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# Does Having a Smoking Friend or Parent Encourage Baghdad Medical Students to Smoke?

# Saba Hameed Majeed<sup>\*,1</sup><sup>©</sup> Mohammed Murtadha<sup>1</sup><sup>©</sup> Ahmed Mohammed Ahmed Alcharrakh<sup>1</sup><sup>©</sup>

<sup>1</sup>Clinical Pharmacy Department, College of Pharmacy, AL-Nahrain University, Baghdad, Iraq. \*Corresponding author Received 25/4/2025, Accepted 25/5/2025, Published 1/6/2025

## ABSTRACT

**Objective:** worldwide to lessen the impact of the tobacco pandemic. A major roadblock to reducing tobacco consumption is the absence of smoking statistics in the Iraqi population. The study set out to answer the question, " Does having a smoking friend or parent encourage Baghdad Medical students to smoke?" by looking for a correlation between social contacts and smoking behaviors within the demographic and the prevalence of smoking among medical students.

**Methods:** This work uses cross-sectional studies to investigate the effects of social and familial elements as well as their consequences for public health policies. Students' one-on-one encounters in healthcare environments provided the data for the cross-sectional observational study. Comprising 599 college students ranging in age from 18 to 23, the sample included two groups of smoking and nonsmoking individuals.

**Conclusions:** This study intends to investigate how friends and parents' behavior affect medical students from Baghdad's smoking behavior. The data showed a significant relationship among the smoking group who already had a parent or a friend who smokes. The study recommends a new anti-smoking campaign focused on the medical students. Stressing the need for robust and resilient training and awareness efforts to reduce this phenomenon.

Keywords: smoke, parents, medical students, smoking friends, and tobacco usage.

## INTRODUCTION

Smoking has been linked to many diseases; it is still seen as the most harmful habit. This problem has led to the implementation of thorough campaigns aimed at motivating the population to quit smoking. For public health officials and main healthcare practitioners, smoking cessation is a major health concern. With a tobacco-related death occurring every six seconds and fifty percent of its users reportedly dying from tobacco smoking, the World Health Organization (WHO) notes that this rate exceeds that of any other disease. Furthermore, recognized are the most important health effects of smoking related to cancer, lung problems, and cardiovascular ailments <sup>(1)</sup>.

Tobacco smoking is a serious worldwide public health issue because of its detrimental effects on social welfare, economic development, and individuals' health. Despite general efforts to lower it, tobacco use continues among many different groups, including young people. Among the several possible reasons for this increase are the extensive advertising of smoking products on television and social media, as well as their relative convenience of purchase <sup>(2)</sup>.

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Like in many other nations, Iraq depends on the creation of customized treatments and several other strategies to minimize the negative effects of tobacco use among students, depending on an awareness of the patterns and drivers of this behavior <sup>(3)</sup>. Developing appropriate intervention strategies in Duhok City, where a sizable community of medical students resides, requires an understanding of the factors influencing smoking behavior. Especially among young people, smoking is a serious public health concern. Much research shows that several elements could influence smoking behavior, one of the most important factors being those related to peers and family <sup>(4)</sup>. Studies show that whilst peer influence is a major factor in the beginning and escalation of smoking behaviors, parental smoking increases the likelihood of teenage smoking <sup>(5)</sup>. The issue is exacerbated by Baghdad's cultural acceptance of smoking, particularly among men, which increases the prevalence. Though the smoking prevalence among female teenagers has shown an increasing trend, adolescent smoking is mostly male. Teenagers' starting of smoking is usually influenced by social and environmental factors, including parental and peer smoking behavior; therefore, efforts at complete tobacco control depend on reducing adolescent smoking <sup>(6)</sup>. A key stage in the process to become a regular smoker is smoking experimentation; so, "declining the first cigarette" is a major tool for teenagers to control their smoking behavior. According to some studies, trying to smoke increases middle school children's risk of smoking by three to six times <sup>(7)</sup>.

Medical students are nonetheless vulnerable to these consequences even if they are aware of the health risks associated with smoking. According to studies conducted in Baghdad, 21% of medical students smoked; 42% of them started the habit during their first year of medical school. This emphasizes the need to understand the specific components affecting smoking habits in this population <sup>(8)</sup>. This study sought to ascertain whether the smoking habit of medical students in Baghdad City was influenced by the presence of a parent or friend who smokes and whether these social interactions had any appreciable effect on their smoking practices. The study underlines the frequency of smoking among medical students, the impact of family and social settings, and the consequences for public health projects using cross-sectional investigations.

## MATERIALS AND METHODS Methods Study Design

This study synthesizes findings from multiple cross-sectional investigations conducted in Baghdad. Data were collected in person, with samples sourced from multiple medical universities between October 2024 and March 2025 through self-administered. The data collected include smoking prevalence, as well as parental and peer smoking behaviors, and the factors contributing to smoking initiation. The present study encompassed a total of 599 cases. The criteria for inclusion in this study consist of all tobacco consumption patterns among Iraqi students aged 18 to 23 years. Data were collected for each patient participating in the study (Demographic information, encompassing age, gender, educational attainment, area of specialization, and university affiliation). Upon receiving approval from the Ethical Committee for the procedure. I identified the students who would participate in the study at each institution. All participating students completed an asking question within 10 minutes. The data collection task was equitably distributed among each of the group members, and each question had a consent form that participants must read and sign before responding to any questions. Figure 1 clarifies the participant enrollment primary flowchart.



#### Figure 1. the participant enrollment primary flowchart.

#### Sample Size

The sample size was calculated using the Raosoft® online software calculator. The result was derived from the requirement to establish a 98% confidence interval and maintain a 5% margin of error. The survey portal was closed upon reaching the required number of responses. It was considered that a sample size of 599 participants would be suitable.

#### Inclusion criteria

The criteria for inclusion in this study consist of all Iraqi medical students aged 18 to 23 years.

#### **Exclusion** criteria

The research didn't involve non-medical students

#### Statistical analysis

The study involved comprehensive statistical analyses that accounted for each patient participating in the research. Following the collection of the necessary information, the data underwent analysis using SPSS version 25.0, with significance determined by the Mann-Whitney test. The analysis involved examining U tests, frequencies, and correlation coefficients among the variables. Shapiro-Wilk normality test and Levene's test of equality for the sample. Additionally, Spearman's rank correlation coefficient was employed to analyze the relationship between these variables.

## Results

This study recruited 599 medical students, they are divided into two groups: with the smoker group (47.4%) and (52.6%) nonsmoker group. The smoker group was sourced from multiple medical universities in Baghdad. Student age ranges from (18-23) years, with a mean age for the smoker group  $21.44\pm1.79$  SD., and for the nonsmoker group with mean age  $20.94\pm1.79$  SD. As shown in Table 1.

Groups	Nonsmoker		Smoker	
599(N)	315		284	
100%	52.6%		47.4%	
Age in years	20.94±1.79 SD		21.44±1.79 SD	
Gender	Female	Male	Female	Male
	237	78	100	184
	75.2%	24.7%	35.2%	64.7%

Table 1. The Demographic characteristics of the participants involved in the current study are shown.

Table 2 and Figures (2-4) showed a highly significant (P -value < 0.001) association between smoking and nonsmoking groups among each of the parents and friends' smoking behavior, while have a non-significant association between knowing about the dangers of smoking between the two groups. In addition, it has a positive correlation between the two groups and their smoking behavior.

Table 2. The frequency of non-smoker and smoker g	groups and their correlation.
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Groups	Nonsmoker	Smoker	P_Value	Correlation
parent smoke	95	123	<0.001	0.136
friends smoke	125	222	<0.001	0.389
Know the dangers of Smoking	205	196	0.307	

Note. All tests were one-tailed for positive correlation.





Figure 2. Distribution of study sample between the two groups and friends' smoking behavior.



parent smoke

Figure 3. Distribution of study sample between the two groups and parent smoke behavior.

#### **Correlation plot**



Figure 4. Correlation between the two groups with friends and parents smoking behavior.

#### Discussion

Most Middle Eastern nations include Iraq; smoking manifests itself as cigarettes and shisha. The main goal of the study paper is to examine whether the smoking habit of the medical students corresponds with the existence of parents and friends who smoke. This paper found a significant correlation between the effect of parents and peers, considering their clear influence on the smoking behavior of the students, which may be used as a risk factor for university students' smoking. However, Abbas Fadhal Humadi, (2018) study was not conducted with the current study, where it revealed that despite the prevalence of nonsmoking students discovered in nonsmoking families, the frequency of smoking among students was high among those who had a favorable family smoking habit. This may help to explain the family pressure of smoking on students smoking; the difference was statistically highly significant; this outcome corresponds with many other studies which have shown a link between smoking among family and the smoking habit of students <sup>(9)</sup>

Many studies have looked into how smoking behavior and the influence of social circles, including friends and family, are correlated. Notable relationships between students' smoking behaviors and several elements—including parental smoking habits, the amount of pocket money, socializing levels, knowledge and attitudes regarding smoking, the dynamics of parent-child relationships, and the smoking behaviors common within peer groups—were revealed by a particular study <sup>(10)</sup>.

Likewise, another study shows that family and peer networks usually offer a suitable environment for adolescent smoking; the main reasons for teenagers' smoking include curiosity and the need to express their individuality <sup>(11)</sup>. Driven by curiosity and the search for identity, another study shows that family and peer pressures often create an environment that supports smoking among teenagers <sup>(12)</sup>.

Although this study reveals more general trends, it especially addresses the groups of medical students in Baghdad. Both groups were looking at how often medical students in Baghdad consume cigarettes, pointing up a possible path for further study. Still, it does not directly answer your main study question. To fully understand the direct influence of smoking classmates or parents' smoking behavior on medical students in Baghdad, more study focused just on them is necessary. To ensure the strength of this link and direct targeted treatments, this study can include statistical analysis, questions, and interviews. Regarding gender, male students were three times more likely to be influenced by their smoking peers and two times as likely by their smoking parents <sup>(13)</sup>.

A good justification for this is the fact that, as many of the male students consider, the smoking behavior in society is more prominent and common among men. Moreover, a lot of the well-known and profitable films show smokers as successful and appealing. Although among the women, most of them view smoking as an "unfeminine"

activity, which explains the low prevalence of smoking groups. Though it is somewhat rare in Asia, female smoking is usually viewed negatively correlated <sup>(14)</sup>.

Previous studies have indicated that both overall parenting practices and smoking-specific parenting techniques influence teenage smoking behaviors. Thus, knowing and spotting the relationship between parents' smoking and university students' attitudes toward smoking can help the parents to change their behavior and cognition, so guiding their sons and daughters away from smoking. Campaigns and increasing knowledge help one to do this. It should not be seen as words spoken on demand; rather, it should be a result of cooperation across several groups creating a brilliant generation with clear direction <sup>(15)</sup>.

## Conclusion

This study highlights the critical need for the regulation of smoking behaviors, the initiation of targeted health education initiatives, and the development of community and school-based programs aimed at decreasing tobacco use among youth. Enhancing initiatives to decrease tobacco consumption among Iraqi students necessitates a collaborative approach across various sectors and a more rigorous enforcement of existing regulations. A study informed by the Theory of Planned Behavior indicated that students' attitudes toward discussing smoking positively correlated with their intention to engage in such communication.

The influence of having a smoking friend or parent on the smoking behavior of Baghdad medical students remains inadequately explored. Additional research is required to explore this particular relationship and guide the creation of targeted interventions.

#### ACKNOWLEDGMENT

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### **CONFLICTS OF INTEREST**

The authors did not disclose any conflicts of interest.

#### FUNDING

There was no external funding for this study.

## **ETHICS STATEMENTS**

The research proposal describes the goals of the current study, and the proposed data collection techniques were administered to the "College of Pharmacy, AL-Nahrain University," and the approval was obtained from the Scientific and Ethical Committee (approval registration number: nah.coh.pha.H2).

### **AUTHOR CONTRIBUTION**

The author's contribution is as follows: study conception and design: second author; data collection: first author; draft manuscript preparation: first and second author. All authors reviewed the results and approved the final version of the manuscript.

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# " هل وجود صديق أو أحد الوالدين مدخن يشجع طلاب المجموعة الطبية في بغداد على التدخين؟ "

## صبا حميد مجيد 1\* ، محمد مرتضى 1 ، احمد محمد احمد الكراخ1

أ فرع الصيدلة السريرية، كلية الصيدلة، جامعة النهرين، بغداد، العراق.

للحد من تأثير جائحة التنبغ في جميع أنحاء العالم ومن العقبات الرئيسية التي تحول دون الحد من استهلاك التبغ و عدم وجود نتائج إحصائية للتدخين لدى السكان العر اقيين . انطلقت الدر اسة للإجابة على سؤال "هل وجود صديق أو أحد الوالدين مدخن يشجع طلاب المجموعة الطبية في بغداد على التدخين؟ "من خلال البحث عن علاقة وثيقة بين العلاقات الاجتماعية وسلوكيات التدخين ضمن التركيبة السكانية وانتشار التدخين بين طلاب المجموعة الطبية. يستخدم هذا البحث عن علاقة وثيقة بين العلاقات الاجتماعية وسلوكيات التدخين ضمن التركيبة السكانية وانتشار التدخين بين طلاب المجموعة الطبية. يستخدم هذا البحث در اسات مقطعية للتحقيق في آثار العناصر الاجتماعية والعائلية وكذلك عواقبها على سياسات الصحة العامة .قدمت الدر اسة لقاءات الطلاب الفردية في بيئات الرعاية الصحية البيانات اللازمة لدر اسة الملاحظة المقطعية. وقد ضمت العينة الصحة العامة .قدمت الدر اسة لقاءات الطلاب الفردية في بيئات الرعاية الصحية البيانات اللازمة لدر اسة الملاحظة المقطعية. و590 طالبا جامعيا تتراوح أعمار هم بين 18 و 23 عاما ، وشملت مجموعتين من الأفراد المدخنين وغير المدخنين . تعدف هذه الدراسة إلى التحقيق في كيفية تأثير الأصدقاء وأولياء الأمور المدخنين على سلوك التدخين لطلاب المجموعة الطبية في بغداد . وي علاقة كبيرة بين مجموعة اللدين التي كان لديها بالفعل أحد الو التدخين لطلاب المجموعة الطبية في بغداد . علاقة كبيرة بين مجموعة التدخين التي كان لديها بالفعل أحد الوالدين أو صديق مدخن . توصي الدر اسة بحملات جديدة لمكافحة التدخين تركز

الكلمات المفتاحية: التدخين، الآباء، طلاب الطب، الصديق المدخن، واستخدام التبغ .