

Water pipe (Shisha) smoking among a sample of Iraqi male college students: knowledge and attitudes.

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Abstract: Waterpipe (WP) smoking is on the rise and become a popular social event among college students. This study aimed to assess the knowledge and attitudes of a sample of Iraqi male college WP smoker students regarding this habit. A cross-sectional study was conducted during November and December 2014 and comprised (150) male students at the College of Medical and Health Technology with the habit of WP smoking, they were subjected to self-structured questionnaire and then the responses were statistically analyzed by using tests of frequencies, percentages and percent score. The results revealed that 58.7% of water-pipe smokers in the age group (20-24) year, and only 2% had no smokers among close family members, 42.7% among close friends. Most of them (97.3%) prefer the flavored tobacco, 58% smoke at cafes, (76%) smoke to relieve tension. The knowledge responses were not satisfactory regarding health risks except for the causation of cardio-vascular disease (percent score = 85%), it is more harmful than cigarette smoking and causing infective hepatitis with (percent score = 81%) for each. Also they stated positive attitudes towards it is not a sign of modernization (percent score = 87%), they are confident enough to quit smoking (percent score = 88%) and negative attitudes that it is cheaper than cigarette smoking (percent score = 80%). The participants in general displayed relatively un-satisfactory knowledge and attitudes regarding shisha smoking.

Key words: Attitudes, knowledge, male college, students, water pipe.

I. Introduction

Water pipe (WP) is also known by a variety of names depending on the country such as Norghile, Hubble bubble, Ghoza, and Hookah⁽¹⁾. The water device heats tobacco using charcoal, filters the resulting smoke in a bowl of water and directs it to a rubber pipe for inhalation⁽²⁾. It is more common in Arabic countries, China, Turkey, Pakistan, India and Bangladesh and more than 100 million people world-wide smoke water pipe⁽³⁾. Several factors may contribute to the rising popularity of shisha use, shisha is cheap and widely available, facilitating its use among youth and individuals of low-socio economic status⁽⁴⁾. It is often a social activity which takes place at cafes, restaurants and parties. In fact, many individuals cite socialization as a primary reason for their shisha use⁽⁵⁾. The hazards of (WP) were first identified by Nafae et al in 1973⁽⁶⁾ and the long term use of (WP) has been associated with lung cancer^(6, 7), gastrointestinal cancer⁽⁸⁾, and decreased lung function^(9, 10, 11).

An increasing trend is expected to occur among university students and this could be related to alleviation of stress, life problems, peer pressure, social acceptance, family history of smoking, lower educational level of parents and the desire to attain high personality profile⁽¹²⁾. Many of college population are misinformed about the health risks that associated with (WP) use⁽¹³⁾ and assume that it is a healthier choice than smoking cigarettes⁽¹⁴⁾. The American Lung Association (2007) has stated that water pipe as the first new tobacco trend of the 21st century⁽²⁾. Aims of the study: to assess knowledge and attitudes of a sample of Iraqi male college students with the behavior of (WP) smoking.

II. Participants and methods

A cross-sectional descriptive study of a sample of Iraqi male college students aged ≥ 18 years in the College of Medical and Health Technology, Baghdad. Data collection was carried out during November and December, 2014. The study sample included 150 male college students with (WP) smoking habit, were randomly selected and invited to participate after clarifying the purpose behind the study, assuring high confidentiality and all willing participants gave verbal consents and they completed a comprehensive previously prepared self-structured close-ended questionnaires during break times between lectures or in designated areas under the supervision of the study staff.

The questionnaire consist of different statements covering socio-demographic characteristics, the reasons behind this habit, 12 questions related to knowledge and 10 questions related to their attitudes. The interviewer did not in any way tried to improve the knowledge of the respondents. The data was analyzed by using tests of frequency and percentages for each question responses and a score of (3) was given for each

yes answer , (2) for answering don't know and (1) for answering (No) . The percent score for patients' responses in each specific item was calculated according to the following equation: Total scores for all participants in the item X 100 / maximum possible score for all participants in the same item. Where total scores for all participants in the item= [(No. of no x 1) + (No. of don't know x 2) + (No. of yes x 3)]. And maximum possible scores for all participants in the same item= [No. of total patients x 3], based on Triple Likert Scale⁽¹⁵⁾ and after approximation, the cutoff point of percent score categorized as students who had score less than 60% considered as poor, 60% to 69% as fair, while those with 70% to 79% were considered as good and 80% to 89% as very good.

III. Results

The study comprised 150 male college students with the habit of (WP) smoking with an age range (18-35) years. The highest proportion (45.4%) in the second academic year, (58.7%) in the age group (20-24) years, only (12%) were married and 34% had an occupation. The highest percentage of students (42.7%) had smoking among most of close friends and only 2% had no smokers among close family members, as shown in table (1).

Table (1) Distribution of the studied sample regarding the socio-demographic characteristics (N = 150).

Socio-demographic characteristics	No	%
College students		
1 st year	9	6
2 nd year	68	45.4
3 rd year	32	21.3
4 th year	41	27.3
Age (years)		
< 20	36	24
20-24	88	58.7
≥ 25	26	17.3
Occupation		
Yes	51	34
No	99	66
Marital status		
Yes	18	12
No	132	88
Smoking among close family		
Father	14	9.3
Brothers	39	26
Father and brothers	12	8
Others	82	54.7
None	3	2
Smoking among close friends		
Most of them	64	42.7
Some of them	83	55.3
None	3	2.0

Considerable proportion (54.7%) of the studied sample smoke both (WP) and cigarettes. The frequency of (WP) smoking is 2-3 times /wk in (32%). The highest proportion (58%) smoke at cafés. Most of the students (97.33%) prefer flavored tobacco (Muassal) and (62.7%) actually had previous attempts to quit smoking as shown in table (2).

Table (2) The distribution of the studied sample regarding (WP) smoking characteristics (N = 150).

Smoking type	No	%
Shisha only	68	45.3
Shisha and cigarettes	82	54.7
Frequency of (WP) smoking		
Daily	46	30.7
One/wk	39	26
2-3 time/wk	48	32
Every 2 wks	3	2
Once/monthly	14	9.3
Place of smoking		
House	39	26
Café	87	58
Rest up/farm	8	5.3
Others	16	10.7
Type of tobacco used		
Ordinary non-flavored	4	2.7
With flavor (Muassal)	146	97.3

Any previous attempt to quit smoking		
Yes	94	62.7
No	56	37.3

The most common reasons as expressed by the included students to smoke (WP) was to relieve of tension and stressors 76% and to gain pleasure and happiness (62.7%) as shown in table (3).

Table (3) Distribution of the studied sample regarding the reasons for (WP) smoking (N = 150)

Reasons	No	%
It is an opportunity to meet friends		
Yes	102	68
No	48	32
To pass time		
Yes	7	4.7
No	143	95.3
Relieve of tension and stressors		
Yes	114	76
No	36	24
Emotional and family problems		
Yes	62	41.3
No	88	58.7
For pleasure and happiness		
Yes	94	62.7
No	56	37.3

Regarding the knowledge responses of the WP smokers , percent score was very good 85% regarding the statement that WP smoking cause cardio-vascular disease, and81%, for either causing infective hepatitis and it is more harmful than cigarette smoking respectively while the lowest percent score 44% for It is easy to quit WP compared to cigarette smoking as shown in table (4).

Table (4) Distribution of the studied sample regarding knowledge responses (N=150).

Variables	Yes		Don't know		No		Percent score		
	No	%	No	%	No	%	No	%	
1. Shisha is more harmful than cigarette smoking	90	60	34	22.7	26	17.3			81
2. Harmful substances are refined due to the water filter	60	40	47	31.4	43	28.6			71
3. Shisha smoking does not irritate respiratory passages due to presence of flavors	56	37.4	47	31.3	47	31.3			69
4. It is easy to quit shisha compared to cigarette smoking	20	13.3	8	5.3	122	81.3			44
5. Shisha smoking does not cause lung cancer	59	39.4	39	26	52	34.6			68
6. Shisha smoking cause infective hepatitis	84	56	48	32	18	12			81
7. Shisha smoking lead to mouth ulcers	54	36	47	31.4	49	32.7			68
8. Shisha smoking cause C.V diseases	99	66	32	21.4	19	12.6			85
9. It cause sleeping disorders	72	48	21	14	57	38			70
10. It leads to pharyngeal cancer	54	36	47	31.4	49	32.6			68
11. Shisha does not contain CO	60	40	59	39.4	31	20.6			71
12. It causes gastric ulcers	56	37.4	84	56	10	6.6			77

The attitude responses were very good with percent score (88% ,87%), regarding being confident enough to quit smoking and it is not a sign of modernization and negative attitudes with percent score 64% and 56% regarding feeling of relaxation after shisha smoking and it is more socially acceptable, as shown in table (5).

Table (5) Distribution of the studied sample regarding attitude responses (N = 150).

Variables	Yes		Don't know		No		Percent score
	No	%	No	%	No	%	
1. Shisha smoking is more socially acceptable than cigarettes	47	31.4	8	5.3	95	63.3	56
2. I don't want to lose friends	88	58.7	3	2	59	39.3	73
3. My family agree to smoke shisha	64	42.7	14	9.3	72	48	65
4. It is not a sign of modernization	117	78	6	4	27	18	87
5. It is a sign of manhood	83	55.4	6	4	61	40.6	72
6 Feeling of relaxation after smoking shisha	25	16.7	6	4	119	79.3	46
7. It is cheaper than cigarette	102	68	8	5.4	40	26.6	80
8. It does not cause addiction	46	30.7	8	5.3	96	56	73
9. I like different tobacco used	86	57.4	6	4	58	38.6	73
10. I am confident enough to quit smoking	113	75.4	20	13.4	17	11.3	88

IV. Discussion

Along with the excitement and exploration that college affords, college life produces stressors and uncertainties. Students utilize and develop a myriad of tactics to deal with their individual stress, some are healthy and others not⁽¹⁶⁾. Water pipe smoking is on the rise⁽¹⁷⁾, and become a popular social event among college students⁽¹⁸⁾. Social gathering, peer influence, family and relaxation were the top motivators for using shisha in this study, similarly (Muziak, 2004) revealed that social factors specific to (WP) such as number of friends who use (WP) and family attitude towards its use may influence a person's (WP) use and cessation⁽¹⁹⁾, also Weglicki et al (2008) found that if one or more family members smoked (WP) in the home, youth were 6.3 times more likely to be current (WP) smokers⁽²⁰⁾.

There has been a good perception of the included students that (WP) is more harmful than cigarettes, in contrast, the respondents of other studies stated that it is safer to smoke shisha than cigarettes due to the invention of (WP) involves the passage of smoke through water that is presumed to filter the smoke and remove toxic agents^(21, 22, 23). In Syria, Jordan, Saudi Arabia respectively, also the majority of the participants of Al-Naggar et al study in Malaysia stated that the water in shisha filters many of the toxins and, there is almost no tar in shisha tobacco smoking⁽¹⁾.

The knowledge responses of the studied sample was in general disappointing except for the causation of cardio-vascular diseases and infective hepatitis, similarly much of college students of⁽¹³⁾ were misinformed about the health risks that are associated with (WP) use. Shisha smoking use similar to cigarette use, has been shown to cause cardio-vascular disease, cancer, respiratory disease and nicotine dependence, also the potential to spread germs from person to person increases because users share a common source container⁽²⁴⁾.

In this study, the attitudes of the respondents were negative towards (WP) smoking that it is cheaper than cigarettes and feeling of relaxation after smoking and it is more socially acceptable and while the participants of Maziak et al (2004)⁽¹⁹⁾ believe that (WP) uptake includes the novelty of (WP), the ease of access and low cost of smoking in addition. Muassel which is sweetened agent used in hookah, adds flavor to the tobacco, making it more enjoyable⁽²⁴⁾, while the participants of (Jawaid et al, 2008) in Pakistan had false believe that (WP) is associated with socializing, relaxing, the company of friends and the esthetics associated with the beauty of the (WP) themselves⁽²⁵⁾.

In some Arab countries (WP) smoking is less stigmatizing than cigarettes and it is believed to promote social gathering within the Arab culture⁽²⁶⁾.

The included participants stated positive attitudes that it is not a sign of modernization, this is contradicting the findings of⁽²¹⁾ in Syria that his participants view (WP) as fashionable.

Many public health officials believe that this form of smoking may be just as addictive and perhaps even more harmful than cigarette smoking because of the way the people smoke while using a (WP)⁽¹⁷⁾, this is consistent with the majority of (WP) users in this study that believed that its use is more addictive than cigarette smoking.

V. Conclusions

- 1- Water pipe smoking is becoming a community acceptable behavior, especially among college students.
- 2- The knowledge of the participants was disappointing regarding the health consequences of (WP) smoking except for the causation of cardio-vascular diseases, infective hepatitis and shisha is more harmful than cigarette smoking respectively.
- 3- The students displayed positive attitudes that it is not a sign of modernization, they are confident enough to quit smoking, and negative attitudes that it is cheaper than cigarette respectively

V1. Recommendations

- 1- A nationwide surveillance should be implemented to identify the extent of water pipe smoking spread among Iraqi college students.
- 2- Anti-smoking program including health education and extensive counseling on the harmful effect of smoking for all college students is needed.
- 3- The role of mass media that can assist by disseminating the messages of quitting smoking in the whole community.
- 4- It is strongly recommended that shisha use has the same regulations and laws as cigarette smoking including banning smoking in public places.

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