

The Willingness of Dental Medicine Students in Handling Positive HIV Patients

Alya Sahilla Fahri¹, Nurhana Binti Suhaimi¹, Balwinjit Kaur Sidhu¹, Yaaliny A/P Krishnamurthi¹, Oretha Patrick Balinu¹, Mohd Rashid Bin Mohd Abu Bakar¹, Regina Purnama Dewi Iskandar²

¹ Undergraduate Student of Dental Medicine, Department Dental Public Health, Faculty of Dental Medicine, Universitas Airlangga Indonesia, ² Primary Health Care Research group, Faculty of Dental Medicine, Universitas Airlangga Indonesia

Abstract

Background: Dental care for HIV positive people plays an important role in increasing quality of life, tolerance and effectiveness of treatment, nutritional intake, and treatment success rates. Therefore, it is important to ensure optimal dental care for this group of people, especially since many of them, with or without knowledge of their serological status, are now using dental services. **Purpose:** is to assess the willingness of dental students to treat HIV positive people. **Materials and Methods:** A descriptive cross-sectional survey was conducted. In the city of Surabaya, there are around 184,000 HIV positive people. This research was conducted in 2019 using a questionnaire designed to obtain information about student demographics, self-assessment of HIV, attitudes toward infection control practices, perceptions of occupational risks, and willingness to provide care for HIV positive people. **Results:** The response rate is 76.3 percent. More than 77 percent of respondents are in the age group of 19 years to age 25 years. Good knowledge about HIV is only owned by 35 percent of respondents. While around 7.1 percent, showed significant concern about job transmission. **Conclusions:** From the results of this study, the authors suggest the need for a comprehensive education or motivation program for the next generation of dentists in Indonesia to ensure adequate care for HIV positive people.

Keywords: HIV positive patients, Dental Medicine students, willingness, Knowledge of HIV-AIDS in Indonesia

Introduction

Acquired Immunodeficiency Syndrome (AIDS) is an infection caused by the Human Immunodeficiency Virus (HIV). This virus causes a disease that attacks immune cells. Around the world in 2013, there were 35 million people with HIV which included 3.2 million children aged <15 years and 16 million women. The number of new HIV infections in 2013 was 2.1 million, consisting of 240,000 children aged <15 years and 1.9 million adults. The number of deaths due to AIDS was

1.5 million consisting of 190,000 children aged <15 years and 1.3 million adults. In Indonesia, HIV has spread to 386 cities in all provinces in Indonesia^[1]. With the survival rate getting better, HIV positive patients who are knowledgeable and who do not know about their own serological status will increase, and will get dental care in the future will come^[2].

Oral health is often a problem among people infected with HIV^[3,4]. Opportunistic oral lesions and infections are often one of the first manifestations of HIV. HIV infected patients receive dental care services with standard procedures applied^[5]. Oral complications in HIV-AIDS sufferers are reported to be minor, self-limiting, non-life threatening^[6] and ready to be treated. Care planning for patients with HIV follows the same sequence as other patients^[7-9]. However, the priority is to reduce pain, restore function^[5], prevent further

Corresponding Author:

Regina Purnama Dewi Iskandar

Jl. Prof. Dr. Moestopo No. 47

Phone numbers : (+6231) 5030255, 5020256

Facsimile numbers: (+6231) 5020256

E-mail address : regina_pdewi@hotmail.com

disease and consider the aesthetic results that are done well by the dentist^[10,11].

The purpose of this research is to assess the readiness of Universitas Airlangga, Faculty of Dental Medicine students in the 5th and 7th semester in handling patients who have a history of HIV and AIDS. This research is specifically for students in 5th and 7th semester, because they are considered to have understood the things that must be done and should not be violated in the oral cavity treatment procedure for people with HIV-AIDS.

Material and Method

This research is specifically for students in the 5th and 7th semester, because they are considered to have understood the things that must be done and should not be violated in the oral cavity treatment procedures of HIV-AIDS sufferers.

Data were collected using a self-administered questionnaire. This questionnaire includes information on demographics, self-assessed knowledge of HIV/AIDS, attitudes toward homosexuals, infection control practices, perceptions of occupational risks, and willingness to treat HIV patients. Self-reported HIV knowledge is categorized as poor, fair, good and very good. On the variable "Attitudes towards homosexuals", I was assessed using a five-point Likert scale as being very sympathetic, sympathetic, doubtful, unsympathetic, and very unsympathetic, but for the purpose of analysis this category collapses into sympathetic, disinterested, and unsympathetic.

The research design used in this study was a cohort analytic study, that is we conducted a study by analyzing the results of the questionnaire at the present time. The population in this study were preclinical students of the Faculty of Dental Medicine, Universitas Airlangga. In this study the sample used was preclinical students of the Faculty of Dental Medicine, Universitas Airlangga, in the 5th and 7th semester, with the consideration that the students had received

Sampling was taken randomly according to the sum of the results of the calculation of the correlative analytic research sample, provided that half of the amount was

taken from the fifth semester preclinical students and the remaining half was taken from the seventh semester preclinic students. The location of the study was held in the faculty of Dental Medicine at Universitas Airlangga. There are two variables in this study, namely free and bound variables. The independent variable is Faculty of Dental Medicine, Universitas Airlangga preclinical student's knowledge of HIV (AIDS). While the dependent variable is the attitude of Faculty of Dental Medicine, Universitas Airlangga students in dealing with HIV AIDS patients.

Results

The results of a survey of research that has been conducted show the response of 56 respondents consisting of Faculty of Dental Medicine students from the 2016 and 2017. Batches on the variable "knowledge of HIV", as many as 50% stated that the use of gloves or handsocon is very important in dental health practices to treat patients HIV positive to prevent HIV cross infection. While 7.1% of respondents still think the use of handsocons is not too important.

The majority of students, as many as 71.4%, stated that they are willing to do dental care for patients who are HIV positive. Only a small portion, 28.5%, disagrees with the statement. However, when asked if they would like to deal with HIV positive patients if gloves were not available, only 21.4 respondents stated agreement and the majority of them, 78.6% of respondents disagreed.

Regarding the willingness of respondents to provide dental health care services at the voluntary HIV care center, 14.3% had no problem with this, 28.6 disagreed and the majority of respondents gave a score of 3 namely 57.1%, stating that they were willing to volunteer to provide dental health care at the HIV care center.

In the question "Does HIV positive prevalence influence their choice to choose a practice location", 71.5% stated agreement and the minority of respondents as much as 28.5% did not feel the HIV prevalence had a significant effect in the choice of practice location.

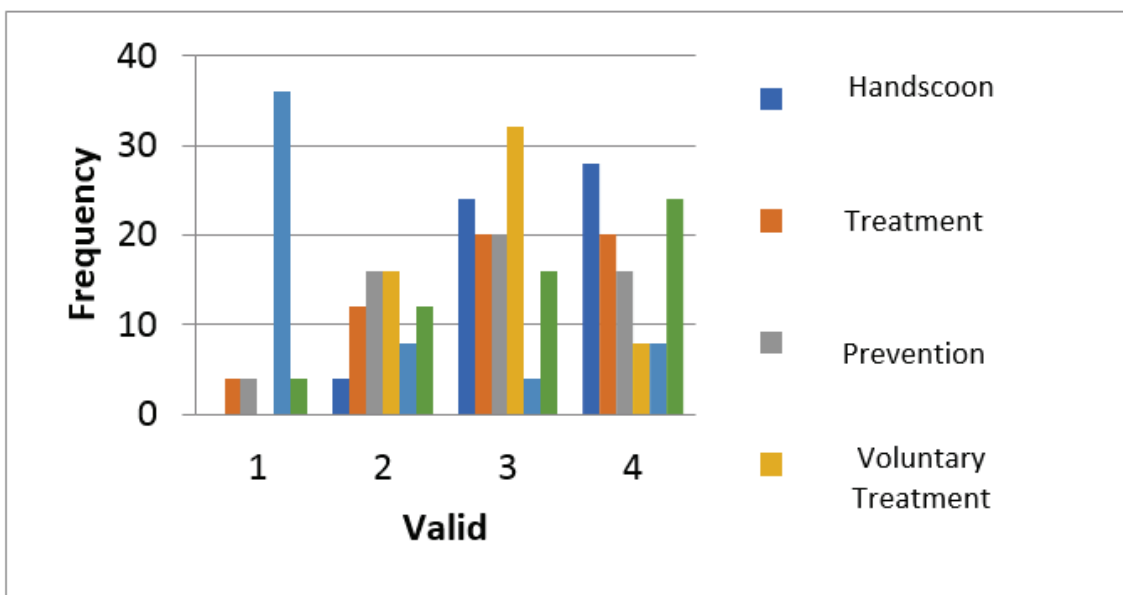


Figure 1. The graph shows the frequency of the number of dental students who are willing to treat HIV patients

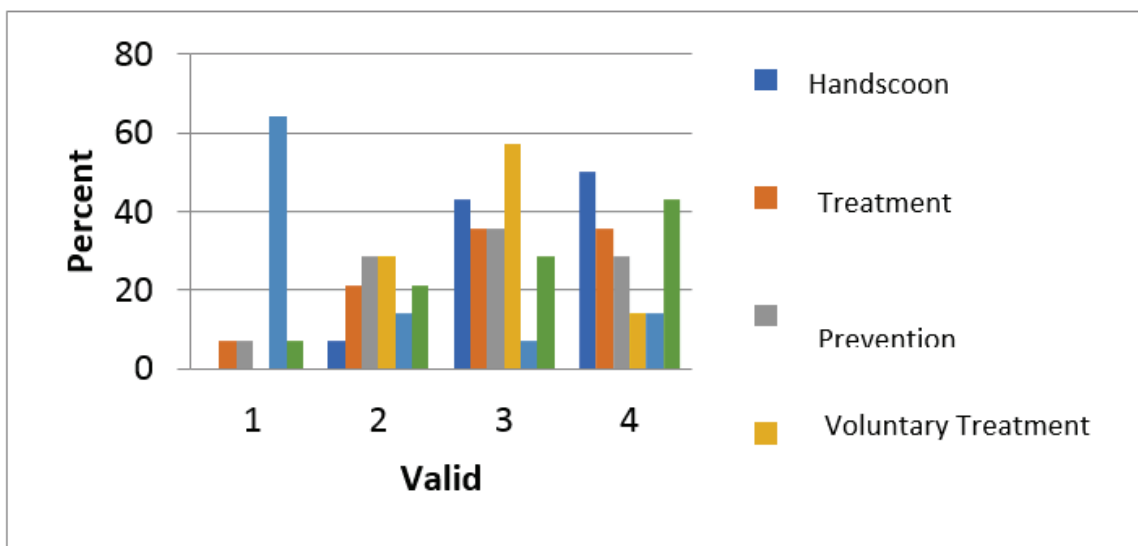


Figure 2. The graph shows the percentage of the number of dental students who are willing to treat HIV patients

Discussion

Oral HIV related conditions occur in the majority of people who are HIV positive, and are often misdiagnosed or inadequately treated^[12]. The study assessed the willingness of second and third year dental students to treat HIV positive patients and their attitudes to related problems.

Willingness to treat is considered the most significant predictor of actual care for HIV positive patients. As a result, if HIV positive people feel left out by care givers, they tend to understand the need for prevention and to be motivated. to protect others^[13]. Therefore, 50 percent of students are willing to say to do an oral examination and treat patients with gloves and this can help encourage HIV positive patients to look for dental examinations.

Data from this study found that 64,1 percent scored grades 3 and 4 of which more than half of the students agreed that additional payments must be charged to HIV positive patients to avoid further cross-infection. Increased payments are to take safer precautions when treating patients but this can lead to negative results for those who are unable to provide it. Most HIV positive patients have high medical care that helps them control or reduce their risk of getting sick.

In the results of this study stated that as many as 71.4% of students agreed to run dental care for patients who were HIV positive and only 28.5% of students did not agree to take care of it. In this questionnaire can indicate the attitude or action taken by students in dealing with HIV AIDS patients. In the Vijayalaxmi Nimma et al study, the results of students to treat HIV patients were higher at 82.5% compared to our study. Only a small proportion of students need to be educated and prepare themselves to face cases like this that will be experienced in the future^[14].

If students are asked if students want to deal with HIV positive patients without gloves available, the majority of students, as many as 78.6% do not agree to take care and only 21.4% of students are willing to treat HIV positive patients. Student agreement in the case of handling an HIV patient by wearing gloves or cannot state how deep the student's knowledge is related to the condition of an HIV sufferer, the process of transmission and relationships when examining an intraoral patient. More than half of the students are knowledgeable and understand the risks if caring for patients without using protection for self-protection in order to prevent HIV transmission. When the rest is 21.4% students still have less knowledge about self protection. This can be accomplished by preparing students to deal with HIV patients with a program recommended by the university. With this solution a positive impression can be proven according to research by Jason P et al^[15].

Questions related to willingness or voluntarily providing dental health care services at HIV care centers were given to respondents, the majority giving a score of 3, which means agreeing. In our opinion, the Faculty of Dental Medicine students of Universitas Airlangga have had volunteerism towards HIV patients, it's just that there are still some who are still not willing. This study

has provided some encouragement to influence students' attitudes about HIV disease and raise awareness of confidentiality issues in dental education^[16].

The questionnaire given was one of the questions whether the prevalence of HIV positive influences their choice to choose the location of practice, amounting to 71.5% stated and the minority of respondents as much as 28.5%, meaning that the majority of Faculty of Dental Medicine, Universitas Airlangga students were unwilling to open practices in the environment of HIV patients .

The professional obligation to treat HIV positive patients must be shared by every dentist, but prejudices and views about culture and sexual diversity can hamper student attitudes due to lack of education about the challenges with HIV positive patients^[17]. In one study, 76 percent of students feel dentists have a responsibility to care for HIV positive patients, but only 62 percent say they are willing to treat care for HIV sufferers^[18], these are the things that are likely to underlie student responses.

Conclusion

In conclusion, 57.1% of Faculty of Dental Medicine, Universitas Airlangga students from 2016 and 2017 stated that they were willing to volunteer to provide dental health care at an HIV care center. This shows that the importance of using handsoons in controlling HIV patients. It remains the responsibility of Faculty of Dental Medicine, Universitas Airlangga students in controlling cases like this despite the high risk but with good control can definitely be saved by these patients.

Conflicts of Interest : None

Source of Funding : Self-Funding

Ethical Clearance: Approved

References

1. Ersha RF, Ahmad A. Immunodeficiency Syndrome dengan Sarkoma Kaposi. 2018;7(Supplement 3):131-4.
2. Cohen LA, Romberg E, Grace EG, Barnes DM. Attitudes of advanced dental education students toward individuals with AIDS. J Dent Educ

- 2005;69(8):896–900.
3. Suniti S, Sufiawati I. Herbal-induced Stevens-Johnson syndrome with oral involvement and management in an HIV patient. *Dent J (Majalah Kedokt Gigi)* 2018;51(3):153.
 4. Sufiawati I, Suniti S, Nelonda R, Wisaksana R, Rendati AR, Amalia R, et al. Analysis of the relationship between human cytomegalovirus DNA and gB-1 genotype in the saliva of HIV/AIDS patients with xerostomia and salivary flow rate. *Dent J (Majalah Kedokt Gigi)* 2019;52(4):197.
 5. Pratiwi R, Akbar FH, Pasiga B, Samad R, Anwar AI, Djamaluddin N, et al. Description of the level of knowledge, attitude, preparedness and willingness of the Faculty of Dentistry Faculty of Hasanuddin University in Caring for people with Hiv/Aids. *J Int Dent Med Res [Internet]* 2019;12(2):688–94.
 6. Widjiastuti I, Rudyanto D, Yuanita T, Bramantoro T, Widodo WA. Cleaning efficacy of root canal irrigation with positive and negative pressure system. *Iran Endod J* 2018;13(3):398–402.
 7. Lumbanraja SN, Siregar DIS. Association between red blood cell indices and CD4 count in HIV-positive reproductive women. *IOP Conf Ser Earth Environ Sci* 2018;125(1):28–31.
 8. Ritarwan K. Neurological complication in HIV patients. *IOP Conf Ser Earth Environ Sci* 2018;125(1):6–10.
 9. Lubis R, Bulgiba AM. Anti-retroviral therapy of HIV infected patients. *J Heal Transl Med* 2014;17(1):18–22.
 10. Cahyati M, Rahmayanti F. Complication risks of invasive dental procedures in HIV / AIDS patients. 2008;20(4):196–202.
 11. Daeng Pasiga B, Samad R, Pratiwi R. Relationship of oral aesthetic assessment according to self perception with oral malocclusion condition of high school students in sidrap district, south sulawesi Indonesia . *Brazilian Dent Sci [Internet]* 2019;22(4):450–7.
 12. Patton LL. Progress in understanding oral health and HIV/AIDS. *Oral Dis*.2014;
 13. Paris M, Ensoli B, Kokot N, Nel AE. Inflammatory cytokines induce the expression of basic fibroblast growth factor (bFGF) isoforms required for the growth of Kaposi's sarcoma and endothelial cells through the activation of AP-1 response elements in the bFGF promoter. *Aids* 1998;12(1):19–27.
 14. Seacat JP, Inglehart MR. Education about treating patients with HIV infections/AIDS: The student perspective. *J Dent Educ* 2003;67(6):630–40.
 15. Vijayalaxmi N, Reddy L, Swapna LA, Reddy S, Ramesh T, Padmareddy M. Are you willing to treat patients with HIV/AIDS? An anonymous survey among staff and students of dental institution. *Oral Health Dent Manag* 2014;13(3):745–8.
 16. Rohn EJ, Sankar A, Hoelscher DC, Luborsky M, Parise MH. How do social-psychological concerns impede the delivery of care to people with HIV? Issues for dental education. *J Dent Educ* 2006;
 17. Driscoll JM, Hoffman MA. Exploring attitudes of white dental students regarding willingness to treat people with HIV. *J Dent Educ* 1997;
 18. Anderson DG, Call RL, Vojir CP. Differences in HIV knowledge and attitudes between first- and fourth-year dental students. *J Dent Educ* 1994;