

Hurdles in the Access of Regular Dental Care among the Medical & Dental Students of Lahore

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ABSTRACT

Introduction: Despite the great leaps in oral health globally, many countries of the world still face a horde of dental problems. Especially poverty ridden populations of the developing nations. Distribution of oral disease varies among different communities and sometimes even in the same community due to various environmental factors, factors of personal hygiene and oral habits among different demographics. However, the condition of oral health in the patients of Lahore is abysmal as determined by various previous dental surveys. The prevalence of cavities in dental patients is 82.3% while the rest of 17.7% have swollen gums, abscess, infection, and pain. Thus, this study aims to test the barriers in the way of regular dental care by evaluating a major portion of medical and dental students by using a cross sectional, questionnaire-based study, and to make regular dental care more accessible to the students of this metropolis.

Objective: To determine the factors that become a hurdle in the way of regular dental care among the medical and dental students of Lahore and to pave the way for further studies on this topic.

Methodology: This survey, after approval from the Internal Review Board of de'Montmorency College of Dentistry, was carried out from July to October 2021. Sample size was calculated using OpenEpi, keeping the confidence level at 95% and the margin of error at 6%. The sampling population included 234 respondents who were randomly selected from 4 different medical and dental colleges of Lahore including both public and private sector colleges. Data was collected using a structured questionnaire titled; Questionnaire for Assessment of Perceived Oral Health Care Needs, Barriers to Accessing Oral Health Care Services and Its Utility⁸. Statistical analysis was performed using SPSS® version 22.

Result: All of the participants were students of medical and dental colleges of Lahore. More than half of the participants agreed to have not visited a dentist regularly for regular checkups for maintenance of oral health. About 55% of the participants agreed to not visiting a dentist due to fear of infection transmission. We also found a significant association between the stream of education and regular dental visits ($p=0.000$).

Conclusion: For medical and dental students, the biggest barrier in regular oral healthcare is fear of infection transmission, and unavailability of time. However, fear of dental procedures and high cost of service also play a role. Moreover, the high cost of service is not as strong of a factor as it is for the general population.

Keywords: Access of Regular Dental Care, High Cost, Infection Transmission, Medical and Dental Students.

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I. INTRODUCTION:

Despite the great leaps in oral health globally, many countries of the world still face a horde of dental problems. Especially poverty ridden populations of the developing nations. Distribution of oral disease varies among different communities and sometimes even in the same community due to various environmental factors, factors of personal hygiene and oral habits among different demographics. Dental caries is still a major oral health problem in most industrialized countries, affecting 60-90% of schoolchildren and the vast

majority of adults. It is also a most prevalent oral disease in several Asian and Latin-American countries [1]. Oral health problems have been quantified as a major public health problem due to their high prevalence and high incidence all over the globe [2].

Lahore, being a rapidly developing metropolitan in the highly populous province of Punjab, has a number of dental hospitals, including the largest dental hospital of Pakistan; Punjab Dental Hospital, and clinics to cater to the needs of its population of all social statuses. However, the condition of oral health in the patients of Lahore is abysmal as determined by various previous dental surveys. The prevalence of

cavities in dental patients is 82.3% while the rest of 17.7% have swollen gums, abscess, infection, and pain. Among the patients with cavities 46.8% had a family history of dental cavities [6], [7]. This shows the condition of oral health in the city. Previous studies have aimed to assess the condition of oral health among the general populace, however, to correct the disparities in the provision of health care in Lahore and the other metropolises across the world, identification of the hurdles in the access to regular dental care of various demographic groups is a step of utmost importance. Thus, this study aims to test the barriers in the way of regular dental care by evaluating a major portion of medical and dental students by using a cross-sectional, questionnaire-based study, and to make regular dental care more accessible to the students of this metropolis.

II. OBJECTIVE

To determine the factors that become a hurdle in the way of regular dental care among the medical and dental students of Lahore and to pave the way for further studies on this topic.

III. METHODS AND MATERIALS

This survey, after approval from the Internal Review Board of de'Montmorency College of Dentistry, was carried out from July to October 2021. Sample size was calculated using OpenEpi, keeping the confidence level at 95% and the margin of error at 6%. The sampling population included 234 respondents who were randomly selected from 4 different medical and dental colleges of Lahore including both public and private sector colleges. All the participants were above age 18 and written consent was taken. The participants were recruited by simple random sampling by the use of a random number generated through random.org [10]. Data was collected using a structured questionnaire titled; Questionnaire for Assessment of Perceived Oral Health Care Needs, Barriers to Accessing Oral Health Care Services and Its Utility [8]. The advantage of using this questionnaire for our study is its use of both qualitative and quantitative validation methods and besides the assessment of barriers to oral health care access and oral health care service preferences have also been included. The questionnaire included both personal and environmental factors that prevent access to regular oral healthcare among students of medicine. Statistical analysis was performed using SPSS® version 22.

IV. RESULTS

The response rate remained 97%. Male and female participants were distributed according to their distribution in medical colleges. According to the stream of education, 77.6% of the total participants were MBBS students & 22.4% were BDS students. Among the selected participants, 55.7% had been in their respective medical and dental colleges for less than a year while 44.3% had spent more than a year studying in medical and dental colleges. When inquired about having gone to the dentist for regular examination and checkup, only 39.2% of the total population had regularly consulted a dentist for regular oral checkups; 41.9% indicated

having gone to a dentist to seek treatment for an oral health problem. The questionnaire allowed the target population to agree or disagree with a number of barriers. 42.8% of the participants agreed that they did not seek out a dentist for regular checkups because of the high cost of service. 43.8% indicated that they had a significant fear of dental procedures and equipment & 34% rated their severity of fear at or more than 5 out of a total score of 10. There is considerable fear of infection transmission associated with dental procedures, 54.7% indicated this as a factor for not visiting a dentist. 54.7% answered that they did not have the time to visit a dentist while 52.8% said that they did not feel the need to go to a dentist. Religion having a strong influence on culture in Pakistan, 29.9% of the population answered that they did not go to the dentist due to the lack of a dentist of the same gender. As shown in Table I, there is a statistically significant association ($p=0.000$) between stream of education and regular visits to the dentist with more people opting for regular dental visits in MBBS than those in BDS.

TABLE I: CORRELATION OF STREAM OF STUDY WITH REGULAR DENTAL VISITS

Field of Study	MBBS	BDS
Those who visit a dentist regularly	75	16
Those who do not visit a dentist regularly	104	38
Total	179	54
Percentage	41.9	29.6
P	0.000	0.000

V. DISCUSSION

Oral cavity diseases are associated with a whole host of chronic conditions including stroke, heart disease, diabetes, and malignancies [3]-[5]. The results of this study showed that the fear of infection transmission from dental procedures is significantly associated with regular visits to the dentist for examination and checkup. This study is in contrast to the other studies conducted on the general population which list the high cost of service as the largest barrier to regular dental visits [9]. Medical and dental students, being more aware of the risks associated with infections that are commonly transmitted by improperly sterilized instruments used during dental procedures, chose the fear of infection transmission as the top reason they did not visit a dentist. The second most prevalent reason was the unavailability of time. Another factor that affected regular visits to the dentist was the stream of study. It has been observed that there is a general lack of awareness about oral health issues as well as decreased health literacy in the local population of major metropolises of Pakistan [10], [11], however, this is a phenomenon that does not apply to the students of medicine and dentistry. Students of MBBS are, however, more prone to visit a dentist regularly, while students of BDS are less likely to visit a dentist, probably due to their close proximity with oral disease and their ability to self-diagnose their problems. Raising awareness in specific circles of our population, starting with the medical community is very important since the recorded prevalence of dental caries is 50-70% and Pakistan has the highest incidence of oral cancer [13]. Our study was only focused on the students of MBBS and BDS and did not include the students of allied health sciences, so the findings may not be generalized to students of allied

health sciences which can be considered the limitation of our study.

VI. CONCLUSIONS AND RECOMMENDATIONS

Our study found different barriers hindering access to regular dental care, which signifies that coordinated efforts be taken to ensure that principles of sterilization are religiously practiced in dentistry to assuage the fear of infection transmission among medical and dental students. Special efforts to be made to decrease the spread of infections from the dental chair. Government hospitals should have the same level of sterilization and infection control as those of a private dental clinic. This would help in creating more trust between dentists and students of medical and dental schools of the city. Moreover, awareness programmes should be conducted to outline each, and every step is taken to prevent the spread of infection during dental procedures so that regular dental visits increase which will lead to improvement of oral health among medical and dental students.

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