Original Article

PERCEPTIONS OF SHISHA SMOKING AMONG UNIVERSITY STUDENTS IN PAKISTAN

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ABSTRACT

OBJECTIVES:
To study the perceptions of Shisha smoking among university students in Pakistan.

METHODS:

It was descriptive cross – sectional study conducted from October 2011 to March 2012 at four different public and private sector Universities at Lahore, Rawalpindi, Faisalabad and Gujrat in province of Punjab. After approval from ethical committees of concerned universities, 1000 university students participated in the study through simple random sampling technique. There were 750 males and 250 female students studying in graduate and post graduate programs. Informed consent was taken from participants. There remains a possibility of response and self-selection bias. The Inclusion criterion was students between 18 to 30 years. They were selected from B.S, BBA, MBA, M.Com, M.A (English), and MSc (Psychology) departments. All students were interviewed on a structured questionnaire which was pretested. Each student was allowed to complete the questionnaire freely and without consultation with other fellow students. Finally data was tabulated and analysis was done.

RESULTS:

In our study curiosity and social trend emerged as the most common factors for initiation of shisha. Respiratory disease was the most commonly cited health effect. In the study 440 males (**59.22%)** and 54 females (**22%**) were using Shisha smoke. Seventy five% university students were aware of at least one hazard of shisha smoking. Fifty two % knew that shisha smoke causes lung cancer. Despite knowing its fatal effect 74% strongly agreed that they use shisha smoke as part of fashion. Thirty eight % believed that shisha smoke was good source of stress relief. Only 14% believed that shisha has addictive properties.

CONCLUSIONS:

It is concluded that Shisha smoking is injurious to health. It has become a fashion and snobbery among our university students. It has become a status symbol in our society. Our youngsters take it as a fashion, stress reliever and later they become addicted to it. We conclude with the disturbing observation that shisha smoking is highly prevalent among urban university students in Pakistan. The knowledge of university students regarding the hazards of habitual shisha smoking is alarmingly low and the majority considers the practice to be safer than cigarette smoking. These results not only unlock new avenues for targeted research on the issue but should also serve as an alarm call for the public health authorities in the country. A similar study with larger sample size may be conducted in rural set up where around 70% of population resides and literacy rate is very low.

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INTRODUCTION:

Tobacco is a preventable cause of morbidity and mortality across the world. Low and middle-income countries are most severely affected. Estimates show that tobacco related deaths are expected to rise from 5.4 million in 2005 to 6.4 million in 2015 and 8.3 million in 2030 [1]. This prediction highlights the need to study the trends and patterns of tobacco usage in different forms as well as to come up with effective control and prevention strategies for these developing countries [2]. Water pipe smoking commonly known as Shisha, narghile, hookah, hubble bubble in different countries and cultures, is a form of tobacco intake in which the smoke passes through water before inhalation. Though this practice is centuries old, it has recently increased in popularity among many Arab countries and generally across the world [3 4]. It is now commonly practiced in commercial cafés, restaurants and even at homes. The most common users are university and college students.

Tobacco is used in different forms and among these smoking shisha is gaining immense popularity mainly because of youth appeal [3 4 5]. The majority of these participants thought of cigarette smoking as being more harmful as compared to water-pipe smoking [6].

Recently a global resurgence has been seen in water pipe smoking, including Pakistan, where it is commonly known as "Sheesha" among the younger generation. The reasons accredited to this trend are certain misconceptions that water pipe smoking is not hazardous to health, since the tobacco is filtered through water before inhalation; nicotine content is less than that of cigarettes and addition of fruit flavors make it healthier [7]. Another factor adding to its popularity is its social acceptability as compared to cigarettes and its portrayal is a symbol of modernization of our cultural heritage [5].

The smoke from shisha, besides other toxic elements, contains hundreds of potentially dangerous heavy metals like, arsenic, cobalt, chromium and lead[8]. Research has also shown that after 45 minutes of shisha use, levels of expired air, carbon monoxide, plasma nicotine and the heart rate become significantly elevated[9]. There is some evidence that shisha use may also decrease the sperm count in men[10].

The prevalence of tobacco intake in Pakistan is high, reaching up to 40.9% among middle aged males. [11] It is used in different forms such as cigarettes, chewable tobacco, tobacco snuff and water-pipe. According to a survey, 21.6% Pakistani males has consumed more than 100 cigarettes or daily used a water pipe in his life time [12]. In 2005, the WHO advisory panel on shisha smoking pioneered in putting forth a set of recommendations to help countries to plan strategies against this practice [13] .It was strongly recommended that Shisha should be subjected to the same regulations as cigarette and other tobacco products. Unfortunately Pakistan failed to implement any of those recommendations [14].

OBJECTIVE OF THE STUDY:

To study perceptions of Shisha smoking among university students in Pakistan

MATERIAL & METHODS:

It was descriptive cross – sectional study conducted from October 2011 to March 2012 at four different public and private sector Universities at, Lahore, Rawalpindi Faisalabad and Gujrat in province of Punjab. Approval from ethical committees of concerned universities was taken. 1000 university students participated in the study through simple random sampling technique. There were 750 males and 250 were female students studying in graduate and post graduate programs. Informed consent was taken from participants. There remains a possibility of response and self-selection bias. An inclusion criterion was students between 18 to 30 years. They were selected from B.S, BBA, MBA, M.Com, M.A (English), and MSc (Psychology) departments. All students were interviewed on a structured questionnaire which was pretested. Each student was allowed to complete the questionnaire freely without consultation with other fellow students. Out of five categories of responses "Neutral" was defined as one who really neither agreed nor disagreed. Finally data was tabulated and qualitative analysis was done.

RESULTS:

A total number of thousand students from different universities participated in answering the questionnaire. There were 750 males and 250 females (Figure- 1) Out of these 1000, 540 (54.1%) were from Bachelor programs (BC) classes and 450 (45.9%) were from Master programs (MA/MS). In our study curiosity and social trend emerged as the most common factors for initiation of shisha. Respiratory disease was the most commonly cited health effect. The frequency of shisha smoking was 59.22 percent in males (Figure- 2) and 22 percent in females (Figure- 3) in our study. Among those students 740 (74%) strongly agreed that Shisha smoking is taken as fashion in Pakistan (Figure- 4). 320 out of 1000 (32%) students agreed upon the fact that death rate in developing countries is higher than in developed countries due to shisha smoking. 740 (74%) students agreed upon the fact that amount of smoke inhaled by shisha for one hour is equivalent to smoking 100 cigarettes or more. Total of 38% strongly agreed that they were using shisha a stress reliever (Figure- 5). Out of total sample 54% knew that Shisha may cause serious lung disease (Figure 6). 14% agreed that it causes addiction whereas 24% did not believe at all in any addictive property of shisha (Figure- 7).

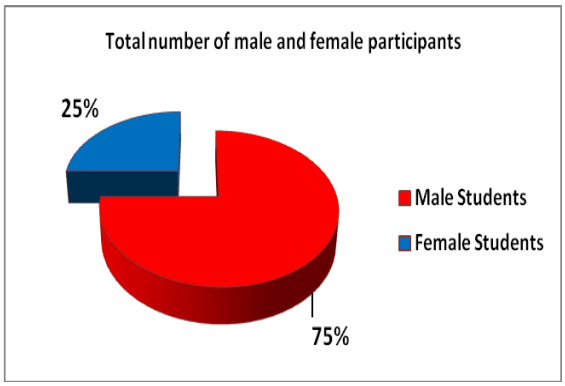

Figure-1 Total number of male and female participants

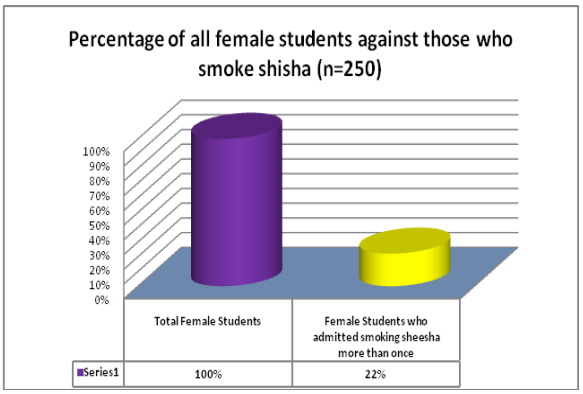

Figure-3 Percentage of all female students against those who smoke shisha (n=250)

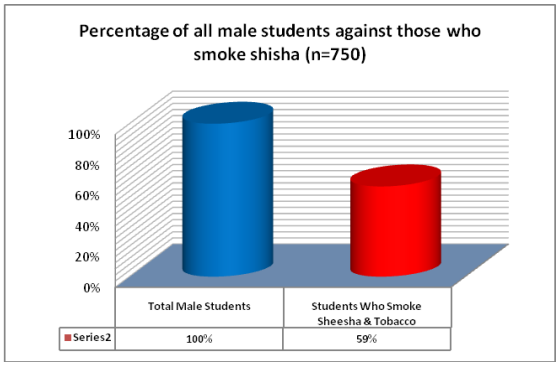

Figure-2 Percentage of all male students against those who smoke shisha (n=750)

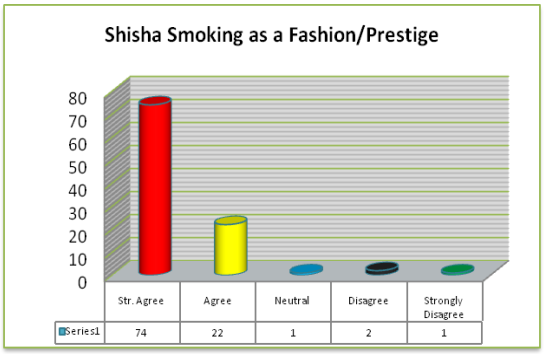

Figure-4 Shisha smoking as a Fashion/Prestige

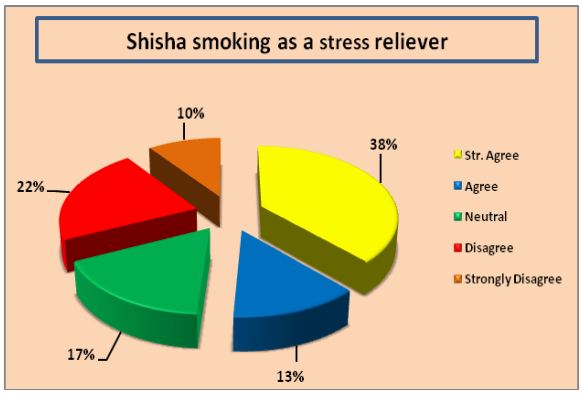

Figure-5 Shisha smoking as a stress reliever

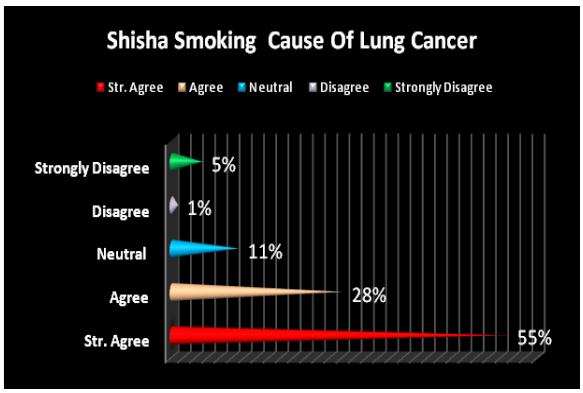

Figure-6 Shisha Smoking cause of Lung Cancer

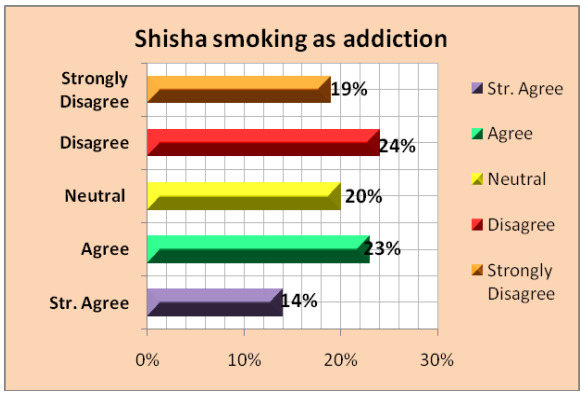

Figure-7 Shisha smoking as addiction

DISCUSSION:

In our study curiosity and social trend emerged as the most common factors for initiation of shisha. This is supported by a study conducted in Pakistan where university student's curiosity was found to be the most common reason followed by pleasure-seeking, peer pressure, boredom and stress for initiation of Shisha. [6] Awareness of the hazards of shisha smoking was known but participants of study believed that Shisha smoking is less dangerous than cigarette smoking. Respiratory disease was the most commonly cited health effect. In a similar study conducted in Egypt 81-92% of the water pipe users reported that they knew that water pipe use was associated with lung cancer, asthma, heart disease, and transmission of infection. [15] In our study 59.22 % males and 22% females were using Shisha smoke. Our study is compatible with a study conducted by Pakistan Medical and Research Council (PMRC) in 2012 at its eleven centers in Pakistan. PMRC study reveals 57.2% students smoke Shisha by age group 17 to 18 years. In this study, pleasure seeking was the common reason of Shisha smoking among 7.1% students, while 11.1% were influenced by their friends. It was also found that 23.8% students smoke Shisha just for enjoyment. About 12.1 % smoked in Shisha cafe, majority preferred flavor of double apple and mint [16]. According to a survey in 2008 among four different universities of Karachi, 53.6% students reported of having smoked Shisha[17]. In another study done in USA showed that 40% of students admitted that they have smoked water pipe[18]. Similar study conducted in Pakistan reveals 52.66% students using Shisha[19]. However a study done at Dow University of Health Sciences Karachi reveals that 22.7% of students admitted that they smoke Shisha[20]. This could be attributed to strong medical background of participants. In our study 27% students knew that at least one serious hazards of Shisha smoking compared to 77.5% of Malaysian university students[21] .This may be attributed to better public health education system there. In our study 22 % females were using Shisha which is far below than an earlier study on university students of Karachi where it stood at 37.9 %[22]. A possible explanation could be social and cultural difference from one city to

another city. A sizeable percentage of women in Lebanon and Yemen smoke tobacco than women in the United States. There are more than twelve Arab countries where at least 10 % of girls' age 13–15 smoke. This seems to indicate a dangerous trend toward more widespread female smoking in the Arab World[23]. Shisha smoking is accepted by the youth as a safe recreational activity, due to lack of government policies, misperceptions about its safety and ignorance of general population and health care professionals. Studies have investigated attitudes and beliefs toward sheesha use, although studies of beliefs and attitudes regarding cigarette smoking abound. [24, 25, 26, 27, 28] This study gives an insight on Shisha smoking among youth in different universities of the country. The World Health Organization (WHO) pronounced North Africa, East Mediterranean region and South- East Asia to have the highest rate of water pipe smoking. The practice is also spreading rapidly among the youth of North America, Brazil and Europe at an alarming rate. [29] Our results are no exception. In the United States, evidence suggests a gradual rise in the prevalence of water pipe smoking among young adults[30,31] There are few studies on knowledge and attitudes regarding water pipe smoking in the general population, and most indexed literature on the topic originates from the Middle East. Varsano et al; in Israel, surveyed 388 high school students on their beliefs about water pipe smoking and observed that the majority of the students as well as their parents perceived water pipe smoking to be much less harmful than cigarette smoking.[32] It reflected that university students are comparatively more aware of hazards of sheesha smoking than school students. In Egypt, Labib et al; reported that three of every four female water pipe smokers preferred water pipe smoking over cigarette smoking because they considered it to be much less perilous than the latter. Peer pressure and curiosity were cited as the most common triggers behind the initiation of water pipe smoking by Egyptian females.[33] A study from Lebanon, reported similar perceptions by a large population of school students who considered water pipe smoking to be less dangerous than cigarette smoking. However, it was observed that while cigarette smoking remained stigmatized in Lebanon, social taboos associated with water pipe smoking were minimal.[34] More recently, studies conducted in USA reported similar perception by US adults in two separate internet-based surveys. The prevalence of current water pipe smoking was much higher than anticipated: 18% and 46.4% respectively. [35, 36]

Our study confirms previous speculation that water pipe smoking is fast becoming a norm in the gatherings of urban Pakistani youth.

CONCLUSIONS:

It is concluded that Shisha smoking has become fashion and snobbery among our university students. It has become a status symbol in our society. Our youngsters take it as a sort of fashion and later they become addicted to it. We conclude with the disturbing observation that shisha smoking is highly prevalent among urban university students in Pakistan. The knowledge of university students regarding the hazards of habitual water pipe smoking is alarmingly low and the majority considers the practice to be safer than cigarette smoking. These results not only unlock new avenues for targeted research on the issue but should also serve as an alarm call for the public health authorities in the country. It is imperative that Shisha smoking be included in the existing anti-tobacco campaigns in the country. Lack of action would nurture the already growing practice and might lead it to set firm roots in our society, as it has done in the Arab world. Besides the lack of action by policy makers, one of the greatest hurdles in establishing an anti water pipe smoking program in Pakistan has been the scarcity of sufficient epidemiological evidence especially in rural set up.

LIMITATIONS OF STUDY:

Some fundamental points, however, should be critically considered before drawing any direct or indirect implications from our study. The population surveyed belongs to a

particular social class, age group and cultural background. Caution should thus be used when generalizing the results of our study to the entire population of the country. It should also be kept in mind that a primitive form of water pipe smoking, the hookah, remains very popular in rural areas of Pakistan. It would be useful if a similar study was undertaken regarding the knowledge, attitudes and practice of the rural population regarding hookah

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