

# Knowledge and Attitudes Regarding Oral Hygiene among Urban Slum Dwellers in Pakistan

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## ABSTRACT

**Introduction:** Oral hygiene education and practice at an early age is one of the essential determinant of individual's health state later in life as well. Dental health issues are much prevalent in urban slum dwellers. The aim of this present study was to assess the knowledge and attitudes about oral hygiene practice among urban slum dwellers in Islamabad, Pakistan.

**Material and Methods:** This cross sectional study was comprised of 200 urban slums age ranging from 20 till 50 years. They were interviewed by trained staff. The participants were from Islamabad, Pakistan. Data consisted of oral hygiene questions and attitudes of population towards it.

**Results:** Study participants were assessed for having knowledge about oral health and there were 167 (83.5%) respondents agreed that they had knowledge about oral health and 33(16.5%) agreed that they don't know about oral health. 182 (93.5%) respondents had knowledge about methods of cleaning teeth and 18 (9.6%) had no knowledge in this regard.

**Conclusion:** Study findings depicted that the need for more oral hygiene is essential. School education can provide objective guide for the development of comprehensive oral hygiene regimen. Awareness should be spread regarding dental hygiene and its importance. People should visit dentist after every six months for their oral checkup. Furthermore, dental surgeons should devote some of their precious time to establish free dental camps.

**Keywords:** Oral Hygiene, Knowledge, Attitude, Urban Slum, Dental Caries.

trigger heart attack. People in the slum areas do not have sufficient knowledge and awareness about the importance of oral hygiene and do not follow the hygienic practices.<sup>3</sup> There is a need to empower them to adopt the practice of keeping the mouth and teeth clean to prevent dental problems like cavities, gingivitis and bleeding gums.

The habit of cleaning teeth should be started at the infant age. To have good oral health a regular visit to the dentist is helpful to avoid expensive and time consuming treatment plan. Maintaining oral hygiene should be a lifelong habit.<sup>4</sup> There is no fund allocation for the slums. The slum community faces many dental problems due to lack of money coupled with poor educational status, lack of awareness and health services support.<sup>5</sup>

This cross sectional study measured the two important variables related to dental health among urban slum dwellers of Islamabad, Pakistan. Knowledge about oral health was assessed by asking knowledge question related to oral health. Questions were asked about oral health, parts of oral cavity, methods of cleaning teeth, dental caries, tooth decay and their causes. Attitude towards oral health was assessed by asking attitude questions like, how often one should clean his teeth, when to visit a dentist, consultation of quacks, when to change tooth brush, sharing of tooth brush, treatment for tooth ache and advice of a dentist.

## MATERIAL AND METHODS

This cross sectional descriptive study was conducted on 200 urban slums dwellers of Islamabad, Pakistan to assess

## INTRODUCTION

Slums are settlements characterized by highly populous areas with unplanned and unstructured housing. As people are from low socio-economic group, they mostly indulge in various social problems besides being victim of communicable diseases, poor oral hygiene, malnutrition and high morbidity and mortality. Slums are created due to push and pull factors. Push factors operates in rural areas due to mainly unemployment. Pull factors operate in urban areas for the attraction of better health facilities, educational opportunities, civic facilities and more chances of getting employment.<sup>1</sup>

Tooth decay is one of the most common disease in the slums due to poor oral hygiene.<sup>2</sup> Tooth decay through caries is known to be 4 times more common than asthma among adolescents. Periodontitis is an inflammatory condition of the gums which causes loss of bone around the base of teeth. This condition increased the risk of heart disease and

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the knowledge and attitude regarding oral hygiene. Male to female ratio was 1:1. Purpose of this survey was to assess the knowledge, attitude and practices about oral hygiene and dental health among study population. Data collection tool was self structured mixed questionnaire. Participants who voluntarily agreed to participate were included in the study. Data analysis was done by SPSS 17. Study duration was 6 months from 1<sup>st</sup> January till 13<sup>th</sup> June 2017.

Research proposal was approved from the ethical committee of Sarhad University Peshawar, Pakistan. Participation of subjects in the study were voluntary and written consent was taken from all respondents

### STATISTICAL ANALYSIS

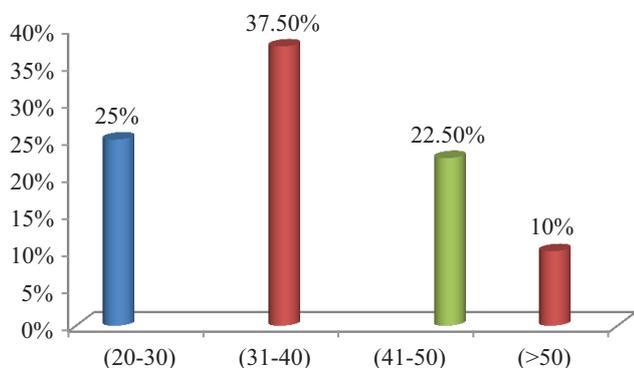
Descriptive statistics like mean and percentages were used for the analysis. Analysis was done with the help of Microsoft office 2007.

### RESULTS

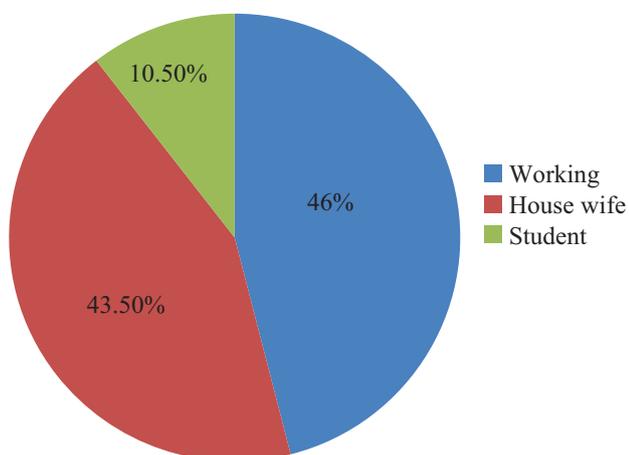
Age was represented in four groups. Gender distribution is seen in Table 1, where 50% were females and 50% were males. Furthermore, as Figure 2 explains, 1<sup>st</sup> group was 20-30 years of age and there were 50 (25%) respondents in

Gender	Frequency (f)	Percentage
Male	100	50%
Female	100	50%
Total	200	100%

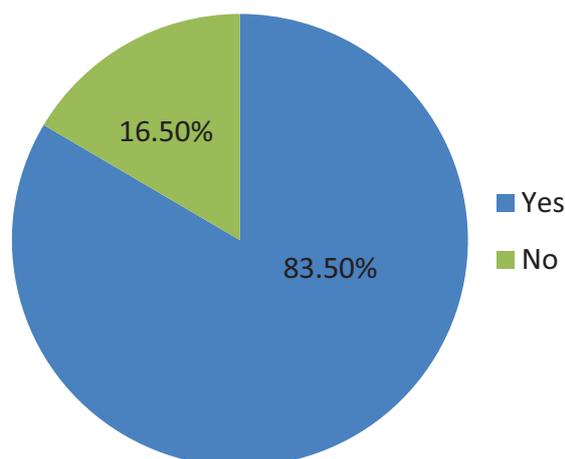
**Table-1:** Gender distribution of respondents



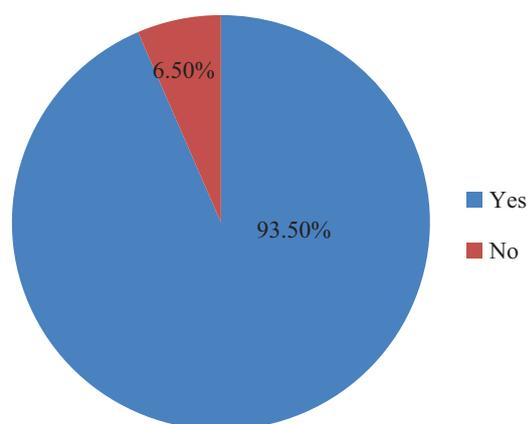
**Figure-2:** Age distribution of respondents



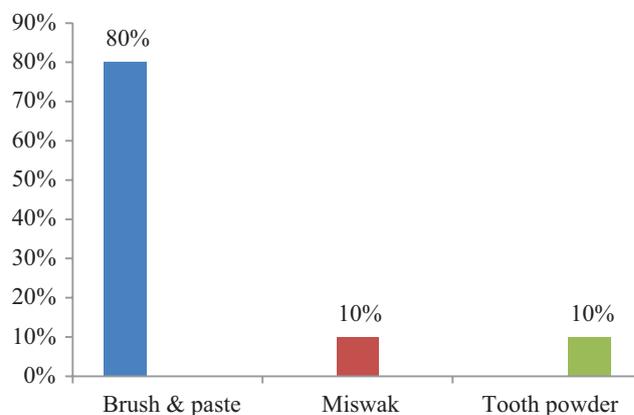
**Figure-3:** Occupational status of respondents



**Figure-4:** Knowledge regarding oral health



**Figure-5:** Knowledge regarding methods of cleaning teeth



**Figure-6:** Methods used for cleaning the teeth

Response	Frequency(f)	Percentage
Yes	0	0%
No	200	100%
Total	200	100%

**Table-7:** Knowledge regarding tooth flossing

this age group, 2<sup>nd</sup> group was 31-40 years of age and had 75(37.5%) respondents, 3<sup>rd</sup> group was from 41-50 years and had 45(22.5%) respondents, last group was of >50 years and there were 30 (15%) respondents in his age group. Occupational status of respondents was distributed among three categories: 92(46%) respondents were working, 87(43.5%) were housewives and 21(10.5%) were students.

Study participants were assessed for having knowledge about oral health and there were 167 (83.5%) respondents agreed that they had knowledge about oral health and 33(16.5%) agreed that they don't know about oral health. 182 (93.5%) respondents had knowledge about methods of cleaning teeth and 18 (9.6%) had no knowledge in this regard.

Methods of cleaning teeth practiced by the respondents were asked and results showed that there were 160 (80%) respondents who used brush and tooth paste for cleaning their teeth, 20 (10%) respondents used miswak for cleaning purpose, 20 (10%) used tooth powder for this purpose.

Knowledge about tooth flossing was assessed and no respondent know about tooth flossing. 67 (33.5%) respondents reported that they change their tooth brush after 1 month, 59 (29.5%) change it after 3 months, 54 (27%) change it after 1 year and 20(10%) use their tooth brush until it became useless.

126 (63%) respondents visited for decayed tooth and 74(37%) never visited to dentist for dental problem. 158(79%) respondents used medication for dental problems and 42(21%) never used medicines for tooth problems.

Results of the study are given in tabular form and in figure 2.

## DISCUSSION

This cross-sectional descriptive study was conducted on 200 urban slums dwellers of Islamabad to see the knowledge and attitude regarding oral and dental health. Binod et al conducted a similar study in New Delhi India to estimate the prevalence of dental caries among school going children and adults of 35 to 44 years of age in urban resettlement colony of New Delhi. It was a community based cross sectional study in which data about dental caries was collected by adopting WHO standard questionnaire.<sup>6</sup>

In this present study male to female ratio was 1:1. 25% respondents were 20-30 age group, 37.5% were between 31-40 age group, 22.5% were from 41-50 age group and 15% were above 50 years of age group. Out of 200 participants, 167 (83.5%) had enough knowledge about oral health and 33(16.5%) did not have much knowledge regarding oral health, while 182 (93.5%) respondents had knowledge about methods of cleaning teeth and 18 (9.6%) had no knowledge in this regard. 126(63%) respondents visited for decayed tooth and 74(37%) never visited to dentist for dental problem. 158(79%) respondents used medication for dental problems and 42(21%) never used medicines for tooth problems.

Hannan et al conducted a cross sectional survey among Tongi slum dwellers of Bangladesh to study the level of oral health and the prevalence oral diseases. Total three thousand nine hundred and four (3904) slum dwellers participated were selected from slum dwellers in this survey. Data collection tool was a questionnaire consisting of DMFT index, gingival index and plaque index to record the status of oral health. Study results showed that overall decayed component, from the DMFT, was high than the filling and missing component and age was a factor that affected the results in this index. Prevalence of gingivitis and plaque accumulation among study population was also significantly high.<sup>7</sup> Similar study

conducted by Davidson et al to see the dental health issues among newly arrived refugees in Australian community. They used DMFT index (decayed, missing and filled teeth) as a measure of dental health status and compared data with the available records of public dental services. Study results showed that there was significant number of untreated decayed teeth among the study population. Prevalence of having filled teeth was also high. They concluded the study as dental health among refugees was significantly low as compared to the general population. Dental services and community based programs should be planned for this high risk population.<sup>8</sup>

In this present study results about methods of cleaning teeth practiced by the respondents were as: 160 (80%) respondents who used brush and tooth paste for cleaning their teeth, 20 (10%) respondents used miswak for cleaning purpose, 20 (10%) used tooth powder for this purpose.

## CONCLUSION

Although the study population was from urban slums yet there knowledge about oral hygiene, various methods of teeth cleaning and changing of brush were quite satisfactory. Knowledge about dental floss and its techniques, periodontal diseases and caries was poor. Due to financial constraints the frequency of dental surgeon consultation was poor. Therefore, efforts should be made to make general population aware of importance of oral hygiene, unhealthy diet for teeth, preventive measures for periodontal diseases and caries. Awareness should be spread regarding dental floss and its importance. People should visit dentist after every six months for their oral checkup. Furthermore, dental surgeons should devote some of their precious time to establish free dental camps.

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