ORIGINAL ARTICLE

The Frequency of Shisha (Waterpipe) Smoking in Students of Different Age Groups

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ABSTRACT

Objective: To determine the frequency of waterpipe smoking in students of different age groups.

Study Design: Cross-sectional survey.

Place and Duration of Study: Karachi, Pakistan, from February 2012 to February 2013.

Methodology: The subjects were divided into two age groups. Group-1 comprised of 13 - 17 years old randomly selected students from O’ Level schools in Karachi and group-2 included 23 - 27 years old undergraduate and postgraduate students again randomly selected from various institutions in Karachi. A questionnaire was filled with prior consent, basic education on waterpipe smoking was given, and all the questions of the survey form were explained to the subjects according to context.

Results: In group-1, 39% students smoked waterpipe. Most students had been smoking waterpipe for the last 2 years. In group-2, 48% individuals smoked waterpipe, majority of smokers indulged in the last 5 years and among them, most were falling within the last 2 years.

Conclusion: The frequency of waterpipe smoking in teenage students was 39% and older students for 48%. Social and recreational use of waterpipes is widespread among both groups despite being acknowledged by majority as a health hazard.

Key Words: Shisha smoking, Nicotine, Waterpipe, Mussel.

INTRODUCTION

The waterpipe, also known as shisha, hookah, narghile, goza, and hubble bubble, has long been used for tobacco consumption in the Middle East, India, and parts of Asia, and more recently has been introduced into the smokeless tobacco market in western nations. It is a form of tobacco smoking in which the smoke is passed through water before inhalation by way of a pipe. Though this practice is centuries old, it has recently increased being practiced by young adults; mainly university and college students as well as high-school-aged children, who frequently visit commercial cafés, restaurants and even smoke at their homes.

It is important to note that Tobacco is a preventable cause of morbidity and mortality across the globe. Tobacco is used in different forms and among these shisha smoking continues to grow in popularity because of its appeal to the youth.

The rationale of this study is to highlight the growing trend of shisha smoking in the recent past in Pakistan despite its harmful effects which include diseases like lung cancer, chronic obstructive pulmonary diseases, heart disease, stroke, and also puts the user at risk of carbon monoxide poisoning.

The primary aim of this study was to determine the frequency of waterpipe smoking in adolescents and teenagers between the ages of 13 and 17 years as compared to adults between 23 and 27 years.

METHODOLOGY

A cross-sectional study design was adopted to determine the association between the age group and the frequency of waterpipe smoking. The entire study duration was twelve months from February 2012 to February 2013. A total sample size of 400 subjects was established.

Two age categories of 200 subjects each were determined. Group-1 comprised of the age group 13 - 17 years old randomly selected students from O’ Level schools in Karachi and group-2 included 23 - 27 years old undergraduate and postgraduate students again randomly selected from various institutions in Karachi. A brief, comprehensive, pre-tested questionnaire was filled by participants with prior consent, basic education on waterpipe smoking was given, and all the questions of the survey form were explained to the subjects according to context.

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anonymous. The school faculty was not involved in handling questionnaires to ensure privacy. In case of group-1, consent for student participation was obtained from respective schools. No follow up was required and no contact information was taken from any subject. Incomplete and improperly filled forms were discarded.

Data entry and analysis was done on Statistical Package for Social Sciences (SPSS) version 20. Descriptive statistics were taken out, whereas numerical variables were presented with the mean ±SD. All categorical variables were presented as percentages and frequencies.

RESULTS

Group-1 consisted of 60.9% (n=121) males and 39.1% (n=78) females. The average age was 15±1.312 years and frequency of shisha smoking among the participants was 39% (n=78). Fourteen percent (n=28) were cigarette smokers and it was noted that among the people who smoke both cigarettes and waterpipe, 51.4% (n=102) started waterpipe first, 37.8% (n=75) started smoking cigarettes first, 2.7% (n=5) started both together and the rest could not recall which was started first. In group 2, the average age was 25±1.215 years and frequency of shisha smoking was 48% (n=96). In this group, 47.9% (n=95) were males and 52.1% (n=104) were females, 23.2% (n=46) of this group smoked cigarettes. Among the people who smoked both cigarettes and waterpipe, 51.2% (n=102) started cigarettes first, 34.1% (n=68) started smoking waterpipe first, 7.3% (n=14) started both together and the rest could not recall which was started first.

Of group-1, 39% (n=78) were regular waterpipe smokers while 61% (n=122) were not. In group-2, however, 48% (n=96) of the subjects were regular waterpipe smokers while 52% (n=104) were not. Out of all the waterpipe smokers in group-1, 60.1% (n=120) of them had been smoking for less than two years, in comparison with 34.6% (n=69) of the waterpipe smokers from group-2.

In group-1, already 16.4% (n=32) of students have developed respiratory symptoms due to waterpipe smoking which include sore throat, cough, phlegm and flu-like symptoms as opposed to 10.4% (n=20) individuals in group-2.

In group-1, out of the subjects who did smoke waterpipe regularly, 91.4% (n=182) of them smoked with their friends and 8.6% (n=17) smoked with their families or alone. In group-2, 83.8% (n=167) of the regular waterpipe smokers smoked socially and 10.9% (n=21) smoked with their family and friends.

In group-1, 63.3% (n=126) considered themselves occasional smokers (smoked once every few months), 24.9% (n=49) were frequent smokers (multiple times in a month) and 11.7% (n=23) were heavy smokers (multiple times a week), while 79.9% (n=59) individuals in group 2 claimed to be occasional smokers, 14.1% (n=28) frequent smokers, and 9.9% (n=19) heavy smokers.

Figure 1 represents the reasons and attitude of the subjects towards waterpipe smoking.

DISCUSSION

This study presents the frequency of waterpipe smoking among two different age groups across different schools and universities of Karachi.

The results show that there is a notable number of shisha smokers in both age groups. This demonstrates two alarming facts, firstly the trend of shisha smoking in our society among different age groups included in the study is significant and secondly, this activity is now being taken up by children at an early age. A study done in Oman stated that 88% of adolescents were waterpipe users with a mean age of 15.11

This study shows that in the younger age group the frequency of shisha smoking amongst the participants is 39%, whereas in the older age group the frequency is 48%. Most participants in both groups took up shisha smoking within the last two years, but in the older group there was a substantial percent of participants who took up shisha smoking within the last five years as shown in the result.

Observations from this study show that even though the participants in both age groups seem to have had a similar time period of exposure to shisha smoking, the steep difference between their ages brings gravity to this statistic. This enormity of this fact can be easily highlighted by the health implications and the long term medical complications that would exist for a 14 years old child who has started smoking 2 years ago as compared to a 23 years old who has been smoking for 2 years. This is an alarming trend that has come to our attention which attributes its rise to the earlier age at which the younger age group is being exposed to the harmful habit of shisha smoking.

The increasing indulgence of shisha smoking especially at such a juvenile age seems to be propagated by...
incorrect perceptions. These include the popular belief that the nicotine content in waterpipes is lower as compared to that in cigarettes and that the water used in this form of tobacco intake filters out all the hazardous chemicals such as carbon monoxide, nicotine and tar. These common misconceptions lead the public to believe that waterpipe smoking is not a significant health hazard. A recent study done in Pakistan showed that curiosity followed by pleasure seeking and boredom were the most important factors in starting waterpipe smoking. The majority of these participants thought of cigarette smoking as being more harmful as compared to waterpipe smoking. This was evident in these results which revealed that 14.5% of smokers smoked cigarettes in the younger age group as compared to shisha (39%) and 23.2% of the participants were smokers in the older age group as compared to shisha (48%). The younger participants indulged in shisha smoking first in contrast to the older group where cigarette smoking preceded shisha smoking.

Even though the focus of this study was not cigarette smoking, because of the strong social link between different forms of smoking, the cigarette smoking habits of the participants were also taken into account. Most individuals in both groups were occasional smokers, i.e. they smoked once every few months. Opinions of individuals in both groups highlighted that most acknowledged shisha smoking is injurious to health, however, they also claimed it to be an acceptable social activity. Nearly 90% of shisha consumers in both groups were unanimous about indulging in it with their friends.

As social as an activity that the majority of the participants took shisha smoking to be, social stigmas were also very evident. Our experience also reveals the fact that the general population chooses to ignore information coming their way. People believe that the 'mussel' being smoked in the shisha does not contain tobacco while others prefer shisha as a form of smoking over cigarette smoking believing it is less harmful. There was a general perception that the tendency towards shisha smoking as a relaxant was observed more in the older age group, whereas peer pressure seems to have a greater impact in the young as compared to the older age group.

The general population seemed unaware that studies reveal that shisha smoke contains hundreds of potentially dangerous heavy metals like Arsenic, Cobalt, Chromium and Lead. The amount of smoke produced from a regular waterpipe contains approximately the same amount of Nicotine and Tar equivalent to 20 cigarettes. Nicotine dependence may also result from repeated inhalation of tobacco smoke from shisha, an observation that many participants in this study did not agree with. Estimates show that tobacco-related deaths are expected to rise from 5.4 million in 2005 to 6.4 million in 2015 and 9.3 million in 2030. Even though correlations between diseases like lung and oral cancers, heart diseases and respiratory conditions like chronic obstructive pulmonary disease, emphysema and waterpipe smoking have been established, the general population has not yet fully understood the associated risks. This is observed by the increasing numbers of cafes and restaurants across the country offering shisha smoking facilities and promoting it as a socially acceptable leisure activity.

These results showed that among waterpipe consumers in group-1, about 16% of students have already developed respiratory symptoms, which include sore throat, cough, phlegm and flu-like symptoms, whereas approximately 10% individuals have developed similar symptoms in group-2. This highlights a greater chance of developing adverse symptoms due to early indulgence. The authors could not strictly correlate the appearance of these signs and symptoms as effects of shisha smoking, however, since the well documented adverse effects of smoking in general, one can extrapolate that these effects will be more severe if exposure to the agent occurs at a younger age.

Keeping in perspective the immediate and eventual health complications that this booming social practice will result into, appropriate counter measures should be taken. These should address the issues of the apparent misconceptions about waterpipe smoking as well as implementing public health policies in order to curb the spread of this already flourishing practice.

CONCLUSION

The trend and attitude towards waterpipe smoking has increased and become more widely acceptable for the youth now than it was 10 years ago. Social and recreational use of waterpipes is widespread among both groups despite being acknowledged by majority as a health hazard.

REFERENCES


