

TO ASSESS THE PREVALENCE & FACTORS ASSOCIATED WITH SHISHA SMOKING IN MEDICAL STUDENTS

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ABSTRACT

Objective: To assess the prevalence of Shisha smoking in medical students and to examine demographic, personal, social, environmental factors associated with it.

Material & Methods: Students were selected by consecutive sampling from Rai Medical College, Sargodha, Sargodha Medical College and Rawalpindi Medical College, Pakistan. The study period was from January 2016 to December 2016. These students were given a questionnaire of 34 questions to assess the prevalence of shisha and awareness about its hazardous effects on health. Our study population consisted of 578 medical students. Data was entered and analyzed on SPSS version 17 for analysis.

Result: In our study 94.1% students said that they were familiar with the term shisha smoking and 36% confessed that they had smoked water pipe at least once. The comparison showed that the private students were more involved in shisha smoking. The difference was statistically significant and 57.89% claimed that their parents would not object. Maximum number of students experienced shisha smoking for the first time at the ages from 15 to 20 years.

Conclusion: Among the students smoking shisha majority found it cool and thought that it is less harmful than cigarette smoking.

Key Words: Shisha smoking , water pipe, medical students, public health.

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INTRODUCTION

Water pipe smoking is centuries old traditional method of tobacco use¹, but its' origin is ambiguous². Historically it was used to smoke tobacco in regions of China^{3,4}, India^{5,6} Pakistan^{7,8} and in Eastern Mediterranean Region⁹⁻¹². There has been alarming increase in its use recently especially among young people across the world¹³. Many restaurants and cafés serve water pipes. Boys and girls using water pipes perceive it fashionable¹⁴ & less lethal than cigarette smoking, because its smoke gets filtered in the water¹⁵. Research

however has proved otherwise, suggesting additional risks of water pipe smoking over cigarette smoking¹⁶. Preliminary evidence links water pipe use to respiratory disease, cardiovascular disease and cancers¹⁷. Water pipe smokers' inhale upto 200 times more smoke in a single session as compared to cigarette smokers¹⁸. Several factors contribute to the rising popularity of shisha use. Some of the factors associated with trying water pipe smoking are similar to those associated with cigarette smoking like father, mother, or a sibling smoking cigarette or water pipe & demographic factors like male gender and younger age.. A recent study done in Pakistan showed that curiosity followed by pleasure seeking and boredom were the most important factors in starting water pipe smoking¹⁹. Shisha tobacco often contains flavors, including candy and fruit flavors such as orange, white grape or chocolate mint, which help mask the harshness of smoking⁵ & allows for many taste preferences. Available data suggest that the water pipe can also become a vector to highly lethal and addictive

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To Assess the Prevalence & Factors Associated With Shisha Smoking In Medical Students.

cigarette smoking²¹. The highest prevalence of current water pipe smoking is among school students across countries: the United States, especially among Arab Americans (12%-15%)^{22, 23} the Arabic Gulf region (9%-16%)²⁴, Estonia (21%)²⁵. The prevalence of current water pipe smoking among university students was high in the Arabic Gulf region (6%)²⁷ the United Kingdom (8%)²⁸, the United States (10%)²⁹, Syria (15%)^{30, 31}, and Pakistan (33%)³⁴. The prevalence of current water pipe smoking among adults was the following: Pakistan (6%)³⁵, Arabic Gulf region (4%-12%)^{36, 37, 38} and Australia (11% in Arab speaking adults)³⁹. The studies were all cross-sectional and varied by how they reported water pipe smoking. Only few cross sectional studies are done in Pakistan. A study was done by Kandel P on use of shisha in university students. They found that half of the participants reported having smoked shisha³². In another study conducted by Sameer-ur-Rehman, that included youth from four cities of Pakistan. They found that about 61% were shisha smoker. 60% of them considered shisha smoking less harmful than cigarette.³³

MATERIAL & METHODS

It was a Descriptive cross sectional study conducted in 3 Medical Colleges of public & Private Sector of Sargodha Pakistan from Jan 16 to Dec 16. The sample size was 578 medical students where Simple Random Sampling Technique was used. Questionnaire was developed after literature review

Simple tables were made for each variable, showing the results in numbers and percentages. Where applicable, the data was converted into graphs. Statistical Data analysis was done by using SPSS version 17. Descriptive statistics including, means, standard deviations, and frequencies were assessed on variables. Shisha smokers and non-smokers were compared by gender, social, personal and environmental factors by using chi-square test.

RESULTS

More parents of students in private than public sector were aware that their children were smoker & do not object to it. Chi square test was applied to see if the difference in smokers in public & private sector is statically significant. P value was less than 0.005. Thus the private sector has large population of water pipe smokers.

According to analysis, parents of private sector are more aware of their children habits of water pipe smoking as compared to that of public sector. Further there is large proportion of parents of private sector which object less to their children habits of water pipe smoking as compared to public sector. They are not

aware of the fact that water pipe smoking is more hazardous as compared to cigarette smoking. Opinion and attitude of medical students towards shisha smoking is shown in Table 1. The knowledge and attitude towards shisha smoking in medical students is shown in Table 2.

DISCUSSION

Our study population consisted of 578 medical students from both public and private sectors. Out of them 544 (94.1%) said that they were familiar with the term shisha smoking and 208(36%) confessed that they had smoked water pipe at least once. In our study out of 208 smokers, 40(19.23%) experienced shisha for 1st time between 10-15 years of age, 110(52.88%) between 15-20 years of age and 57(27.40%) above 20 years of age which is similar to a study done by Qudsia Anjum that shows that the mean age of students initiating shisha smoking was 14 years¹³. Results of study by Mohammed in Kuwait shows that 30% started shisha smoking at ages 14 to 17 years¹⁴ which supports our results. In

Table 1: Opinion & attitude of medical students towards shisha smoking

S. No.	Variable	Frequency & percentages
1	Parents aware of your habit	118(56.7%)
2	Ever experienced shisha	176(84.6%)
3	Like shisha more than cigarettes	136(65.3%)
4	Is Shisha more harmful than cigarettes	84(40.38%)
5	Shisha more addictive than cigarettes	55(26.44%)
6	Feel craving for shisha	89(42.78%)
7	Attempt to quit	51(24.51%)
8	Shisha smokers look cool ?	139(66.82%)
9	Parents objection to shisha as compared to cigarettes	87(57.69%)
10	Experienced any harmful effects	62(29.80%)
11	Used any other addictive subs before	71(34.13%)
12	Shisha smoking socially more acceptable	163(78.36%)
13	For females smoking shisha socially more acceptable	151(72.59%)
14	Shisha smoking not hazardous	94(45.19%)

To Assess the Prevalence & Factors Associated With Shisha Smoking In Medical Students.

Table 2: Knowledge and attitude towards shisha smoking in medical students

Variable	Frequency & %ages
Experienced for the first time at age of	
10-15 yrs	40(19.23%)
15-20 yrs	110(52.88%)
Above 20 yrs	57(27.40%)
Frequency of shisha intake:	
Once a week	62(29.80%)
Once a month	48(23.07%)
Occasionally	97(46.63%)
Smokers among your friends:	
All	74(35.57%)
Some	119(57.21%)
None	13(6.25%)
Smoker among close family members:	
Father	18(8.65%)
Brother/Sister	53(25.48%)
Others	133(63.94%)
changes observed in energy level after smoking shisha?	
Increased	107(51.44%)
Decreased	35(16.82%)
No change	65(31.25%)
What are your smoking items:	
Cigarettes only	11(5.28%)
Shisha only	108(51.92%)
Both	87(41.82%)
Is shisha addictive?	
Yes	68(32.69%)
No	90(43.26%)
May be	49(23.55%)
Want to quit water pipe smoking?	
Yes	52(25%)
No	115(55.28%)
May be	40(19.23%)
How many shisha clubs you know in your city?	
2-3	59(28.36%)
5-8	69(33.17%)
More than 8	78(37.50%)
Monthly cost on shisha:	
1000-3000rs	124(59.61%)
3000-5000rs	46(22.11%)
More than 5000rs	35(16.82%)

our study 8.65% of the students claim that their fathers are shisha smokers, 25.48% have sibling and 63.94% have other close family members. 35.57% claims that all their friends are shisha smokers and 57.21% said some of their friends are shisha smokers. In a study done by Nazeer Khan shows that about ninety percent of the respondents of this study claimed that they had initiated the shisha smoking due to the influence of friends or social pressure of the fashion¹⁷. In present study 5.28% smokes cigarettes only, 51.92% smokes shisha only whereas 41.82% smokes both. In our study 84.6% students claimed that their 1st experience with shisha was good. 65.3% liked shisha more than cigarettes. 40.38% thought that shisha is more harmful than cigarettes. 26.44% thought that shisha is more addictive than cigarettes. 42.78% of our study participants said that they felt craving for shisha, 24.51% had attempted to quit shisha. 66.82% thought that shisha smoking is cool and 57.89% claimed that their parents would have no objection of their smoking shisha than cigarettes while a study by Alam SE reported that 9.5% regular water pipe smokers had tried to stop smoking water pipes but restarted, 33.3% had experienced cravings to smoke water pipes³⁵. 78.36% participants of our study were with the perception that shisha smoking is more acceptable in society as compared to cigarettes. 72.59% were with the opinion that it is not odd for women to smoke shisha than cigarettes. A study done by Wegilki supports our results by stating that shisha smoking is more socially acceptable in the society as compared to cigarette smoking. Girls feel more comfortable in smoking water pipe as compared to cigarettes²⁰. In our study 12.01% smokes water pipe at home 72.59%smokes at café and 14.90% smokes at secret meeting place. This coincides with studies done abroad where water pipe smoking is most visible to the public in shisha cafes³⁶⁻⁴⁰.

CONCLUSION

Water pipe tobacco smokers, think that it is less lethal and addicting as compared to cigarettes. Whereas, evidence from water pipe smoke analysis, user toxicant exposure and also health affects research has proved it otherwis.

RECOMMENDATIONS

The findings from the study will be useful at the policy level to complement knowledge and awareness about this important public health issue. Physicians, policy makers and tobacco control advocates can play an important role in addressing perceptions and minimizing the spread of water pipe tobacco smoking. Access to water pipe products should be limited by minors and clear warning labels should be enforced on those products rather than misleading descriptors like "0% tar", which must be removed from packaging clear statements. Also, the emerging trend of water

pipe smoking among the youth is promoted by the easy availability of water pipes in public places and this should be counteracted by the banishment of water pipes in restaurants and cafes along with cigarettes. And lastly, by including water pipe tobacco smoking in all levels of tobacco control i.e. from individual providers to large-scale public information campaigns, we may be able to halt its spread among youth.

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To Assess the Prevalence & Factors Associated With Shisha Smoking In Medical Students.

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AUTHOR'S CONTRIBUTION

Following authors have made substantial contributions to the manuscript as under:

Asif A:	Main idea
Sarfraz K:	Data Collection & typing
Paracha M:	Bibliography
Saleem F:	Statistics

Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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