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Research Article

**ANALYSIS OF KNOWLEDGE, ATTITUDE AND STIGMA OF
MEDICAL STUDENTS TOWARDS HIV/AIDS PATIENTS**Dr Usama Umair¹, Dr Nizam ud Din¹, Dr Ayisha Mahnoor¹¹Health Department Punjab

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Abstract:

Introduction: In Pakistan it is now classified into concentrated phase of the epidemic because of its high prevalence. **Aims and objectives:** The study was planned to assess the students' knowledge of HIV/AIDS and its transmission and attitudes about related issues such as ethical obligations, infection control regulations, willingness to treat HIV-positive patients, fear of contracting HIV occupationally, and feelings about HIV-positive patients. **Material and methods:** This cross-sectional survey was conducted from August to December 2018 at Health department of Punjab. The survey instrument was a self-administered anonymous questionnaire in the English language. The study included a convenience sample comprising dental students of all basic and clinical year. All the questions were anonymous, participant's voluntary took part in the study, and consent was taken from them and no incentive was given for completing the survey. The answer to each question about attitude was rated on a five point Likert scale. **Results:** Out of 200 students who were sent the survey, a total of one ninety three completed the survey. Therefore the respond rate was 96.5%. These participants were from first, second, third, final professional year and house officers. On question (HIV is same as AIDS), majority of students have inadequate knowledge and were not aware of the fact that HIV is same as AIDS. **Conclusion:** It is concluded that there was insufficient knowledge among first and second year students. Among third, final year students and house officer's majority of them have sufficient knowledge regarding HIV/AIDS infection but majority of them were not willing to treat HBV/AIDS patients.

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INTRODUCTION:

In Pakistan it is now classified into concentrated phase of the epidemic because of its high prevalence. The mode of transmission is mainly because of heterosexuals (52.55%) which is followed by (11.73%) blood transfusion. In Asia region Pakistan is among 12 countries which account for more than 90% of the infected people living with HIV. Globally, during last decade new HIV infections have dropped by 0.7% [1]. But in Pakistan the disease burden and incidence of HIV is rising at disturbing pace. In Pakistan there is a 17.6% increase in annual incidence of HIV compared to 2.2% for the rest of the world according to Global disease burden (GBD) [2]. The condition is becoming more poorer as there is very low coverage (5.87%) of antiretroviral treatment (ART) in Pakistani patients [3].

Fear of HIV infection creates major health concerns among health care personnel. This produces a barrier to effective educational efforts about AIDS and related awareness. The consequences of this fear might lead to unwillingness to treat AIDS infected patients [4]. It has been observed that health care staff are lacking in appropriately managing and counseling HIV and AIDS patients. A huge knowledge gap has been notified among health care personnel regarding diagnosis and treatment of HIV and AIDS [5].

Aims and objectives

The study was planned to assess the students' knowledge of HIV/AIDS and its transmission and attitudes about related issues such as ethical obligations, infection control regulations, willingness to treat HIV-positive patients, fear of contracting HIV occupationally, and feelings about HIV-positive patients.

MATERIAL AND METHODS:

This cross-sectional survey was conducted from August to December 2018 at Health department of

Punjab. The survey instrument was a self-administered anonymous questionnaire in the English language. The study included a convenience sample comprising dental students of all basic and clinical year. All the questions were anonymous, participant's voluntary took part in the study, and consent was taken from them and no incentive was given for completing the survey. The answer to each question about attitude was rated on a five-point Likert scale (strongly agree, agree, neutral, disagree, and strongly disagree).

Statistical analysis

SPSS software version 20.0 was used for statistical analysis. Frequency and percentages were used to describe gender, level of education. The descriptive indices such as percentages were used to express the knowledge level among the students.

RESULTS:

Out of 200 students who were sent the survey, a total of one ninety three completed the survey. Therefore the respond rate was 96.5% .These participants were from first, second, third, final professional year and house officers. On question 1 (HIV is same as AIDS), majority of students have inadequate knowledge and were not aware of the fact that HIV is same as AIDS. Regarding question 2 (saliva act as a vehicle of transmission), students from all the professional years and house officers have enough knowledge that saliva can act as vehicle of transmission. For question 3 (needle stick injury can transmit AIDS/HIV), all the students and House officers have remarkable knowledge. Regarding question 4 (Aerosol from hand piece can cause HIV) in adequate knowledge were found among first students but second, third, final year students and house officers present sufficient knowledge. For question 5 (Dental and dental auxiliary are more prone) Inadequate knowledge were found among first year and second year students.

Table 01: Responses generated by the respondents

Actions Taken by respondents	Males n(%)	Females n(%)	p value
Drinking with straw	5 (1.4)	16 (4.4)	
Chew on one side	70 (19.1)	63 (17.2)	
Avoid certain food	42 (11.5)	42 (11.5)	
Wait for food to cool down	20 (5.5)	20 (5.5)	0.000
Avoid brushing painful area	21(5.7)	10 (2.7)	
Cover up mouth on cold days	0 (0)	23 (6.3)	
No Action taken	16 (4.4)	18 (4.9)	
Habits noted by respondents			
Brushing vigorously	59(16.1)	35(9.6)	
Brush with hard bristle	18(4.9)	5(1.4)	
Brush after eating/drinking	12(3.3)	18(4.9)	0.000
Brushing for more than 2-3mins	35(9.6)	56(15.3)	
Grind teeth	17(4.6)	7(1.9)	
Preferred Toothpaste			
Fluoridated toothpaste	61(16.7)	53(14.5)	
Desensitizing toothpaste	81(22.1)	104(28.4)	0.000
Herbal toothpaste	16(4.4)	35(9.6)	
Smokers toothpaste	16(4.4)	0(0)	

DISCUSSION:

In our survey, excellent knowledge was observed about HIV/AIDS patients, but unfortunately this knowledge was not meaningfully related with the willingness to treat HIV/AIDS patients. In a study conducted on 174 dental students from Japan, the majority of respondents have more than average knowledge about HIV/AIDS. Regarding attitude to treat HIV-positive and negative patients 22% percent reported that they would have the same attitude toward treating both [6]. Where as in this study it was found that there was no difference in the attitude of the students to treat HIV/AIDS patients from first year to final year [7].

During dental operation procedures it is possible to transmit HIV/AIDS. HIV/AIDS can be transmitted through saliva or blood contaminated instruments and equipment's. It can also be transmitted by inhalation of aerosol emitted from hand pieces. However, in previous studies very few students have the knowledge HIV/AIDS can transmit through inhalation of aerosol emitted from hand pieces [8]. The results were similar with our study as majority of first year students don't know that HIV/AIDS can be transmitted through aerosol inhalation. But their results were in contrast with results of our study as second, third final year students and house officers have the enough knowledge in this context [9]. In one previous study, it was found that more than half of the students participants believed that there is no such route of transmission exist. There is statistically significant difference in the knowledge of the participants when asked that aerosols from hand piece can cause HIV transmission among first,

second and final year students [10]. Statistically significant results were observed in the present study regarding concerns that aerosols from hand piece can cause HIV transmission. According to CDC guidelines dental health care personnel should position patients properly and make appropriate use of barriers e.g., surgical masks, face shields, high-volume evacuators, rubber dams and gowns [11]. According to Mostafa Sadeghi *et al* they found in their study that most of the students were aware of the major oral manifestations of AIDS: Kaposi's sarcoma, major aphthous and oral candidiasis similar results were found in the current study [12].

CONCLUSION:

It is concluded that there was insufficient knowledge among first- and second-year students. Among third, final year students and house officer's majority of them have sufficient knowledge regarding HIV/AIDS infection but majority of them were not willing to treat HBV/AIDS patients.

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