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IDENTIFICATION OF PREVALENCE AND FACTORS LEADING TO INITIATION OF SMOKING IN YOUNG MALE NURSING STUDENTS OF PRIVATE NURSING COLLEGES, LAHORE PAKISTAN

M. Usman[*1], Najam Shaheen[2], M. Saud Yousaf[3], Ali Raza[4], Khizir Abbas[5], M. Tahir[6], Ghulam Haider[7], Ayesha Siddiqua[8], Samina Farooqi[9]

*[*1,2,3,4,5,6,7]BSN Generic Nursing, Saida Waheed FMH College of Nursing, Lahore, Punjab, Pakistan*
[8]Supervisor, Nursing Instructor, Saida Waheed FMH College of Nursing, Lahore, Punjab, Pakistan
[9]Co-Supervisor, Nursing Instructor, Saida Waheed FMH College of Nursing, Lahore, Punjab, Pakistan

[*1]usman5725000@gmail.com

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Corresponding Author: *
M. Usman

Abstract

Background: *smoking is one of the major health issues today. Almost 8 million people die every year because of smoking, it not only effect those who consume it but also those who are around the smokers. Smoking does not only affect the health but also the economic and mental health is affected by it. Most of the smokers are teens and their numbers are increasing vigorously. Similarly, it affects the health and cognitive ability of the young male nursing students. There are multiple studies conducted on prevalence and factors responsible for smoking but there is a limited number of studies conducted on male nursing students.*

Objective*: this study determines the prevalence of smoking as well as factors responsible for initiating smoking in male nursing students.*

Materials and Methods*: this is a descriptive cross-sectional study in which 210 individuals participated out of 443 population of male nursing students. Descriptive frequencies and percentages were used to analyze the results.*

Results: *this study shows that prevalence of smoking is almost 56%. And mostly 55.9% started smoking at the age of 16-20 years. Factors most commonly found responsible were smokers in family or friend circle, easy access to cigarettes and facing no refusal to smoking as well as perception that it makes you comfortable and provide pleasurable feeling.*

Conclusion: *this study shows that 56% of the young male nursing students smokes, and factors like smokers in family or friend, easy access to cigarettes, perception that it gives pleasurable feeling, makes attractive are responsible for initiation of smoking. Interventions generated by considering these factors in mind are effective in controlling the smoking.*

1. INTRODUCTION

Worldwide, smoking alone has killed round about 490,000 people in the USA in 2024. (American Lung Association, n.d.). According to an estimate, this evil of smoking has engulfed almost 8 million lives. (World Health Organization, 2020). Not only it causes an individual to die, but it also has a negative effect on socio-economic conditions. Almost 80% of the overall smokers belong to low or middle-income countries and have to carry the burden of Tobacco related disease and death. (WHO, 2023).

Majority of smoking tools like cigarettes, vapes, heated tobacco products, etc., contain nicotine as a main component, which has addictive properties and damages the growing brain of young adults and causes a decline in cognitive

function. This repeated use of nicotine in smoking may lead to later addiction of different substances like alcohol, opioids, etc. (Cooper et al., 2022).

Nowadays, we are facing a large number of health issues, which lead to an increased number of premature deaths, and this number is still increasing vigorously, and one of them is smoking. Currently smoking is one of the major preventable causes of premature mortality. There is a large number of smokers all around the world, which include men, women, adults, and older people. Some smoke daily while others smoke occasionally; almost 32.6% of the men and 6.5% of women smokes in different parts of the world, 1.18 billion people smoke on a daily basis. A decline has been noticed due to some policies but still it is very high. (Dai, Gakidou & Lopes, 2022)

According to an estimate, almost 8 million people die prematurely each year all around the world, and most of these deaths are caused by smoking. (WHO, 2020). Smoking does not only affect those who consume it but also affect those who are around the smokers. Each year almost 1.2 million people die due to inhaling the exhaled smoke of another person. (WHO, 2020). Mostly smoker's start smoking in their teenage years, previous studies in USA show that smoking prevalence in teens living in families is 36.7% and almost 11.7% of teens who live in foster care smoke. (Budin, Râjnoveanu, Bordea & Todea, 2021).

While the prevalence of smoking is different among different countries, such as in the UK almost 10.6% of teens smoke daily. (Vrinten, PArnham, Filippidis, Hopkinson & Laverty, 2022), In Dubai almost 15.7% of teens smoke and among these 29.6% are males while 6% are females; Similarly, 17.5% of teens smoke in the West Bank (Palestine), and among these, 46% are males while 3.3% are females. On deep analysis it is found that in Dubai 5.6% which includes 9.9% males and 2.6% females smoke daily. Similarly, in West Bank 8.7% smokes constantly on a daily basis among these, 16.8% are males, while 4.65% are females. (Sabbah, Assaf & Dabeet, 2022). In Japan, 14.2% of young adults smoke cigarettes while 82.855% use vapes like heated tobacco products, which have similar negative effects on health (Igarashi et al., 2020). In Germany, the rate of smoking has decreased to 38.5%, but users of e-cigarettes have increased to 19.1%, and among these cigarette users 62.5% adolescents also smoked tobacco (Gali, Kastaun, Pischke & Kotz, 2022). Pakistan is the 5th most populous country; it is a developing country with a population is 241.5 million. This low-income country has to carry the increased burden of smoking with the prevalence of 30.1% (Ahmad, Jafar, Saddiqa, Firdous & Qadeer, 2022).

Mostly people start smoking in their teenage years due to multiple factors, and to control the increasing rates of smoking, it is important to identify those factors. Previous studies enumerate those factors which are known to cause initiation of smoking in young adults who are being exposed to exhaled smoke of another person, forced by their friend circle to smoke, perception that smoking makes them cool, smoking advertisements on different platforms, and lack of education about the side effects of smoking from family or teachers (Polanska, Znyk & Kaleta, 2022). These and other factors cause the teenagers to start smoking, as this is the age in which they are learning, so it is clear that smoking also affect their cognitive abilities. Previous studies show that those students who smoke on a daily basis have lower GPAs, their absenteeism is higher than nonsmokers and there are greater chances of getting academic warnings than non-smokers. Smoking leads the students to drop out from colleges or universities (Alqahtani et al., 2023b).

Moreover, smoking causes a large number of serious health issues. In the circulatory system it causes diseases like coronary heart disease, stroke, aneurysm etc. In Digestive system it causes gallstones, gastro esophageal reflux, Crohn's disease, periodontitis and acute pancreatitis. While in the musculoskeletal system smoking leads to fractures, osteoarthritis, and rheumatoid arthritis. In endocrine system it causes polycystic ovarian syndrome and Diabetes type 2. It also causes senile cataract and macular degeneration and cancers of the lungs, neck, esophagus, bladder, mouth, cervix, and prostate etc. All these diseases lead to an early death (Larsson & Burgess,2022).

Smoking affects people from all walks of lives,

even the doctors and nurses both male and female smoke which affect their health as well as the health of their patients. According to a study, conducted in Mosul City, shows nearly 33.3% primary health care providers smoke daily. (Ahmed, Younis Hussein, 2021).
It is much easier to prevent smoking than rehabilitation from it, so it is necessary to identify those factors which lead to the initiation of smoking so those can be dealt with number of smokers and deaths due to smoking can be reduced.

Problem Statement:
Smoking in young adolescents affect their health as well as their mental health. This will affect their cognition, which leads them to decrease GPAs, and lead to increased Absenteeism and warnings. Despite these side effects smoking causes a large number of health issues which leads to premature or early death. Similarly, it affects the male nursing students in various ways. Students who smoke are more prone to burn out and can become addicted to other types of drugs, which can lead to inefficient nursing care during their professional life. No of smokers are increasing day by day, even new types of smoking are being introduce like vapes, e-cigarettes etc. all these things attract the student toward smoking which affect their physical, mental and economic health.

Significance:
This descriptive research could provide us with the information about the factors responsible for initiating smoking in students. The results of this study will be helpful in making policies or programs to stop the initiation of smoking in male nursing students by targeting those factors which are responsible for this.

Objective:
- To determine the prevalence of smoking in young male students of nursing colleges in Lahore.
- To determine factors associated with initiation of smoking in young male students of nursing colleges in Lahore

KEY TERMS DEFINITIONS:
Smokers: Those individuals who inhale the smoke of burning tobacco directly.

Heated Tobacco Products: HTPs stands for heated tobacco products. These devices do not burn the tobacco instead heat it to the point at which it releases nicotine containing vapors.

Smokeless Tobacco: SLTs stand for smoke-less tobacco, these are the products in which tobacco is used through chewing, sniffing or placing in the buccal cavity.
These do not produce smoke.

2. LITERATURE REVIEW
Another cross-sectional study was conducted in the USA in 2021. This study aims to explain the prevalence and determinants of tobacco smoking among low-income adolescents. Data was collected from almost 2,747 individuals. It was found that among these 24.0% were current smokers and positive attitudes towards smoking, smoker friends and second-hand smoking were the most common factors which led to the initiation of smoking in these individuals. (Mallol et al., 2021)
A cohort study was conducted in the UK in 2022, this study aims to identify the risk factors related to smoking in adolescents. The data was collected from 8944 children, and the data suggested that form the participants, almost 10.6% were regular smokers at the age of 17. Factors which were smokers in family or friends, using excessive social media. (Vrinten et al., 2022)
In Japan in 2022 a study was conducted to identify the prevalence and denial of current tobacco product use, which includes combustible and heated tobacco products. Almost 28,124 individuals from all around the nation participated in this study using a self-reported survey. According to this study, almost 11.8% individuals are using heated tobacco products, while 19.4% are using cigarettes and 3.6% were using non-cigarette combustible tobacco (Odani & Tabuchi, 2022)
Another cross-sectional study identifying the prevalence of cigarette smoking and the influence of associated factors among students in university was conducted in an independent

country of southeastern Europe in 2022. Data was collected from nearly 1200 students using an adapted form of the Global Youth Tobacco Survey (GYTS). Results indicated that the prevalence of smoking was 34.1% and having excessive money and exposure to secondhand smoke were the major factors causing the initiation of smoking. (Todorović et al., 2022)

In Turkey, a descriptive cross-sectional study was conducted in 2024. This study aimed to identify cigarette use, addiction levels and factors affecting cigarette use in university students. Data was collected from almost 802 university students using Fagerström Test for Nicotine Dependence (FTND). Results showed that almost 20.8% of the students were cigarette consumers and among these, 71.9% started smoking from the age of 16. Factors like being a male, broken families and low academic performance were considered as a main reason for starting smoking (Avcı et al., 2024)

A cross-sectional study was conducted in Jordan in 2020. These study aims to identify the knowledge, attitude, prevalence and associated factors of cigarette smoking among the university students. Data was collected from 401 students. Smoking prevalence was 9.0% and factors like gender, place of residence, participant had received medical advice or not, student income/day and family members who smoke are the main causes of smoking (Omari et al., 2020)

Another cross-sectional study was conducted in Qatar in 2021, aiming to identify factors affecting waterpipe tobacco smoking among university students. 199 students participated in this study. Among these majority (70.6%) of students claims to use waterpipe tobacco smoking. Collected data suggest that a family member who smokes or a friend smoker can cause the initiation of using water pipe tobacco smoking (Al-Jayyousi et al., 2021)

In Ethiopia a cross-sectional study was conducted in 2021. This study aims to explain cigarette smoking prevalence and the factors which are associated with smoking in college students. Data was collected from nearly 605 students. Results showed that current smoking prevalence is about 6.8% and being a male, having a divorced marital status, food source in the hostel and exposure to family or other smokers were the major factors associated with cigarette smoking (Telayneh et al., 2021)

A systematic review and meta-analysis were done in the Kingdom of Saudi Arabia in 2025. The aim of this review was to know the prevalence of smoking among undergraduate students. Initially, 258 articles were selected and among these only 34 fulfilled the eligibility criteria. Minimum sample size was 208, while the maximum size was 3322. The lowest prevalence was 7.9%, and highest was 59.57%. Using the random effect model the pooled prevalence was 24.5%. (Alanazi, 2025)

Another cross-sectional study was conducted in the U.A.E in 2021. The aim of the study is to know the prevalence and associated factors of tobacco smoking among adults. Data was collected from nearly 8188 individuals. Overall prevalence was 9.1%, among these, 0.9% were daily smokers. Major factors were having low education levels and students with financial issues (Razzak, Qawas, Mujahed & Harbi, 2021)

In 2023 another study was conducted in Ethiopia. This cross-sectional study aims to identify the prevalence and risk factors for tobacco, khat, and alcohol consumption among high school students. The data was collected from almost 3,355 students studying in 9th and 10th grades. According to this study, almost 157 (4.7%) ever smoked cigarettes and 81(2.4%) were current smokers. 106(3.2%) of the participants use smokeless tobacco.1,342 (41.8%) uses alcohol while 290(8.7%) uses that. Factors which were identified as responsible for the initiation of tobacco consumption was the availability of cigarettes near school, seeing teachers or other faculty members smoking on school premises and having a friend who smoked a cigarette (Hirpa et al., 2023).

Similarly, another cross-sectional study was conducted in Delhi, India in 2021 on the prevalence and social contextual factors of smokeless tobacco use in school. Data was collected from almost 860 students from class 9th to 12th using a modified Global Youth Tobacco Survey (GYTS) questionnaire. Results showed that almost 79(11%) of the students used smokeless tobacco (SLT). 18.4% of the students consuming SLT were exposed to

smoking at school premises, and almost 16.7% of the subjects were exposed to tobacco advertisements on the internet (Sharma et al., 2021).

A Similar study was conducted in Punjab, India, in 2021, to assess the prevalence and risk factors of smoking among young males. In this cross-sectional study, data was collected from 807 participants and the overall prevalence came to be 20.44%. Among these 15.73% were currently active smokers while 4.70% were those who ever smoked in their lives. It was identified that participants belonging to lower class background, almost 26.66% were current smokers. 70% of the subjects suggested that tobacco advertisement influences tobacco consumption, while 26.51% thought that peer pressure causes the initiation of smoking. Almost 50.80% of the subjects suggested that tobacco products were easily available and anybody can buy them without any age restriction. 10.6% indicated that smokers in family members cause the initiation of smoking (Lal, 2021).

A study was conducted in 2019 in Bangladesh about the prevalence of smoking and its associated factors among adolescent males. This study uses a descriptive cross-sectional design. In this study a survey was conducted on 472 adolescent males, and their results indicate that the smoking prevalence was 25.0% and the factors which were responsible for smoking were smoker friends, smoking by a family member and considering that smoking makes people more attractive and happier (Imamuzzaman et al., 2022).

Similarly, another study was conducted in 2024 in Pakistan, aiming to explore prevalence, risk factors and intervention approaches related to adolescent smoking. This scoping review selected 1300 articles and only 18 were used. According to this study, prevalence of smoking in Pakistan ranges from 9% to 61.14%. Major factors contributing to the initiation of smoking were peer influence, having a smoker in the family, school related pressure, tobacco advertisements and low socioeconomic status (Mangrio, Uthis, Rojnawee & Matthews, 2024).

3. MATERIAL AND METHODS

Study Design:

A descriptive cross-sectional research design is used in this study. These studies are epidemiological designs, which can be considered as analytical or descriptive, which depends on the overall objective of the study. For identifying prevalence, this study design is considered quick and economic. (Vega, Maguina, Soto, Lama-Valdivia & Lopez, 2021)

Study Population:

Study population refers to an aggregate of individuals, objects or events which are the focus of interest, and from which sample is taken. Young male nursing students were selected for this study. (Burns & Grove, 2007)

Study Setting:

This refers to the environment in which the research or study is conducted. It includes location, time, population, and the related factors (Burns & Grove, 2007).

This study was conducted in 3 private nursing colleges in Lahore. Saida Waheed FMH College of Nursing

New Advance College of Nursing Saeed Afridi College of Nursing **Duration**:

This study lasted for 5 months, commencing from November 2024 to March 2025.

Sample Size:

N= Total population

College 1+ college 2+ college 3

233 + 130 + 80 total= 443

Margin of Error e^2 = 0.05 = 0.0025 Using solvin's formula

Solvin's formula:

$n = N / (1 + Ne^2)$

$n = 443 / 1 + (443 * 0.0025)$

$n = 443 / 1 + 1.1075$

$n = 443 / 2.1075$

Sample size (n) = 210.2 ≈ 210

Sampling Technique:

This study uses random sampling technique, for sampling. In this technique each member of the population has equal chances of being selected in a sample. (Burns & Grove, 2007)

Sample Selection Criteria: Inclusion Criteria:

- Male nursing students
- BScN students

Exclusion criteria:

- Students who are doing internship
- Students who are consuming other types of drugs
- Students who are suffering from any psychological issues.
- Students other than BSN nursing (Allied health students, CNA students, OTAs)

Data Collection Procedure:

For collecting data from the students of these colleges, permission was taken from their respective principals. A proper data collecting plan was established and followed. Researchers visited the colleges on the assigned date and time and with complete cooperation

Data Collection Tool:

An adapted questionnaire was used to collect data from the participants. This questionnaire was adapted from the global youth tobacco survey. This questionnaire consists of a total 36 questions which cover 7 different factors related to initiation of smoking.

Ethical Considerations:

- The study was guided by the ethical principles of the World Medical Association (WMA) declaration of Helsinki.
- Privacy and confidentiality of participants was ensured.
- Voluntary written informed consent for induction was taken prior to the data collection.
- The study was approved by the Institutional Ethical Review Committee of FMH system
- Any harm to the participants was avoided.

Data Analysis:

Statistical software IBM SPSS (Statistical Package for the Social Sciences) version 27 was used in this study. Frequency percentage was calculated of different variables, graphs are plotted for checking prevalence of smoking in young male nursing students, advertisement for tobacco and use of tobacco by influencers on various social platforms

4. RESULTS

The result findings of this study shows that prevalence of smoking among young male nursing student is 56%, and most of these smokers 55.9% started smoking at the age of 16-20 years. This study shows presence of a smoker in the family and friends, conception that smoking provides pleasurable feeling, makes you comfortable, and look attractive were the major factors that leads to initiation of smoking in young male nursing students.

Table 1: Demographic characteristics of participants(N=210).

Age	**Frequency**	**Percentage**
14-20 year	89	42.4
21-27 year	116	55.2
28-34 year	5	2.4
Year of study		
1st year	58	27.6
2nd year	78	37.1
3rd year	42	20.0
Final year	32	15.2
Father level of education		
Did not graduate high school	39	18.6
High school graduate	71	33.8
college graduate	88	41.9
I don't know	12	5.7
Mother's level of education		

Did not graduate high school	69	32.9
high school graduate	48	22.9
College graduate	74	35.2
I don't know	19	9.0
Parental smoking status		
Father (male guardian)	52	24.8
Mother (female guardian)	4	1.9
Both of them	5	2.4
Neither of them	149	71.0
Parent living together		
No	17	8.1
Yes	193	91.9
Father occupation		
No	12	5.7
Yes	198	94.3
Mother occupation		
No	156	74.3
Yes	54	25.7

Table 1 shows the demographic characteristics of the male nursing students in which majority of the students 116(55.2%), falls between the age of 21-27 years, while 89 (42.4%) students between 14-20 years age group and only 5(2.4%) falls between 28-34 age group. Similarly, most of the students 78(37.1%) study in 2nd year, 58 (27.6%) in 1st year, while 42(20%) in 3rd year and only 32(15.2%) in final year. The level of education of most of the study participants 88 (41.9%) father was college graduation, 71(33.8%) high school graduate, 39(18.6%) were those whose father didn't even graduated and only 12 (5.7%) students were those who did not have any knowledge about their father's education level. The level of education of most of the study participants 74 (35.22%) mother was college graduation, 69 (32.9%) were those whose mother didn't even graduated, 48 (22.9%) high school graduate, 19 (9%) students were those who did not have any knowledge about their mother's education level. A bulk of students 149(71%) reported that neither of their parent's smoke, 52(24.8%) father smoke, 5(2.4%) students both parents smoke and only 4(1.9%) reported that their mothers smoke. almost 193(91.9%) students' parents live together and only 17(8.1%) reported that their parents not live together. Similarly, 198(94.3%) students' fathers have a job, while only 12(5.7%) fathers don't have occupation. Likewise, 156 (74.3%) students' mothers don't have any job, while about 54 (25.7%) student's mothers have a job.

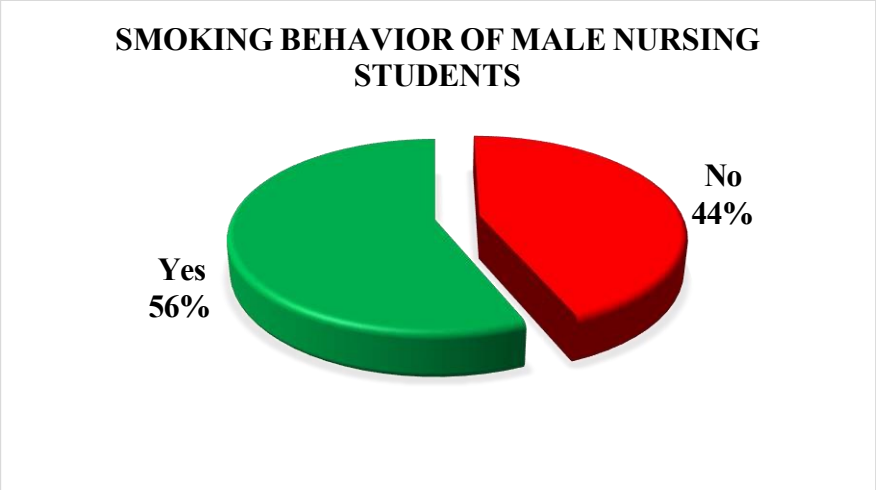


Figure 4.1 : Smoking Behavior of male nursing students (N=210).

Figure 4.1 show the Smoking Behavior of male nursing students in which 210 nursing students participated in th e study in which almost 118(56%) students smokes, while 92(44%) were non-smokers and only further 118 participants participated in the study

Table 2: Smoking Behavior of male nursing students (N=210).

Age at first smoking	Frequency	Percentage
10-15 Year	25	21.2
16-20 Year	66	55.9
21-25 Year	25	21.2
26-30 Year	2	1.7
Frequency of smoking		
1 or 2 days	55	46.6
6-9 days	26	22.0
10-19 days	18	15.3
1-30 days	19	16.1
Education about smoking		
No	38	32.2
Yes	80	67.8

Table 2 show the **Smoking Behavior of male nursing students in which** Majority of the students 66(55.9%) started smoking at the age of 16-20 years, 25(21.2%) smoke at
10-15 years and 21-25 years of age and only 2(1.7%) started smoking at 26-30 year of age. In the past 30 days almost 55(46.6%) students have smoked 1 or 2 days, 26(22%)
smoked 6-9 days, 18(15.3%) students smoked 10-19 days while only 19(16.1%) students smoked daily. a bulk of students 80(67.8%) received education about the harmful effect of smoking while 38(32.2 %) students did not receive any education.

Table 3: Obtaining or Purchasing of cigarettes among Male Nursing Students (N=118).

Method of access	Frequency	Percentage
I bought them myself	59	50.0
I gave money to someone else to buy them for me	8	6.8
I borrowed or asked someone to give me some	13	11.0
someone offered them to me	38	32.2

Location of purchase		
I bought them from a store or a shop	57	48.3
I bought them from a street vendor	7	5.9
I bought them from a friend	19	16.1
someone offered them to me	35	29.7
Refusal to sell to underage		
No	84	71.2
Yes	34	28.8
Pictorial Warnings on packaging		
No	28	23.7
Yes	90	76.3

Table 3 represents modes of access to cigarettes, more than half of the students 59(50%) bought cigarette themselves, 38(32.2%) reported that other offered them cigarettes, similarly 13(11%) students borrowed cigarette from others and only 8(6.8%) gave money to someone else for purchasing cigarettes. Among them a bulk of students 57(48.3%) purchased cigarette from stores, 35(29.7%) reported that someone offered them cigarettes, 19(16.1%) students borrowed cigarette from friends, while only 7(5.9%) bought cigarette from a street vendor. Around 84(71.2%) students weren't refused to buy cigarettes, while only 34(28.8%) refused due to their age. Almost 90(76.3%) students see pictorial health warning on packaging, however 28(23.7%) did not see.

Table 4: Attitude and Beliefs toward Smoking Among Male Nursing Students (N=118).

Is Occasional smoking harmful?	Frequency	Percentage
No	36	30.5
Yes	82	69.5
Does Smoking make Comfortable at social gathering?		
No	49	41.5
Yes	69	58.5
Does Smoking causes Pleasure		
No	37	31.4
Yes	81	68.6
Does Smoking make people Attractive		
No	63	53.4
Yes	55	46.6
Does smoking improve Focus or Concentration		
No	55	46.6
Yes	63	53.4

Table 4 provide Attitude and Beliefs toward Smoking Among Male Nursing Students in which 82(69.5%) students consider occasional smoking harmful. Similarly, 69(58.5%) students think that smoking make comfortable at social gathering. More than half of the students 81(68.6%) thought smoking gives pleasurable feeling. Majority of students 63(53.4%) thinks that smoking doesn't make them attractive. similarly, 63(53.4%) stated that smoking helps in improving focus.

Table 5: Exposure of Male Nursing Students to Other People's Smoke (N=118).

Someone Smoked inside house?	Frequency	Percentage
No	54	45.8
Yes	64	54.2
Smoking in Friends		
No	17	14.4
Yes	101	85.6
Someone smoker in class		
No	16	13.6
Yes	102	86.4
Peer Pressure		
No	67	56.8
Yes	51	43.2

Table 5 shows information about exposure to other people's smoke. Almost 64(54.2%) students reported that someone has smoked in their house, while 54(45.8%) reported that no one has smoked in their house. Similalrly,101(85.6%) students were smoker, while 17 (14.4%) were not smoker in close friend. However, 102 (86.4%) students were smoker in class, while 16 (13.6%) were not smoker. Majority of the students 67 (56.8%) faces no peer pressure of smoking, while 51 (43.2%) started smoking due to peer pressure.

Table 6: Exposure to Tobacco Advertising and Media Influence in male nursing students (N=118).

Tobacco use on social media	Frequency	Percentage
I did not watch any of these platforms	11	9.3
some time	53	44.9
Rarely	18	15.3
Most of the time	36	30.5
Tobacco Advertisement		
No	31	26.3
Yes	87	73.7

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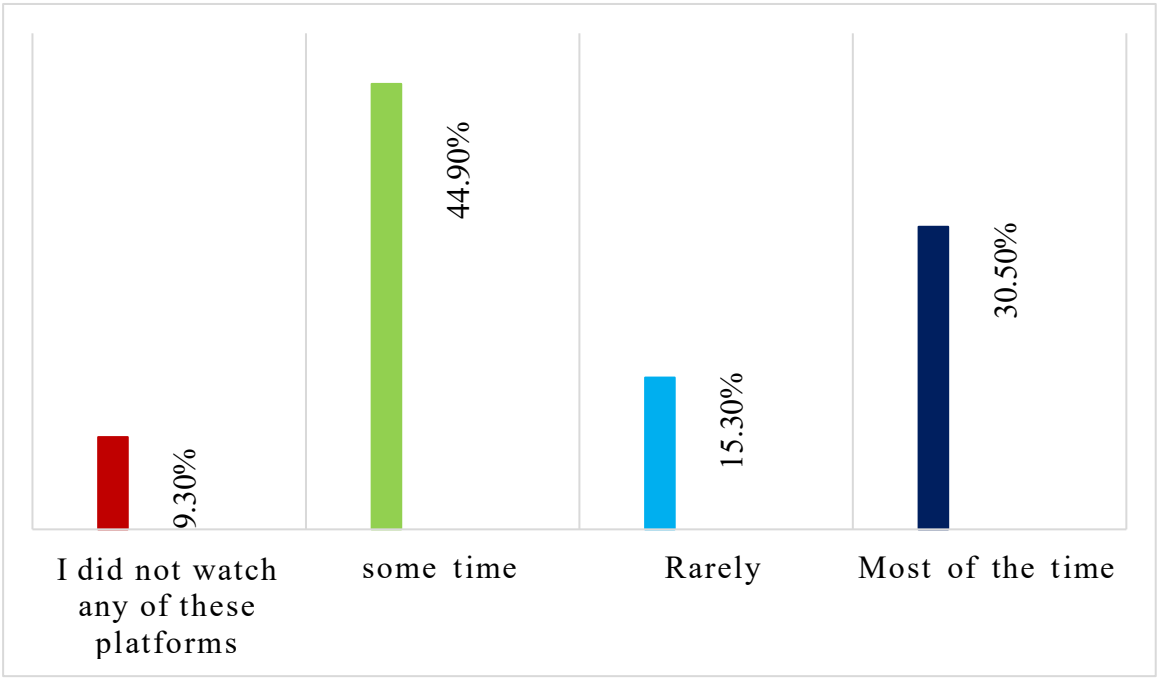


Figure 4.2 : Exposure to tobacco advertisement and media influence in male nursing students.

Figure 4.2 shows the exposure to tobacco use on social media, A bulk of the students 53 (44.9%) sometime observe tobacco use on social media,18 (15.3%) rarely sees people using tobacco, 36 (30.5%) student observe people using tobacco most of the time on social platforms, while only 11 (9.3%) students do not use social media.

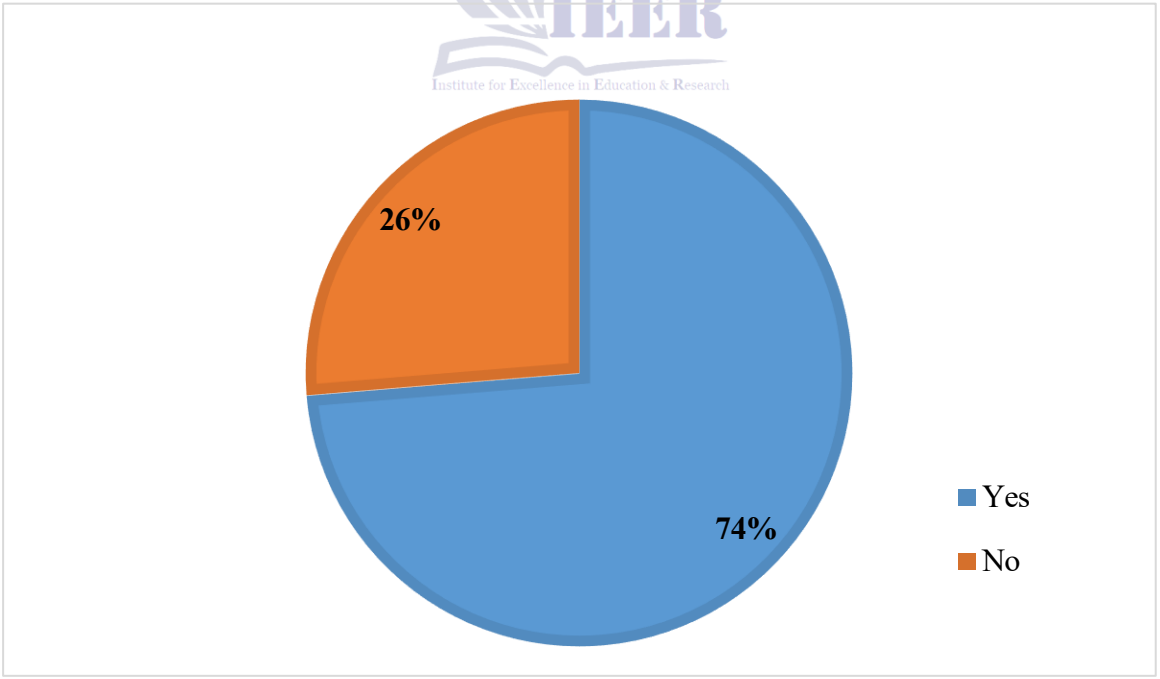


Figure 4.3: Exposure tobacco advertisements

Figure 4.3 shows the exposure to tobacco advertisement at point of sales, almost 87 (73.7%) students observe tobacco advertisement, while only 31 (26.3%) did not notice any advertisement.

Table 7: Personal Factors Related to Smoking Among Male Nursing Students (N=118).

Do the participant had a job in his experimental phase of smoking?	Frequency	Percentage
No	81	68.6
Yes	37	31.4
Is smoking common at job place?		
No	73	61.9
Yes	45	38.1
Does smoking relief Stress?		
No	23	19.5
Yes	95	80.5
Do you had any Close relationship with parents?		
No	28	23.7
Yes	90	76.3
Do you Smoke after fight?		
No	33	28.0
Yes	85	72.0
Do you receive Financial Support from family?		
No	22	18.6
Yes	96	81.4
Do you Cover your expense?		
No	79	66.9
Yes	39	33.1
Smoking before exams		
No	61	51.7
Yes	57	48.3
Do you isolate yourself when feeling depressed?		
No	26	22.0
Yes	92	78.0
Type of Personality		
Calm& relaxed	66	55.9
Aggressive	23	19.5
Passive	18	15.3
Dominant	11	9.3

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Table 7 shows the personal factors related to smoking among male nursing students in which Majority of the students 81 (68.6%) don't have any job during their experimental phase. Similarly, 73 (61.9%) students states that smoking was not common at their job place. A bulk of male students 95(80.5%) agree that smoking reduce stress. Approximately 90 (76.3%) students had a strong relationship with parents. Most of the nursing students 85 (72%) agree that smoking increases after a fight or separation from a loved-ones. Around 96 (81.4%) students receive financial support from family. Almost 79 (66.9%) students didn't cover their own expense. More than half of the students 61 (51.7%) smoking behavior does not change before or during exams. Almost 92 (78%) student's isolate themself when they feel stressed. About 66 (55.9%) students Posses calm& relaxed personality, among them 23 (19.5%) were aggressive, nearly 18 (15.3%) with passive personality, while 11 (9.3%) with dominant in personality.

5. DISCUSSION

This study reveals that prevalence of smoking in young male nursing students of private nursing colleges of Lahore is 56%, majority of these students 55.9% started smoking at the age of 16-20 years. This study also outlines the most

important factor which leads to initiation of smoking among young male nursing students, these are relieving stress, exposure to second hand smoke, having friends who smoke, improving focus or concentration in study, advertising tobacco use on social media and at the point of sale, facing no refusal on purchasing the cigarettes, and pleasurable feeling after smoking

The findings of this study regarding prevalence of smoking among college students (56%) is higher than The USA (24%), UK (10.6%), Japan (11.8%), Europe (34.1%), Turkey (20.8%), India (20.4%), while in contrast to this finding prevalence of smoking in Pakistan (9%-61.4%), and Qatar (70.6%) is higher than the current findings. (Mallol et al., 2021., Vrinten, Parnham, Filippidis, Hopkinson & Laverty, 2022., Odani & Tabuchi, 2022., Todorović et al., 2022., Avcı et al., 2024., Lal, 2021., Mangrio, Uthis, Rojnawee & Matthews, 2024 & Mallol et al., 2021)

Presence of a smoker in family or friends is a powerful factor which might be responsible for initiation of smoking. This study shows that 85.6% students reported that they have friends who smokes, while 54.2% reported that someone has smoked in their home. studies conducted in the USA, UK, Jordan, Qatar, Ethiopia, Punjab, India, Bangladesh and in Pakistan. (Mangrio et al., 2024) highlighted the same factor as responsible for initiation of smoking. (Mallol et al., 2021., Vrinten, Parnham, Filippidis, Hopkinson & Laverty, 2022., Omari et all., 2020., Al-Jayyousi et al., 2021., Telayneh
et al., 2021., Hirpa et al., 2023., Lal, 2021., Imamuzzaman et al., 2022 & Mangrio, Uthis, Rojnawee & Matthews, 2024).

Another factor which can be a major contributor in the initiation of smoking in young male nursing students is stress, which is most likely to be related to low academic performance. This study indicates that 80.5% students who smoke are also dealing with high level of stress. Similar findings were obtained in studies conducted in Turkey and Pakistan. (Avcı et al., 2024 & Mangrio, Uthis, Rojnawee & Matthews, 2024)

Advertisement plays an important role in attracting the public attention towards a certain product, similarly tobacco advertisements and it's use on social media is one of the essential factors contributing in the vigorously increasing number of smokers. This study shows that a major portion of the smokers 73.7% have seen multiple tobacco advertisements on various points of sale and stores, while about 44.9% individual have sometimes seen people using tobacco products on various social platforms. Similarly, studies conducted in UK, Delhi, India and Pakistan suggested that tobacco advertisement and use of tobacco on social media is one of the major factors contributing to initiation of smoking in young male students. (Vrinten, Parnham, Filippidis, Hopkinson & Laverty, 2022., Sharma et al., 2021 & & Mangrio, Uthis, Rojnawee & Matthews, 2024)

Another factor which is responsible for initiating smoking is the conception that smoking makes people more comfortable, provides pleasurable feelings and smoking will make them attractive to other. The results of this study shows that more than half of the smokers 69% thinks that smoking helps them get comfortable at various situations, while 68.6% reported that smoking provides pleasurable feelings, in contrast to normal conception almost 53.4% students who smokes did not think that it makes
them attractive. A study conducted in Bangladesh 2019 (Imamuzzaman et al., 2022) conclude that it makes them comfortable and provides pleasure able feelings and make them attractive which is in contrast to the current study findings which suggest that it does not make them attractive to other.

The most important factor responsible for initiation of smoking is easy access to cigarettes. There are some policies like minors are not allowed to buy cigarettes, but there is no action on these policies. The data obtained during the study suggested that half of the students who smoke 50% purchase their cigarettes by themselves, and a major portion of these smokers 71.2% has never faced any kind of refusal on purchasing the cigarettes. Similarly various studies conducted in Punjab, India in 2021, (Lal, 2021), and Ethiopia in 2023, (Hirpa et al., 2023) indicates that they had an easy access to cigarettes and no one refused to sell

them.

Peer pressure is another factor which is thought to be responsible for initiating smoking, a study conducted in Pakistan in 2024 reported peer pressure as a major factor leading to smoking, (Mangrio, Uthis, Rojnawee & Matthews, 2024), but in contrast the current study findings shows that almost 56.8% smoking students states that they have never experienced peer pressure for smoking.

Outcomes and Utilizations:

The results of the present study would be useful in: generating interventions that will focus specifically on those factors which are responsible for initiation of smoking among young male nursing students. Such interventions will reduce the prevalence of smoking and thus this will lead to better CGPA, and reduced absenteeism of male nursing students, and ultimately their patient care will be improved for later professional life.

Recommendations:

- The following recommendations are suggested on the basis of findings of the
- A study should be conducted on prevalence of smoking and factors responsible for smoking in female nursing students.
- An interventional study should be conducted for controlling the smoking among young male nursing students.
- A longitudinal study should be conducted to assess the rate of cessation of smoking due to interventions.

Implications for future researches:

- Generate intervention by keeping these factors in mind for the effective control of cigarette smoking among nursing students.
- Longitudinal research should be conducted to assess the cessation rate of students due to interventions applied.
- Further studies should corelate Smoking prevalence with the demographic data.

Limitations of the study:

- Current study has certain limitations described below
- Limited to male nursing students and not covering female students.
- This is a cross sectional study due to limitation of time period.
- Study is limited to Lahore only and does not assess the prevalence of smoking in colleges all over the Punjab.

Strengths of the study:

- This study explores multiple factors responsible for initiating smoking simultaneously.
- In previous studies such extensive work has not been done on identifying all the factors responsible for initiating of smoking
- This study is one of the fewest studies conducted on male nursing students in the context of smoking.

Conclusion

This study shows that prevalence of smoking is very high among young male nursing student of private nursing colleges of Lahore Pakistan. It was found that smoking prevalence is 56% which is more than half of the sample. Most of these smokers start smoking at the age of 16-20 years of age. Most commonly found factors were presence of smoker in family and friend circle, easy access to the cigarettes, tobacco advertisements and people using tobacco on various social platforms, and perception that smoking gives pleasurable feelings, improve focus, and relief stress. These findings will help us to generate interventions that would specifically these factors to reduce smoking.

REFERENCES:

Ahmad, A., Jafar, K., Saddiqa, A., Firdos, U., & Qadeer, A. (2022). Prevalence and Determinants of Smoking among School Students at Rural Community, Lahore. *Saudi Journal of Nursing and Health Care*, *5*(12), 308–320. https://doi.org/10.36348/sjnhc.2022.v05i12.002

Ahmed, M. M., Younis, N. M., & Hussein, A. A. (2021). Prevalence of tobacco use among health care workers at primary health care centers in Mosul City. *Pakistan Journal of Medical and Health Sciences*, *15*(1), 421-4.

Alanazi, N. H. (2025). Prevalence of smoking among undergraduate students in the Kingdom of Saudi Arabia: A meta-analysis. Tobacco Induced Diseases, 23(March), 1–9. https://doi.org/10.18332/tid/190797

Al-Jayyousi, G. F., Kurdi, R., Islam, N., Alhussaini, N. W. Z., Awada, S., & Rahim,

H. A. (2021). Factors Affecting Waterpipe Tobacco Smoking among University Students in Qatar. *Substance Use & Misuse*, *57*(3), 392–401. https://doi.org/10.1080/10826084.2021.2012695

Alqahtani, J. S., Aldhahir, A. M., Alanazi, Z., Alsulami, E. Z., Alsulaimani, M. A., Alqarni, A. A., Alqahtani, A. S., AlAyadi, A. Y., Alnasser, M., AlDraiwiesh, I. A., Alghamdi, S. M., Almarkhan, H. M., Alsulayyim, A. S., AlRabeeah, S. M., & AlAhmari, M. D. (2023b). Impact of smoking status and nicotine dependence on academic performance of health sciences students. *Substance Abuse and Rehabilitation*, *Volume 14*, 13–24. https://doi.org/10.2147/sar.s393062

American Lung Association. (n.d.). *Tobacco Facts | State of tobacco control*. https://www.lung.org/research/sotc/facts#:~:text=Smoking%20is%20the%20number%20one,Columbia%20are%20$1.97%20per%20pack.

Avcı, S., Coşkun, A. B., Çiğdem, Z., Dikici, E., Çağlayan, M. Ö., Polat, S., & Arslan,

S. (2024). CIGARETTE USE, ADDICTION LEVELS, AND INFLUENTIAL FACTORS AMONG HEALTHCARE STUDENTS IN TÜRKİYE. International Journal of Health Services Research and Policy, 9(2), 148–164. https://doi.org/10.33457/ijhsrp.1479914

Budin, C.E.; Râjnoveanu, R.-M.; Bordea, I.R.; Grigorescu, B.L.; Todea, D.A. Smoking in Teenagers from the Social Protection System—What Do We Knowabout It? Medicina 2021, 57, 484. https://doi.org/10.3390/medicina57050484

Burns, N., & Grove, S. K. (2007). Understanding nursing research: Building an Evidence-based Practice. W B Saunders Company.

Cooper, M., Park-Lee, E., Ren, C., Cornelius, M., Jamal, A., & Cullen, K. A. (2022). Notes from the Field: E-cigarette Use Among Middle and High School Students — United States, 2022. *MMWR Morbidity and Mortality Weekly Report*, *71*(40), 1283–1285. https://doi.org/10.15585/mmwr.mm7140a3

Dai, X., Gakidou, E., & Lopez, A. D. (2022). Evolution of the global smoking epidemic over the past half century: strengthening the evidence base for policy action. *Tobacco control*, *31*(2), 129-137.

Gali, K., Kastaun, S., Pischke, C. R., & Kotz, D. (2022). Trends and consumption patterns in the use of e-cigarettes among adolescents and young adults in Germany (the DEBRA study). *Addictive Behaviors*, *133*, 107375. https://doi.org/10.1016/j.addbeh.2022.107375

Hammagabdo, A., Bakki, B., Amodu, M., & Omotara, B. (2018). Prevalence and factors influencing cigarette smoking among young adults in a tertiary institution in Borno State, Nigeria. *Deleted Journal*, *6*(4), 218. https://doi.org/10.4314/rejhs.v6i4.8

Hirpa, S., Fogarty, A. W., Addissie, A., Bauld, L., Frese, T., Unverzagt, S., Kantelhardt, E. J., Getachew, S., & Deressa, W. (2023). Prevalence and risk factors for tobacco, khat, and alcohol consumption among high school students in Ethiopia. *BMC Public Health*, *23*(1). https://doi.org/10.1186/s12889-023-15088-x

Igarashi, A., Aida, J., Kusama, T., Tabuchi, T., Tsuboya, T., Sugiyama, K., Yamamoto, T., & Osaka, K. (2020). Heated tobacco products have reached younger or more affluent people in Japan. *Journal of Epidemiology*, *31*(3), 187–193. https://doi.org/10.2188/jea.je20190260

Imamuzzaman, M., Muhammad, F., Haque, I., Ahmed, K., Mukta, K. F., Reuben, R. C., Chowdhury, A. A., & Basher, S. (2022). Prevalence of Smoking and its Associated Factors among Adolescent Males in Bangladesh: A Community Survey. *The Open Public Health Journal*, *15*(1). https://doi.org/10.2174/18749445-v15-e221115-2022-83

Lal, D. (2021). A Study to Evaluate and Assess the Prevalence and Risk Factors of Smoking among Young Males. *Epidemiology International*, *06*(02), 14–19. https://doi.org/10.24321/2455.7048.202112

Larsson, S. C., & Burgess, S. (2022). Appraising the causal role of smoking in multiple diseases: A systematic review and meta-analysis of Mendelian randomization studies. *EBioMedicine*, *82*.

Mallol, J., Urrutia-Pereira, M., Mallol-Simmonds, M. J., Calderón-Rodríguez, L., Osses-Vergara, F., & Matamala-Bezmalinovic, A. (2021). Prevalence and determinants of tobacco smoking among Low-Income Urban Adolescents. *Pediatric Allergy Immunology and Pulmonology*, *34*(2), 60–67. https://doi.org/10.1089/ped.2021.0018

Mangrio, F. A., Uthis, P., Rojnawee, S., & Matthews, A. K. (2024). Prevalence, risk factors, and intervention approaches related to adolescent smoking in Pakistan: a scoping review. *Journal of the Dow University of Health Sciences*, *18*(2), 112–125. https://doi.org/10.36570/jduhs.2024.2.2027

Nasim, F., Yousaf, S., Arshad, R., Younis, B. B., Shahid, A., & Naeem, H. R. (2019). Prevalence of Smoking among Young Pakistani Adults. *Journal of Shalamar Medical & Dental College - JSHMDC*, *1*(2), 15–20. https://doi.org/10.53685/jshmdc.v1i2.66

Odani, S., & Tabuchi, T. (2022). Prevalence and denial of current tobacco product use: Combustible and heated tobacco products, Japan, 2022. *Preventive Medicine Reports*, *30*, 102031. https://doi.org/10.1016/j.pmedr.2022.102031

Omari, O. A., Sharour, L. A., Heslop, K., Wynaden, D., Alkhawaldeh, A., Qadire, M. A., & Khalaf, A. (2020). Knowledge, Attitudes, Prevalence and Associated Factors of cigarette smoking among university students: a cross sectional study. *Journal of Community Health*, *46*(3), 450–456. https://doi.org/10.1007/s10900-020-00874-0

Polanska, K., Znyk, M., & Kaleta, D. (2022). Susceptibility to tobacco use and associated factors among youth in five central and eastern European countries. *BMC Public Health*, *22*(1). https://doi.org/10.1186/s12889-022-12493-6

Razzak, H. A., Qawas, A., Mujahed, M., & Harbi, A. (2021). Prevalence, and associated factors of tobacco smoking among adults in the United Arab Emirates; results from national health survey. *Journal of Public Health*, *30*(8), 2039–2046. https://doi.org/10.1007/s10389-021-01571-5

Sabbah, H. A., Assaf, E. A., & Dabeet, E. (2022). Prevalence of smoking (cigarette and waterpipe) and its association with obesity/overweight in UAE and Palestine. *Frontiers in Public Health*, *10*. https://doi.org/10.3389/fpubh.2022.963760

Sharma, A., Garg, S., Singh, M. M., Deshmukh, C., Sharma, P., & Borle, A. (2021). Prevalence and Social Contextual Factors of Smokeless Tobacco Use: Insights from Schools of Delhi, India. *Asian Pacific Journal of Cancer Prevention*, *22*(8), 2351–2355. https://doi.org/10.31557/apjcp.2021.22.8.2351

Telayneh, A. T., Gedefaw, M., Haile, D., Habtegiorgis, S. D., Getahun, D. S., Tafere, Y., Assemie, M. A., Woyraw, W., Temesgen, H., & Mekonnen, N. (2021). Cigarette smoking prevalence and associated factors among college students, Amhara, Ethiopia. Pan African Medical Journal, 40. https://doi.org/10.11604/pamj.2021.40.170.24413

Todorović, I., Cheng, F., Stojisavljević, S., Marinković, S., Kremenović, S., Savić, P., Golić-Jelić, A., Stojaković, N., Stoisavljević-Šatara, S., Igić, R., & Škrbić, R. (2022). Prevalence of Cigarette Smoking and Influence of Associated Factors among Students of the University of Banja Luka: A Cross-Sectional Study. *Medicina*, *58*(4), 502. https://doi.org/10.3390/medicina58040502

Vega, A. C., Maguiña, J. L., Soto, A., Lama-Valdivia, J., & López, L. E. C. (2021). Cross-sectional studies. *Revista De La Facultad De Medicina Humana*, *21*(1), 164–170https://doi.org/10.25176/rfmh.v21i1.3069

Vrinten, C., Parnham, J. C., Filippidis, F. T., Hopkinson, N. S., & Laverty, A. A. (2022). Risk factors for adolescent smoking uptake: Analysis of prospective data from the UK Millennium Cohort Study. *Tobacco induced diseases*, *20*, 83. https://doi.org/10.18332/tid/152321

Vrinten, C., Parnham, J., Filippidis, F., Hopkinson, N., & Laverty, A. (2022). Risk factors for adolescent smoking uptake: Analysis of prospective data from the UK Millennium Cohort Study. *Tobacco Induced Diseases*, *20*(October), 1–6. https://doi.org/10.18332/tid/152321

World Health Organization (WHO). Tobacco. 2020. https://www.who.int/en/ news-room/fact-sheets/detail/tobacco. Accessed 7 Jul 2020.

World Health Organization (WHO). Tobacco. 2020. https://www.who.int/en/ news-room/fact-sheets/detail/tobacco. Accessed 7 Jul 2020.

World Health Organization: WHO. (2023, July 31). *Tobacco*. https://www.who.int/news-room/fact-sheets/detail/tobacco