

Prevalence of Smoking among Students of Al-Safwa University College, Iraq

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Abstract- Background: Tobacco smoking is a common harmful habit distributed all over the world and leads to a deleterious health consequences. Smoking results in high morbidity and mortality through its effects on different body systems.

Objective: To find out the extent of distribution of smoking among university students.

Methods: A questionnaire was designed to collect the required data from the available sample of students. The questions cards were distributed to the students on the first of December, 2015, and lasted for three weeks. Then, the data were assorted and analyzed for prevalence.

Results: The total number of students who participated in the study was 504. Three hundred fourteen (314, 62.3%) of the participants were males, whereas the females were 190 (37.7%). The total number of smokers was 184 (36.5% of the participants). Male smokers were 172 (93.5%) with a prevalence rate of 34.0%. On the other hand, the female smokers were only 12 students (6.5%) with a prevalence rate of 2.4%.

Conclusion: The study shows that smoking habit is common among university students (36.5%) in spite of their awareness of the tobacco smoking health hazards. The prevalence rate was high in males (34.0%) compared with low figures for females (2.4%).

Index Terms— Prevalence; smoking; Al-Safwa University College

I. INTRODUCTION

Tobacco smoking is the inhalation of smoke from burned dried or cured leaves of the tobacco plant. Cigarette is the most common mean of using tobacco leaves. Other means are also common such as cigar, pipe, shisha or tobacco chewing. People may smoke casually for pleasure, habitually to satisfy an addiction, in response to social pressure or for ritualistic purposes [1].

Native Americans throughout North and South America used tobacco since 2000 B.C. The practice was introduced into Europe by the crew of Christopher Columbus. It was introduced into the Arabian countries when they were part of the Ottoman Empire and to the rest of the world by trade. In 1560 Jean Nicot, the French ambassador in Portugal, was the first who wrote about nicotine. In 1964, Doll and Hill noticed that tobacco causes chronic bronchitis and lung cancer. Then after, in 1966, Framingham found that coronary heart diseases were reported three times more in smokers as compared with nonsmokers [2].

Tobacco smoke contains more than 4000 chemicals, most of them being very harmful, including nicotine, carbon monoxide, polycyclic aromatic hydrocarbons, benzopyrenes, nitrosamines, tar and several carcinogens [3]. These toxic ingredients cause damage to the human tissues in several

different ways [4]. The first expected prominent consequence is the definite impairment of the physical fitness [5].

The health hazards of tobacco are several, especially on the respiratory system, e.g. chronic bronchitis, asthma, emphysema, chronic obstructive pulmonary disease (COPD) as well as cancer, mainly lung and larynx cancer. Tobacco is the main cause of coronary heart diseases (CHD), myocardial infarction in particular, but also peripheral vascular injuries and stroke. In the gastrointestinal tract, tobacco may cause cancer of the tongue, esophagus and stomach. It is also blamed to cause pancreatic cancer, bladder cancer and duodenal ulcer [6].

Other harmful effects of smoking include physiological and psychological disorders, such as mood imbalance and anxiety [2]. Deleterious effects on pregnancy have been recorded [1]. Women who smoke and use contraceptives suffer increased risk of CHD and stroke as compared with nonsmoking contraceptives user women [7].

The smoking hazards depend on the amount of consumed tobacco and duration of smoking [1]. While about 90% of lung cancer are caused by smoking, smoking 20 cigarettes per day is estimated to increase the risk of lung cancer by about 10 folds [8, 9, 10].

Smoking accounts for about 10% of deaths world wide mainly due to cancer, CHD and chronic bronchitis [8, 9, 10]. Mortality rate among smokers is as twice as that of nonsmokers [11].

Passive smokers are individuals who inhale second-hand tobacco smoke. They are exposed to increased chances of many smoking induced health hazards such as asthma and lung cancer [12]. Inhalation of the second-hand tobacco smoke has been blamed for the Sudden Infant Death Syndrome [13]

Cigar smoking has the same health risks as cigarette smoking except lower lung cancer but higher mouth malignancy incidence [14]. In the United States, the preventable smoking habit has been considered as the most important cause of premature death [2, 7]. According to WHO about one third of the world male population smoke tobacco and smoking was behind death of what estimated to be 100 million people worldwide in the 20th century. Furthermore, the organization warned that smoking could kill one billion people in the 21st century [1]. In 2002, more than 1.1 billion people worldwide were smokers [15].

Ban or imposing firm restriction on tobacco advertising is a helpful step towards decreasing the incidence of smoking; in fact this was performed in the form of a global treaty under the care of WHO [16]. Ban of smoking in public places such as coffee shops, bars, restaurants, theaters, buses and trains, in addition to the significant increase in taxes and price of tobacco may help in reducing the incidence of smoking as was applied by the United Kingdom authorities since 1980 [17]. Comprehensive programs can be effective in preventing and reducing youth tobacco use [18].

Smoking cessation reduces the risk of cataract primarily by limiting total dose-related damage to the eye lens [19]. Cessation of smoking can also increase life expectancy in both sexes by decreasing the health risks attributable to tobacco smoke. The national campaigns, bans on advertising as well as increasing the cost of cigarette are the best ways of achieving reasonable population level of quitting smoking [20].

II. METHODS

The study included randomly selected students samples from departments of the Al-Safwa University College. The investigation started on the first of December 2015, and ended three weeks later. A questionnaire was prepared for collection of the required data including: age, sex, department, number of smoked cigarettes per day and duration of tobacco smoking.

III. RESULTS

The number of participants was 504 students. Males were 314 (62.3%) and females were 190 (37.7%). The majority of students who participated in the study were within the range of age group 20-22 years in all departments (Table I and Table II).

The number of smokers was 184 (36.5%) out of the total 504 students. Male smokers 172 (93.5%) with a prevalence rate of 34.0%, while female smokers were 12 (6.5%) with a prevalence rate of 2.4% (Table III).

More than half of the smokers (100 students, 54.35%) could be described as heavy smokers, due to smoking more than 20 cigarettes per day (Table IV). Durations of tobacco smoking are presented in Table V. The table shows that out of the 184 smokers, 127 students (69%) were smoking for 1-5 years.

Tables (VI) and (VII) were introduced to compare results of the present report with those offered by the World Health Organization. The tabulated data came out from some other regions of the world with different economic and social characteristics.

IV. DISCUSSION

The study involves university students who are well educated and aware of the health hazards due to tobacco smoking. They are young people with an average age of 21 years (Tables I, II). At present, about 28% of men and women aged 16 years old and more, all over the world, are tobacco

smokers. Beside that, consumption of cigarettes is rising in Europe and in developing countries including china [20].

Globally the number of male smokers far exceeds that of females [21] as illustrated in tables VI and VII. This trend has also been recorded in the present study, i.e., high male prevalence rate (34%) versus (2.4%) for females (Table III). These figures are nearly comparable with results of a study that was conducted in early 1970's by AL.Fikaki [2] which also showed higher male prevalence (46.6 %) versus (6.7 %) for females. They also go along with the outcome of the National Survey that was carried out, in the year 2000, by the Primary Health Care Department of the Ministry of Health on the risk factors for non-communicable diseases in Iraqi Society [22]. That survey showed higher male prevalence (41.5%) versus female prevalence (6.9%). The economic and social impacts definitely play influential roles. Cigarettes' smoking by women is not welcomed by societies of the developing countries. Number of female smokers in the developed industrial European and American countries is significantly greater than those in the underdeveloped and developing countries [23, 24] (Tables VI, VII). Heydari and his colleagues [25], in the year 2003, reported that the prevalence of tobacco smoking among high school students of Tehran city, Iran, was 6% for boys and 2% for girls.

In U.S.A. tobacco use (cigars and cigarettes) is common among college students. Prevalence rates of (37.9%) for males versus (29.7%) for females were documented [26].

In Alexandria, Egypt the overall prevalence rate of smoking in the year 2000 for people above 15 years old was 27.2%. The prevalence in men was 48.5% versus 1.5% for women [27]. There were some investigations which showed that prevalence of smoking was high among low educated and low/middle income people [28, 29, 30].

The present study shows that more than half (54%) of the total smoking students are heavy smokers (Table IV). Heavy smoker is recognized when the individual smokes more than 20 cigarettes per day [31].

The risk of smoking depends on the number of cigarettes that are smoked daily plus the duration of smoking. The fact that this study involved young people (average age 21 years old), a short smoking period is expected. Nearly, 70% of the smoking students were smoking for only 1 – 5 years (Table V). It probably means that this period is not enough to induce the clear cut risks and the deleterious health consequences in the smokers.

TABLE I. DISTRIBUTION OF THE STUDENTS, WHO PARTICIPATED IN THE STUDY, WITHIN DEPARTMENTS AND THEIR AGE RANGES

Age Range in Years	Department of Pharmacy	Department of Clinical Analyses	Department of Information Technology	Department of Business Administration	Total
< 20	50	8	4	6	68
20 – 22	98	108	64	36	306

23 – 25	4	44	18	24	90
>25	10	8	8	14	40
Total	162	168	94	80	504

TABLE II. AGE RANGE AND GENDER OF THE TOBACCO SMOKING STUDENTS

Age range	Number of Males	Number of Females	Total number
< 20	12	0	12
20 – 22	114	10	124
23 – 25	30	2	32
>25 –	16	0	16
Total	172	12	184

TABLE III. PREVALENCE OF TOBACCO SMOKING AMONG STUDENTS ACCORDING TO THEIR GENDER

Sex	Number of Smokers	Total Number of the Sample	Prevalence Percentage
Male	172	504	34.0 %
Female	12	504	02.4 %

TABLE IV. PREVALENCE OF SMOKING STUDENTS ACCORDING TO THE DEGREES OF SMOKING

No. of Cigarettes Per Day	No. of Smokers	Percent of Total Smokers
1 – 5	20	10.87
6 – 10	24	13.04
11 – 20	40	21.74
> 20	100	54.35
Total	184	100

TABLE V. DURATION OF SMOKING

Duration in Years	No. of Smokers	Percent Total Smokers
1 – 5	127	69.02
6 – 10	52	28.26
> 10	5	2.74
Total	184	100

TABLE VI. PREVALENCE OF SMOKING BY GENDER.ADOPTED FROM: WHO ESTIMATES (20).

Region	Percent of Smokers	
	Male	Female
Africa	29	04
U. S. A.	35	22
Eastern Mediterranean	35	04
Europe	46	26
South East Asia	44	04
Western Pacific	60	08

TABLE VII. REGIONAL PATTERN OF SMOKING PREVALENCE BY GENDER AND NUMBER OF SMOKERS IN POPULATION AGE 15 OR MORE. ADOPTED FROM: WHO.TOBACCO OR HEALTH. A GLOBAL STATUS REPORT (21).

Region	Smoking Prevalence Percent			Total Smokers Percent of All Smokers
	Male	Female	Over All	
East Asia and Pacific	59	4	32	35
Eastern Europe and Central Asia	59	26	41	13
Latin America and Caribbean's	40	21	30	8
Middle East and North Africa	44	5	25	3
South Asia	20	1	11	8
Sub-Saharan Africa	33	10	21	6
Low / Middle Income	49	9	29	82
High Income	39	22	30	18
Worldwide	42	12	29	100

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