

Practicing Tobacco Smoking Habit among Students of Technical Institute of Mosul, 2018

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Abstract

Background:

Aim: To determine the frequency of practicing tobacco smoking among students.

Materials and methods: The study was conducted on a sample of 2000 subjects from the second stage students at the Technical Institute / Mosul for the study of smoking. The information gathered using a predesigned questionnaire.

Results: The results show that approximately, the age of students between 21-23 years represents approximately 65% of the sample size and almost equally among males and females, 75% of them from the governorate center. The percentage of non-smokers was 72% and this percentage was reduced to approximately 50% if females were excluded from the study, while the daily smokers and smokers were divided between 15 and 13% respectively. Approximately 23% of smokers tried smoking after the age of 15 years, and the daily smoking rate for the last 30 days of study was 11.5%. As for hookah smoking, non-smokers were relatively high at more than 78%. More than 95 percent said smoking was harmful to public health. In terms of smoking prevention guidelines, both through health institutions and the media, the rates were 32 and 59%, respectively.

Conclusion: This study indicated that tobacco smoking practiced in 28% of the studied study cohort and 15.1% are daily smoking.

Key words: College students, Smoking, Hookah, Tobacco.

Introduction

Smoking is one of the most bad and dangerous habits, and its use is subject to the principle of teaching conditional equilibrium when some people believe that smoking increases their mental efficiency [1]. Although, it has been observed that smoking increases the excitability of the upper cerebral cortex at first. However, there were a statistically significant difference between the results of the tests for non-smokers, smokers and pulmonary capacity, for the benefit of the group of non-smokers. Also the results of significant significance among the smokers and non-smokers and personal characteristics (Social, nervous, aggressive, depressed, calm and controlling [2].

The World Health Organization [3], reported that every 6.5 seconds someone dies from tobacco use. The increased level of awareness and the strict application of laws and legislation have led to a decline in the phenomenon of smoking in developed countries in recent years, unlike in developing countries where consumption of cigarettes has been rising for nearly four decades [4]. A study found that the most important factors that drive females and males to smoking are bad family relationships, in addition to be a mean of self-support [5]. Kassem [6], studied college student believes and behavior regarding sharing when smoking hookahs, and found that 96.9% of students had shared it with friends in first-time practice. While studying gender status, WHO [7], found that male smoking prevalence is 4.4 times more than that of women. Smokers try to give up only once every 2 to 3 years and most do not use proven treatments. Also found that repeated, brief, diplomatic advice increases give up rates.

Hughes [8] reported that any individual who begins utilizing tobacco can end up dependent on nicotine. Studies demonstrate that smoking is destined to end up a propensity amid the teenager years. The more youthful you are the point at which you start to smoke, the more probable you are to end up dependent on nicotine. In addition to nicotine, a burning cigarette generates as many as 6,000 other compounds, many of which are toxic. Most are generated by the burning tobacco on the end of the cigarette. The absolute and relative production of these substances depends on a number of factors: importantly, the temperature and duration of the burn. In addition, compounds present in cigarette smoke undergo complex chemical reactions many are extremely short-lived. Others condense on the cigarette rod, where they can be re-extracted or re-reacted. Shapiro [9] propose that among maternal smokers known to encounter expanded difficulties to stopping smoking, urging endeavors to shield kids from TSE (Transitional Subsidized Employment) by expanding home smoking limitations might be an imperative directing mediation component that encourages smoking end. Smoking generally incongruent practices. Potential clarifications for the watched connections are depicted. These ran from physiological (lung work) to mental (melancholy) to socio-statistic (instruction) factors [10]. This study was conducted in university students cohort to determine the frequency of practicing tobacco smoking among students.

Materials and methods

A questionnaire was distributed to the students of the second stage at the Technical Institute in Mosul, which included all segments of society and different strata and the various population distribution, in order to study the variables related to the phenomenon of smoking. The study questionnaire was distributed to 2000 students with different age groups and from both gender. The questionnaire designed to gather the following variables: age, gender, place of residence, marital status, smoking status, date for the first time smoking, number of days of smoking, number of days of smoking, smoking by family members, extent of smoking damage, history of trying to smoking give up, doctor visits, advice receiving from his doctor, and receiving advice from the media. All the forms were returned, arranged, tabulated and entered into the Excel program and the data was then analyzed using Statistical Package for Scientific Search (SPSS, version 24). The study protocol was approved by the Ethical Committee of the Technical Institute and Nineva Health Directorate and informed consent taken from each subject before their enrolment in the study.

Results

Age group

The age group of 21-23 years is the highest age group among the the study cohort which is the normal age of study in the Technical Institute and other institutes which represented more than 63% of the study sample, followed by the age group of 18-20 years and more than 22%. While the age group of 24-26 represented 12.3% and finally the relatively older age group 27 years and more 1.9%, a small percentage does not affect the results of the study negatively or positively, Table1.

Table 1. Frequency Distribution of Respondents According to Age Groups

Age group	Number	Valid Percent	Cumulative Percent
18-20	456	22.8	22.8
21-23	1261	63.1	85.9
24-26	246	12.3	98.2
27-29	27	1.4	99.5
30 +	10	0.5	100.0
Total	2000	100.0	

Gender

Table (2) shows the distribution of students by gender, indicated a relative convergence between the males and females with a slight increase in favor of males, as 52.6% and 47.4% for males and females, respectively.

Table 2. Frequency Distribution of Respondents According to Gender

Gender	Number	Valid Percent	Cumulative Percent
Male	1052	52.6	52.6
Female	948	47.4	100.0
Total	2000	100.0	

Place of residence

Targeted student residences varied to cover the geographical area of the province almost, which leads to greater accuracy of the study. It is clear from Table (3) that 73% of students is from the governorate center while the rest are other places of residence.

Table 3. Frequency Distribution of Students According to Residence

Residence	Frequency	Valid Percent	Cumulative Percent
Urban	1460	73	73.0
Rural	540	27	100.0
Total	2000	100.0	

Smoking status

It was noted that the majority of the respondents are non-smokers that exceeded 72%, daily smoking students form 15.1%, while those of sporadically smoking 'between day and others' form 2.9% among all respondents (Table 4).

Table 4. Frequency Distribution of Students According to Practicing of Cigarette Smoking

Smoking status	Number	Valid Percent	Cumulative Percent
Do not smoke at all	1441	72.1	72.1
Smoke is not daily	257	12.9	84.9
Smoke daily	302	15.1	100.0
Total	2000	100.0	

Age of students at beginning smoking habit

There is no doubt that knowing the age of smoking will have a significant impact on the development of effective solutions to counter this scourge, and it isn't interesting to note that 10% of the respondents are under the age of 15 years, and even 2% of them under the age of ten when they begun smoking. This is a duty to pay attention by all means. Also as shown in Table (5), approximately 23% are over the age of 15 years when they first begun to smoke. Unfortunately, 28.3% of the smokers are started their smoking before the age of 15 years. In both cases, education and counseling should be increased through available means, whether through health, media, social institutions, through educational institutions and non-governmental organization.

Table 5. Smoking Starting Age

Smoking starting age	Frequency	Valid Percent	Cumulative Percent
Do not smoke at all	1361	68.1	68.1
Less than 10 years	43	2.2	70.2
Between 11-15 years	138	6.9	77.1
More than 15 years	458	22.9	100.0
Total	2000	100.0	

Smoking Hookah

This study shows that 78.4% of the studied cohort were none smoker for Hookah, Table 6. Daily practice of Hookah was demonstrated in 2.2%, which may illustrated addiction practice. Additionally, 17.5% of students smoke Hookah 1-9 days per month and 1.1% smoke Hookah more than 9 days per month.

Student's awareness of smoking harm

The study found that Almost the sample (95.8%) are convinced that smoking has serious damage to public health, and that this conviction is well established among smokers themselves, but justify justifications for blame and reprimand. And this is what requires the relevant authorities to invest these convictions and intensify education programs to save what can be saved from the smokers, Table 7.

Table 6. Hookah Smoking Frequency Distribution Among Students

Smoking frequency	Number	Valid Percent	Cumulative Percent
Never use	1567	78.4	78.4
One or two days	178	8.9	87.3
3-5 days	106	5.3	92.6
6-9 days	86	4.3	96.9
10-19 days	11	0.6	97.4
20-29 days	9	0.5	97.9
Through all 30 days	43	2.2	100.0
Total	2000	100.0	

Table 7. Students Awareness of Smoking Harm

Harm awareness	Number	Valid Percent	Cumulative Percent
Yes	1916	95.8	95.8
No	84	4.2	100.0
Total	2000	100.0	

Extent of receiving health care advice

There is no doubt that the health institutions have the largest role in explaining the seriousness of smoking on public health as well as its effects on all social aspects. However, this study found that non-recipients of the advice of a physician is less compared to those who confirm receiving advice as 68.4 and 31.7%, respectively, and this requires double efforts to reach the desired goal, Table 8.

Table 8. Frequency Distribution of Students Receiving Physician's Advice

Advice receiving	Number	Valid Percent	Cumulative Percent
Yes	633	31.7	31.7
No	1367	68.4	100.0
Total	2000	100.0	

Mass media effectiveness

Table (9) clearly shows that mass media had a role in educating the students about the dangers of smoking, as 58.7% of the studied sample they receive advice through the media, while the rest have no media influence or have not received media advice about these risks. Although this percentage is positive, the ambition remains greater whenever possible to achieve the larger goal.

Student's family practicing of smoking

It is well known that the family affects very much the behavior of members, in this study, the percent of non- smokers was more than smokers as 54.2 and 45.8% respectively which considered as an encourage situation, Table-10.

Table 9. Frequency Distribution of Student's Receiving Mass Media Advice

Receiving of mass media advice	Number	Valid Percent	Cumulative Percent
Yes	1174	58.7	58.7
No	826	41.3	100.0
Total	2000	100.0	

Table 10. Frequency of Family History of Smoking

Smoking family history	Frequency	Valid Percent	Cumulative Percent
Yes	916	45.8	45.8
No	1084	54.2	100.0
Total	2000	100.0	

Smoking frequency

Non-smokers were representing the majority in this study. While students who smokes daily were more than weekly and monthly giving 37.9, 4.6 and 3.4 % respectively, which means that daily smokers represents 38% out of the total students, Table 11.

Table 11. Smoking Frequency (Repetition) Among Students

Frequency	Number	Valid Percent	Cumulative Percent
0	1084	54.2	54.2
Daily	758	37.9	92.1
Weekly	91	4.6	96.7
Monthly	67	3.4	100.0
Total	2000	100.0	

Distribution of variables based on age and gender:**Smoking status:**

The highest percentage of male smokers in the age group of 21-23 years was 32.5%. While the percentage of females in the same age group was 0.02% and the number of female smokers of all age groups were 31 students. The age group (21-23) years remains the highest at 65.11%. (which represents sum of male and female smokers divided by total smokers). This calls for intensified efforts and focus on this category in the activities and activities of health and media institutions to reduce the risk of smoking . This result is similar to that considered the prevalence of smoking was 20.3% for both genders. The extent of smoking among male was 20 folds higher than in female (38% and 1.9% respectively), Table 12..

Hookah smoking according to age and gender

The percentage of smoking hookah in the 21-23 years age group was 64.7% of all male smokers. While the percentage of females in the same age group was 70.9% of the total female smokers, while the number of female smokers of all age groups only 27 students. The age group (21-23) years remains the highest at 66.28%. (which represents sum of male and female smokers divided by total smokers). It is worth noting that the number of hookah smokers in males is 15 times higher than in females, Table 13.

Smoking give up trying

When analyzing the results related to this variable, it is evident from Table (14) that there are serious attempts to give up smoking as 64.7% of males tried this, while 55.5% of female smokers tried to give up. In addition, the most visible age group on the results (tried to give up smoking) was 21-23 years, both male and female with 207 and 11 students respectively.

The role of health institutions in awareness increasing

This study shows that 38.8% of males and 45.8% of females receiving advice from the doctor. About 25% of males received counseling tips for give up smoking, and nearly 13% of females received such advice. The age group 21-23 is the leader in almost all aspects of the study, Table 16..

Table 12. Frequency Distribution of Students Smoking According to Age Groups and Gender

Gender	Age group	Smoking practice			Total
		Never	Not daily	daily	
Male	18-20	93	39	43	175
	21-23	328	155	187	670
	24-26	89	33	58	180
	27-29	9	4	5	18
	30 +	5	0	4	9
	Total		524	231	297
Female	18-20	274	6	1	281
	21-23	569	20	2	591
	24-26	66	0	0	66
	27-29	7	0	2	9
	30 +	1	0	0	1
	Total		917	26	5
Total	18-20	367	45	44	456
	21-23	897	175	189	1261
	24-26	155	33	58	246
	27-29	16	4	7	27
	30 +	6	0	4	10
	Total		1441	257	302

The role of media organizations in increasing awareness

There is no doubt that the goal of any media institution to address the health of citizens against all threats to his life and dedicated to provide all that would be achieved, and this study found that the target in the study have confirmed that they receive tips to stop smoking. Males accounted for 57.5% of total male smokers and 60% of the total female smokers. As in the age groups, the age group 21-23 years was the highest among the other groups receiving 37% and 36% of all male and female smokers, respectively, Table 15.

Correlation coefficient between variables under study

Table (17 A & B) shows the correlation coefficient between variables. There was high positive relations in addition to negatives . The signal of two stars (**) means that the relation is significant at 0.01 but the one star (*) means that the relation is significant at 0.05. The sign (-) indicated inverse correlation. According to this matrix, there were different correlations between variables under the study .

Table 13. Hookah Smoking Frequency Distribution among Students According to Age Groups and Gender

Gender	Age group	Frequency of smoking							Total
		Never use ¹	1 or 2 days	3-5 days	6-9 days	10-19 days	20-29 days	All 30 days	
Male	18-20	119	21	16	9	1	1	8	175
	21-23	401	110	62	58	7	5	27	670
	24-26	111	25	18	14	1	3	8	180
	27-29	10	5	3	0	0	0	0	18
	30 +	5	0	1	3	0	0	0	9
	Total		646	161	100	84	9	9	43
Female	18-20	272	5	4	0	0			281
	21-23	573	12	2	2	2			591
	24-26	66	0	0	0	0			66
	27-29	9	0	0	0	0			9
	30 +	1	0	0	0	0			1
	Total		921	17	6	2	2		
Total	18-20	391	26	20	9	1	1	8	456
	21-23	974	122	64	60	9	5	27	1261
	24-26	177	25	18	14	1	3	8	246
	27-29	19	5	3	0	0	0	0	27
	30 +	6	0	1	3	0	0	0	10
	Total		1567	178	106	86	11	9	43

Table 14: Distribution of Students Regarding Giving up Smoking Habit

Gender		Give up experience			Total
		Never	Yes	No	
Male	18-20	96	52	27	175
	21-23	350	207	113	670
	24-26	90	56	34	180
	27-29	9	8	1	18
	30 +	5	2	2	9
	Total		550	325	177
Female	18-20	270	7	4	281
	21-23	569	11	11	591
	24-26	65	0	1	66
	27-29	7	2	0	9
	30 +	1	0	0	1
	Total		912	20	16
Total	18-20	366	59	31	456
	21-23	919	218	124	1261
	24-26	155	56	35	246
	27-29	16	10	1	27
	30 +	6	2	2	10
	Total		1462	345	193

Table 15. Frequency Distribution of Students According to Media Organization Advice According to Age Groups and Gender

Gender	Age group	Advised		Total
		Yes	No	
Male	18-20	92	83	175
	21-23	389	281	670
	24-26	110	70	180
	27-29	9	9	18
	30 +	5	4	9
	Total		605	447
Female	18-20	189	92	281
	21-23	341	250	591
	24-26	36	30	66
	27-29	2	7	9
	30 +	1	0	1
	Total		569	379
Total	18-20	281	175	456
	21-23	730	531	1261
	24-26	146	100	246
	27-29	11	16	27
	30 +	6	4	10
	Total		1174	826

Discussion

The present study shows that the age group 21-23 years, is the highest group among the study population and this may influence the frequency of the studied variables. The distribution of sample by gender show a slight increase in favor of males with 52.6% and 47.4% for male and female respectively. It was noted that the majority of the students are non smokers (72%) which is not expected as the majority of the study cohort are adolescent. Daily smokers rate was 15% while the sporadically smokers rate was 13%. A similar sample population in Karbala University reported a higher smoking prevalence rate. The age of initiation of smoking is 22.9% are over 15 years similar to that reported by Alghabban as the age of smoking initiation was at 17.02±2.43 years [12,14]. This study shows lower percentage than Jordan (29% smoked cigarettes in past 30 days)[13]. The percentage of non- smokers (Hookah was the largest with 78.4%. Addicts on the Hookah (smoked daily throughout the month), didn't exceed 2.2%. This study shows that more than 95% are convinced that smoking has serious damage to public health which consistent with Boccoli study [15]. The ratio of media's advise to doctors advice 58.7% and 31.7% respectively. This requires more efforts by health institutions for education.

Table 16. Frequency Distribution of Students Receiving Physician's Advisement According to Age and Gender

Gender	Age group	Physician's advisement		Total
		Yes	No	
Male	18-20	61	114	175
	21-23	262	408	670
	24-26	70	110	180
	27-29	11	7	18
	30 +	5	4	9
	Total		409	643
Female	18-20	83	198	281
	21-23	121	470	591
	24-26	17	49	66
	27-29	3	6	9
	30 +	0	1	1
	Total		224	724
Total	18-20	144	312	456
	21-23	383	878	1261
	24-26	87	159	246
	27-29	14	13	27
	30 +	5	5	10
	Total		633	1367

Table 17. Correlation Matrix Between All Variables

A

	Smoking times	Smoking harmful	Giving up	Doctor' visit	Doctor advice	Media advice
Age	.026	.016	.107**	.033	-.042	.032
Sex	-.001	-.104**	-.452**	-.13**	.164**	-.025
Residence	-.006	-.005	-.039	-.019	-.045*	-.064**
Do you smoke	.087**	.215**	.824**	.100**	-.117**	.047*
Age-trial	.056*	.177**	.755**	.104**	-.116**	.031
Smoke 30 days	.104**	.182**	.734**	.095**	-.095**	.039
Hookah 30	.092**	.185**	.582**	.062**	-.093**	.049*
Family smoke	-.843-**	-.053*	-.051*	.042	.061**	.037
Smoking times	1	.078**	.078**	-.029	-.056-*	-.027
Smoking Harmful		1	.250**	.069**	.057*	.103**
Giving up			1	.117**	-.080**	.069**
Doctor's visit				1	.161**	.095**
Doctor's advise					1	.193**
Media advise						1

B

Variables	Sex	Residence	Do you smoke	Age-trial	Smoke 30 days	Hookah 30	Family smoke
Age	-.201**	-.075**	.132**	.092**	.118**	.087**	-.036
Sex	1	-.103**	-.504**	-.489**	-.468**	-.361**	-.030
Residence		1	-.027	-.011	-.012	-.013	.002
Do you smoke			1	.817**	.900**	.586**	-.063**
Age-trial				1	.710**	.522**	-.036
Smoke 30 days					1	.511**	-.076**
Hookah 30						1	-.045*

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