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Prevalence Of Nicotine Usage Among Medical And Paramedical Students In Al-Rayan Colleges

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Abstract

Objective: To determine the prevalence of nicotine usage among medical and paramedical students at Alrayan medical colleges at Al Madinah Munawara and assess the association between nicotine usage and socio-economic factors, smoking contacts, reasons for smoking, and attempts to quit.
Materials and Methods: Cross-sectional survey in which an anonymous, self-administered questionnaire was used to survey the nicotine usage habits of medical and paramedical students at Alrayan medical collages medical college at Al Madinah Munawara January 2022.
Results: Upon our study with a total of 313 participants, 7% (23) refused to be participating in the survey by saying (no) while 93% (290) agreed to be participating. The participant's gender was 34% female and 66%, male. Almost half of the participants had an experiment with cigarette smoking. The mean age of starting cigarette smoking is 16 years old or older (49% of smoking students). Smokeless tobacco product usage is prevalent among students as 20% are using them. Health warnings on cigarette packages are very useful as they led 60% of the students to think about quitting smoking or not starting smoking. The main group which provides help or advice for smokers to quit smoking is friends while the least is the professionals such as doctors.
Conclusion: Cigarette smoking is highly prevalent among medical and paramedical students at Alrayan medical College. Electronic cigarettes or also known as vape-pens, hookah-pens, and electronic hookahs (e-hookahs) are incredibly known among students as 66% of them know them. Close contact advice and health considerations are important reasons for not smoking, quitting, or attempting to quit. These findings can be of help in designing future intervention strategies.

Key words: medical students, paramedical students, prevalence, tobacco, smoking.

Introduction

Literature review (Introduction)

Tobacco consumption is a prevalent public health problem worldwide. In addition to its negative social and economic impacts, tobacco is a known factor predisposing smokers to many disorders leading to death or disability. Smoking is prevalent and increasing in the Kingdom of Saudi Arabia (KSA). Data extracted from a national survey between 1990 and 1993 showed that the overall prevalence of current smoking was 21.1% for males, and 0.9% for females. However, recent data published by the World Health Organization (WHO) in 2008 showed that the overall smoking prevalence in KSA was 22%, comprising 37% of male adults, and 6% of female adults. This suggests that the prevalence of smoking

is increasing in KSA. It is well known that physicians play an important role in helping patients to stop smoking, thereby stemming the progress of this self-inflicted habit in the community. As future physicians who will witness the persistent burden of smoking related diseases among their patients, medical students represent a primary target for the tobacco-prevention programs. As medical students progress through medical school, their knowledge of smoking-related diseases naturally increases.4 Nevertheless, smoking remains common in this group.5 An increasing knowledge of smoking-related risks does not always correlate with a lower rate of smoking among medical students.4 Hence, many researchers have historically investigated the rates of tobacco smoking among this demographic group. Cigarette smoking is the largest preventable risk factor for morbidity and mortality in developed countries where at least one in four adults smoke cigarettes. [1] The situation in developing countries is even worse. It is estimated that by 2030, the developing world is expected to have 7 million deaths annually from tobacco use.[2] A study similar to it used in Saudi Arabia. With the smoking epidemic, the role of medical professionals is crucial in lowering the smoking rates among the masses, thereby preventing many avoidable diseases.[2] The most ironical and unfortunate fact is that healthcare providers tend to smoke. This is a global issue. Healthcare providers all over the world have been identified to be involved in smoking, at least to some extent. An American study[3] indicates that in 2006/2007, Licensed Practical Nurses had the highest prevalence of tobacco smoking (20.55%), followed by respiratory therapists (19.28%). Physicians had a prevalence of 2.31%, dentists - 3.01%, pharmacists - 3.25%, and Registered Nurses - 10.73%. The overall prevalence of smoking among healthcare providers was 9.85%. Similarly, a study from China[4] identified 20.8% of healthcare providers as current smokers. Smoking among physicians was very high (35.7%) according to this study and 59.7% of the respondents believed that inadequate knowledge is responsible for their continuation of smoking.[4] There were very few studies addressing this problem. Little work has been done on a large scale to find the prevalence of smoking among healthcare providers and the significant factor responsible for their continuation of smoking besides its hazardous effects. A 2014 study from Lahore[5] conducted at (Lahore Mayo hospital) found the frequency of smoking among doctors to be 37.18% and in paramedical staff to be 35.74%. Most of them initiated smoking due to the influence of friends. The majority of doctors and paramedics found smoking relaxing and addiction which was the main reason they couldn't quit. Main factors responsible for continuation of smoking are addiction (Doctors - 38%, Paramedics - 42%), lack of will power (Doctors - 21%, Paramedics - 27%), and lack of incentive (Doctors - 24, Paramedics - 12%). On the other hand, among general practitioners, 36% are found to be cigarette smokers, who consume 12.48 cigarettes per day and have 18.76 average years of smoking. Half of them have been smoking for more than 20 years.[6] Physicians who smoke are less likely to advise patients to quit smoking. Also, it is less expected for them to assess the patient's will to refrain from smoking.[7] In addition to all the smoking-related health hazards that healthcare providers are exposed to, they are also not able to counsel their patients effectively. It is evident that if healthcare providers themselves smoke, they cannot educate the masses regarding smoking cessation.[7] The harmful consequences of smoking on health were well-documented. Data from recent studies confirm the quantitative relationship between smoking and many health hazards in the form of premature death and serious morbidity. Unfortunately, smoking is on the rise in most developing countries, including Saudi Arabia, whereas in most developed countries there is a steady decline in its prevalence. According to the World Health Organization (WHO) report, tobacco usage is predicted to cause 10 million deaths annually by the year 2030. Since smoking has a serious impact on public health, prevention programs have been given high priority in WHO policies**.** According to studies done in the middle east the overall highest rate of current smoking among students was in Egypt (46.7%), Kuwait (46%), and KSA (42.3%). The highest waterpipe smoking rates among gender was in KSA (36.4%-36.3%). For cigarette smoking, the highest rates were in Libya (80.2%), Jordan (80%), and KSA (70.7%). The highest smoking rates among males were in Egypt (61.2%), Jordan (56.9%-54.3%), and Palestine (52.7%), for females the highest rate was in Yemen (28.0%). Moreover, most of the world's current smokers started the habit during their adolescence. Worldwide, the total economic damage of smoking has been estimated at more than United State (US)$ 1.4 trillion per year equivalent to 1.8% of the world's annual Gross Domestic Product. It was proved statistically that demographic and socioeconomic factors had an influence on smoking among students and most of the students were influenced into smoking by friends. A study in 2005 at King Saud University, Riyadh, Kingdom of Saudi Arabia, showed that 3% of male medical students were currently active smokers, 5.3% were ex-

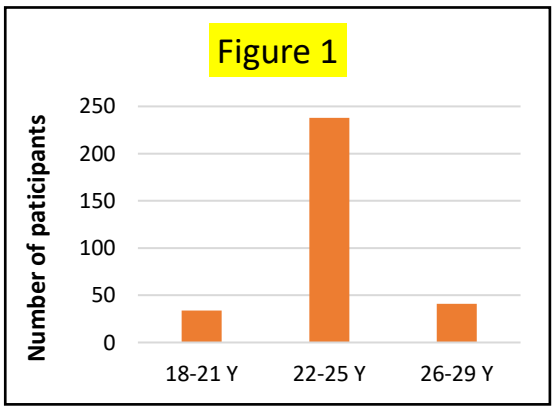
smokers, and 38% were passive smokers. The most common reason for smoking behavior was friends' influence (35.6%). Another study was done in King Fahd Medical City in Riyadh in 2011 research showed that 39.8% of the investigated students had smoked before, and 17.6% were current smokers. The mean age of initiating smoking was 15.8 (±3.3). There were significantly more males than females. The most important reasons for smoking were leisure, imitation of other people, and a means of relieving psychological pressure. Reasons for not smoking were mostly health and religion based. Smokers tended to have friends who smoked. Also, a study done at Jazan University in 2020 regarding the age of onset of smoking, results showed that from the total sample of medical students, 15 (34.9%) of smokers started smoking between 18 and 21 years old, male smokers were 12 (80%) of them started smoking between 18 and 21 years old. Female smokers were 3 (20%) started smoking between 18 and 21 years old. Regarding smoking, the highest standard of smoking was waterpipe with 23 students (53.5%). According to gender, the top type of tobacco for male and female smokers was waterpipe, with 15 male students (42.85%) and 8 (80%) female students. A total of 354 medical students completed the study questionnaires, yielding a response rate of 38% (n=345/931). Male medical students 183 (51.7%) and female medical students 171 (48.3%) of the total sample. Finally, A study at Medical College of King Abdulaziz University, Jeddah, Kingdom of Saudi Arabia. Showed that 90 students (14%) out of 643 students indicated that they smoked tobacco at the time of the study. The prevalence of smoking was 24.8% among males, and 9.1% among females. Smoking was more common in males (p=0.003), but there were more ex-smokers among females (p=0.042). The friends and parents were considered the primary influence for initiating smoking habit, followed by the media. Ninety percent thought that doctors should set a good example by not smoking. Most of the study population indicated that smoking is related to serious illnesses; however, non-smokers were better aware of such illnesses than smokers. Although most thought that smoking tobacco is harmful, approximately 9.5% believe that smoking a water pipe is not.

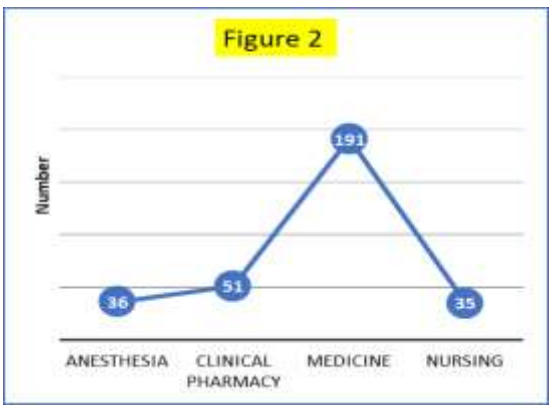
Materials and Methods

This was a cross-sectional study conducted in January 2022 in Al Rayan medical colleges at Al-Madinah Al-Munawara city. The tool used in the study was an anonymous, self-administered questionnaire based on a modified WHO questionnaire to survey the nicotine usage among medical and paramedical students at Al Rayan Colleges. Confidentiality was assured. Completed questionnaires were collected and checked for completeness before being entered into a personal computer for analysis using the Statistical Package for Social Sciences version 26 (SPSS 26).

Results

This research has 313 medical and paramedical participants with a 92% response rate. The participants were 106 females and 207 males. The mean age of the students was between 22 to 25 years (Fig1). The specialty of the students is the following (61% medicine), (16% clinical pharmacy), (12% anesthesia), (and 11% nursing) as shown on (Fig2). Our study shows that almost half of the participants (48.8%) have experimented with cigarette smoking before.





The mean age of starting cigarette smoking is 16 years old or older (49% of smoking students) (Fig3). The average days of cigarette smoking are between 10 to 19 days per month. Smokeless tobacco product

usage is prevalent among students as 20% are using them. Two third of smoking students have tried to quit smoking. The main group which provides help or advice for smokers to quit smoking is friends while the least is the professionals such as doctors as they are the least to be encountered by the student compared to their friends or families (Fig4). The main purchase method of cigarette is by the pack as 50% of cigarette-smoking students states.

Figure 3

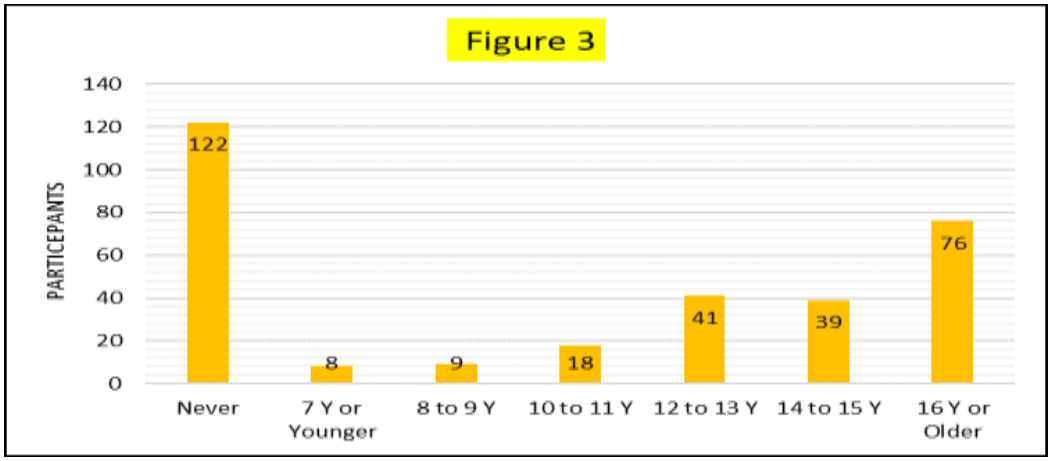
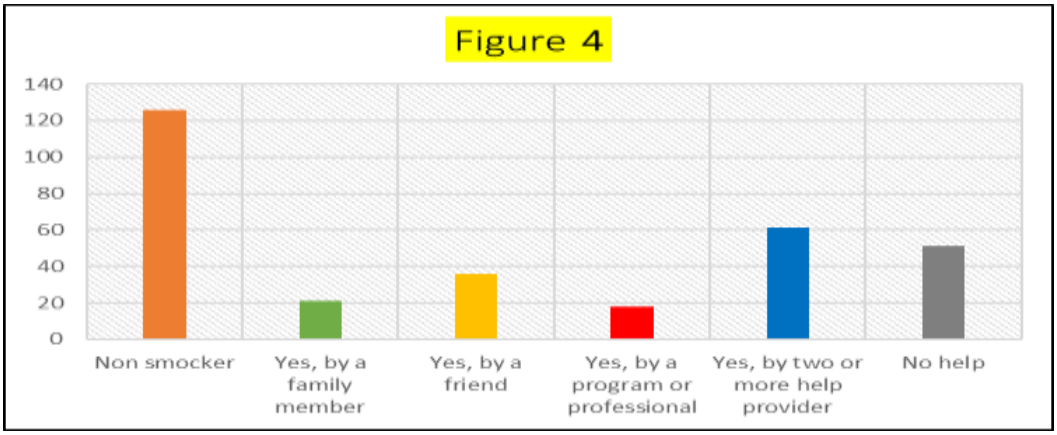


Figure 4



The anti-tobacco media messages on television, radio, internet, and billboards are not well advertised as 68% of the participants did not see them. However, health warnings on cigarette packages are very useful as they led 60% of the students to think about quitting smoking or not starting smoking. Electronic cigarettes or also known as vape pens, hookah-pens, electronic hookahs (e-hookahs), and electronic cigars are incredibly known among students as 66% of them know them. The mean duration of electronic cigarette usage among students is between 10 to 19 days per month.

Discussion

This study observed that nicotine usage is highly prevalent and Cigarette smoking is the most common method of nicotine usage medical students and paramedical student. This correlation is consistent with the study results Nasser AMA (2020) where prevalence of smoking cigarette and waterpipe appears to be alarmingly high among university students. In addition, Al-Kaabba AF (2011) state that Cigarettes smoking is highly prevalent among medical students in the Faculty of Medicine, King Fahad Medical City. However, it contradicts the findings of Alkhalaf M, (2021) as itstats that regarding smoking, the highest type of smoking was waterpipe and Al-Turki YA (2006) as types of smoking included sheesha (waterpipe) 44.1%, cigarette 32.2% which show cigarettes to be the second common type. Our research show that the mean age of starting cigarette smoking or nicotine usage is 16 years old or older. Which is supported by Al-Kaabba AF (2011) asage at which smoking was initiated ranged from 8 to 19 years with a mean of 15.8 years. We assume that at least fifty percent of medical and paramedical students at Alrayan colleges areusing nicotine. Also, we assume males are more prone to nicotine use. Regarding nicotine use by gender our findings are that almost half of the participants 48.8% have experimented

with cigarette smoking before with male percentage of 66%, which supports our hypothesis. The decrease in smoking among women is believed to be due to social reasons, as smoking is considered unsuitable behavior for women. it is also possible that some women who smoke did not report their habits during the study for fear of being stigmatized. This study had some limitations that should be avoided in future studies. First, the data were collected from one Collage in the Kingdom of Saudi Arabia. Therefore, the study result could be biased and may not be generalizable to the whole country or internationally. Furthermore, the data were collected via a self-reported questionnaire, which yielded less accurate results. The high prevalence of smoking among medical students in this and other studies is alarming. It may suggest that there is some failure form of the medical school curriculum to invoke health- conscious behaviors and attitudes among future physicians and health educators Therefore, a more comprehensive intervention strategy is needed. A future study investigating all identified risk factors for nicotine usage would yield more accurate results and identify the extent to which each factor could attribute to the level of nicotine usage.

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