



Awareness and Perception of Cigarette & E-Cigarette (vaping) Risks Among the Young Generation of Allied health Sciences Students

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ABSTRACT

With the growing popularity of using e-cigarettes and the different perceptions of their safety, it is essential to measure the opinion of future health professionals. The research sought to establish gaps in perception and knowledge regarding cigarette and e-cigarette use, and peer, family, and media factors on students' attitudes. A standardized questionnaire was used for data collection, and analysis was conducted using SPSS Version 21. The results clarify the need for education programs that challenge e-cigarette misconceptions and analyze the hazards associated with cigarette smoking. The research confirmed that while most of the persons knew the health risks of smoking conventional cigarettes, there was an enormous knowledge gap regarding the risks of e-cigarettes. About 30% of the respondents had smoking brothers, 22% had smoking fathers, and more than 30% had smoking close friends. Teen perception was also shaped by media coverage of e-cigarettes as a benign substitute. Such outcomes show that we have to invest in education that, apart from describing the harm from cigarette smoking, can influence the knowledge concerning e-cigarettes too. The institutions might support the promotion of the campus as being smoke-free and could reduce prevalence rates by having health promotion strategies working in higher-learning institutions effectively.

Introduction

Cigarette smoking has historically been regarded as the leading cause of avoidable distress and death across the world. Besides respiratory disease, cardiovascular illnesses, and other forms of cancer, the conventional cigarettes use a gigantic amount of risky artificial chemicals, several of which contain carcinogenic features. Recently, electronic cigarettes, commonly called e-cigarettes, have been regarded as a practical option to conventional cigarette smoking. They have also been

known as vaping products. The products have been introduced as being healthier as a result of a lack of combustion of tobacco as well as a reduction of dangerous artificial chemicals to which they subject users.

Despite such instances, proof is mounting to indicate that e-cigarettes do have certain health consequences. E-cigarettes have nicotine and other chemicals that can lead to addiction, lung damage, and other adverse health consequences. The world trend of e-cigarettes has an immense influence on the younger generation, especially among adolescents. People think that vaping is more common and safer than conventional smoking. But even among proponents of wellness science, there are myths surrounding its safety and consequences in the future. The fact that students in Joined Prosperity Sciences will be future providers of clinical consideration and should have concrete information and consideration on bets concerning prosperity makes this very disturbing. Clearly, their vision impacts their personal financial decisions as well as their future capacity to teach and counsel patients.

As per reports, e-smoking among young people aged between 18 and 24 years is increasing. Most of such customers are not aware of the potential success concepts. Electronic cigarettes release nicotine, which is harmful to the mental health of young people and induces compulsive behavior. Additionally, harmful chemicals such as glycerin, propylene glycol, and vaping preparation products have been found to induce cardiovascular and respiratory illnesses (1, 2).

In Pakistan, tobacco use stays a fundamental general success challenge, with a typical 15% of grown-ups smoking cigarettes and a rising greatness of e-cigarette use among the young. The city of Lahore, as an immense metropolitan spot point, mirrors these general models, with vaping society turning out to be ceaselessly famous among understudies. In any case, information on the consideration and impression of cigarette and e-cigarette wagers among this overall public, especially in the United Flourishing Sciences field, stays meager.

The choice of this moment comes from the real necessity to investigate the consideration levels of young thriving sciences students who are logical inclined to anticipate an important role in everyday flourishing coaching and mediations. Knowing their pieces of information is head for information openings and planning allotted care missions to correct misled decisions regarding vaping and smoking. United Thriving Sciences students, considering their sensitivity to clinical mentoring, should have a more informed perspective. However, peer influences, social models, and assigned teaching methods by tobacco organizations may contribute to their lack to these affinities (3).

The harmful effects of vaping and smoking reach beyond personal health, with a huge economic and cultural cost. Diseases that are derived from smoking have an enormous number of deaths on an annual basis, and a great deal of healthcare is spent managing and treating them. Vaping, as relatively new, has already been linked to diseases like e-cigarette or vaping product use-associated lung injury (EVALI), which has raised alarm for its long-term health consequences. Additionally, concurrent cigarette and e-cigarette use among young people worsens health consequences, calling for immediate prevention interventions.

Smoking and the use of e-cigarettes have become a great affinity among young people from one side of the world to the next. These opportunities to address acting management provided substantial results about various difficulties, including cardiovascular, exhaustion, and weakened advances. Nearby reports by Manzoor et al. Pakistan has investigated clinical issues related to vaping affinities in Lahore school research. This review revealed that the second non-clinical study did not take into account the stunning substance programs available in e-cigarettes. The audit

proposed classifying smoking and care programs into the following science to create a system rather than supporting information and reducing interest rate use. (4) For Pakistan, Javed et al. I have seen the relationship between e-cigarette use and the psychological prosperity of young people. The test highlighted the occupation of educational institutions in increasing smoking efforts to combat these data openings. (5) Essentially Javed et al. It focuses on the effects of vaping effect of intellectual prosperity. The research found that e-cigarette use was desperately related to ruthless ideas and attempts to explode. This disclosure highlights the need for more developed individualized tutoring in wealthy bets related to vaping. (6) Manzoor et al. In Lahore, diseases associated with inter-university evaporation were assessed. The study found that peers were the best-known source of data on vaping and that most nonclinical second studies knew nothing about the destructive fixation of substances present in e-cigarettes. The review highlighted the importance of reasonable educational fears to ameliorate the confusion surrounding e-cigarettes. Two behaviors cardiovascular disease, aspiration problems, and tumors Smith et al., were associated with different unfriendly happiness outcomes such as in 2020. Two different ways of action include cardiovascular disorders and topics of aspiration, Smith et al., 2020. 2020 revealed 40% of intermittent electronic signs of latent elevation. The decisions for this course include the need for educational media to focus on the clinical benefits of the trained future. Despite this idea, the sorting of related performance options has a major opening, demonstrating the fundamentals of supervised activities in clinical education planning. The study included the importance of awarded prohibitions to combat this social effect and reduce the use of e-cigarettes in adolescents. This review included the need for educational missions to pose issues regarding potential happiness games related to e-cigarette use in university department studies. (10) Pakistan's Lahore concentrates were incorporated about the tendency to steam during university sacrifice studies that there are fewer other second occupations in e-cigarettes. The review stipulated educational projects to raise awareness of the well-being of e-cigarettes. (11) In Karachi, Pakistan, we found a survey that investigated the regularity of e-cigarette use among students. This examined among students how social factors and implications for the massive portions of VAPS at the start of the massive portions were accepted. The audit highlighted the importance of interventions assigned to combat these social impacts and the decrease in e-cigarette use among young people. (9) Chen et al. In 2019, Chinese cross-sectional packages coordinated and investigated the occupation of partner influences in e-cigarettes launched among young adults. This assessment assumed that tutoring of prosperity generally retained knowledge of the potential of non-propionic steam in propidine. (12) Systematic review by Brown et al. 2018 (13) highlighted the full climbing of e-cigarettes, particularly with the use of additional young masses. This addition is essentially due to strong progress and a lack of direction regarding potential vaping-related issues, highlighting the need for general wealth concerns focused on care.

The objective of this research is to assess students' awareness of the risks associated with cigarette and e-cigarette use, examine the role of family, peers, and media in influencing their smoking and vaping behaviors, and identify key areas that require targeted awareness campaigns and policy interventions to mitigate the prevalence of tobacco and e-cigarette consumption among youth.

Objectives of the Study

Assess students' awareness of cigarette and e-cigarette risks and also examine the role of family, peers, and media in shaping smoking and vaping behaviors. Identify areas requiring targeted awareness campaigns and policy intervention.

Data Collection and Analysis

This study employed a cross-sectional observational survey design and was conducted among Allied Health Sciences students in Lahore. The study was completed within six months following the approval of the synopsis. A purposive sampling technique was utilized to select participants, ensuring representative participation from both male and female students aged 18 to 25 across various academic years and disciplines. The calculated sample size was 380, which was increased to 384 to account for a potential 20% non-response rate. Inclusion criteria encompassed male and female students enrolled in Allied Health Sciences programs, aged between 18 and 25 years, who were willing to participate and provided informed consent. Exclusion criteria included students younger than 18 or older than 30 years, those not enrolled in relevant programs, individuals unwilling to give consent, and participants with incomplete or invalid survey responses. Data was collected using a structured online questionnaire created via Google Forms. The questionnaire comprised sections on demographic information, awareness and perception of health risks associated with cigarette and e-cigarette use, influencing factors such as family and peers, and behavioral patterns. It included multiple-choice, Likert scale, and open-ended questions to capture detailed responses. The survey was disseminated through digital platforms including WhatsApp, email, and social media, with participants informed about the study's objectives, confidentiality measures, and their right to withdraw at any stage. Ethical considerations were strictly observed, ensuring anonymity and secure handling of all data. The collected quantitative data were analyzed using SPSS Version 25 to derive meaningful insights and conclusions.

Result & Discussion

In order to demonstrate the understanding and perception of cigarette and e-cigarette (vaping) dangers among Allied Health Sciences students in Lahore, Pakistan. The detailed findings and analysis are illustrated in the forthcoming section. A Pie Chart in Figure 1 was used to illustrate the proportion of participants from each institute, such as shown in Table 1, including:

- Riphah International University Lahore
- University of Lahore (UOL)
- Superior University Lahore
- Other

The chart visually represents the share of participants from each institute, providing a clear understanding of the study's sample distribution and ensuring a diverse representation of allied health sciences students in Lahore.

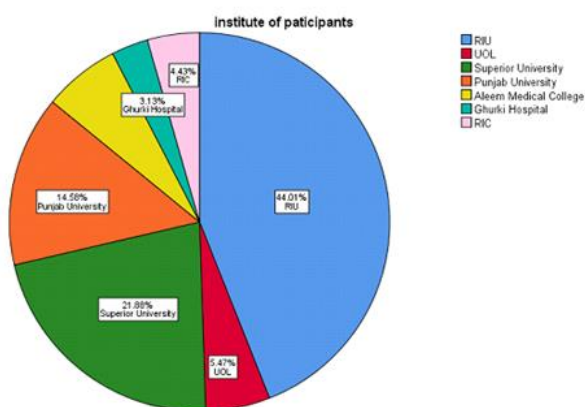


Figure 1: Depicts the proportion of participants from different institutes of Pakistan

Table 1: Distribution of Participants by Institute

Institute	Frequency	Percentage
Riphah international university	120	31.25%
University of Lahore	105	26%
Superior university	80	20%
Others	84	21%
Total	389	100%

The Pie Chart in Figure 2 and Table 2 both are depicting the year of study of participants showcases the academic level of students involved in the study, ranging from 1st year to the final year. The chart helps in identifying the balance between junior and senior students and its potential impact on the awareness and perception of cigarette and e-cigarette (vaping) risks.

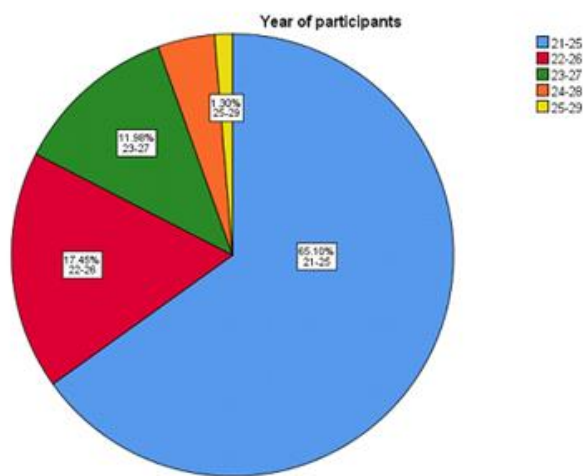


Figure 2: It shows the year of study of participants

Table 2: Distribution of Participants by Year of Study

Year of study	Frequency	Percentage
1st year	90	23.44%
2nd year	85	22.14%
3rd year	105	26.04%
4th year	109	28.39%
Total	384	100%

A Pie Chart in Figure 3 was utilized to present the distribution of participants across various disciplines within the allied health sciences field, including:

- Operation Theater Technology
- Physiotherapy
- Medical Laboratory Technology
- Radiology
- Nursing
- Other Allied Health Sciences Programs

However, all the quantitative findings are summarized in Table 3. The chart provides a clear visual representation of how students from different academic backgrounds contributed to the study.

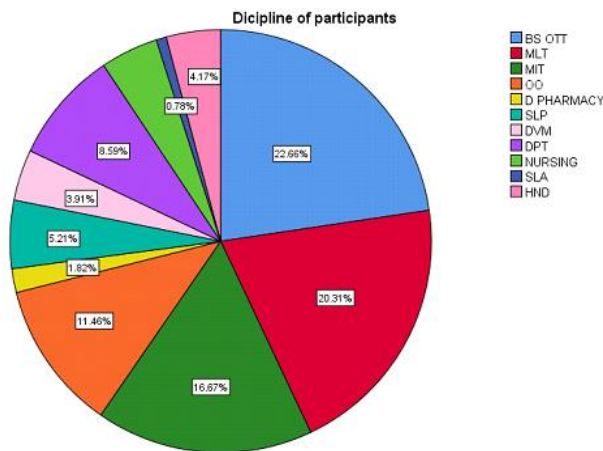


Figure 3: It highlights distribution of participants across various disciplines with allied health science

Table 3: Distribution of Participants by Discipline

Discipline	Frequency	Percentage
Operation Theater Technology	100	26.04%
Medical Lab Technology	80	20.83%
Radiology	60	15.63%
Nursing	54	14.06%
Other allied health science program	95	23.44%
Total	389	100%

The age distribution of participants was also displayed using a Pie Chart (see Figure 4) and data represented in Table 4, showing the spread of responses among different age groups. This visualization helps assess whether age influences students' awareness and perception of vaping and smoking risks.

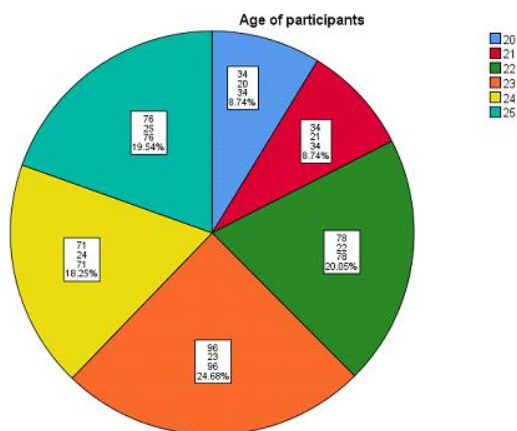


Figure 4: Pie chart shows age distribution of participants

Table 4: Distribution of Participants by Age

Age Group	Frequency	Percentage
20	34	8.74%
21	34	8.74%
22	78	20.05%
23	96	24.68%
24	71	18.25%
25	76	19.54%
Total	389	100%

The gender distribution of participants was also assayed using a Pie Chart as depicted in Figure 5, showing the spread of responses among different age groups. The data is compiled in Table 5. This visualization helps also assess whether gender influences students' awareness and perception of vaping and smoking risk

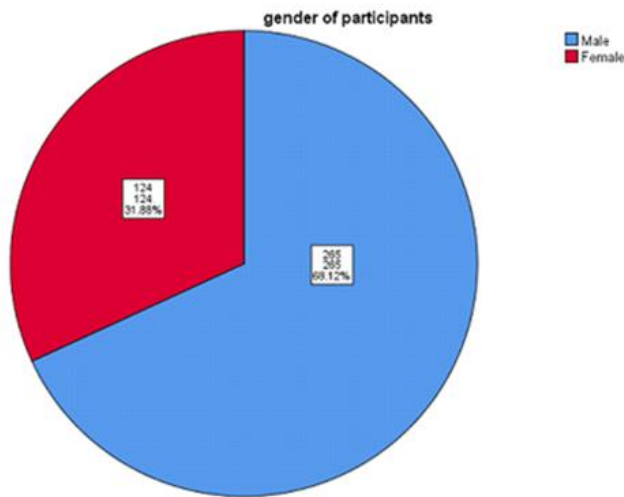


Figure 5: Pie chart shows the gender distribution of participants

Table 5: Gender Distribution of Participants

Gender	Frequency	Percentage
Male	265	68.12%
Female	124	31.88%
Total	389	

The bar graph in Figure 6 illustrates participants' knowledge of the dangers of vaping in contrast to traditional smoking. Most people (100 agree, 120 strongly agree) are aware of the dangers. There should be more awareness-raising efforts because about 80 participants are neutral, 60 disagree, and 40 strongly disagree.

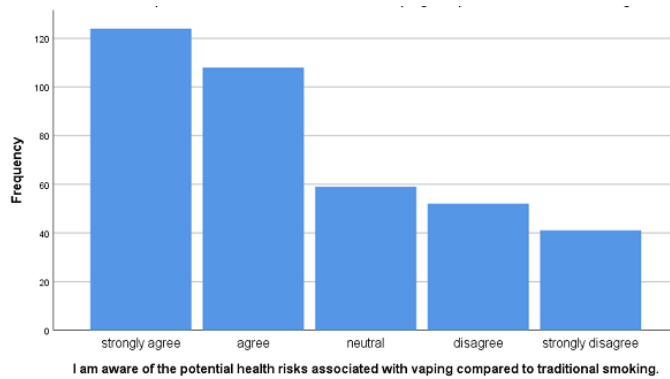


Figure 6: It exemplifies participants' knowledge of the dangers of vaping in contrast to traditional smoking

The bar graph in Figure 7 illustrates how smoking and vaping are seen to have different levels of nicotine addiction difficulty. A large number of individuals (100 strongly agree, 100 agree, 120 neutral) have a variety of opinions, while others express hesitancy. Fewer individuals think vaping addiction is more difficult (20 strongly disagree, 40 disagree).

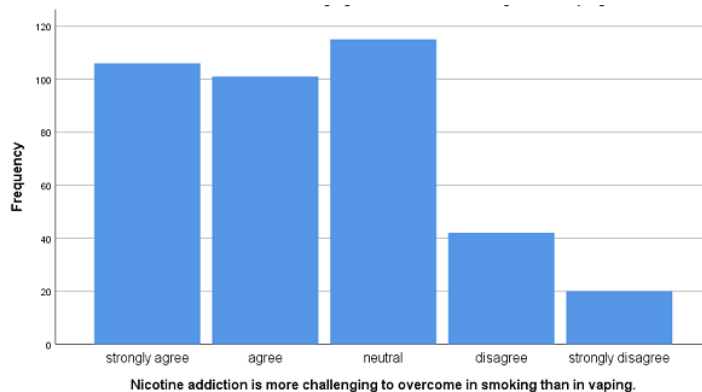


Figure 7: Challenges of nicotine addiction to overcome in smoking than vaping

The success of awareness efforts in deterring students from smoking and vaping is depicted in the bar chart given in Figure 8. A sizable majority (150 strongly agree) think these campaigns are successful, with only 60 agreeing. Less than half (30 disagree, 10 strongly disagree) believe the campaigns are effective, while almost half (50) are neutral.

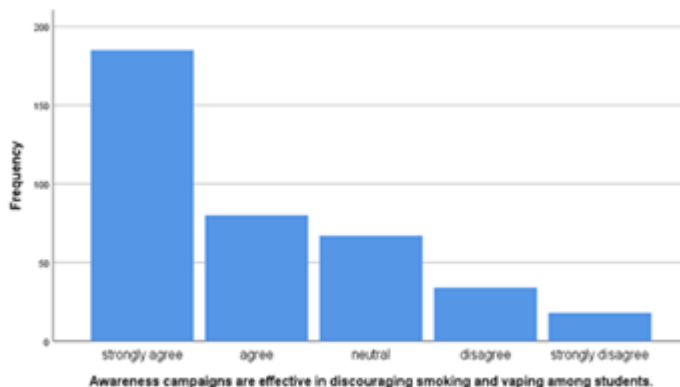


Figure 8: The efficiency of awareness campaigns in deterring vaping and smoking

The bar graph in Figure 9 illustrates how well-informed students who smoke are about the particular chronic illnesses they may experience. Most (150 strongly agree) think they understand the hazards completely, and then 100 agree. About 70% of students are neutral, 40% disagree, and 10% strongly disagree, indicating a lack of awareness.

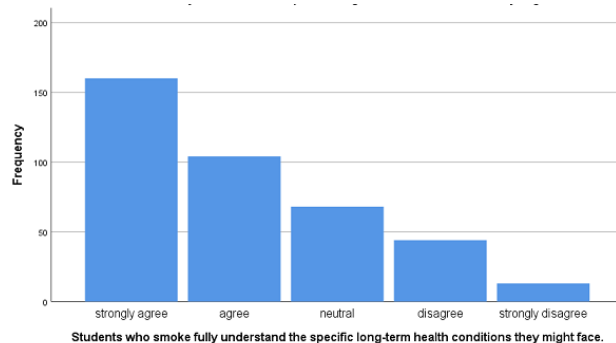


Figure 9: Understanding of long-term health conditions among smoking students

The bar graph in Figure 10 displays how students perceive the harm that secondhand cigarette smoke causes to nonsmokers. A sizable percentage of pupils (100 agree, 100 strongly agree) realize the harm, whilst 80 are ambivalent. A variety of opinions regarding the risks of secondhand smoke are evident, though, as 60 pupils disagree and 40 strongly disagree.

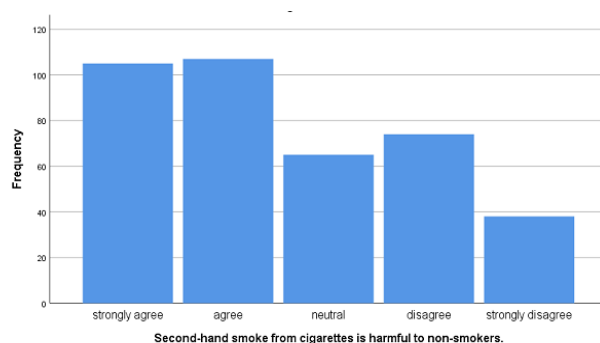


Figure 10: Perception of harm from second-hand smoke

Students' opinions on whether smoking is more dangerous than vaping is shown in the bar chart (see Figure 11). There is a wide range of opinions expressed in the responses: 120 students are neutral, 80 agree, and 100 strongly agree. There are differing views on the proportional harms of smoking and vaping, as evidenced by the 60 students who disagree and the 40 who strongly disagree.

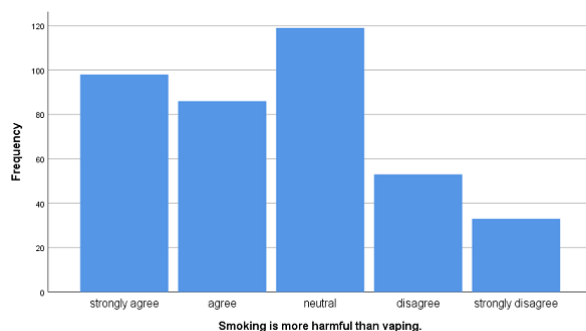


Figure 11: Perception of smoking vs. vaping harm

The bar graph in Figure 12 shows how students feel about vaping's potential to lead to addiction, just like regular cigarettes do. Sixty students agree, but the majority (150 students) strongly agree, according to the findings. 60 pupils show uncertainty by remaining neutral. Quite the opposite—40 students disagree, and 30 of them strongly disagree. These results imply that the majority of students are very aware of the possibility of addiction associated with vaping.

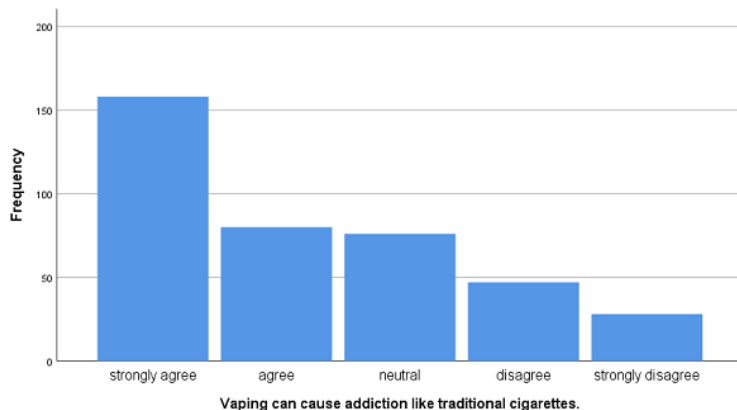


Figure 12: Perception of vaping addiction risk

According to the bar chart in Figure 13, students believe that vaping is less addictive than smoking. Approximately 125 pupils, according to the data, strongly agree with the statement, whereas 100 students agree. About seventy-five students exhibit doubt and are neutral. In contrast, 30 students strongly disagree, and 50 students disagree. According to these responses, students' opinions vary, but there is a clear tendency for them to think that vaping is less addictive than smoking.

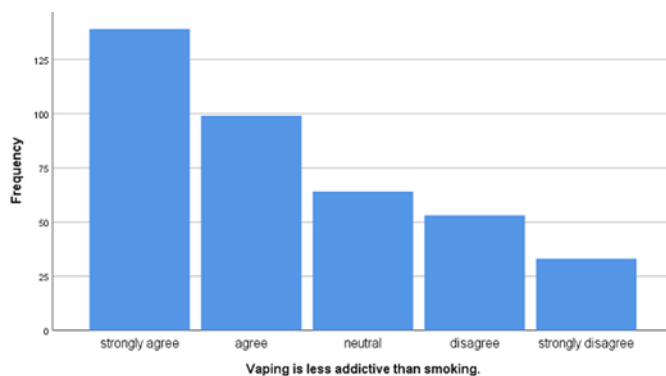


Figure 13: Perception of addictiveness: vaping vs. smoking

Students' perceptions regarding the likelihood that vapers may switch to cigarette smoking are depicted in the bar chart of Figure 14. Given that a sizable percentage of students strongly agree (80) and agree (100) with this statement, there may be worries that vaping could lead to smoking. Uncertainty is shown by the 80 or so neutral students. However, a significant portion of students—roughly 90 disagree and 30 strongly disagree—do not believe that vaping and switching to smoking are significantly related.

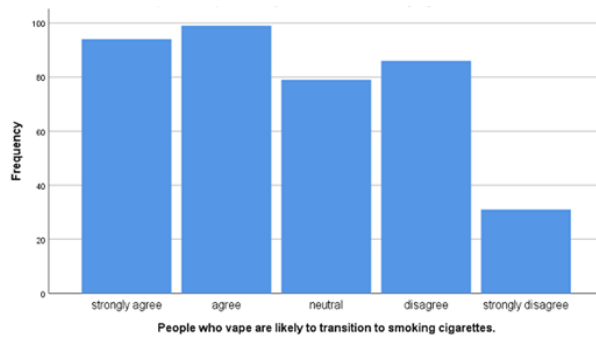


Figure 14: Perception of transition from vaping to smoking

Students' views on whether flavored e-cigarettes increase youth interest in vaping are shown in the bar chart of Figure 15. With more than 125 students responding in the neutral category, it shows a high degree of hesitancy or conflicting emotions. A significant percentage of students believe flavors make vaping more appealing to young people, as evidenced by the 75 students who strongly agree and a similar number who agree. However, some students do not consider flavors to be a significant influence, as evidenced by the almost 80 students who disagree and the about 50 who strongly disagree.

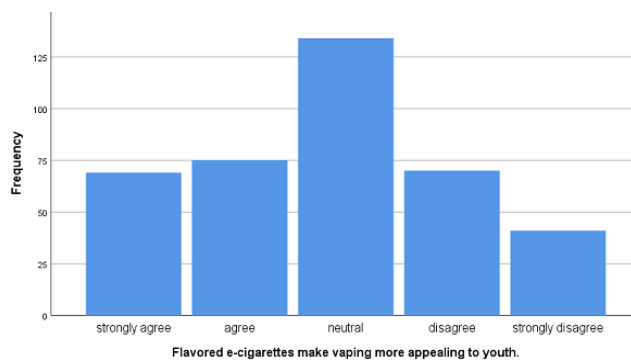


Figure 15: Perception of flavored e-cigarettes and youth appeal

Students' opinions regarding the importance of peer pressure in starting to smoke or vape are depicted in the bar chart (see Figure 16). With over 125 students in the strongly agree category, there is broad agreement regarding the significance of peer influence. The significant number of agree replies shows that many students are aware of this effect. The neutral group is noteworthy as well, indicating that some students are unsure of this impact. The disagree and strongly disagree replies are noticeably lower on the other side, indicating that fewer pupils minimize the influence of their peers.

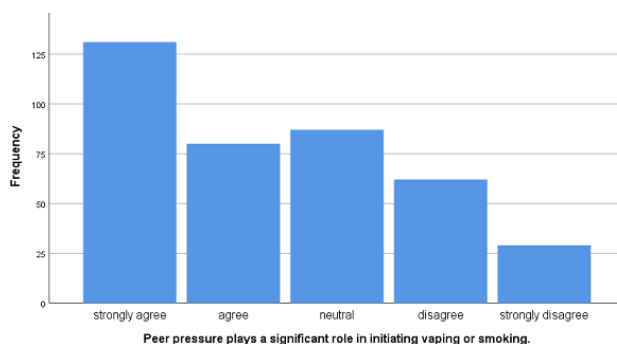


Figure 16: Influence of peer pressure on initiating vaping or smoking

"How frequently do you use e-cigarettes or traditional cigarettes?" the question assessed in the bar chart displays in Figure 17. According to the data, the vast majority of respondents—more than 150 students—selected "never," suggesting that a sizable section of the population does not smoke.

Daily users make up the second-largest group among those who do use cigarettes or e-cigarettes, suggesting a potentially alarming degree of frequent use. The frequencies of the remaining categories—twice weekly, once weekly, biweekly, and once monthly—are noticeably lower, indicating that a smaller percentage of students utilize them occasionally or experimentally.

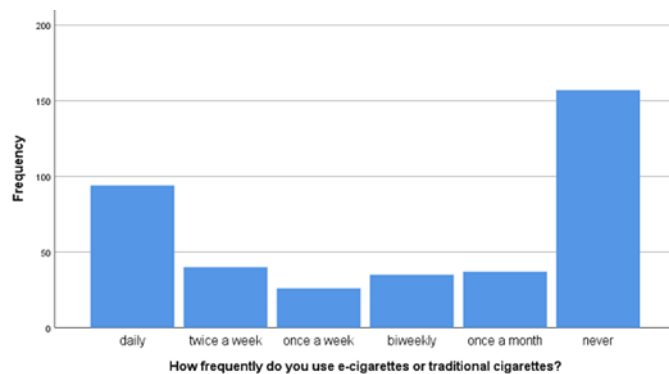


Figure 17: Frequency of e-cigarette or traditional cigarette use

"Do you use e-cigarettes or traditional cigarettes during university hours?" The findings of this question have been summarized in Figure 18. It is largely not a widespread practice to smoke or vape during university hours, as indicated by the majority of respondents who disagree or strongly disagree.

A smaller percentage of students agree or strongly agree, indicating that some students do smoke or vape on campus. The ambiguous answers could be a sign of sporadic use or uncertainty.

According to the research, the majority of students do not utilize these goods in academic settings, even though a small percentage may do so.

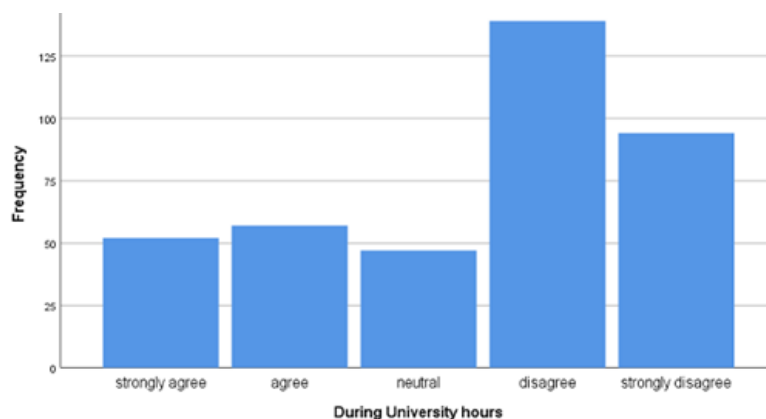


Figure 18: Use of e-cigarettes or traditional cigarettes during university hours

The bar graph in Figure 19 displays reactions to vaping or smoking in public settings: Responses that disagree, agree, and are neutral are quite evenly distributed. Many kids may occasionally smoke cigarettes or use e-cigarettes in social situations. Social impact might contribute to this behavior in a moderate way.

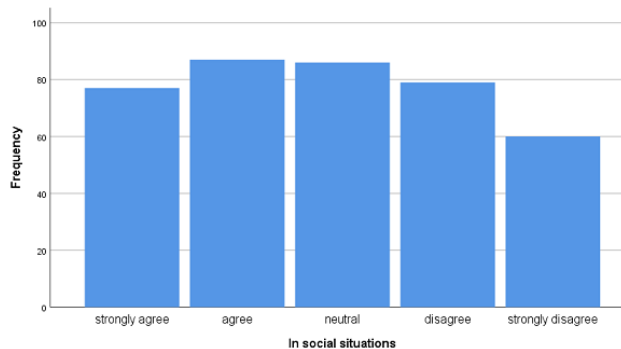


Figure 19: Use of e-cigarettes or traditional cigarettes in social situations

Neutral, agree, and strongly agree responses are high. Many students might use e-cigarettes or cigarettes as a coping mechanism for stress. The bar graph displays in Figure 20 reactions to vaping or smoking under pressure: There are a lot of neutral, agree, and strongly agree answers. As a stress-reduction strategy, many students may turn to cigarettes or e-cigarettes.

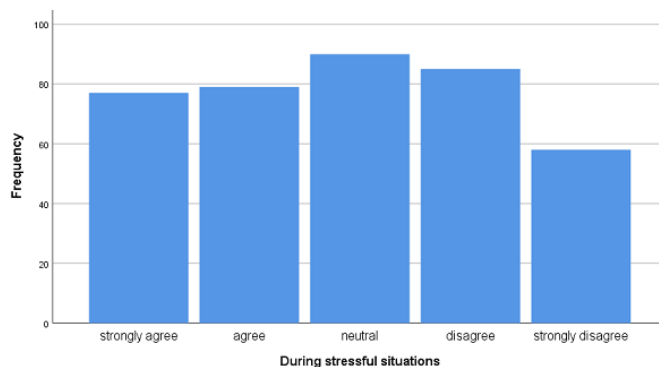


Figure 20: Use of e-cigarettes or traditional cigarettes during stressful situations

When meeting friends who smoke, the bar chart in Figure 21 displays the following replies to smoking or vaping. Responses that are indifferent or strongly agree are prevalent. Peer pressure may have a big impact on students' vaping or smoking habits.

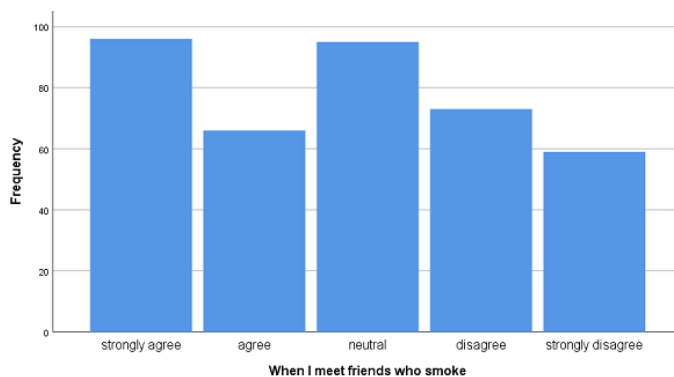


Figure 21: Use of e-cigarettes or traditional cigarettes when meeting friends who smoke

The bar graph in Figure 22 displays replies regarding loneliness-related smoking or vaping: Strongly agree is the most common response, suggesting a clear correlation between smoking and vaping and Loneliness. Many students may turn to vaping or smoking as a coping method.

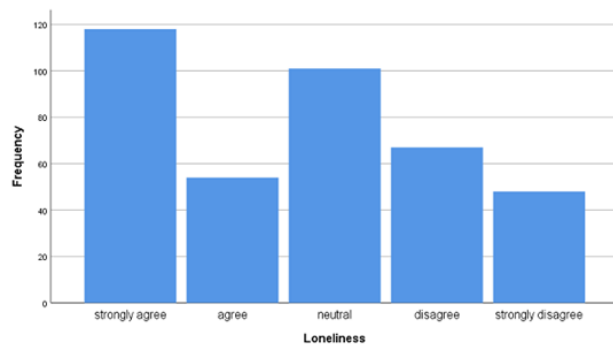


Figure 22: Use of e-cigarettes or traditional cigarettes due to loneliness

The bar graph in Figure 23 displays opinions about the claim that "there are fewer awareness campaigns about the dangers of vaping compared to smoking." The majority strongly concur, pointing to a perceived weakness in awareness-raising initiatives. This shows that there is a need for more education about the dangers of vaping.

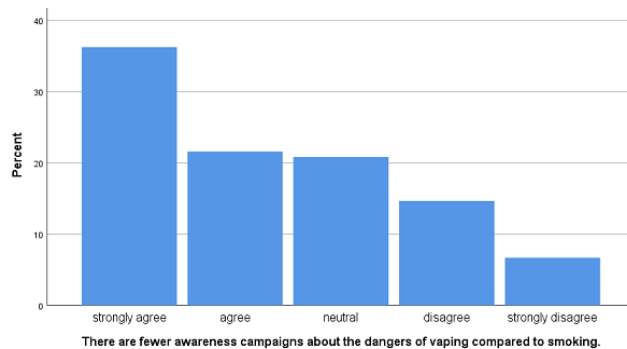


Figure 23: Awareness campaigns on vaping vs. smoking

The statement, "Media advertisements influence students to perceive vaping as harmless," is illustrated by the bar chart (see Figure 24). According to the majority who strongly agree or agree, media messaging may help create a false impression of vaping's safety. Underscores the necessity of media information that is balanced and draws attention to the risks associated with vaping.

Table 6: Chi-Square Test

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	29.211 ^a	18	.046
Likelihood Ratio	29.613	18	.041
Linear-by-Linear Association	.031	1	.861
N of Valid Cases	400		
a. 6 cells (21.4%) have an expected count of less than 5. The minimum expected count is .38.			

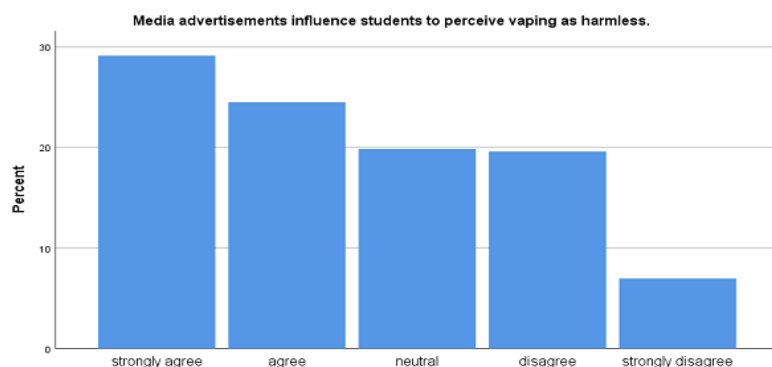


Figure 24: Influence of media advertisements on vaping perception

Conclusion

Although most students were aware of the health risks associated with traditional cigarette smoking, there was a noticeable knowledge gap regarding the dangers of e-cigarettes, according to this study, which evaluated students' awareness and perception of cigarette and e-cigarette (vaping) risks among Allied Health Sciences students in Lahore, Pakistan. The media's portrayal of vaping as a safer alternative, as well as influences from peers and family, had a significant impact on students' attitudes and behaviors.

In order to address the hazards associated with cigarettes and e-cigarettes, the study emphasized the necessity of focused educational initiatives. Dispelling myths should be the goal of these initiatives, especially those propagated by the media and social circles. A smoke-free culture among students may be successfully promoted by awareness campaigns that highlight the health hazards and addictive potential of vaping in addition to more conventional anti-smoking programs.

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