



# IJRASET

International Journal For Research in  
Applied Science and Engineering Technology



---

# INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

---

**Volume:** 12    **Issue:** XI    **Month of publication:** November 2024

**DOI:** <https://doi.org/10.22214/ijraset.2024.65511>

[www.ijraset.com](http://www.ijraset.com)

Call:  08813907089

E-mail ID: [ijraset@gmail.com](mailto:ijraset@gmail.com)

# Smoking Behaviour, Knowledge, Attitude, and Practice among Students of University of Aseer Region at KSA

Selvia Arokiya Mary Amalanathan<sup>1</sup>, Sheliya White N<sup>2</sup>, Dr. Eman Elsayed<sup>3</sup>

College of medical sciences University of Bisha

**Abstract: Background:** Tobacco smoking remains a major global public health challenge, contributing significantly to respiratory, cardiovascular, and neoplastic diseases. (9) In Saudi Arabia, smoking rates among college students are of particular concern, reflecting a growing need for targeted interventions. (10)

**Objective:** This study aimed to assess the knowledge, attitudes, and practices regarding cigarette smoking among college students at the University of Bisha, Aseer region, to better understand smoking behavior and inform public health strategies. (12)

**Methods:** A cross-sectional descriptive study was conducted using a self-administered questionnaire based on the Global Adult Tobacco Survey (GATS). (18) The study included 100 college students who were surveyed about their smoking status, knowledge, attitudes, and practices related to smoking. Data were analyzed using IBM SPSS software, version 24, with chi-square tests employed for statistical significance ( $p < 0.05$ ).

**Results:** Among the 100 participants, 66.4% were never smokers, 23.6% were current smokers, and 10.0% were ex-smokers. The study found that male students were significantly more likely to be current or ex-smokers compared to female students. (16) Increased education level correlated with a decrease in smoking prevalence. (15) Knowledge levels about smoking's effects and attitudes towards smoking differed significantly between never smokers, current smokers, and ex-smokers. (19) The majority of never smokers and ex-smokers cited health concerns as their primary reason for avoiding or quitting smoking, while current smokers predominantly viewed smoking as a stress reliever. (14) Only 49.2% of current smokers consistently declared their smoking status to healthcare providers, and 61.0% received advice to quit. (11)

**Discussion:** The study highlights a significant disparity in smoking prevalence and attitudes between genders and across education levels. The results suggest that enhanced awareness and educational interventions are needed, especially targeting current smokers and integrating effective cessation methods such as counseling and nicotine replacement therapy. (17)

**Conclusion:** This study underscores the importance of improving knowledge and attitudes toward smoking to reduce smoking rates among college students. Early intervention, increased access to cessation resources, and targeted health education can play crucial roles in addressing smoking behaviors in this population. (13)

**Keywords:** Tobacco smoking, public health, smoking cessation, college students, Saudi Arabia, health education.

## I. INTRODUCTION

Tobacco smoking is one of the largest and highly preventable public health threats world wide . It is considered as a modifiable risk factor for several respiratory, cardiovascular, and neoplastic diseases.[1]

As per the WHO, smoking kills more than 8 million people each year. More than 7 million of those deaths are the result of direct tobacco use, while around 1.2 million deaths are the result of exposure to second-hand smoking.[2]

The Saudi Arabia smoking rate for 2020 was 14.30%, a 0.1% increase from 2019. Saudi Arabia smoking rate for 2019 was 14.20%, a 0% increase from 2018 are current tobacco smokers, while on the other hand around 11.3% males and 5.0% females from the youth are current tobacco smokers' too.[3]

The Saudi Health Interview Survey (SHIS) is a large national survey aimed at assessing chronic diseases, health behavior's, and risk factors among adults aged 15 or older in the Kingdom of Saudi Arabia. The survey consists of a household roster, a questionnaire and physical measurements, and a lab-based biomedical examination. The questionnaire included several questions on tobacco use.

The survey was developed in partnership between the Ministry of Health in Saudi Arabia and the Institute for Health Metrics and Evaluation of the University of Washington

## II. SIGNIFICANCE OF STUDY

The diseases related to cigarette smoking increased the risks of abdominal mental heart related disease many cancers including the lungs mouth throat cancers are also highlighted. Health and Services (2022). And the young smokers are at the top of the list which is highly need to control. So this study helped to encourage the young smokers to stop smoking cigarette. Public health implications: Smoking is a major public health concern, as it has been linked to numerous health problems, including lung cancer, heart disease, and respiratory illnesses. Studying the smoking behavior, knowledge, attitude, and practice among students in the University of Aseer region can provide important insights into the prevalence and determinants of smoking among this population, and can help inform public health policies and interventions aimed at reducing smoking rates.

Economic implications: Smoking is also associated with significant economic costs, including medical expenses, lost productivity, and increased healthcare costs. By understanding the smoking behavior, knowledge, attitude, and practice among students in the University of Aseer region, policymakers can develop cost-effective strategies for reducing smoking rates and minimizing the economic burden of smoking on individuals and society as a whole.(20)

Social implications: Smoking is a social behavior, and studying the smoking behavior, knowledge, attitude, and practice among students in the University of Aseer region can provide important insights into the social and cultural factors that influence smoking behavior. This can help inform targeted public health campaigns and interventions aimed at changing social norms around smoking, and promoting healthier behaviors among students and the wider community.

## III. AIMS OF THE STUDY

This study conducted to assess knowledge, attitude, and practice regarding cigarette smoking behavior among college students .

## IV. METHODOLOGY

### A. Study Design

Cross-sectional descriptive study design is used for study. This form of research is a one-time collection of data without a control group. Research will be conducted by one time data collection method without control group.

The data collected through convenient sampling techniques. Those who meet the inclusion criteria will be included in the study and those who don't meet the criteria will not be the part of the study.

### B. Sampling

Study was conducted by convenient technique.

### C. Research Tool

Data was collected using a self-administered questionnaire developed by the researchers using the Global Adult Tobacco Survey (GATS).

The questionnaire was evaluated through a pilot study conducted on the same study population prior to the actual data collection to ensure easy understanding and better quality of the questionnaire

### D. Targeted Population

The targeted population of this Study the college students of University of Bisha aseer region .

### E. Data Analysis

The data was then analyzed using IBM SPSS software, version 24. Chi-square test was used for further evaluation with significance level of  $P < 0.05$ .

## V. DATA COLLECTION AND INSTRUMENT

The questionnaire included the following five sections: sociodemographic data, smoking status, knowledge level, attitude level, and practice.

In knowledge level section, the participants were asked questions about the effects of smoking and second-hand smoking and were asked to respond with yes, no, or I don't know. A scoring system similar to one used in a previous study [6] was applied in our study to assess the responses to knowledge questions, with scores of  $<50\%$ ,  $50-74\%$ , and  $\geq 75\%$  indicating poor, fair, and good knowledge level, respectively.



In attitude level section, the participants were given some statements that involve smoking or anti-smoking acts and were asked to respond with agree, disagree, or I don't know. The same previously mentioned scoring system was used again to assess the responses to attitude questions.

In the practice section, the questions were tailored according to the smoking status of the participant. Some of the questions were designed in a multiple response scheme to help better address the general practice of the participant toward smoking.

Never smokers' and ex-smokers' questions included reasons of not smoking/reasons to quit smoking, allowing smoking in their houses and advising people around them to quit smoking.

Smokers were asked questions related to the smoking tool, frequency, age, and source of first attempt, planning of quitting, the benefit of smoking, and they were asked about whether they declare their smoking status to their health provider or not. Furthermore, they were asked if they have got an advice to quit smoking from healthcare providers. The last question was related to the smoker's perspective regarding the best method to help them quit smoking.

#### A. Study Design

Cross-sectional descriptive study design is used for study. This form of research is a one-time collection of data without a control group. Research will be conducted by one time data collection method without control group.

The data collected through convenient sampling techniques. Those who meet the inclusion criteria will be included in the study and those who don't meet the criteria will not be the part of the study.

#### B. Sampling

Study was conducted by convenient technique.



#### C. Research Tool

Data was collected using a self-administered questionnaire developed by the researchers using the Global Adult Tobacco Survey (GATS).

The questionnaire was evaluated through a pilot study conducted on the same study population prior to the actual data collection to ensure easy understanding and better quality of the questionnaire

#### D. Targeted Population

The targeted population of this Study the college students of University of Bisha aseer region .

#### E. Data Analysis

The data was then analyzed using IBM SPSS software, version 24. Chi-square test was used for further evaluation with significance level of  $P < 0.05$ .

## VI. RESULTS

A total of 100 students with almost male to female ratio (53:47) participated in our study. Approximately 66.4% of the participants were never smokers (n =66), 23.6% were current smokers (n =25 ), and 10.0% were ex-smokers (n = 10). The majority of smokers (43.9%, n = 45) and ex-smokers (17.3%, n = 17) were males (P value = 0.000), with male to female ratio of 53:47 in smokers and 41: 11 in ex-smokers.

An association was shown between increased level of education and a decline in number of current smokers, decreasing from 22.2% with bachelor degree of applied medical sciences up to 8.0% with bachelor degree of arts and education (P value = 0.004).

### Knowledge level

Participants were divided into two groups according to their smoking status, and then the previously mentioned scoring system was applied to each group. Figure 1 shows the distribution of participants' level of knowledge among the three groups (P value = 0.000).

### Attitude level

Participants were divided into two groups according to their smoking status, and then the previously mentioned scoring system was applied to each group. Figure 2 shows the distribution of participants' attitude level among the three groups (P value = 0.000).

### Never smokers and Ex-smokers

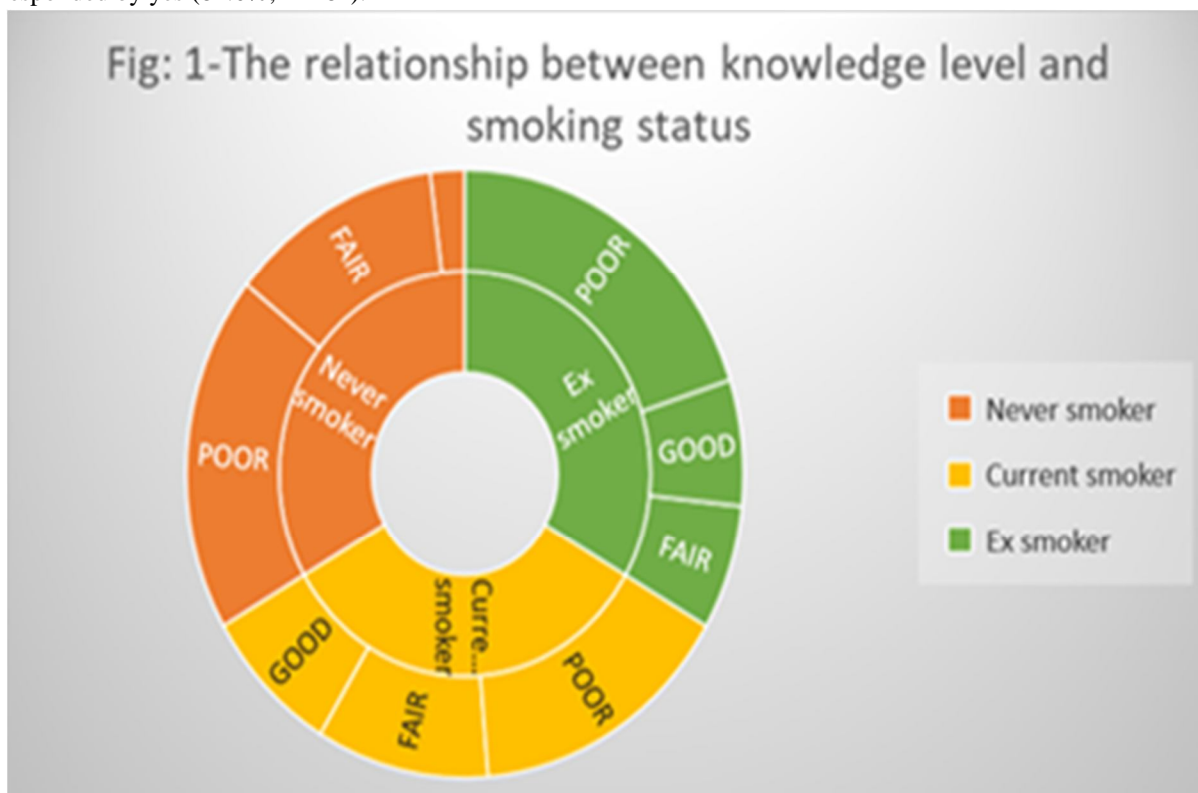
The first question for never smokers was about reasons not to smoke and they were given the right to choose more than one reason from the options given. Health-related reason ranked the top 20.9%, followed by disliking the smell at around 50.6%, and the third reason was self-discipline at around 29.2%. Saving money, being unfashionable and others were chosen less frequently compared to the first three reasons mentioned.

On the other hand, the first question for ex-smokers was about reasons to quit and it was also a multiple response question. Health-related reason/problems ranked the top 67.0%, followed by personal reasons at around 22.0%, and the third reason was family or partner advice at around 11.0%.

In summary, it was clear that health-related issue was the main concern behind avoiding smoking or quitting it.

Moreover, in the second question, for both never smokers and ex-smokers they were asked about whether they allow the visitors to smoke inside their houses or not. Around 82.7% (n = 82) answered that they don't allow the visitors to smoke inside their houses.

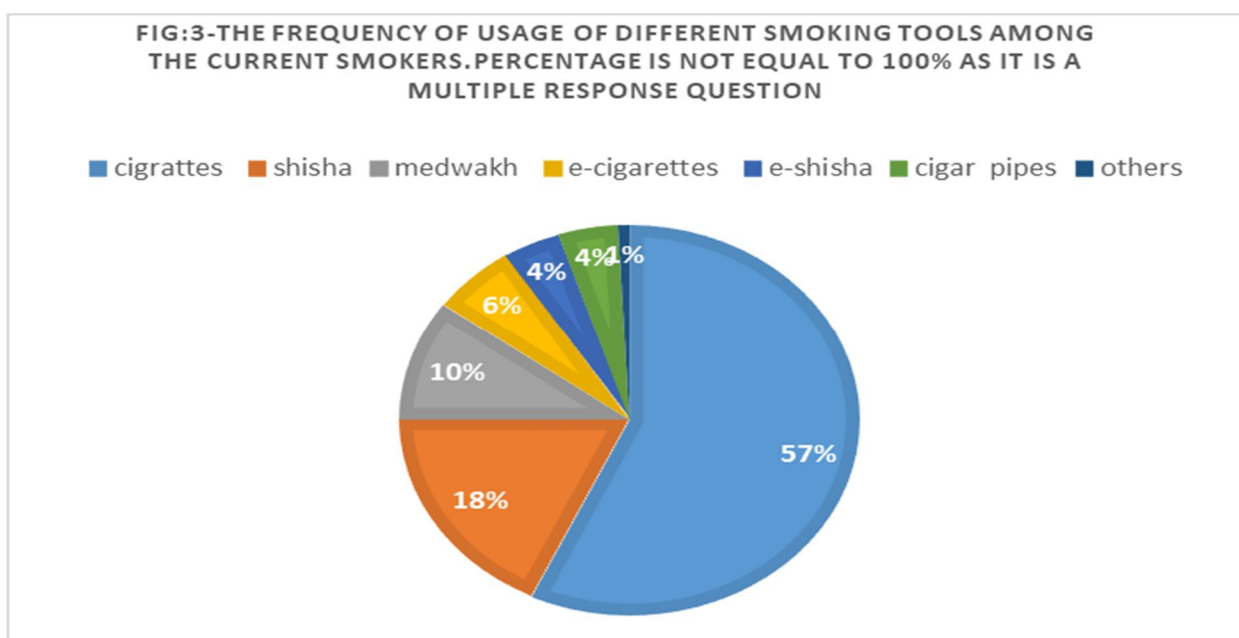
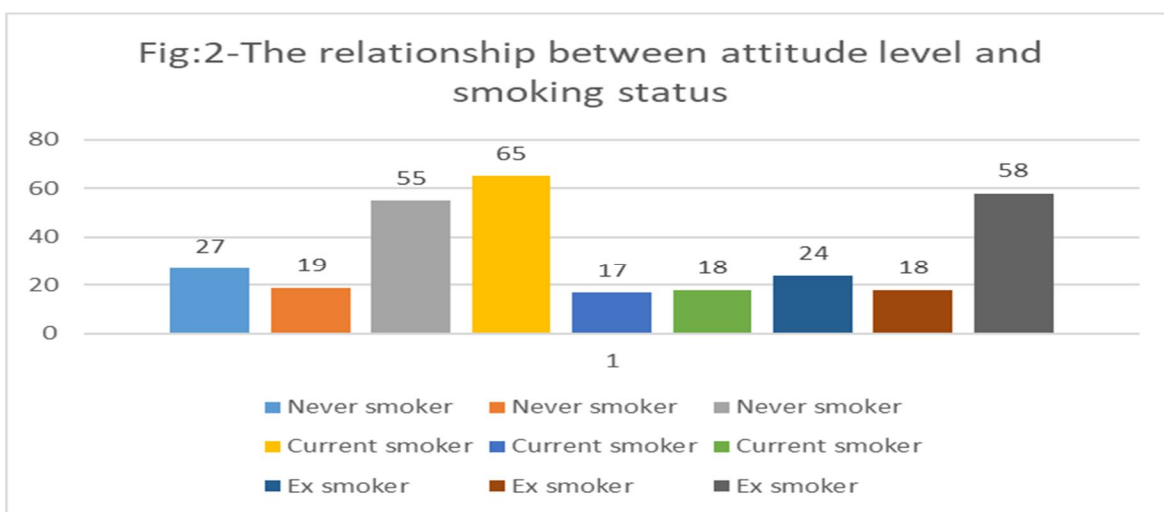
In addition to that, the third question for both categories was about if they advise smokers around them to stop smoking, the majority responded by yes (82.0%, n = 82).

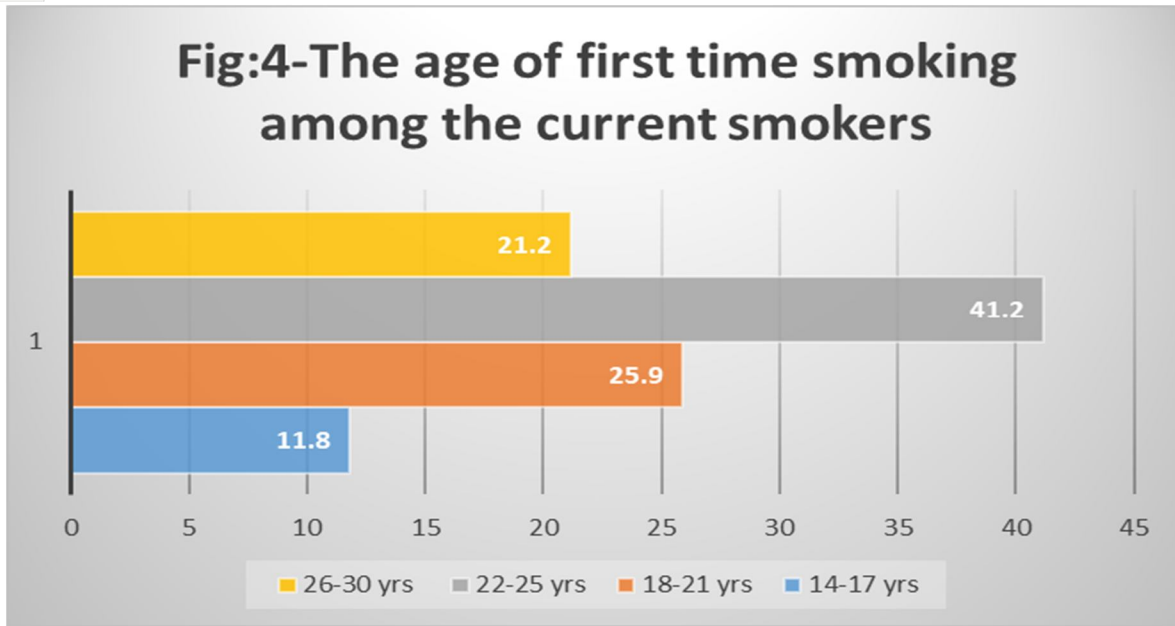


They were also asked if they are planning to quit smoking in the upcoming 6 months. Almost half of the current smokers (n = 59) replied with yes. Furthermore, they were asked if they have ever tried to quit smoking in the past 12 months, and around 40.5% (n = 41) of them answered with no. Of those who tried quitting before, 46.4% (n = 46) quit smoking only for days. Further details are shown in the Table 2 below:

**Table 2: The participating current smokers who tried to quit and for how long they were able to.**

Duration	Total number	Percentage
< 24h	7	12.5%
Days	26	46.4%
Weeks	11	19.6%
Months	7	12.5%
Years	3	5.5%
Don't know	2	3.6%
<b>Total</b>	<b>56</b>	<b>100%</b>





In a question regarding what they believe are the benefits of smoking (they were allowed to choose more than one choice), relieving stress was the major benefit 64.4%. Next reason was “smoking helps to increase concentration” 28.8%, followed by “protecting against some diseases” in the third place at around 3.4%. Nevertheless, almost 25.4% (n = 30) of the current smokers believed that smoking has no benefit.

Only 49.2% (n = 58) of the current smokers have always declared that they are smokers to their healthcare provider. And around 61.0% (n = 72) of total current smokers have received an advice to quit smoking from their healthcare provider.

The responses to the question about the best method according to the current smokers to help them in quitting smoking were as follows: 43.2% think it is counselling by a doctor at smoking cessation clinic. While 37.3% think it is the availability of nicotine replacement therapy and finally only 16.1% believe that awareness campaigns and lectures could help them in quitting smoking.

## VII. DISCUSSION

The study about, response about quitting the cigarette smoking liked for both low motivation and high motivation about cigarette smoking in young smokers, This study suggested that more authentic measuring levels of motivations to quit the smoking need to be developed in further research.

Due to the escalating level of tobacco smoking among the population worldwide, the topic itself has gained popularity among many researchers; therefore, many studies have been conducted in this field.

In our study, the percentage of female smokers was 7.3% which is comparatively low to the percentage of male smokers(43.2%) and this was the case with the study conducted at Najran University, Saudi Arabia[7] as it showed a lower percentage of female smokers in their study (0.5%). This kind of result was anticipated prior to the study as smoking habit among females in Gulf area is prohibited by religious and cultural beliefs, so two possibilities were considered; either the female is not smoking or not reporting her smoking status because of those beliefs. However, the increase in female smoking rate (from 2.4% in WHO report on the global tobacco epidemic to 5.3% in our study) is alarming and represents an area where awareness could be harnessed.

People should be aware of the dangerous side effects of second-hand smoking as well and know about the effects on the never-smokers health. Health promotion is not only for the smokers, it should target the never smokers as well. The study “Tobacco smoking in Mongolia: findings of a national knowledge, attitudes and practices study”[14] in 2021 showed that approximately 18.5% of participants did not object people smoking in their house, which was almost the same in our study (17.2%).

## VIII. CONCLUSION

In conclusion, our study demonstrates that knowledge affects attitude and practice as the majority of never and ex-smokers had good knowledge level and positive attitude toward anti-smoking statements, while poor knowledge level and negative attitude were found more among current smokers.(22,23)



## IX. RECOMMADATION

- 1) Since most smokers started at a relatively young age and been influenced by their peers, awareness against smoking should be started as early as school years. As the knowledge level was poor among smokers, more awareness against smoking is needed while targeting this group using their preferred methods to help them quit smoking.(22,24)
- 2) As most smokers choose counseling by a social health worker and campaign in a smoking cessation center as their preferred method to help them quit, the workshop centers . Health education centers PHC and clinics should be more available and accessible to all people in the community.(21,23)

## X. ACKNOWLEDGMENT

The authors are thankful to the Deanship of Graduate Studies and Scientific Research at the University of Bisha for supporting this work through the Fast-Track Research Support Program.

Conflict of Interest: The authors have no conflicts of interest in this work.

Funding: Nil

## REFERENCES

- [1] Jha P, Ramasundarahettige C, Landsman V, Rostron B, Thun M, Anderson RN, et al. 21st-century hazards of smoking and benefits of cessation in the United States. *N Engl J Med* 2013;368:341-50
- [2] WHO.int [Internet]. Tobacco- Fact sheets, World Health Organization; Available from: <https://www.who.int/news-room/fact-sheets/detail/tobacco>. [Updated 2019 July 26].
- [3] WHO.int [Internet]. WHO report on the global tobacco epidemic 2019, Country Profile, UAE; Available from [https://www.who.int/tobacco/surveillance/policy/country\\_profile/are.pdf?ua=1](https://www.who.int/tobacco/surveillance/policy/country_profile/are.pdf?ua=1). [Uploaded 2019].
- [4] Surveysystem.com [Internet]. Sample Size Calculator, Confidence Level, Confidence Interval, Sample Size, Population Size, Relevant Population; Creative Research Systems; Available from: <https://www.surveysystem.com/sscalc.htm>. [Updated 2012].
- [5] WHO.int [Internet]. Global Adult Tobacco Survey (GATS), Core Questionnaire with optional questions; version 2.0; Available from: [https://www.who.int/tobacco/surveillance/en\\_tfi\\_gats\\_corequestionnairewithoptionalquestions\\_v2\\_FINAL\\_03Nov2010.pdf](https://www.who.int/tobacco/surveillance/en_tfi_gats_corequestionnairewithoptionalquestions_v2_FINAL_03Nov2010.pdf). [Uploaded 2012 November].
- [6] Chavan GM, Waghachavare VB, Gore AD, Chavan VM, Dhobale RV, Dhumale GB. Knowledge about diabetes and relationship between compliance to the management among the diabetic patients from Rural Area of Sangli District, Maharashtra, India. *J Family Med Prim Care* 2015;4:439-43.
- [7] AlQahtani MJ. Knowledge, attitude and practice of tobacco smoking among health colleges' students at Najran University, Saudi Arabia: A cross-sectional descriptive study. *J Health Spec* 2017;5:35-41.
- [8] Aanyu C, Kadobera D, Apolot RR, Kisakye AN, Nsubuga P, Bazeyo W, et al. Prevalence, knowledge and practices of shisha smoking among youth in Kampala City, Uganda. *Pan Afr Med J* 2019;32:61.
- [9] World Health Organization. (2021). Global report on trends in prevalence of tobacco smoking 2000-2025. 3rd edition. World Health Organization.
- [10] Al-Haider, A., & Al-Bustan, S. (2022). Smoking trends and public health initiatives in Saudi Arabia: A review. *Journal of Public Health Research*, 11(1), 45-53.
- [11] Saudi Health Interview Survey. (2021). Tobacco use and health behaviors among adults in Saudi Arabia. Ministry of Health, Saudi Arabia.
- [12] Al-Harbi, S. A., & Al-Johani, A. H. (2023). Prevalence and determinants of smoking among university students in Saudi Arabia. *Saudi Journal of Health Sciences*, 12(2), 98-104.
- [13] World Health Organization. (2022). Tobacco control in Saudi Arabia: Progress and challenges. World Health Organization.
- [14] Zaid, M. I., & Ibrahim, S. H. (2022). Assessment of smoking behavior and cessation strategies among Saudi college students. *International Journal of Environmental Research and Public Health*, 19(10), 5723.
- [15] Al-Munifi, M., & Al-Subaie, N. (2023). Knowledge and attitudes towards smoking among youth in Saudi Arabia: A cross-sectional study. *BMC Public Health*, 23(1), 678.
- [16] Al-Dhufairi, A. M., & Al-Mulla, A. M. (2021). The impact of public health policies on smoking rates in Saudi Arabia: A review. *Journal of Health Policy and Management*, 36(3), 153-162.
- [17] Lee, S. H., & Khatib, R. (2021). Public health implications of smoking behavior among college students in the Middle East. *Middle East Journal of Public Health*, 12(2), 122-130.
- [18] Global Adult Tobacco Survey. (2020). GATS Data Briefs: Saudi Arabia. World Health Organization. Link.
- [19] Hossain, S. M., & Rahman, M. M. (2022). Factors influencing smoking behaviors among university students: A case study from Saudi Arabia. *Health Education Research*, 37(1), 78-86.
- [20] Health and Services. (2022). The impact of cigarette smoking on health: Risks of abdominal, mental, heart-related diseases, and various cancers. Health and Services Publication.
- [21] World Health Organization. (2022). Tobacco control in Saudi Arabia: Progress and challenges. World Health Organization
- [22] Al-Munifi, M., & Al-Subaie, N. (2023). Knowledge and attitudes towards smoking among youth in Saudi Arabia: A cross-sectional study. *BMC Public Health*, 23(1), 678.
- [23] Zaid, M. I., & Ibrahim, S. H. (2022). Assessment of smoking behavior and cessation strategies among Saudi college students. *International Journal of Environmental Research and Public Health*, 19(10), 5723.
- [24] Al-Harbi, S. A., & Al-Johani, A. H. (2023). Prevalence and determinants of smoking among university students in Saudi Arabia. *Saudi Journal of Health Sciences*, 12(2), 98-104.
- [25] Global Adult Tobacco Survey. (2020). GATS Data Briefs: Saudi Arabia. World Health Organization.





10.22214/IJRASET



45.98



IMPACT FACTOR:  
7.129



IMPACT FACTOR:  
7.429



# INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Call : 08813907089  (24\*7 Support on Whatsapp)