dentistry students with regard to HIV.	Application of questionnaire	Greater articulation between theory and practice is suggested.
Lucena et al. (2016)	To evaluate the knowledge, attitudes and practices of undergraduate and postgraduate dentistry students regarding the care of patients with HIV.	Application of questionnaire	Conclude that 90% of the survey participants treated all patients as potentially infected and cared about their professional risk for HIV. Only 70% believe that it is impossible to refuse dental care.
Lorosa et al. (2019)	To estimate the knowledge of dental students regarding the care of patients with HIV.	Application of questionnaire	Participating students have good knowledge on biosafety in the management of HIV patients, as well as on the most commonly associated oral manifestations. However, there is a need for improvement on some topics related to HIV, especially regarding less known oral lesions, and HIV diagnostic tests.

HIV - Human immunodeficiency virus.  
SUS - Brazilian Unified Health System.

Rodrigues et al.<sup>13</sup> cited that it is necessary to develop different strategies aiming to approach this phenomenon and, at the

same time, consider the whole set of mental behaviors and emotions, that are introduced in the constitution of the

social representation influencing the choices and alternatives elaborated by these subjects in face of the risk of contamination and transmission of HIV. Senna et al.<sup>14</sup> conclude that the fear of contagion is the main source of anxiety for health workers regarding the care of patients with HIV. These results deserve further reflection on Dentistry institutions, public health services and organized society, with the aim of discussing the problems that may favor or perpetuate the inequity of access.

Guerra et al.<sup>5</sup> demonstrated in their study that among those who are not willing to care for HIV seropositive children, the majority (72.98%) refuse because they do not feel capable of such care. Thus, updating the knowledge about the subject and the inherent ethical and legal obligations should be a constant in the clinical practice of the dental surgeon so that changes in the behavior of these professionals can be verified. Garbin et al.<sup>3</sup> report that the occurrence of discriminatory situations in the health care of people with HIV is evidenced in different categories of health service providers, noting that such attitudes were practiced by nurses, doctors, attendants and dentists. In addition, it is imperative to build a new conscience based on ethical principles, capable of clarifying the professionals about their attitude towards HIV infection, aiming at the humanization in health care and improvement in patients' quality of life. Camurça et al.<sup>7</sup> observed that 58.1% of the dentists from Brazilian Unified Health System in Fortaleza are aware of people living with HIV in their coverage areas, but only 29.6% reported having consciously cared for HIV patients in the dental coverage area, plus, the distribution of care was irregular, focusing on only a few places

in the city. The study concluded that dental care in HIV patients in Fortaleza is insufficient and still concentrated. It also reinforced the need for reorientation of practices and reorganization of the dental service.

Rossi-Barbosa et al.<sup>15</sup> concluded that dentistry students have stereotyped representations of HIV patients, being fear and insecurity, observed by the tendency to overestimate the risks of transmission. Thus, it is necessary during graduation to encourage them to have characteristics such as initiative, creativity, critical sense, but also, ethical, humanized and with an expanded world view, so that it can act seeking a better society. Lucena et al.<sup>1</sup> verified that the students' knowledge level was satisfactory, as well as their competence regarding care of HIV patients, demonstrating the possibility of paradigm changes for a future scenario. Nevertheless, general analysis of the studies found demonstrated a haggard scenario regarding the understanding of professionals and future dental professionals in guaranteeing access to HIV patients, where prejudice is still present.

## CONCLUSION

Based on the methodology used, it was possible to conclude that the analysis of the selected articles showed that there is still much to be done in the training and in the performance of dentists and students regarding prejudices and willingness to offer dental care for HIV patients.

## CONFLICT OF INTEREST

The authors declare that they have no conflict of interest.

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