

**SHISHA SMOKING TREND: CURRENT SCENARIO IN KARACHIITES**

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***Corresponding author e-mail:** fakhsheena.anjum@duhs.edu.pk**ABSTRACT**

The objective of the present work is to study the awareness and causes of *shisha* (waterpipe) smoking among adolescents in Karachi, Pakistan. A cross-sectional study was conducted among the youth aged 16-25 years in various shisha bars/cafes of Karachi, based on convenient sampling. A total of 145 respondents i.e. males ($n = 107$, 73.79%) and females ($n = 38$, 26.2%), participated in the study. More than 40% of the participants started shisha smoking at the age of 16-18 years and around 70% smoked shisha occasionally. One of the interesting and leading facts observed during study that were associated with initiation of shisha smoking were curiosity for shisha smoking (23%), followed by hanging out with friends (21%), pleasure-seeking (18%), peer pressure (13%) and boredom (12%). Among 145 participants who had ever smoked shisha, the majority (61.8%) were current smokers. Majority (59.43%) of respondents thought that shisha is less harmful than cigarettes and contains less nicotine than cigarettes (62.75%). More than 50% agreed that Shisha smoking is an efficient stress-coping strategy and their family knew about this habit. Shisha smoking is quite popular among Pakistani adolescents and awareness regarding its dangers is alarmingly low. Policy makers should play a key role in reducing the spread of shisha smoking.

KEY WORDS: *Shisha smoking*; hookah; tobacco consumption; Karachi.**INTRODUCTION**

It was reported by the World Health Organization (WHO) that around 4.9 million people were affected globally due to tobacco consumption in the year 2000 and nearly 50% were in developing countries [1, 2]. One in 10 adult deaths are due to tobacco consumption at present which may raise up to one in 6 deaths each year by 2030 if the current situation persists [3, 4]. Tobacco use in developing countries such as Pakistan is mounting each year although its rate of consumption is declining in the developed countries [5]. Hookah smoking was originated in India in the 15th century which then extended to the Near East countries [6]. Hookahs are well-known internationally in different forms and have names like waterpipe, shisha, muasel, nargilha, hubble-bubble, etc. It has expanded recognition in most countries of the Middle East and sub continent focusing especially youth [7, 8]. Unlike formerly used hookahs, the "Ma'ssell" was introduced which is a combination of tobacco and molasses, containing a flavoring agent or

fruit extract for extra flavors. The whiff of the smoke-flavored tobacco, its social recognition as a tradition, eye-catching designs and easy way in with family and friends are only some reasons ascribed to its extraordinary raise in consumption [9].

Shisha is perceived to be less hazardous than cigarette smoking in general [10] and is also not considered harmful [11, 12] due to the reason that smoke gets filtered in the water [13] though hookahs are about ten times hazardous than cigarettes [14]. This smoke also contains higher concentrations of nicotine and heavy metals [15]. The burning temperature of tobacco for hookah use is double than that for cigarettes which could generate various types and levels of hazardous chemicals and tar [13]. Furthermore, exhaled carbon monoxide levels from hookah were found to be twice as high as cigarette smoke [16]. The use of hookah is also dangerous to health to non-smokers due to secondhand smoke and is a means of communication of transmittable diseases because hookah mouthpiece is used by

several people in a single smoking session [17]. Hookah use has been shown to cause an acute increase in systolic and diastolic blood pressure and heart rate. Studies have shown that hookah is detrimental to heart and the use of water as a filter does not change the level of nicotine in the smoke [18] [19].

The growing affinity of smoking shisha in general is mostly attributed to the deficiency in knowledge and the mistaken beliefs regarding its use. Studies have revealed substantial relations between youth smoking and frequent smoking in early middle age, problems related to or addiction in later life and other difficulties [20]. The present study was planned to address this budding health risk in Pakistan especially in younger population through understanding of their awareness and opinion regarding shisha smoking.

METHOD

Study design and setting: This descriptive study was conducted from December 2013 till June 2014 through a pre validated questionnaire distributed at various shisha bars or cafes in Karachi. Participants were briefed about the rationale of the study and the questionnaires were filled after taking their consent in the presence of researchers. The participants were assured about the confidentiality of their personal information and responses. 145 completed questionnaires were returned by shisha smokers which were then analysed statistically.

Statistical analysis: The filled questionnaires were analyzed by using SPSS 20.0. Descriptive statistics were used to demonstrate participants' demographic information and their response to the questionnaire items. Pearson's chi-squared test was executed to evaluate the association of shisha smoking with various factors of the respondents. A p-value < 0.05 was considered as significant.

RESULTS

Out of 200 survey questionnaires, only 145 completed forms were returned back (response rate = 72.5%). Table 1 shows demographics of the study population comprising of 73.79% males and 26.2% females. More than 50% of the participants belonged to the age group of 22-25 years and around 80% belonged to the middle class. More than 50% of the respondents were undergraduate students (Table 1). It was found that more than 40% of the participants started shisha smoking at the age of 16-18 years and around 70% of the respondents smoked shisha occasionally. Shisha was found to be the most

prevalent source for the consumption of tobacco (49.65 %) whereas cigarettes were next among other commonly employed sources (42.75%).

It can be seen from Table 2 that more than 80% of the respondents considered shisha smoking as a trend or fashion of modern age (Table 2). Many (61%) considered shisha smoking as an addiction. Majority participants (84.13%) had knowledge about the detrimental effects of burning up shisha. Many participants believed that shisha is less harmful than cigarettes (59.43%) and contains less nicotine than cigarettes (62.75%). More than 50% agreed that Shisha smoking is an efficient stress-coping strategy and their family knew about this habit. Most of the respondents (76.54%) did not want to spend a lot of money on this addiction and less than 50% never made a serious attempt to quit smoking. Majority agreed that shisha café are playing a major role in its promotion (Table 2).

The motives associated with starting *shisha* smoking according to the participants are illustrated in Figure 1. Curiosity in youth (23%), hanging out with friends (21%), pleasure seeking (18%), peer pressure (13%) and boredom (12%) were recognized as the most prevalent reasons for the escalating popularity of shisha smoking in Karachi. Figure 2 shows the feelings of the respondents after smoking shisha: more than 50 % persons felt much better and relaxed after smoking shisha; 21.37% felt drowsy/lazy whereas 21.37% suffered from headache/nausea/vomiting after its consumption. Pearson's chi-squared test was performed to evaluate different associations of study group with their shisha smoking.

It was revealed that this addiction by the youth was known to the family members of the adolescents yet was not prohibited ($p= 0.039$). Since this addiction develops from youth, many respondents smoked shisha 50 -100 times in their life ($p= 0.046$) and 57.91% never tried to quit it seriously ($p=0.006$). Shisha smoking has been considered as a fashion in our society, so the youth spent lots of money on shisha smoking ($p= <0.0001$) and as majority belonged to the middle socio-economic class, therefore, to get relaxed and feel better shisha smoking is prevalent among them ($p= 0.009$). Socioeconomic status versus knowledge of the respondents about harmful effects of shisha smoking shows significant association ($p<0.0001$) who were either intermediate or graduate.

DISCUSSION

The study was carried out to assess the perception and causes regarding shisha smoking among youngsters in Karachi. Similar studies were done in

other parts of the world [9, 11, 12] and only few studies were conducted in the Middle East and the sub continent. Mostly males were found to be involved in this habit and majority respondents were literate (Table 1); most of the respondents did not want to spend lots of money on this addiction (76%). More than 40% of the participants started shisha smoking at the age of 16-18 years (Table 1). Research has also shown that young adults are more involved in growing attractiveness of waterpipe smoking [21, 22]. In our study, Shisha and cigarettes were found to be the most common sources of tobacco consumption in adolescents (49.65% and 42.75% respectively). Although majority (84.13%) knew about its detrimental effects yet more than 50% never tried to quit it seriously. Many studies conducted have shown a mixed response regarding the addictive and harmful effects of shisha smoking. Waterpipe tobacco smoking also increases micronucleus (MN) frequency, a marker for early detection of carcinogenesis[17]. Waterpipe smoking is also a hazard to dental[23] and fetal fitness. Some of the respondents (40.57%) knew that shisha smoking is more harmful than cigarettes (Table 2). Other studies also reported that the majority of the students as well as their parents perceived waterpipe smoking to be much less harmful than cigarette smoking.[24, 25]

Studies have shown raise in the use of shisha among adolescents. More than 80% respondents of our study considered that shisha smoking is a trend or fashion of modern age (Table 2). One of the critical features of the universal regeneration in waterpipe use is the common vision that, waterpipe smoking is expected to be less dangerous due to the assumed but unconfirmed “filtering” effects of water. This was also seen in our study that about 60% of the participants had a belief that shisha has good quality filtration mechanism. In Egypt, Labib et al. (2007)

found that peer pressure and curiosity were reported as the most common triggers behind the commencement of waterpipe smoking by Egyptian females. Apart from the health risks and addiction, many young waterpipe users are attracted to its aromatic smell and the chance it provides for social interface. In qualitative studies among Arab American adolescents, waterpipe use has been seen as being “cool” and a means to hang out with friends [26]. Smith reported that socializing is a general thought in the few studies conducted in the United States making an allowance for shisha smoking a fine approach to hang out with friends[9]. Likewise the findings of our study revealed that curiosity was the prime reason of burning up shisha (23%), followed by hanging out with friends (21%) and pleasure-seeking (18%). Shisha smoking was found relaxing by more than 50% persons; 21.37% felt drowsy and 21.37% suffered from headache/nausea/vomiting after its consumption (Fig 2).

CONCLUSION

Shisha smoking is a rising health apprehension worldwide particularly among young adults. Many shisha smokers perceive this habit to be less lethal and addictive than cigarettes. Congregating lines of facts, including shisha smoke investigation, user toxicant experience, and health effects studies oppose this discernment. Health care providers and policy makers can play a significant role in diminishing the spread of shisha smoking.

STUDY LIMITATIONS

This study targeted cafes and shisha bars in Karachi city only. The study can be stretched to other cities of Pakistan to see any differences in use of shisha nationwide. Male ratio was greater than female ratio regarding shisha use in Karachi.

Table 1. Characteristics of the study population.

Characteristics	Number (Percentages)
Gender	
Male	107(73.79)
Female	38(26.20)
Age	
16-18yrs	18(12.41)
19-21yrs	49(33.79)
22-25yrs	78(53.78)
Education	
Under matriculation	6(4.13)
Matriculation	7(4.82)
Intermediate	55(37.93)
Graduate	77(53.1)

Table 2. Participants' knowledge and attitude towards shisha smoking

Statements	Yes	No
	n(%)	n(%)
Shisha smoking is an addiction	89(61)	56(38.62)
Knowledge about detrimental effects of shisha smoking	122(84.13)	23(15.85)
Shisha has good quality filtration mechanism	84(58)	61(42)
Shisha is less harmful than cigarettes	86(59.43)	59(40.57)
Shisha contains less nicotine than cigarettes	91(62.75)	54(37.24)
Shisha smoking is more acceptable compared to cigarette within society	83(57.24)	62(42.75)
Shisha smoking is a trend/fashion	127(87.58)	18(12.41)
Shisha smoking is an efficient stress-coping strategy	79(54.48)	66(45.51)
My family knows about this habit	82(56.55)	63(43.44)
People smoking shisha have more friends	97(66.88)	48(33.10)
Smoked shisha for the past one month	67(46.20)	78(53.79)
Ever made a serious attempt to quit smoking	61(42.06)	84(57.91)
Shisha café are playing a major role in promoting shisha	131(91)	14(9)
Can spend lots of money to this addiction	34(23.44)	111(76.54)

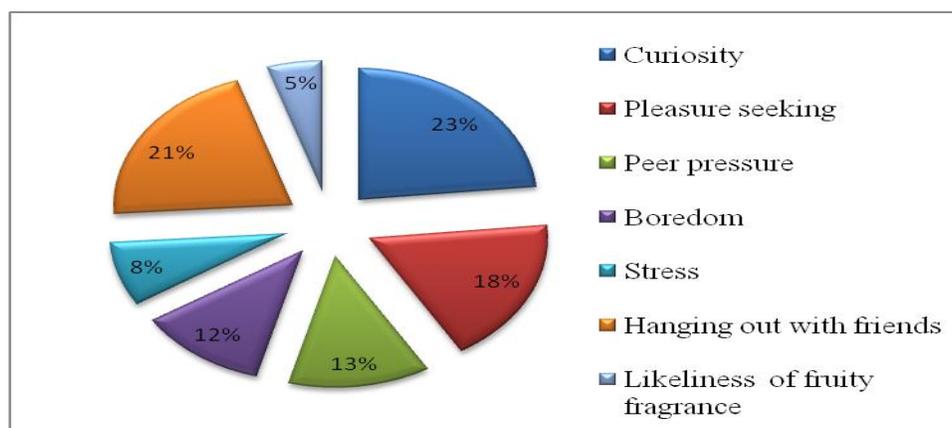


Fig.1 Motives for starting smoking shisha

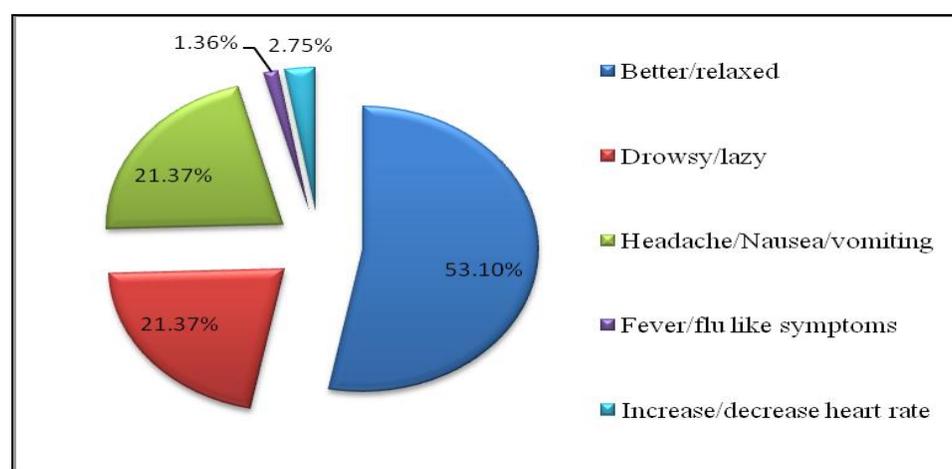


Fig.2 Feeling after smoking shisha

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