

Management of HIV positive patients by direct approach from dental service providers of Bangladesh

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Abstract

People affected by HIV (Human Immunodeficiency Virus) experience a variety of oral health issues. The study's goal was to learn about dental service providers' perspectives on oral health treatment for HIV-positive patients in Bangladesh and develop guidelines for community-wide prevention and reduction of oral health problems. This is a qualitative study with 78 dental service providers followed by FGD, KII, and In-depth interviews. A self-administrated and semi-structured questionnaire was used to conduct the study. The social stigma and cultural attitudes associated with HIV status, according to this study, are the primary reasons why people with this health status do not report their health issues to their service providers. Human immunodeficiency virus (HIV) infection puts people at risk of a variety of oral health issues. Oral health disorders, such as chronic dry mouth, gingivitis, periodontitis, oral warts, fever blisters, oral candidiasis, and dental caries, are more common in HIV/AIDS patients and can lead to additional health problems. Lack of an institutional protocol for keeping HIV status information shared with a dental practitioner secret and used only for the purpose for which it was given. Because most lesions of HIV infection are present orally during the early stages of the disease, the majority of interviewees agreed that the oral health care environment is a beneficial place for early detection. Eagerness to treat HIV/AIDS patients appears to be linked to their understanding of the disease process, oral manifestations, and modes of transmission, influencing health workers' approach to managing HIV/AIDS patients through standardized protocols tailored to their specific needs and referrals as needed. The study suggests focusing on a comprehensive program followed by a restructuring of patient care to ensure that HIV-affected dental patients have access to safe dental treatment. Dental treatment planning must be done on a case-by-case basis, with proper discussions with the patient and their physician.



IJSB

Accepted 17 March 2022
Published 19 March 2022
DOI: 10.5281/zenodo.6370182

Keywords: *Stigma, Discrimination, HIV, AIDS, Qualitative study.*

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Introduction

Human immunodeficiency virus (HIV) transmission is a major public health concern worldwide. HIV can be spread by coming into contact with tainted human blood or other potentially enticing bodily fluids from an HIV-positive person (e.g., sperm, vaginal or rectal emissions, breast discharge, or any other bodily liquid sullied with apparent blood). HIV kills some immune system cells (Arik et al. 2013), making infected people more susceptible to infection from other organisms and malignancies caused by infection. Medical treatment can keep HIV at bay, but it cannot cure it. In the absence of successful treatment, HIV can progress to immunodeficiency syndrome (AIDS), which is defined by a low CD4+ T lymphocyte count (200 cells/mm³) and one or more opportunistic infections (USDHH,2021). It is clear that Bangladesh is at risk of becoming infected with HIV due to several factors, (a) Bangladeshi people frequently visit neighboring countries, (b) A combination of high literacy rate and a poverty rate of and (c) High rate of Sexually transmitted diseases in urban areas of Bangladesh (Manirul et al., 1999). Perhaps the rapid spread of this disease in Bangladesh is hampered by religious and social restrictions on sexual activity and other factors. However, HIV remains a major public health concern worldwide, having claimed the lives of 36.3 million people to date (Sophie et al., 2015). To meet the Sustainable Development Goals (SDG 2030), specific and targeted initiatives to minimize transmission in lagging sectors are required, emphasizing untapped transmission sources. Dental practice sites are promising new venues with the ability to serve a larger number of people who see a dentist but not a physician each year. Although it may not appear on the surface that HIV prevention or awareness is within the dental practice in Bangladesh, the development of quick oral fluid diagnostic test kits for HIV provides the chance for oral screening to become a logical extension of conventional dental care. To date, however, only a few dentists and academic dentistry facilities have expressed concern about identifying HIV patients based on their oral symptoms and incorporating HIV-related awareness screening into practice. However, there has been little research into the factors contributing to increased HIV awareness and prevention in dental offices. Dental clinicians' identified hurdles to HIV prevention included a perceived lack of competence in HIV testing and counseling, a lack of adequate referral sources, and logistical concerns such as time, cost, and patient privacy, which were all found in a previous national survey. Collaborations between technologists and dental providers could overcome several of these possible hurdles to HIV testing. Despite the lack of formal training in oral health assessments, technicians in the field of HIV/AIDS care in dental settings have become knowledgeable about oral manifestations of HIV, despite the lack of precedent for physician-technician collaboration in general. If dentists had proper training in conducting complete mouth examinations, dental professionals might have been able to detect oral health problems early. Technicians' knowledge of how to deal with potential patients' HIV concerns and counseling and referrals for those who test positive can help dentists. To encourage continuous dental treatment, dental service providers should endeavor to create a comfortable, inviting environment Non-judgmental environment for all patients as part of providing equitable care, preserving patient safety, and sustaining quality of care (USDHH,2021). Medical histories are crucial for all patients. Still, they are especially important for HIV patients, who are more likely to have medical complications. A full medical examination with the patient's physician can aid in the development of a safe treatment plan tailored to the patient's medical condition. Because HIV can be silent and go unnoticed, all patients should follow conventional infection control practices. Although antiretroviral therapy has lowered the general prevalence of HIV oral symptoms, HIV-related oral diseases still affect 30–80% of HIV-infected people (Sophie et al.,2015). Examinations of the oral cavity can easily reveal these orofacial conditions. Furthermore, some antiretroviral drugs can impair salivary secretion, putting you at risk of dry mouth. Oral candidiasis, particularly the pseudomembranous, erythematous, and angular chelate types, is the most

common lesion in HIV-positive patients. Opportunistic viral infections in oral mucosae, such as herpes simplex, herpes zoster, Epstein-Barr, and human papillomavirus, are more common in HIV-positive patients. As viral infection rates grow, more common are infection-related precancerous lesions such as oral hairy leukoplakia, oral warts, and oral cancer. According to studies, between 30 and 80 percent of HIV-infected adults will have oral abnormalities due to their infection (Reznik et al., 2005). In HIV-positive people, necrotizing ulcerative gingivitis or periodontitis affects 2–6 percent of the population. In contrast, conventional periodontitis affects up to 30 percent (Nicholas et al., 2006). Caries is more likely when periodontal disease, impaired salivary flow, and antibodies are present.

Significance of the study

Although dentists' traditional jobs may have been limited to the mouth cavity, some dental leaders have embraced a larger and more integrated vision of dentists as healthcare partners with physicians and other health care providers. Many dentists worldwide believe that health screenings are vital and implement them into their operations. Given the recent expansion in technology that enables oral fluid testing for a range of health issues, including HIV, this area of dentistry is certain to grow. Furthermore, because oral signs of immune suppression are encountered in dental practice, dentists are already on the diagnostic frontline of HIV/AIDS in many respects. Dentists should keep a close eye on their patients' dental and oral health to see if disease progression occurs. If you have HIV-related oral symptoms, the primary goal is to reduce pain and cure infections. Dentists can provide advice regarding modifiable risk factors, such as cigarettes, alcohol, or other substances, that may raise the chance of oral abnormalities or complications and work with patients to develop oral hygiene regimens to avoid future disease. Prevention is even more critical for HIV-positive individuals, who are more susceptible to oral disease. According to international guidelines, all dental offices should be competent to provide routine dental care to HIV-positive adults and children. Routine dental care and procedures, including oral surgery, are tolerated by nearly all HIV patients. In Bangladesh, dental treatment planning is still done on an individual basis, in collaboration with patient and physician consultations. Patients who are HIV positive encounter numerous social barriers, including the inability to properly disclose their illness, societal stigma, and a conservative atmosphere. In certain cases, there isn't enough time to contact the patient's doctor to see whether any recent aberrant laboratory data could indicate HIV, necessitating dental treatment changes or invasive procedures in a hospital setting. For HIV-positive patients, the indications for dental extractions and other oral surgical operations are the same as for any other patient. Scaling may be done before surgery to help lessen the chance of postoperative problems. All procedures must be carried out in such a way that minimal bleeding occurs and oral infections are not introduced into the deeper face planes and oral spaces. Unidentified HIV patients can be a severe source of HIV transmission through dental practice in this situation. However, from the perspective of service providers, there is a dearth of scientific data that suggests the need for dental practice to be modified following HIV-related awareness. In addition, at a time when disease patterns are changing due to demographic shifts, it is unavoidable to reconsider HIV prevention policies in all aspects of patient care. This qualitative study focused on dental practitioners' perspectives and mindsets in HIV prevention and management, which can be used to reorganize management stages in dental settings.

Materials & Methods

A qualitative, descriptive technique was used to conduct the research. In-depth one-on-one interviews focused group discussions, and key informant interviews with dental service providers at various levels were employed to gather data. In-depth interviews with 42 dental physicians were conducted and KII with six senior dentists. Three focus groups with ten dental

technicians were held to get insight into and explore attitudes and views towards HIV-positive patients. During the research, a total of 78 service providers were interviewed. The research was conducted at three locations of the Aesthetic Dental Facility, a well-known private dental clinic in Dhaka's capital city. North-South University's proper IRB authorized all human subject-related documentation and procedures before the study's initiation. A copy of the written informed consent was supplied to each possible participant, along with the researcher's contact information. After reading the written informed consent form, the willingness to participate was used to determine consent. All study participants were promised, both verbally and in writing, that their responses would be kept secret and that their feedback would not be linked to demographic data or descriptors that could lead to deductive revelation. Semi-structured interview protocols with open-ended questions and probes were used to examine dental service providers' perspectives, perceived barriers, objectives, and experiences with HIV-positive patients. The questions became increasingly specific as they proceeded from general to specific. The study included a convenient sample of dental technicians from the clinics and an intentional selection of dentists for in-depth interviews and KII, who offer care in the designated dental facilities. Data were collected until it reached saturation, at which point no additional information could be gathered. The interviews were conducted using a self-administered, semi-structured questionnaire. Participating service providers were not compensated or given incentives in any way. One of the investigators, who has substantial experience in qualitative interviewing and focus group research, conducted the interviews.

Results

Data from audio-taped interviews and focus groups were transcribed word for word and modified to remove any identifying information. Positive characteristics that would make HIV prevention and care of positive patients easier during dental clinic visits were found and negative factors (barriers) that would make it more difficult. In general, results among dentists and dental technicians were generally consistent, and they are provided in some key areas such as the scope of practice, HIV-related skills and knowledge, institutional training, patient perspective, technical challenges, and logistical issues. HIV prevention, diagnosis, and screening were described as being within the scope of practice by nearly all practitioners and most dental technicians. Most of those who took part did not regard this as a contradiction with medicine. "And I do not think that is going to take away from physicians," one attendee said. We are going to pitch in. Patients will be referred to them or nurse practitioners. If anything, we will supplement it and assist them in assisting us." On the other hand, one or two comments questioned whether oral HIV symptoms were within the scope of dental practice. "Does the dentist have to do it, or is he a medical provider?" A lot of dental technicians mentioned "generational influences" on HIV screening attitudes. These generational impacts did not relate to age or generation, but rather to more traditional or conservative dental practices. Those in favor of introducing HIV prevention and awareness into practice disputed the assumption that scope of practice was a valid obstacle or rationale against doing so. Many senior dentists believe that HIV-related mouth diagnostics are the way of the future in general. "Saliva testing represents a paradigm shift in dentistry—we can only move forward," for example. "This is part of a bigger picture that I see coming down the pike, which is the explosion of oral diagnostics in dentistry." Oral fluid HIV screening was described by several as a type of practice enhancement and a way to broaden the scope of practice for the profession. "It only takes a few minutes." When a patient sees a dentist, who is truly thorough with them, they leave thinking, "hmmm." "Right there, that is how you sell your practice." Training in HIV treatment and transmission prevention screening, according to dental technicians, would be "cutting edge" and beneficial in their future operations. Almost every dental technician showed an interest in

learning-related skills. Beyond the scope of practice, respondents noted concerns with skills, knowledge, and training that would help or hinder HIV prevention in dental practice. Both strengths and areas where further training is needed were recognized. Oral diagnostic procedures were something that the technicians were learning about. Nearly all of the participants, both dentists, and technicians mentioned the need for training in testing processes, communicating with patients about HIV symptoms, further diagnostic tests, results, and referral procedures, either directly or indirectly. Some people commented that they needed further training on how to utilize the oral fluid testing device. Many people appeared unfazed by the notion of testing as long as they were given proper training. Furthermore, dental clinicians and students appeared to be less concerned about technical knowledge and processes than patient counseling and communication. "We know about transmission prevention and whatnot," for example, "but I think it is more from an emotional aspect." The "seriousness" of dealing with patients with HIV screening and results made several dental practitioners and students uncomfortable. Discussing HIV-prone symptoms or manifestations with patients was deemed considerably more difficult: "What is more crucial is the competence to counsel and deal with people who do come back positive." "Dentists are not prepared to deliver genuinely dreadful news," says one patient. "I think what is more essential than that is the capacity to counsel and deal with those who do come back positive," said one dental worker. Both dentists and technicians highlight the importance of training as well as its possible benefits. "Being uncomfortable is understandable," for example, "but we can be trained to counsel patients." Participants explored a variety of training options, including the use of written protocols, scripts, and role-plays to help develop techniques and comfort with HIV-related patient communication. "The student watches how a dentist interacts with patients," some said, referring to the importance of faculty role modeling during academic curricula. It is as much a part of the student's education as, say, preparing a crown for a tooth. "I believe that all of this is a way to learn how to interact with patients and conduct yourself in practice." Because of the participants' apprehension about disclosing HIV results, some suggested that dental patients obtain their results elsewhere later. The fundamental reason for HIV prevention, according to service providers, is to enhance the public good. According to nearly all dentists and techs, patients would see HIV awareness as a benefit. Nonetheless, several practical challenges have been found to limit the feasibility of HIV prevention and care in the dental office. Time, money, expense, space, patient confidentiality, and referrals were challenges and limits. Furthermore, some respondents believed that these concerns would be even more difficult to address in private practice. "Could work at a dental clinic, but not necessarily in a private dental practice." Time limits were one of the most frequently mentioned logistical issues.

Discussion

Participants exhibited universally good opinions toward avoiding HIV transmission and essential management in dental settings and expressed the belief that providing such facilities was compatible with their understanding of the dentist's job. According to recent studies, dentists and dental technicians have similar perceptions (Md et al., 2017). Increased understanding of HIV status and the convenience of being tested while obtaining dental care were highlighted key benefits for such management for patients or high-risk populations. The cost or acceptability of participants was not specifically addressed in the study. Two prior studies of patient perspectives on HIV screening in dentistry provided free testing and indicated great acceptability (Craig et al., 2008, Oni et al., 2010). However, the outcomes may not be the same from a Bangladesh perspective due to socio-cultural ties. Fear of receiving a positive result, a lack of awareness, and knowledge of their HIV status were all mentioned as obstacles. Patient participants noted several issues with HIV prevention in the dentistry

practice. The emotional impact of learning of an HIV-positive test was a major concern for most people. This was a general concern about the emotional impact of such information, rather than one specific to the dental environment. While dental providers could inform patients about their HIV susceptibility, many participants suggested that they should also provide prompt access to further investigations, followed by referrals to HIV psychological counseling professionals who could provide patients with additional information and support. In this situation, several participants emphasized the significance of maintaining confidentiality when receiving past information and test findings. Though they were united in their support for dental practitioners giving HIV prevention education to their patients, many were concerned that awareness events and demonstrations to dental patients would offend some patients (Nancy et al., 2012). Concerns about HIV stigma from dental professionals and time restrictions were recognized as major impediments by participants in that study. Because the current study was conducted in Dhaka City, the lack of patient worries about stigma may reflect shifts in public beliefs about geographic inequalities. Furthermore, the findings suggest that detailed protocols for preventive measures and specific management are needed to address patient concerns. Patients' privacy, professional psychosocial support for patients with HIV symptoms or positive HIV test results, managing referrals, links to care for those who test positive, and offering educational materials in the dentistry practice context should all be addressed in these procedures. The current study adds to the modest body of literature on HIV prevention and management in dental settings by providing essential information. This is the first qualitative study to look at these difficulties, and it gives a valuable background for the development of protocols to address patient concerns in Bangladesh. The findings support recommendations for the construction of new interdisciplinary care models to provide HIV-positive or high-risk populations in dental settings and satisfy the demands of dental patients in the future (Md et al., 2017, Nancy et al., 2012).

Conclusion

Because most lesions of HIV infection manifest orally during the early stages of the disease, the majority of interviewees agreed that the oral health care environment is a beneficial place for early detection. Recognition of the disease process, oral manifestations, and modes of transmission appeared to be related to willingness to treat HIV/AIDS patients, influencing health workers' approach to managing HIV/AIDS patients through standardized protocols tailored to their specific needs, and appropriate referrals when necessary. Although most dental practices do not have co-located access to nurses or other medical providers, developing collaborative relationships with nurse practitioners in the local community for HIV prevention and management, followed by referral, could be a viable option for dentists in small or small group solo practices. HIV testing and other oral diagnostics in collaborative models like this will need to be handled, even though dentists or technicians have no scope of practice issues in identifying oral symptoms. This research could help to improve awareness and encourage dental service providers to provide extra care to HIV patients.

Acknowledgment

We would like to acknowledge W A N Research & Consultancy for providing consultancy assistance to design the study and evaluate the item.

Funding

No funding agency had any financial contribution to this research work.

Conflict Of Interest

No conflict of interest was declared for this study.

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Cite this article:

Khadija Leena, Mafiun Nafisa Huq, Rabeya Ahmed, Abdullah Enam, Probal Kumar Mondal, Afsana Anwar & Abu Ansar Md. Rizwan (2022). Management of HIV positive patients by direct approach from dental service providers of Bangladesh. *International Journal of Science and Business*, 10(1), 123-129. doi: <https://doi.org/10.5281/zenodo.6370182>

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