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Research Article

Association of Smoking Related Knowledge Attitude and Practices (KAP) with Nutritional Status and Diet Quality

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Abstract

Introduction: Smoking is the practice of combustion and inhalation of tobacco. Smoking is a well-documented risk factor for various chronic diseases, and its impact on nutritional health is an area of growing concern.

Objective: The current study examined the association between smoking-related knowledge, attitude, and practices (KAP) with nutritional status and diet quality.

Methods: A cross-sectional analysis involving a diverse sample population, assessing their smoking-related KAP through a structured questionnaire and evaluating their nutritional status using dietary intake data and anthropometric measurements of 100 samples.

Results: The study found a correlation between smoking-related knowledge and healthier attitudes towards smoking, leading to better nutritional status and diet quality. Those with higher knowledge and negative attitudes were more likely to consume a balanced diet, while those with limited knowledge and positive attitudes had poorer dietary habits. The study suggests that targeted educational interventions can improve smoking-related KAP, promoting healthier dietary behaviors and overall nutritional health.

Conclusion: This study concluded that Smokers generally exhibited poorer dietary habits and nutritional status. Enhancing public awareness about the health impacts of smoking and promoting better dietary practices could improve both smoking termination efforts and overall health outcomes. The high daily consumption of improper intake of food leads to poor nutrition.

Keywords: Attitude; Diet; Health; Knowledge; Nutrition; Smoking

Introduction

Smoking is the practice of combustion and inhalation of tobacco (or other recreational drugs). Active smoking is the direct inhalation of smoke from a cigarette or other tobacco product. Passive smoking is the indirect inhalation of smoke from the burning end of a cigarette or the smoke exhaled by the active smoker. Passive smoking is also called second hand smoking or environmental tobacco smoking. Tobacco smoking is a major health issue and results in the death of over 7 million active smokers and over 1 million passive smokers worldwide annually. It is therefore one of the world's principal causes of preventable deaths [1].

A number of factors are related to tobacco consumption. These include sociodemographic factors such as age, gender, marital status, place of usual residence, occupation, social and religious affiliations and economic status school-related factors such as influence of peers, smoking friends, low academic performance, school disapproval, truancy level, weak student- teacher relationships and student's perception of tobacco availability at school and other factors such as the use of illicit drugs, early sexual activity, and low levels of physical activity [2].

Habitual smoking in adult is associated with a range of health conditions, including cardiovascular disease, pulmonary dysfunction, and an increased risk of a variety of cancers. In terms of neurocognitive function, although some studies have found that acute smoking can enhance cognitive functions in short term, while chronic smoking is deleterious in the long term. It has been associated with reductions in working memory (the temporary storage and manipulation of information), executive function (planning tasks, focusing one's attention, and ignoring irrelevant distractions), and prospective memory (memory for everyday things, such as keeping an appointment, or taking an important medication on time) [3].

Adolescents were found to be the most vulnerable population to pick up habit of smoking. Results from various surveys conducted on this age group demonstrated that 9-14percent of school children were regularly involved in this habit. The prevalence of smoking in medical students, doctors and the healthcare professionals ranged from 32-37percent as reported by multiple studies. In men, the prevalence of smoking is 38percent and for women, the prevalence is 17 percent. The difference was noticeable in the prevalence of smoking on the continents. Europe has the highest prevalence of immigrant smokers

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(36percent), followed by Asia (18 percent), American (18 percent) and Australia 12 percent [4].

Smoking is the second leading cause of death. The association between smoking-related knowledge, attitudes, and practices (KAP) with nutritional status and diet quality is a critical area of research with far-reaching implications for public health. As smoking remains a leading cause of preventable death worldwide, understanding its relationship with dietary habits and nutritional status is paramount. This research objective to explore the complex relationship between smoking-related KAP and dietary behaviors, flaking light on by what means these factors jointly impact individual health outcomes. By discovering this relationship, we pursue to subsidize valuable understandings to inform full health mediations and policies pointed at upholding better lifestyles and decreasing the problem of smoking-related diseases [5-19].

Narrow studies are presented about smoking and complete diet quality. The present research was designed at finding an association of s-KAP (smoking-related knowledge, attitude, and practices) with nutritional status and diet quality. The relationship between smoking-related knowledge, attitudes, and practices (KAP) with nutritional status and diet quality is a issue of important attention due to its associations for public health. Knowing how smoking-related aspects impact dietary habits and nutritional status can offer understandings into emerging effective involvements for encouraging in good health lifestyles and avoiding chronic diseases.

Earlier investigation has exposed that smoking can affect dietary configurations and nutrient consumption in various ways. For instance, cigarette smoker may have different dietary fondness and nutrition selections related to non-smokers, which can disturb their nutritional status. Moreover, smoking has been connected to deviations in sense of taste observation and hunger instruction, possibly important to changes in dietary behaviors and nutrient engagement.

Similarly, smoking-related knowledge, attitudes, and practices can influence individuals' interpretations of health and wellness, which may in try influence their dietary habits. For instance, persons with more consciousness of the health risks related with smoking may be additionally probable to adopt better intake habits to moderate these risks.

Also, approaches towards smoking stop and way of life alternate can also affect dietary selections and loyalty to suggested dietary strategies. Furthermore, socioeconomic aspects, such as learning level, revenue, and admittance to healthcare, can facilitate the association between smoking-related KAP and nutritional status.

Individuals with poorer socioeconomic position may look larger hurdles to get into beneficial foods and healthcare facilities, which can improve the harmful possessions of smoking on diet quality and nutritional status.

Generally, discovering the composite relationship among smoking-related KAP, nutritional status, and diet quality can deliver appreciated understandings into the complicated environment of health performances and update directed involvements pointed at encouraging better lifestyles and decreasing the problem of chronic diseases associated with smoking.

Materials and Methods

A Cross sectional study conducted in district Peshawar**.** The Association of Smoking Related Knowledge Attitude and Practices (KAP) With Nutritional Status and Diet Quality among students. The study was conducted in Iqra National University Peshawar. Data was collected based on the willingness of the students. The population of the research means all the individuals that are considered for the data collection. As the current study was aimed to investigate The Association of Smoking Related Knowledge Attitude and Practices (KAP) With Nutritional Status and Diet Quality in university students, therefore the students from Iqra National University Peshawar collected for the current study. A total of 100 students enrolled in the current study from various departments include department of Department of Computer Science, 25 percent were from department of Business Administration, and the remaining 20 percent were from Department of Allied Health Science from the population through convenient sampling technique. In convenient sampling technique, the data is collected only from those individuals who were willing to participate in the research. The research data was collected over a 6-month period, focusing on a specific demographic and health profile. The eligibility criteria for the study included participants aged 25 to 35 years who were healthy smokers. The inclusive data comprised 100 active smokers within the age range of 20–35 years, representing diverse backgrounds. Nutritional status was assessed using Body Mass Index (BMI), while smoking-related knowledge and attitudes were evaluated through questionnaire surveys. Additionally, pre- and post-smoking termination surveys were conducted to measure changes in participants' knowledge and attitudes. On the other hand, the exclusive criteria eliminated individuals outside the specified age range (below 20 or above 35 years), non-smokers, and females. Past quit smokers and those with chronic diseases were also excluded to ensure the study focused solely on current, healthy smokers without confounding health factors. This selective approach helped maintain a controlled and relevant participant pool for the research objectives.

Results

The results of the study investigate in what way knowledge, attitudes, and behaviors associated to smoking (KAP) and are linked to the nutritional situation and the quality of diets in adults are defined. The objective of the research is to explore the association among the smoking habits of students, their understanding and perspectives on smoking, and in what manner these factors affect their consumption forms and over-all nutritional well-being. The results are organized into portions that hold the specific research investigations and expectations of the research, such as in what way smoking-related information, views, and activities are extent between the study subjects, in addition to their intake habits and nutritional complaint

Demographic Characteristics

The objective of the demographic inquiry was to study the demographic data of the students. The following sections show the results of the demographic examination of the study. A total of 100 participants were involved in the study, comprising all males. The age distribution of the participants ranged from 20 to 35 years, with a mean age of 24.3 years. The majority of participants were educated having

at least BS qualification. The socioeconomic status of participants was categorized into low (30percent), middle (50 percent), and high (20 percent) income groups.

Marital Status

The marital status demographics of the study respondents was also analyzed. Most of the respondents i.e., 85 percent were unmarried while the remaining 15 percent were married (Figure 1).

Department Demographics

The department demographics of the study respondents were from different departments. Which include the following departments.

- Department of Computer Science
- Department of Architecture
- Department of Allied Health Science
- Department Business Administration

Table 1 is showing the results of the department demographics of the respondents.

The Table 1 is showing that most of the respondents i.e., 30 percent of the study were from Department of Architecture. 25 percent of the respondents were from Department of Computer Science, 25 percent were from department of Business Administration, and the remaining 20 percent were from Department of Allied Health Science This information is graphically presented as under (Figure 2).

Table 1: Department demographics.

Departments	Frequency	Percent
Department of Computer Science	25	25 percent
Department of Architecture	30	30 percent
Department of Allied Health Science	20	20 percent
Department Business Administration	25	25 percent

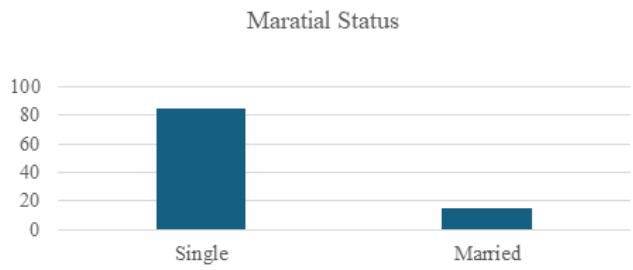

Figure 1: Martial Status.

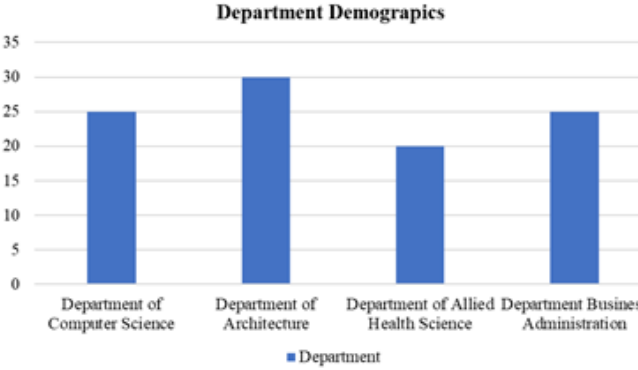

Figure 2: Department demographics.

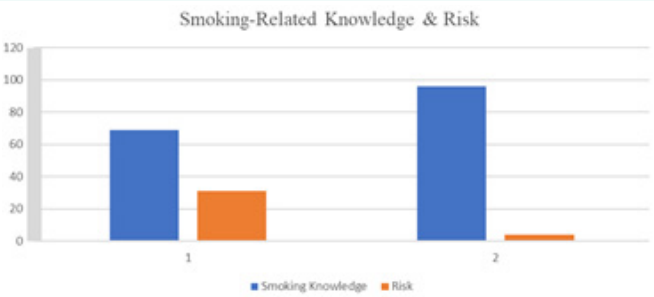

Figure 3: Smoking-Related Knowledge.

Smoking-Related Knowledge

Participants were assessed on their knowledge of the health risks associated with smoking, 69 percent students aware from the smoking knowledge including diseases such as lung cancer, cardiovascular diseases, and chronic respiratory conditions also 31 percent students aware from risk (Figure 3).

Attitude Towards Smoking

Attitudes towards smoking termination were measured on different scale first one was social acceptance/Unacceptance 79 percent students answer the unacceptance of smoking in society and the remaining 21percent students answer the acceptance of smoking in society. Quitting smoking were also asked from student on scales yes/No options, with No option higher scores Encouragement to Quit Smoking 61 percent No Encouragement to Quit Smoking 39 percent indicating more attitudes towards quitting smoking (Table 2).

Smoking Habit

Smoking habit were different in every student some smoking more while some have strong consumption of smoking and poor dietary following graph show the details of smoking per day Cigarettes. This information is graphically presented as under (Figure 4).

Figure 4: Smoking Habits.

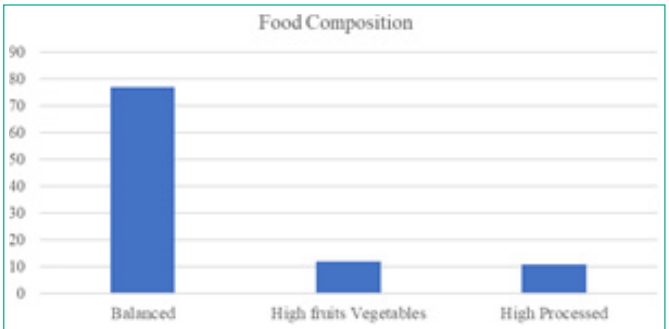

Figure 5: Food Composition.

Food Composition

The food composition by taking smokers where mostly balanced diet 77 percent students have balanced food composition 12 percent students have high processed food and the remaining 11 percent consists of High food & Vegetable taking students (Figure 5).

Dietary Behaviors and Nutritional Status

Dietary behaviors were assessed through a questionnaire focusing on the frequency of consumption of various food groups, self-reported diet quality, and efforts to improve diet The data includes an analysis of diet quality, nutritional intake, and physical health indicators such as BMI and waist circumference. The most students have no dietary, 30 percent does not seek improvement. and 70 percent Seek Improvements in dietary behavior (Figure 6).

Nutritional Status and Smoking-Related KAP

The relationship between smoking-related KAP and nutritional status was examined using multiple analysis. The results, shown in Table 4.10 indicate that smoking practices were significantly associated with higher BMI and waist circumference

The average height was concluded as 5. 7ft.Mostly students have different weight the average weight was resulted as 70.36 kg. The wrest circumference average was concluded as 68.19 cm.

BMI was also measured average as 25.82 Mostly students gain their weight (Figure 7).

These results highlight the relationship between smoking-related knowledge, attitudes, and practices (KAP) with nutritional status and diet quality among students exposed several key results. The majority of contributors were young, single males with a high level

Scale	Frequency	Percent
Dietary Changes Yes	27	27 percent
Dietary Changes No	62	62 percent
Seek Improvements Yes	70	70 percent
Seek Improvements No	30	30 percent

Figure 6: Dietary Behaviors and Nutritional Status.

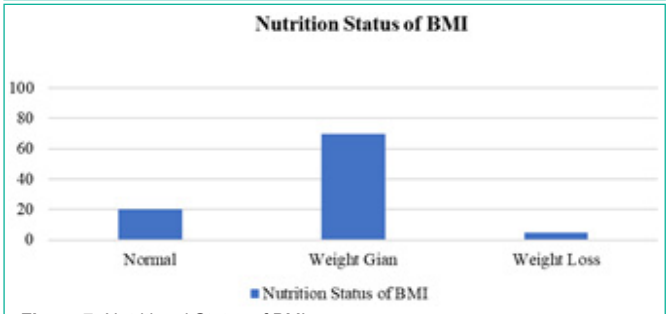

Figure 7: Nutritional Status of BMI.

Table 2: Attitude Towards Smoking.

Departments	Scale	Frequency	Percent
Socially Acceptance	Yes	21	21 percent
Socially Un Acceptance	No	79	79 percent
Encouragement to Quit Smoking	Yes	61	61 percent
Encouragement to Quit Smoking	No	39	39 percent

of awareness about the health risks of smoking and negative social attitudes towards it. Despite this, majority students regularly engaged in smoking, indicating other influencing factors like stress and peer pressure. Smokers were found to have poorer nutritional status and diet quality, characterized by lower consumption of fruits and vegetables and higher intake of processed foods, as well as higher BMI and waist circumference. These results showed the necessity aimed at combined health mediations pointing together smoking termination and dietary enhancements.

The food frequency questionnaire summary reveals several key patterns in dietary habits. Daily consumption is common for many food groups, including whole grains, eggs, dairy products, rice, vegetables, tea/coffee, and vegetable oil, with most individuals consuming these items one to two times per day. Fruits are also frequently consumed but at a slightly lower frequency of two to four times weekly, while nuts are eaten around one to two times weekly. Juice and cold drinks are regularly consumed daily, though typically in moderate amounts. Ghee is also a daily staple, though quantities vary.

In contrast, moderate consumption patterns include foods like meat, which is eaten daily by some individuals (one to two times), while others consume it less frequently. Legumes and sweets fall into this category as well, with some people eating them daily, particularly sweets at one to two times per day. Fried foods, organ meat, and seafood are rarely consumed by most respondents, aligning with the "rarely or never consumed" category.

Variations in consumption frequency are noted for tea/coffee, meat, nuts, and ghee, with differences in how often and how much these items are consumed among individuals. Overall, the dietary patterns emphasize daily intake of staple foods like grains, dairy, and vegetables, while processed or high-fat items like fried foods, organ meat, and seafood are limited. Sweets and meat show more individual variability, with some including them daily and others rarely.

Discussion

This unit deliberates the results of the research on the association among knowledge, attitudes, and behaviors related to smoking (KAP) and their linking to nutritional complaint and diet excellence in adults. The conclusions highlight major tendencies and relations that take suggestions for health involvements designed at enlightening both smoking termination and dietary activities among students. The study's demographic examination exposed a largely young, unmarried, and educated male population. The mean age was 25.4 years, with most participants 78 percent aged between 20 to 25 years. The socioeconomic status delivery exposed that 50percent were from middle-income families, 30percent from low-income families, and 20percent from high-income families. The majority of participants (69percent) were alert of the health risks linked with smoking, including diseases like lung cancer, cardiovascular diseases, and chronic respiratory conditions.

Regardless of this high level of attentiveness, attitudes towards smoking termination revealed a significant social unacceptance of smoking, with 79percent of students viewing smoking as socially unacceptable. However, only 61percent felt encouraged to quit smoking, indicating a potential gap in supportive environments

or resources for smoking termination. Smoking engagement practices showed that 46percent of students smoked regularly, while 35percent smoked occasionally, and 19percent smoked rarely. This high engagement in smoking despite awareness of its risks suggests other influencing factors such as stress and peer pressure may play a significant role. Dietary behavior analysis indicated that smokers generally had poorer nutritional status and diet quality. The majority of smokers (77percent) reported a balanced diet, but there was also a notable intake of high processed foods (12percent) and a lower intake of high fruits and vegetables (11 percent). This imbalance in diet quality is concerning given the higher BMI and waist circumference observed among smokers.

The food frequency questionnaire (FFQ) results showed that Whole grains, eggs, dairy products, rice, fruits, vegetables, tea/coffee, vegetable oil, and ghee were frequently consumed daily. Meat was consumed daily by some, while others rarely consumed it. Fried foods, organ meats, and seafood were rarely consumed. Organ meats and seafood were rarely consumed, highlighting a potential area for dietary improvement. The study found a significant association between smoking practices and higher BMI and waist circumference. The average height was 5.7 feet, average weight was 70.36 kg, and average waist circumference was 68.19 cm, with a mean BMI of 25.82, indicating a tendency towards overweight among smokers. Regular smokers showed a high consumption of fast food (50 percent) and moderate use of dietary supplements (28percent). Physical activity levels varied, with 47percent of smokers engaging in daily physical activities, 26percent participating 3-5 times a week, and 11percent rarely engaging.

The findings suggest a need for integrated health interventions targeting both smoking termination and dietary improvements. The high engagement in smoking despite awareness of its risks, along with poor diet quality, highlights the importance of addressing both behavioral and environmental factors. Interventions should focus on creating supportive environments for smoking termination and promoting healthier dietary choices among students.

Conclusion

The research designed to discover how smoking-related knowledge, attitudes, and practices (KAP) are linked with nutritional status and diet quality among. A questioner sample of one hundred students aged 20-35 years was taken in this study. The demographic inquiry shown mostly male group of educational families and socioeconomic positions. Consequences showed a great level of consciousness about smoking-related health risks between participant students, with 98percent well-informed almost diseases like lung cancer and cardiovascular situations. Regardless of this awareness, smoking frequency was remarkable, affecting dietary performances expressively. Smokers have a tendency to eat rarer fruits and vegetables and chosen for handled foods more regularly, reflecting lesser diet quality. This form added to higher BMI and waist circumference measurements among smokers. The study underlined the need for joined involvements lecturing both smoking termination and dietary enhancements to improve complete health results among students. Moreover research might additionally discover the tools linking smoking performances with dietary choices to update more battered involvements. The research exposed a great flat of cognizance knowledge 98 percent among participants about smoking-related health risks such as lung cancer and cardiovascular diseases. Even with this awareness, smoking popularity was famous, inducing dietary habits expressively. Smokers showed lower eating of fruits and vegetables and higher intake of processed foods, contributing to poorer diet quality and higher BMI and waist circumference compared to non-smokers. These findings underscored the importance of integrated interventions addressing smoking termination alongside dietary improvements to enhance overall health among young adults. Future studies could delve deeper into the behavioral mechanisms linking smoking with dietary choices to develop more effective health promotion strategies. The dietary FFQ indicates that most respondents consume whole grains, dairy products, fruits, vegetables, meat, legumes, tea/coffee, nuts, and vegetable oil daily. Eggs are also frequently consumed daily, with some instances of twice-a-week consumption. Fried food, juice/cold drinks, and sweets are generally consumed rarely, while organ meat and seafood are mostly never or rarely consumed. Rice is a staple for most, consumed daily, although a few respondents consume it rarely or never. The majority of respondents also include nuts and vegetable oil in their daily diet, while the use of ghee varies from daily to rare. This summary highlights a diet rich in daily staples like whole grains, dairy, and fruits, with limited consumption of organ meats, seafood, and sweets.

The research concluded that Smokers generally showed poorer dietary habits and nutritional status. Increasing community awareness about the health effects of smoking and encouraging better dietary carry out may well progress both smoking termination struggles and overall health effects.

The great daily intake of whole grains, fruits, vegetables, legumes, dairy products, and nuts is worthy, backup complete health with vital nutrients, fiber, and healthy fats. But consideration should be given to controlling the consumption of rice and boosting more various grain options. Growing the intake of seafood can deliver vital omega-3 fatty acids. The little intake of fried foods, sweets, and cold drinks is helpful and should be kept to prevent chronic diseases. While meat intake is satisfactory, confirming a diversity of lean meats and enough iron and vitamin B12 is important, particularly with the rare intake of organ meats. Highlighting the use of healthy oils and controlling ghee intake will sustenance heart health. Generally, upholding these balanced dietary habits while making slight modifications will encourage long-term health and well-being.

Offer available capitals and funding for students regarding to resign smoking. Inspire increased intake of fruits, vegetables, and whole grains. The normal intake of dairy products and nuts should also carry on, assumed taking calcium for better health. Rare usage of ghee shows a favorite for healthier fats. Take a balanced diet leads to healthy life.

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