

Factors Affecting the Prevalence of Smoking Behavior Among Secondary School Students: A Descriptive Study in Kerbala City, Iraq

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Abstract

Background: The number of Iraqis who smoke has increased, especially among adolescents and young people. People's actions and a social and cultural context that supports smoking are responsible for the high prevalence of smoking in Iraq. In reality, it has evolved into a regular habit and a social activity.

Objective: The objective of this study is to determine the factors affecting the prevalence of smoking behavior among secondary school students in center of Kerbala City.

Methodology: A descriptive study was performed to collect data from January 2 to 16, 2023. The study was conducted in the secondary schools in the center of Karbala City. Multiple-stage stratified cluster random sampling was used to choose the pupils. Districts of schools are included in clusters. Then, using a random numbers table, schools were chosen at random from each cluster, and finally, students were chosen from among the schools that had been chosen.

Results: The result of this study indicated that the prevalence of smoking behaviors among secondary school students was 25.3% in Kerbala City. There is an association between smoking prevalence among adolescents and their Demographic Characteristics (age, gender, and grade). There is an association between smoking prevalence among adolescents and Some variables (smoking status of the father, teacher, and close friends).

Conclusion: Smoking is a growing problem among teenage. Smoking is the main preventable risk factor for many diseases. This risky behavior is common among adolescents in the city of Karbala, especially hookah smoking.

Keywords: Factors, Smoking Behaviors, and secondary school students.

Introduction

Smoking is a significant public health issue and one of the main causes of mortality and morbidity because of its connection to numerous life-threatening illnesses (1). World health organization (WHO) considers that adolescents who use these items have a threefold increased chance of using tobacco products in the future (2).

Iraq has one of the highest rates of smoking among adolescents and young adults (13-18-years-old) within the Middle East (21.8%). In many societies, young boys still believe that smoking cigarettes is a sign of maturity and power (3).

The cultural and social environment in Iraq that fosters smoking and affects people's attitudes toward it is a contributing factor in the country's tobacco smoking problem. The

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adverse effects of smoking tobacco on health are a further problem. More than 4,800 chemicals, including at least known to cause cancer, are present in cigarette smoke (4).

Teenage smoking has a significant connection with psychosocial factors in the household, the classroom, and the peer group. Adolescent smoking, for example, is related to psychological disorders including poor parent-child connections, a broken home, and a negative school climate. Additionally, social connections have a significant impact on teenage smoking habits, with worse peer ties being linked to a decreased likelihood of smoking (5).

The region of the brain in charge of executive processes and attention capability. Adolescent smokers suffer attention problems, which get worse the longer they smoke. Abusing tobacco leads to several physical alterations in the body and brain. These bodily alterations could make it harder to concentrate and study, which would be bad for school achievement (6).

In addition to being important for global health, reducing tobacco usage is also important for economic growth, sustainable development, and human rights. Due to the fact that men's use rates stay far higher than women's and also decreasing much more slowly. A significant relative decrease in rates by 2025 may be easier to achieve in nations where smoking prevalence was high in 2010 than in those where it was low. To understand patterns of use and develop effective policy responses, each nation must monitor tobacco use among adults and teens at least once every five years on a nationwide level (7).

Health education delivered in schools is an appropriate method for raising students' awareness. Therefore, educating students about substance use in the classroom can help them make wise decisions for their futures, which in turn helps to prevent or minimize substance use among this group of people (8).

In order to prevent this risky behavior, in addition to other alternative programs, health education about smoking hazards is preferred to be introduced earlier (at the age level of primary schools) before attending intermediate and higher secondary schools where the student previously selected the cigar (9).

Methodology:

Study Design: A descriptive study was carried out from January 2nd to January 16th, 2023.

Setting of the study: The study was carried out in secondary schools in the center of Karbala City.

Sample: The study included a multistage stratified random sample of 372 students who were selected from 13 secondary schools.

Study Instrument: The study instrument includes students' socio-demographic sheets of age, gender, grade, living arrangement, family's monthly income, and occupation. It also includes smoking behavior, smoking status, and types of smoking.

Data Analyses: The data of the present study were analyzed using statistical package of social sciences (SPSS) version (27). Descriptive statistical measures frequency and percentage. It includes mean and standard deviation. Inferential statistical analyses were performed by using SPSS, and the level of significance was set at $p < 0.05$.

Inclusion Criteria: The study subjects were to participate in the current study based on the criteria of secondary school, male and female students, and students must have good to understand and comfort, a propensity for communication, and consent to participate in the research.

Exclusion Criteria: The researcher excluded the students who withdrew from the study after the data collecting started.

Study Results:

Table 1. Association Between Prevalence of Smoking Behavior Among Secondary School Students and Their Demographic Characteristics (N = 372)

Demographic Characteristics		Smoking Status		Total	df	Asymp. Sig. (2-sided)
		Never smoked	smoked			
Age	13-15	105	25	130	2	.002
	16-18	137	44	181		
	19-21	35	26	61		
Gender	Male	201	81	282	1	.013
	Female	76	14	90		
Grade	First	11	1	12	5	.028
	Second	44	16	60		
	Third	93	24	117		
	Fourth	33	7	40		
	Fifth	36	25	61		
	Sixth	60	22	82		

df: Degree of freedom; Sig.: Significance

The results in this study in table 1 indicated that there is a statistically significant association between the prevalence of smoking behavior among secondary school students and their age, gender, and grade (p-value = .002; .013; and .028) respectively.

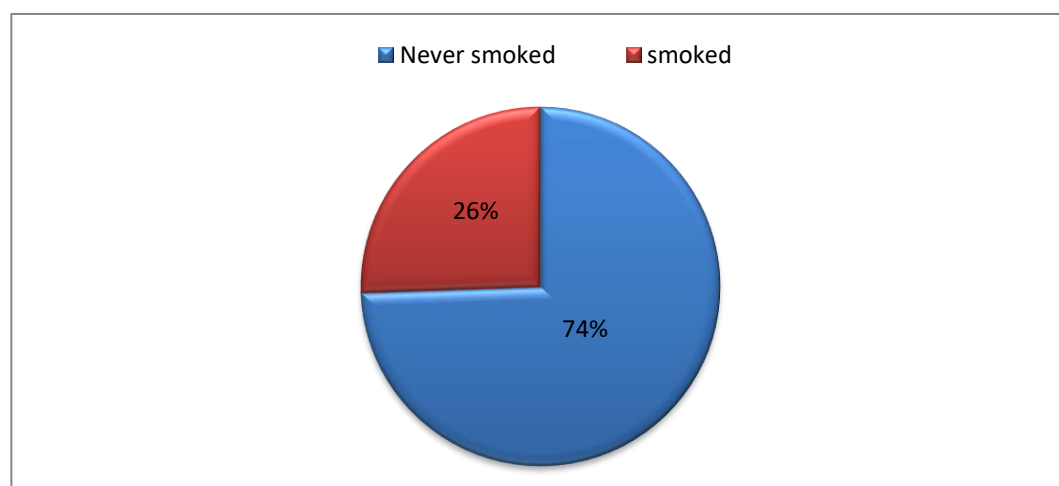


Figure 1. Prevalence of Smoking Behavior Among Secondary School Students (N = 372)

The study results indicate that three quarters are non-smokers (74%) followed by those who are smokers (26%).

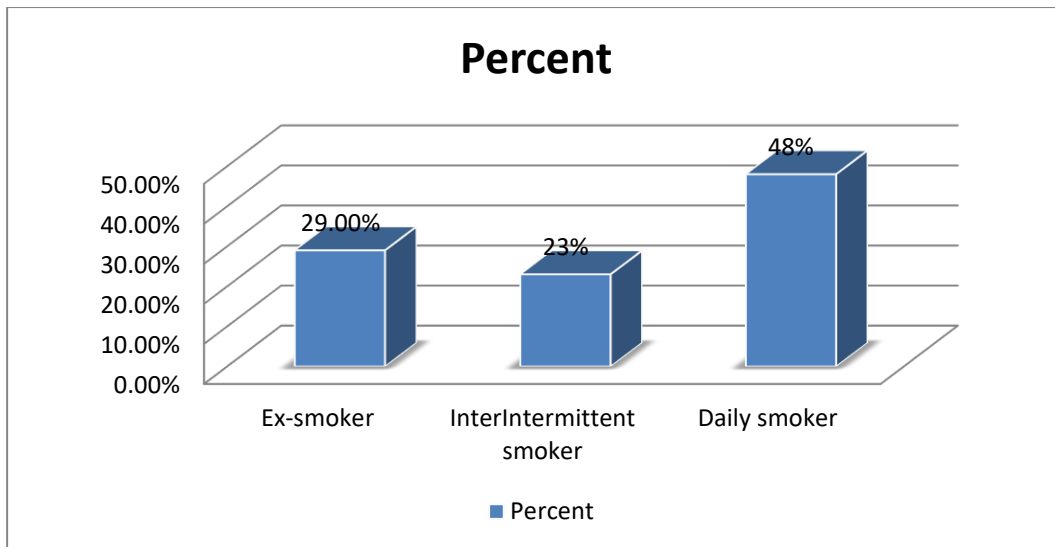


Figure 2. Percentage of Smoking Status Among Smokers' Students (N = 95)

The study results indicate that less than half of smoker students reported that they are daily smokers (48%), followed by ex-smokers (29%), and intermittent smokers (23%).

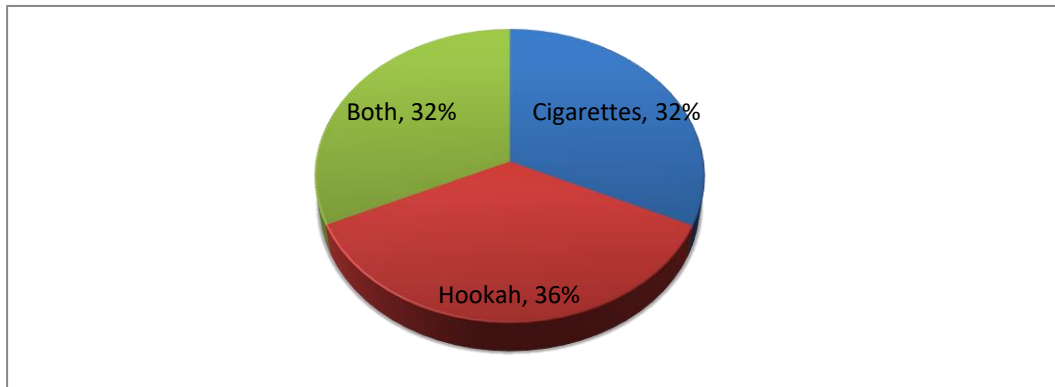


Figure 3. Percentage of Students Who Smoke, according to the Type of Smoking (N = 95)

The study results indicate that more than third smoke hookah (36%), followed by those who smoke cigarettes (32%), and each of cigarettes and hookah (32%) for each of them.

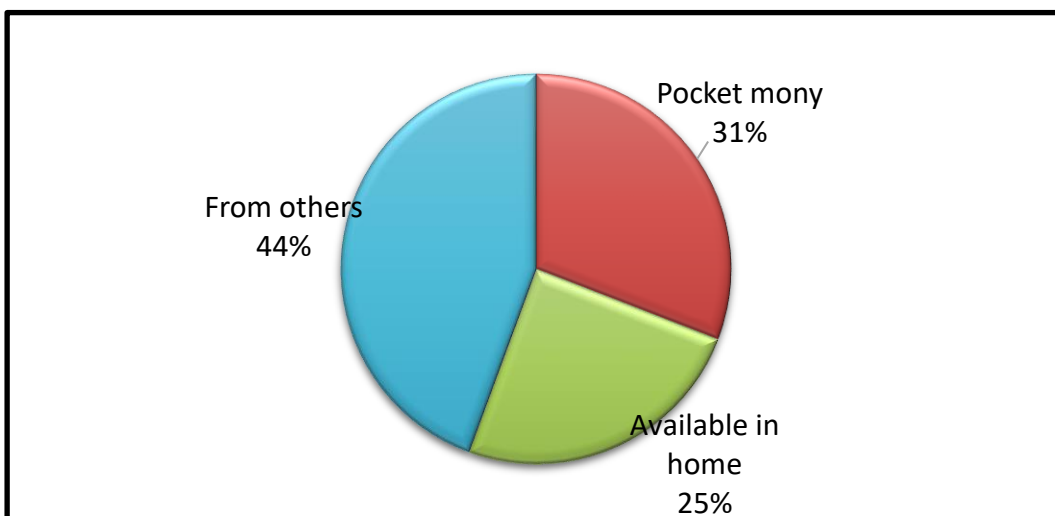


Figure 4. Available Source of smoking? (N = 95)

The study results indicate that the source of smoking from pocket money are (31%), available in home (25%), and from others (44%).

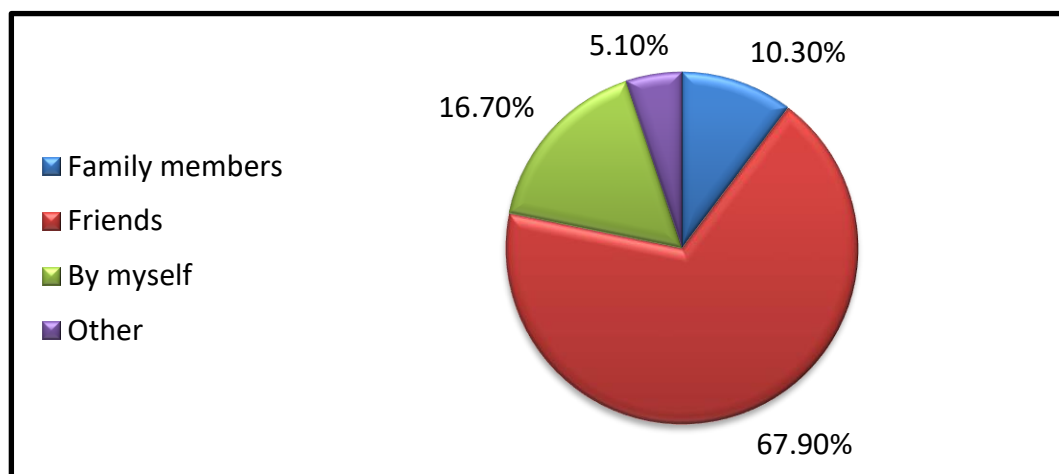


Figure 5. The percentage of the individuals who influenced participants' opinion more than others of smoking

The study results indicate that the individuals who influenced participants' opinion more than others toward smoking, most reported that they are the friends (67.9%), followed by themselves (16.7%), family members (10.3%), and others (5.1%).

Table 2. Association Between Prevalence of Smoking Behavior Among Secondary School Students and Some Variables (N = 372)

Variables		Smoking Status		Total	df	Asymp. Sig. (2-sided)
		Never smoked	smoked			
Mother's smoking	Yes	8	6	14	1	.130
	No	269	89	358		
Father's smoking	Yes	100	47	147	1	.021
	No	177	48	225		
Smokers are often close friends	Yes	95	70	165	1	.000
	No	182	25	207		
Teachers' smoking status	Yes	91	48	139	1	.002
	No	186	47	233		

The study results in table 2 exhibit that there is a statistical significant association between prevalence of smoking behavior among secondary school students and mother's smoking (p value = .130), while significant association between prevalence of smoking behavior among secondary school students and father's smoking, smokers are often close friend, and teacher' smoking status (p - value = .021; .000; and .002) respectively.

Discussion:

Smoking is a social problem that the Arab community suffers from, especially in Iraq. So the results in the present study, as shown in figure 1, indicate that three-quarters of non-smokers are (74%), followed by those who are smokers (26%). The present result is supported by This finding is consistent with Ismail, Abdul-Sattar, and Baey (2011), who reported that most non-smokers are 77.4%, followed by those who are smokers (22.6%) (12).

In figure 2, the results indicated that slightly less than half of smokers' students reported that they are daily Smokers' (48%), followed by ex-smokers (29%), and intermittent smokers (23%). This finding is consistent with Andersen et al. (2019) reported that 30% never smoked, followed by those who are daily smokers (39%), those who are ex-smokers (12%), and those who are intermittent smokers (18%) (13).

For those in figure 3 who reported that they are smokers or ex-smokers, more than a third reported that they smoke hookah (36.2%), followed by those who smoke cigarettes and hookah (31.9%) for each of them. This finding is consistent with Surji (2019) reported that among smokers or ex-smokers, more than a third reported that they smoke hookah (49.5%), followed by those who smoke cigarettes (16.7%), and each of cigarettes and hookah (16.3%) for each of them (14).

Concerning the results in Figure 4, the sources of smoking are pocket money (31%), available at home (25%), and others (44%). This finding disagrees with HAJEE & AGHA (2022), who reported that the sources of smoking were pocket money (60.5%), available at home (8.2%), from their friends (21.1%), someone who bought it for them (8.8%), and some other way (1.4%) (15).

Regarding the results in Figure 5, it was indicated that the results of the individuals who influenced participants' opinions more than others toward smoking were: most reported that they were their friends. Also, the finding in the current study was similar to studies with Qasem, Nasir, and Al-Tawil (2022) in Erbil City, which reported that the main reason for smoking was friends (39.6%) (16).

According to the results, we found that monitoring adolescent behavior is necessary in Iraqi society. Because of the difficulty of quitting smoking in the future. The current results show that there is an association between the smoking status of students and demographic characteristics such as gender, age, and grade.

Ahmad et al. (2021) in Kerbala City, found that there is no association between student smoking and socio-demographic characteristics (age, gender, and grade). This finding is inconsistent with the present study (17).

In table 3, which indicated that there is no association between prevalence of smoking behavior among secondary school students and mother's smoking but there is association between prevalence of smoking behavior among secondary school students and father's smoking, smokers are often close friends, and teachers' smoking status. This finding is consistent with Al-Delaimy and Al-Ani (2021), who reported that there is an association between the prevalence of smoking behavior among adolescents and smokers who are often close smokers', but there is no association with parents smokers (18). Another study by Roohafza et al. (2014), which reported that there association between the prevalence of smoking behavior among adolescents and who are often close smokers', parents smokers, and teacher smokers' (19).

Conclusion:

The purpose of the current study was to determine the prevalence of smoking behaviors among secondary school students. So, the results indicated that the prevalence of smoking behaviors among secondary school students was 25.3% of the total of 372 male and female students. More than a third of them smoke hookah. The main source of smoking was from others, and friends were the main cause of smoking among adolescents. Further, there is a statistically significant relationship between the prevalence of smoking behavior among secondary school students and their demographic characteristics (age, gender, and grade). Additionally, there is an association between the prevalence of smoking behavior among secondary school students and their father's smoking, smokers are often close

friends, and their teacher's smoking status, but there is no association with their mother's smoking and prevalence of smoking.

Recommendations: More research is needed to find out what motivates and causes smoking and the psychosocial aspects that affect it. Providing and applying education programs to improve teacher and adolescent health through health education, health promotion, being aware of the risks of smoking and its effects, direct and indirect, and its consequences, and preventing smoking.

Limitations of The Study:

Some limitations of the study were applied. The advantages of the current study in determining the prevalence of smoking behaviors' can be beneficial to students, staff, families, society, and the world. In the future, we will need to consider the limitations. The results cannot be generalized to all secondary schools because the study covered several secondary schools that were located in the center of Kerbala City and our sample included only governmental school-going adolescents. However, despite these limitations, the results of this study provide essential data for future research.

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