

## PIPE SMOKING AND ITS ORAL HEALTH EFFECTS ON SMOKERS - A SURVEY

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### ABSTRACT

*The purpose of the study was to evaluate and analyze the pipe smoking practices and its oral health effects among the patients seen at Dental outpatient department of Altamash Institute of Dental Medicine, Karachi. It was carried out from mid-December, 2018 to mid-January, 2019. A description based cross-sectional survey was carried out on 100 patients. Patients were asked their name, age, gender, occupation, employment, education and residential area and were recorded in the questionnaire. It was further categorized to evaluate the knowledge, awareness, practices and habit pattern associated with pipe smoking. Among all participants 35% (35) were female and 65% (65) were males in their second decade of age. Of the total 100 patients, pigmentation on lips was positive in 50% patients followed by 12% on tongue and 16% on gums. Abnormal patches on gums were seen in 24% patients and 60% stains on teeth were noticed. Pipe smoking played a role in causing pigmentation and abnormal patches in oral mucosa and noticeable stains on teeth.*

**Key Words:** Pipe smoking, oral health, practices

### INTRODUCTION

Pipe smoking is also frequently known as narghile, water pipe and hubble bubble smoking.<sup>1,2</sup> It is available in variety of different flavors such as mint, apple, peach, citrus. It's a common practice among youngsters these days, mostly college students.<sup>3</sup> The reason for its popularity is twofold, firstly due to its social nature and secondly it is often mistaken as a healthier, non-addictive option as the fumes are first passed through water which is considered to have a purifying effect.<sup>4</sup> The reality is far from it as it contains the same harmful substances such as nicotine, carcinogens, hydrocarbons, tar and heavy metal.<sup>5</sup> An average

pipe smoking session lasts longer hence larger volume of smoke inhaled compare to a single cigarette.<sup>6</sup> Some researches suggest people who are into pipe smoking also pursue other forms of intoxications like drugs and alcohol.<sup>7</sup> Pipe smoking is associated with various changes in oral mucosa, can cause oral cancers, effects periodontal health and certain systemic conditions such as heart disease.<sup>8</sup> The primary purpose of this study is to determine how pipe smoking effects dental tissues.

### METHODOLOGY

This survey is based on a cross-sectional study that is carried out in one of the leading dental institution and was conducted from mid-December, 2018 to mid-January, 2019 to determine the oral health effects of pipe smoking among smokers visiting the Dental outpatient department of Altamash Institute of Dental Medicine, Karachi. A sample of 100 patients was selected by random sampling technique. Data was collected using a self-administered structured questionnaire and analyzed by using SPSS version 20.

Data was collected using a self-structured questionnaire which had two parts. The first consisted of questions about the candidate's socio-demographic status mainly age, gender, and qualification. The second consisted of ten questions that were related to pipe smoking. Variables recorded in the study were related to their age, the reason of pipe smoking, frequency, duration, changes in the oral mucosa, changes in hard tissue, after effects of smoking and what happens if they don't smoke for some time.

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## RESULTS

A total of 120 questionnaires were distributed among participants out of which 100 responses were received. Among all participants 35% (35) were female and 65% (65) were male in their second decade of age. Question related to starting age of pipe smoking was asked, (65%) patients responded to 14-18 years of age and (26%) responded to 18-25 years of age and (9%) patients started smoking after 25 years of age. Personal choice was the most contributing factor (82%) in initiating the pipe smoking. Many changes in the oral mucosa was seen (Figure 1), (50%) pigmentation on lips followed by (12%) on tongue, (16%) on gums. Abnormal patches (24%) were seen on gums followed by (23%) on lips, (16%) on tongue. Ulcers were also noticed and mostly on cheeks (16%). A question regarding changes on teeth was also asked. (60%) participants noticed stains on teeth. Changes in Amount of plaque was also seen, (16%) experiences increase in the amount (Figure 2). Mouth odour was also one of the factors caused by pipe smoking (56%) agrees to it and (30%) didn't. Duration for smoking was also asked and according to the results (40%) wrote few puffs, (17%) patients smoke for 15 minutes, (22%) patients smoke for 30 minutes and (21%) smoke for 1 hour. Consequences of withdrawing pipe smoking for long time was also asked. Among them (55%) experiences nothing, (16%) irritated, (12%) stressed (4%) tired and depressed and (9%) suffers headache. After effect of smoking was also asked, in which (68%) feel euphoric, (22%) drowsy and (10%) nauseous.

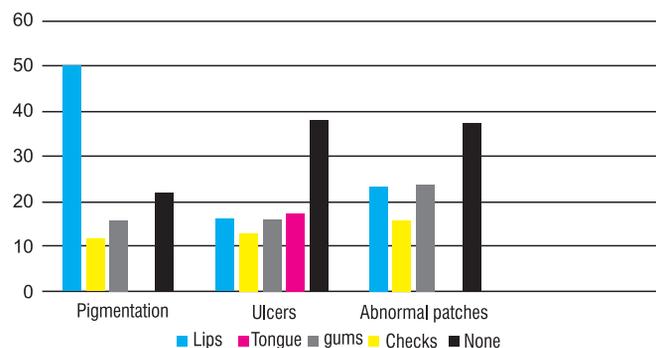


Fig 1: Changes in oral mucosa

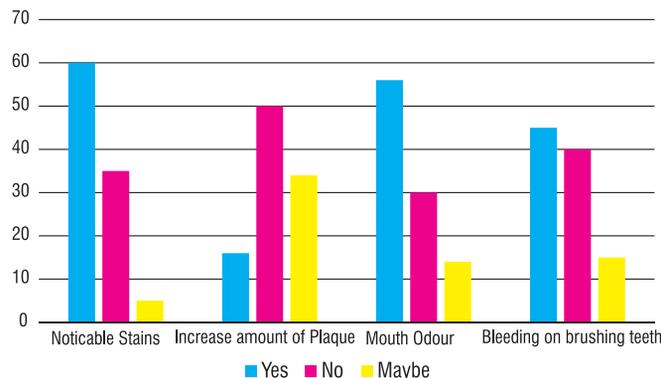


Fig 2: Changes in teeth

## DISCUSSION

In the present study, efforts were made to assess youngster's involvement in consumption of pipe smoking. This study included 100 participants and it suggested that usage of pipe smoking is common in male but due to its modernity, affordability, and the social atmosphere in which smoking is easily available, it has made waterpipe smoking also attractive to women.<sup>9</sup> It is prevalent among young people (students) and the reason of pipe smoking appears to be the result of social norm or common trendy social behavior.<sup>10</sup> Personal choice is the only reason given by pipe smokers and erroneous perception is that pipe smoking is healthier than tobacco cigarettes.<sup>3</sup> The duration of pipe smoking consumption is for an hour at least after which the person gets euphoric and later on it is followed by drowsiness and headache.

Pipe smoking carries significant oral health risks especially on the periodontium.<sup>2,11</sup> Oral mucosal changes are noticed in chronic users. Such as Lip pigmentations, tongue and buccal mucosa ulcers, abnormal patches on lips and gums, some noticeable changes on teeth such as stains, increased quantity of plaques, bleeding while brushing.<sup>12</sup> Halitosis and dry mouth are long term effects of pipe smoking.<sup>13</sup>

In a study it was suggested that pipe smoking is said to be a potential cause of complications of lung function, such as chronic obstructive pulmonary disease (COPD) and bronchitis, increased risk of heart conditions, such as heart disease and heart attack, increased risk of cancer, especially lung, throat, and mouth cancer, premature skin aging, since smoking tobacco can decrease the amount of oxygen that reaches the skin, increased risk of infectious diseases, such as mononucleosis and oral herpes.<sup>14</sup>

In another study conducted in Japan, it was noted that secondhand smokers are also at higher risk of periodontal disease compared to nonsmokers without secondhand smoking.<sup>15</sup>

## CONCLUSION

The findings of this research concluded that indulgence in pipe smoking usually starts as a personal choice and it does cause changes to the oral mucosa as well as teeth like pigmentation, ulcers and abnormal patches, staining, mouth odour.

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<b>3 Barda Shamsi:</b>	Data collection, Article writing, statistical analysis, result compilation
<b>4 Hamda Aftab:</b>	Data collection, Article writing, references collection
<b>5 Lareb Khattak:</b>	Article writing, Discussion, references collection
<b>6 Ammara Jaffrani:</b>	Data collection, Article writing