

# Knowledge about Shisha Smoking and its Health Effects among Selected Girls College students, Farasan

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## Background

Tobacco use in any form of preventable cause for disease and death across the globe. Most severely affected countries are from low and middle income [1]. Tobacco use is second major leading cause of death and is currently responsible for the death of one in ten adults across the world. Tobacco use is a major risk factor for many health problems. The World Health Organization (WHO) estimates that over one billion individuals recently smoke tobacco, with approximately five million deaths a year being attributed to tobacco. If this pattern of smoking continues, WHO estimates that tobacco-attributable mortality will exceed eight million deaths per year by 2030 (WHO, 2008). Shisha is also known as Narghile, hookah, Hubble bubble and water pipe in different cultures and countries. It is a way of smoking tobacco in which the vapor passes through water before inhalation. At present, Shisha is becoming an increasingly popular way of smoking use worldwide. It finds the way from Eastern Mediterranean region, and is now gaining popularity in western countries including Australia, UK, Canada and USA. Recently shisha has been considered as a global threat and given the status of an epidemic by public health officials. Tobacco smoke contains over 4800 different chemicals out of which 69 are carcinogens and several others are tumor promoters. According to the Expert warns against smoking shisha- Arab News in 2018: Smoking Hookah, a water pipe used to smoke shisha and flavored tobacco and it has become more popular among teenagers and young adults. Cigarette smoking has significantly declined in the past decade, but the popularity of hookah is increasing. The hookah is a water pipe that uses charcoal to heat shisha - a flavored blend of herbal substances. Some shisha contains tobacco, which has nicotine and can be addictive. Smoke from hookahs can contain carbon monoxide and other toxic chemicals known to increase the risks for smoking-related cancers, heart disease and lung disease. This trend is attracting more teenagers and young adults. The rate of those students who ever tried hookah went up from about 9 percent to 13 percent between 2008 and 2014. Knowledge of students regarding shisha is that because the smoke passes through water, the vapor is less harmful. The amount of puffs taken during an hour-long hookah session could be about 10 times more than when smoking just one cigarette. People should have more information about what the consequences are for whatever they use. It's about protecting the consumer. Secondhand smoke from Hookahs can also be a health risk for non-smokers and kids. Three most common places for teenagers to smoke hookah is in their own home, a friend's house, or another family member's home. Shisha tobacco is more flavorful than cigarettes coming in a variety of fruits and floral aromas, it contains same toxicants known to cause lung cancer, heart diseases, respiratory problems, mouth cancer and complications during pregnancy. In Saudi Arabia the scenario, 63.8% students start smoking shisha at ages of 16-18 years [2] youth mainly in the university and college students. Thus, the investigator being the specialist in the area of community health nursing focus attention towards to study knowledge about shisha smoking and its health effects among college girl students.

**Keywords:** Knowledge; Shisha smoking; Health; Effects; Girls; College students

## Objectives

- To assess the knowledge about shisha smoking and its health effects among selected girls college students.
- To associate the knowledge about shisha smoking and its health effects among selected girls college students their demographic variables.

## Materials and Methods

The present study was conducted among 105 girl students of University College Farasan from department of Nursing, Home economics and English department respectively. The descriptive research design was used for the study. The samples which met the inclusion criteria are selected for the study by using convenient sampling technique. The study was conducted after obtaining the formal permission from the head of the institution to ensure anonymity. The informed consent was obtained from the study participants. No name was written in the demographic data of the participants. The data collection was done by self-administered structured questionnaire which includes demographic data such as age, marital status, residence, department, year of study, educational level of parents, and occupation of parents. Knowledge

aspects regarding shisha smoking and its health effects includes introduction about shisha smoking, factors/reason associated with use of shisha, health effects of shisha smoking and source of information. Participants were instructed to fill up the questionnaire. The data were analyzed by using descriptive and inferential statistics [3-5].

## Results

From the findings of the demographic data. It can be observed that the highest percentage (58.1%) of the respondents are from the age group 20-24 years, 61.9% respondents are unmarried (Single), 66.7% respondents are living in Urban areas, 41.9% respondent fathers educational qualification and 50.5% respondents mothers educational qualification is Primary level only. 65.7% respondent's parents are employed (Table 1).

**Table 1:** Demographic characteristics of the female students from University College Farasan (N=10 -From each department 35 samples).

S.No	Demographic Variables	Frequency	Percentage
1	<b>Age in years</b>		
	Less than 20 year	25	23.8
	20 to 24 years	61	58.1
	25 to 29 years	12	11.4
2	<b>Marital status</b>		
	Single	65	61.9
3	<b>Residence</b>		
	Urban	70	66.7
4	<b>Department</b>		
	Rural	35	33.3
	Nursing	35	33.3
5	Home Economics	35	33.3
	<b>Level study</b>		
	English	35	33.3
	Level - 1	15	14.3
	Level - 2	15	14.3
	Level - 3	15	14.3
	Level - 4	15	14.3
6	<b>Educational level of father</b>		
	Level - 5	15	14.3
	Level - 6	15	14.3
	Level - 7	15	14.3
6	<b>Educational level of father</b>		
	Primary	44	41.9
	Secondary	36	34.3
	Graduate	20	19
6	<b>Educational level of father</b>		
	Graduate and above	5	4.8

	Educational level of mother		
	7	Primary	53
Secondary		37	35.2
Graduate		11	10.5
Graduate and above		4	3.8
8	Parent's Occupation		
	Employed	69	65.7
	Not employed	36	34.3

With regard to knowledge aspect of shisha smoking shows that around 51% of the respondents are known shisha or hookah refers to the kind of tobacco smoking in which the smoke or the vapor passes through water and not aware of shisha contains nicotine and it is a form of tobacco respectively. Factors related to use of shisha smoking, observed that, 60.0% of the respondents are known that curiosity is associated with use of shisha smoking whereas 53.3% of the respondents are don't know about peer influence is a factor associated with use of shisha smoking. Highest (78.1%) percentage of the responded not knowing that shish smoking not improve the status and 66.7% of the respondents not knowing it because of time pass only. More or less similar percentage of the respondents are not knowing about Stress/ Anxiety and Shisha smoking are associated (72. 4%) and problem with study/ friends are not a reason for using shisha smoking (74.3%). However, Health effects of shisha smoking shows that highest percentage of the responded knowing answers for the item, Hazard of Lung Cancer (65.7%) and Hazard of Respiratory problems (57.1%) because of shisha smoking, whereas highest percentage of the responded not knowing answers for the item, Hazard of Cardiovascular problems (82.9%), Dental caries (67.6%), viral hepatitis (76.2%), Blindness (81.0%), problems during pregnancy (54.3%) and risk of infection due to sharing (62.9%) respectively. Further, majority of the respondents are not knowing information from News Paper (91.4%), Television (76.2%), and Family members (75.2%), Health professionals (74.3%) and Internet (54.3%) respectively. Further, it is also observed that 51.4% of the respondents are getting information regarding shisha smoking from friends and 54.3% of the respondents are not getting any information from Family members (75.2%) Health professionals (74. 3%) Television (76. 2%), News Paper (91.4%) and Internet (54.3%) respectively (Table 2). From the Chi square (Table 3), it is observe that there is a significant associations between Viral Hepatitis and Age, Shisha contains Nicotine and Residence, Cardiovascular Problems and Residence, Blindness and Residence, Ever Heard about Shisha

and Level of Study, Ever Heard about Shisha and Level of Study, Problem with Friends and Level of Study, Respiratory Problems and Education level of Father, Problems during pregnancy and Education level of Father. On the other hand, there is no significant associations are found between remaining factors [6-8]. A Kruskal-Wallis H test Table 4 shows that the comparison between the study variables (i.e., levels of "Introduction about Shisha Smoking, Factors associates with Shisha, Health Effects of Shisha, Sources of Information") and demography variables (i.e., levels of "Age, Marital Status, Residence, Department, Level Study, Education Level of Father, Education Level of Mother, Parents Occupation). There is a significant difference between the opinion about "Ever heard about shisha" and "Level Study", with highest mean rank 65.00 for the group "Level 1". Similarly, for the opinion about "Ever heard about shisha" and "Parents Occupation", with the highest mean rank 56.17 for the group "Employed" [9-13]. Also, observed that there is a significant difference between the opinions about "Shisha Contain Nicotine", "Cardiovascular Problems" and "Blindness" with "Residential Area" with highest mean rank respectively as "57.5", "56.00" and "57.00" for the group "Urban". Similarly, it can also be observed that, there is a significant difference between the opinions about "Ever heard about Shisha Smoking", "Shisha Smoking refers to the kind of Tobacco Smoking", "Problem with Study/ Friends" and "Level of Study" with highest mean rank "65.00", "72.5", "66.50" for the Levels respectively as "Level 1", "Level 2" and "Level 5". There is a significant difference between the opinions about "Respiratory Problems", "Problems during Pregnancy" and "Education level of Father" with highest mean rank "83.00", "59.50" for the education level "Graduate & Above", "Secondary" respectively. Finally, it can observed that there is a significant difference between the opinion about "Ever heard about Shisha Smoking" and "Parent's Occupation" with highest mean rank "56.17" for the factor "Employed". On the other hand there is no significant associations are found between remaining factors (Table 4).

**Table 2:** Assessment of knowledge about shisha smoking and its health effects N=105.

S.No	Item	Responses			
		Yes	%	No	%
<b>A. Introduction about shisha smoking</b>					
1	Ever heard about shisha	87	82.9	18	17.1
2	Shisha or Hookah refers to the kind of tobacco smoking in which the smoke or the vapor passes through water	53	50.5	52	49.5
3	Shisha contains nicotine	51	48.6	54	51.4

4	Shisha is a form of tobacco	51	48.6	54	51.4
<b>B. Factors/Reasons associated with use of shisha smoking</b>					
1	Curiosity	63	60	42	40
2	Peer influence	49	46.7	56	53.3
3	Stress/Anxiety	29	27.6	76	72.4
4	To improve status	23	21.9	82	78.1
5	Time pass	35	33.3	70	66.7
6	Problem with study/friends	27	25.7	78	74.3
<b>C. Health effects of shisha smoking</b>					
1	Hazard of Lung cancer	69	65.7	36	34.3
2	Hazard of Respiratory problems	60	57.1	45	42.9
3	Hazard of Cardiovascular problems	18	17.1	87	82.9
4	Hazard of Dental caries	34	32.4	71	67.6
5	Hazard of Viral hepatitis	25	23.8	80	76.2
6	Hazard of Blindness	20	19	85	81
7	Problems/Hazard during Pregnancy	48	45.7	57	54.3
8	Risk of infection due to sharing	39	37.1	66	62.9
<b>D. Source of information regarding shisha smoking and its effects</b>					
1	Friends	54	51.4	51	48.6
2	Family members	26	24.8	79	75.2
3	Health professionals	27	25.7	78	74.3
4	Television	25	23.8	80	76.2
5	News paper	9	8.6	96	91.4
6	Internet	48	45.7	57	54.3

**Table 3:** Chi square test.

Note: \*p > 0.05 (Not significant); \*\*p < 0.05 (Significant); \*\*\*p = 0.000 (Highly significant).

		Age	Marital Status	Residence	Department	Level Study	Education Level of Father	Education Level of Mother	Parent's Occupation
Introduction about Shisha Smoking	A-1	1.467* (3)	0.006* (1)	0.000* (1)	1.207* (2)	13.008** (6)	2.206* (3)	7.535* (3)	5.178** (1)
	A-2	0.843* (3)	0.529* (1)	0.019* (1)	0.076* (2)	16.459** (6)	5.823* (3)	0.927* (3)	1.701* (1)
	A-3	0.447* (3)	0.053* (1)	6.176** (1)	2.059* (2)	4.118* (6)	6.283* (3)	0.779* (3)	0.388* (1)
	A-4	0.841* (3)	3.379* (1)	0.686* (1)	0.229* (2)	7.854* (6)	1.845* (3)	3.790* (3)	1.046* (1)
Factors associates with Shisha	B-1	3.794* (3)	1.514* (1)	0.179* (1)	2.143* (2)	2.778* (6)	1.719* (3)	3.849* (3)	3.727* (1)
	B-2	0.198* (3)	0.018* (1)	0.306* (1)	4.898* (2)	6.429* (6)	1.303* (3)	0.972* (3)	2.996* (1)
	B-3	6.137* (3)	0.183* (1)	2.382* (1)	0.095* (2)	6.289* (6)	4.298* (3)	4.190* (3)	3.287* (1)
	B-4	6.298* (3)	0.362* (1)	1.364* (1)	0.111* (2)	9.910* (6)	0.179* (3)	1.121* (3)	3.731* (1)
	B-5	0.703* (3)	0.505* (1)	3.621* (1)	1.629* (2)	11.400* (6)	1.407* (3)	1.078* (3)	1.712* (1)
	B-6	5.649* (3)	1.105* (1)	0.224* (1)	0.299* (2)	12.863** (6)	2.824* (3)	3.040* (3)	0.122* (1)
Health Effects of Shisha	C-1	0.916* (3)	0.296* (1)	1.712* (1)	1.014* (2)	2.029* (6)	1.605* (3)	0.188* (3)	0.338* (1)
	C-2	1.004* (3)	0.121* (1)	0.000* (1)	0.933* (2)	4.278* (6)	10.312** (3)	3.172* (3)	0.056* (1)
	C-3	1.356* (3)	2.321* (1)	4.828** (1)	0.402* (2)	8.314* (6)	5.822* (3)	1.283* (3)	2.993* (1)
	C-4	3.743* (3)	0.202* (1)	1.392* (1)	4.263* (2)	8.177* (6)	3.516* (3)	3.583* (3)	0.083* (1)
	C-5	12.729** (3)	0.061* (1)	0.026* (1)	1.680* (2)	4.305* (6)	3.022* (3)	4.042* (3)	0.076* (1)
	C-6	1.409* (3)	0.100* (1)	7.906** (1)	0.865* (2)	11.612* (6)	2.297* (3)	1.614* (3)	0.945* (1)
	C-7	0.216* (3)	0.083* (1)	0.000* (1)	0.921* (2)	6.140* (6)	10.469** (3)	3.275* (2)	0.050* (1)
	C-8	5.488* (3)	0.127* (1)	0.734* (1)	5.140* (2)	3.916* (6)	2.627* (3)	4.953* (3)	0.480* (1)

Sources of Information	D - 1	0.767* (3)	1.900* (1)	0.686* (1)	2.974* (2)	4.651* (6)	7.375* (3)	7.729* (3)	3.405* (1)
	D - 2	2.735* (3)	2.077* (1)	0.409* (1)	0.409* (2)	11.246* (6)	2.601* (2)	2.385* (3)	0.267* (1)
	D - 3	2.685* (3)	1.558* (1)	0.224* (1)	0.299* (2)	10.071* (6)	3.503* (3)	2.548* (3)	0.672* (1)
	D - 4	3.942* (3)	2.690* (1)	0.656* (1)	0.735* (2)	9.450* (6)	2.969* (3)	2.318* (3)	0.043* (1)
	D - 5	1.681* (3)	1.052* (1)	0.547* (1)	0.729* (2)	2.917* (6)	2.730* (3)	2.469* (3)	0.451* (1)
	D - 6	2.833* (3)	1.199* (1)	0.173* (1)	3.684* (2)	2.917* (6)	4.681* (3)	7.534* (3)	0.050* (1)

**Table 4:** Kruskal-Wallis H test [Highest mean rank].

		Introduction about Shisha Smoking				Factors Associates with Shisha									
		A1	A2	A3	A4	B1	B2	B3	B4	B5	B6				
Age	Less than 20 years														
	20 - 24 years				54			57							
	25 - 29 years		58	57			56								
	30 years & above	59				70			57	56	67				
Marital Status	Single		54	53	57	55	53	54	54	54					
	Married	53											56		
Residence	Urban	53	53	58	55	53		56	55	56	54				
	Rural	53					55								
Department	Nursing				55	58			54	57					
	Home Economics	55					61								
	English	55	54	58				54					55		
Level Study	Level - 1	65		58	61										
	Level - 2		73	58	61										
	Level - 3						60								
	Level - 4														
	Level - 5					60			65	67	67				
	Level - 6						60	64							
	Level - 7			58			60								
Education Level of Father	Primary												57		
	Secondary				56		56								
	Graduate	57		63		58				57					
	Graduate & Above		69					57	54						
Education Level of Mother	Primary														
	Secondary						56		56						
	Graduate	68	56	59	64			63					62		
	Graduate & Above					58					57				
Parent's Occupation	Employed	56		54			56							54	
	Not Employed		58		57	60		59	59	57					
		Health Effects of Shisha						Sources of Information							
		C1	C2	C3	C4	C5	C6	C7	C8	D1	D2	D3	D4	D5	D6
Age	Less than 20 years					61			60		58	58.1	59.2		
	20 - 24 years	57													
	25 - 29 years			58	66		59			58					59.5
	30 years & above		61					55						57.5	

Marital Status	Single				54			54		56	56	55.19	55.81		55.19
	Married	55	54	57		54	54		54					54.88	
Residence	Urban		53	56	55		57	53			54	53.75	54.25		53.75
	Rural	58	53			54		53	56	56				54.5	
Department	Nursing	56	56		57	55					54		55		
	Home Economics				57			56		59					
	English			55		55	56		59		54	54.5		54.5	59
Level Study	Level - 1		59												
	Level - 2				63									57.5	
	Level - 3						60	67	59						59.5
	Level - 4					59									
	Level - 5			59			60		59		63	63	62		
	Level - 6									63					
	Level - 7	60		59											
Education Level of Father	Primary			56			55								
	Secondary							60							
	Graduate				60					58	58.63	57.63			
	Graduate & Above	67	83			66			62	70				57.5	66.5
Education Level of Mother	Primary			55		57									
	Secondary		59							60					
	Graduate	54			65		58							57.5	57.91
	Graduate & Above							64	73		66	66.5	65.5		
Parent's Occupation	Employed	54						53	54	56	54	54.33	53.33	53.7	53.41
	Not Employed		54	58	54	54	56								

## Conclusion

To sum up, we may say that the poor knowledge about shisha smoking and its health effects among these participants. Though health awareness campaign was conducted at national level still the issues are going on as a major. Further periodical health promotional activities could solve the problem by advertisements and improve their knowledge about shisha use. Enforcement of laws to be implemented with penalty for the shisha users. Curriculum to be implemented with their course of study itself to build good characters.

## Rerences

- Sameerur R, Sadiq MA, Parekh MA, Zubairi AB, Frossard PM, et al. (2012) Cross-sectional study identifying forms of tobacco used by Shisha smokers in Pakistan. *J Pak Med Assoc* 62(2):192-195.
- Brockman LN, Pumper MA, Christakis DA, Moreno MA (2012) Hookah's new popularity among US college students: A pilot study of the characteristics of hookah smokers and their Facebook displays. *BMJ Open* 2(6): e001709.
- Hafiz MA, Shafaq S, Sidra G, Wardah A (2014) Harmful effects of shisha: Literature review. *Int Arch Med* 4(7).
- Taha AZ, Sabra AA, Al Mustafa ZZ, Al Awami HR, Al Khalaf MA, et al. (2010) Water pipe (shisha) smoking among male students of medical colleges in the eastern region of Saudi Arabia. *Ann Saudi Med* 30(3): 222-226.
- Experts warn of dangers from smoking hookah.
- Omotehinwa OJ, Ogendi J, I Jean Damascene, Michael Habtu (2018) Shisha use among students in a private university in Kigali city, Rwanda: prevalence and associated factors. *BMC Public Health* 18:713.
- Abdullah SA, Majed KA, Salwa Al (2014) Smoking among dental students at King Saud University: Consumption patterns and risk factors. *The Saudi Dental Journal* 26(3): 88-95.
- Najla SD, Faris GB, Mahmoud KA, Hamzeh MA, Hazem A Eimar, et al. (2010) Narghile (water pipe) smoking among university students in Jordan: prevalence, pattern and beliefs. *Harm Reduct J* 24(7): 10.
- AIA Haqwi, H Tamim, Ali Asery (2010) Knowledge, attitude and practice of tobacco smoking by medical students in Riyadh, Saudi Arabia. *Ann Thorac Med* 5(3): 145-148.
- Wasim M, Thomas E, Samer R, Fadi H, Taghrio A, et al. (2004) Beliefs and attitudes related to narghile (waterpipe) smoking among university students in Syria. *Ann Epidemiol* 14(9): 646-654.
- Abdulaziz F, Abdalla AS, Abdelshakour MA, Hashim AH, Ali AM (2011) Prevalence and associated factors of cigarette smoking among medical students at King Fahad Medical City in Riyadh of Saudi Arabia. *J Family Community Med* 18(1): 8-12.
- W Maziak, Fouad FM, T Asfar, F Hammal, Bachir EM, et al. (2004) Prevalence and characteristics of narghile smoking among university students in Syria. *Int J Tuberc Lung Dis* 8(7): 882-889.
- W Maziak, Ward KD, Afifi Soweid RA, T Eissenberg (2004) Tobacco smoking using a waterpipe: A re-emerging strain in a global epidemic. *Tob Control* 13(4): 327-333.