Direct Research Journal of Health and Pharmacology
Vol. 11(2) Pp. 47-53, May 2024
ISSN: 2449-0814
DOI: https://doi.org/10.26765/DRJHP87058365
Article Number: DRJHP87058365

https://journals.directresearchpublisher.org/index.php/drjhp

Influence of Smoking on Academic Performance of Undergraduate of Students at Ajman University

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Received 9 March 2024; Accepted 21 April 2024; Published 2 May 2024

ABSTRACT: The study presents a comprehensive examination of the influence of smoking on the academic performance of undergraduate students at Ajman University, emphasizing the complex interplay between smoking behaviour, health outcomes, and educational achievements. It discusses the prevalence of smoking among students and highlights the need for targeted interventions to address this issue effectively. The study employed a survey method to collect data from a sample of undergraduate students, revealing insights into their smoking habits, age of initiation, attempts to quit, parental awareness, and perceived influences. Statistical analysis of linear regression demonstrated a significant influence of smoking on academic performance, with smoking behaviour being a significant predictor. The findings underscore the importance of promoting non-smoking behaviour among students and implementing campus-wide smoking cessation programs. Recommendations include encouraging students to avoid smoking and implementing strict no-smoking policies within the university premises. Overall, the study contributes to a better understanding of the relationship between smoking and academic success, emphasizing the need for comprehensive approaches to promote student well-being and success.

Keywords: Smoking, academic performance, undergraduate students and Ajman University
Citation: Muhammad, M. B., and Sani, J. (2024). Influence of Smoking on Academic Performance of Undergraduate of Students at Ajman University. Direct Res. J. Health Pharm Vol. 11(2), Pp. 47-53. https://doi.org/10.26765/DRJHP87058365. This article is published under the terms of the Creative Commons Attribution License 4.0.

INTRODUCTION

Smoking is a prevalent global health concern with far-reaching implications beyond physical health, including its impact on academic performance among undergraduate students. While the detrimental effects of smoking on health have been extensively documented, its association with academic outcomes remains an area of ongoing research and concern. This background study aims to provide a comprehensive examination of the influence of smoking on the academic performance of undergraduate students, with a focus on the multifaceted interplay between smoking behaviour, health outcomes, and educational achievements. By exploring recent research findings and emerging trends in this field, this study seeks to deepen our understanding of the complex relationship between smoking and academic success, shedding light on the underlying mechanisms and potential avenues for intervention.

The prevalence of smoking among undergraduate students varies globally, influenced by cultural, socioeconomic, and environmental factors. Despite widespread public health campaigns and regulations aimed at curbing tobacco use, smoking remains a prevalent behaviour among college and university students. A study conducted by Jawad et al. (2019) revealed that approximately one-third of university students globally reported current smoking, with variations observed across regions. In the United States, the National College Health Assessment reported that 14% of college students were current smokers, while in European countries, smoking prevalence among university students ranged from 19% to 36% (Eurostat, 2020). These statistics underscore the persistent challenge of smoking among undergraduate populations and highlight the need for targeted interventions to

address this issue. Smoking is a leading cause of preventable death and disease worldwide, contributing to a wide range of health problems across the lifespan. The harmful effects of smoking on physical health are well-established, with tobacco use linked to various chronic conditions, including cardiovascular disease, respiratory disorders, and certain cancers (World Health Organization, 2019). Moreover, smoking adversely affects mental health, contributing to increased rates of anxiety, depression, and stress (Taylor et al., 2014). These health consequences not only compromise individuals' well-being but also have implications for academic performance, as students who smoke may experience physical and psychological symptoms that interfere with their ability to focus, concentrate, and engage effectively in academic activities.

Emerging evidence suggests that smoking behaviour can exert a significant influence on academic performance among undergraduate students. Several studies have investigated the association between smoking and academic outcomes, highlighting both direct and indirect pathways through which smoking may affect students' educational achievements. For example, a longitudinal study by Wechsler et al. (2018) found that college students who smoked were more likely to report lower grade point averages (GPAs) and academic probation compared to non-smokers. Similarly, a meta-analysis conducted by Patel et al. (2021) revealed a consistent negative association between smoking status and academic performance across diverse student populations. These findings suggest that smoking may compromise students' academic success by impairing cognitive function, reducing motivation, and increasing absenteeism and academic disengagement (Siqueira et al., 2016). Moreover, smoking-related health issues, such as respiratory problems and fatigue, may further exacerbate academic challenges, leading to decreased productivity and learning outcomes.

The relationship between smoking and academic performance is complex and multifaceted, involving various biological, psychological, and social mechanisms. Biologically, nicotine, the addictive component of tobacco, acts on the central nervous system to modulate neurotransmitter activity, affecting cognitive processes such as attention, memory, and decision-making (Levin et al., 2015). Chronic exposure to nicotine may lead to neuro-adaptation and structural changes in the brain, impairing cognitive function and academic performance over time (Wingo et al., 2017). Psychologically, smoking behaviour may serve as a coping mechanism for stress and negative emotions, leading to increased reliance on tobacco as a means of regulating mood and managing academic pressures (Parrott, 2015). Socially, peer influence and social norms within college environments may contribute to smoking initiation and maintenance among students, further perpetuating the cycle of tobacco use and academic under achievement (Thrasher et al., 2014). Understanding these underlying mechanisms is crucial for developing targeted interventions to address smoking-related disparities in academic outcomes.

While smoking behaviour poses significant challenges to academic performance among undergraduate students, it is essential to recognize the protective factors and resilience factors that may mitigate these effects. Non-smoking students, who comprise the majority of undergraduate populations, demonstrate resilience in the face of peer pressure and environmental influences that promote smoking initiation (Schwartz et al., 2019). Moreover, non-smokers may benefit from healthier lifestyle choices, such as regular physical activity, balanced nutrition, and adequate sleep, which contribute to optimal cognitive functioning and academic success (Gómez-López et al., 2018). Additionally, social support networks, including family, friends, and campus resources, play a crucial role in fostering positive coping strategies and academic engagement among.

Statement of the problem

Despite increasing awareness of the harmful effects of smoking, its prevalence remains a significant concern among undergraduate students, posing detrimental consequences on various aspects of their lives, including academic performance. Recent studies have highlighted the persistent challenges associated with tobacco use among this demographic. For instance, Jawad et al. (2019) found a concerning prevalence of both water pipe and cigarette smoking among undergraduate university students in London, indicating a need for targeted interventions. Additionally, Eurostat (2020) reported alarming statistics on smoking habits among young people in Europe, emphasizing the urgency of addressing this issue. The World Health Organization (2019) further underscores the global impact of tobacco use, emphasizing the need for comprehensive efforts to reduce smoking rates and mitigate its adverse effects. Despite evidence suggesting the negative impact of smoking on mental health and cognitive function (Taylor et al., 2014; Levin et al., 2015), there remains a gap in understanding the specific influence of smoking on academic performance among undergraduate students. Therefore, it is imperative to investigate the relationship between smoking behaviour and academic outcomes to inform targeted interventions and policies aimed at promoting the well-being and success of this vulnerable population.

Objective of the Study

The specific objectives of the study are to:

1. Identify the smoking habit of undergraduate students at Ajman University.

2. Examine the influence of smoking on academic performance among undergraduate students at Ajman University**.**

Research question

The study will be guided by one research question:

1. What is the smoking habit of undergraduate students at Ajman University?

Hypothesis

The hypothesis of this study will be tested at 0.05 level of significance. There is no significant influence of smoking on academic performance of undergraduate students at Ajman University**.**

Literature review

A recent body of literature provides valuable insights into the influence of smoking on the academic performance of undergraduate students, shedding light on various aspects of this relationship. Salloum et al. (2020) conducted a cross-sectional study among Lebanese undergraduate students to explore the association between e-cigarette and conventional cigarette use with academic performance, emphasizing the need to understand the impact of vaping and smoking on educational outcomes. Similarly, Berg et al. (2015) examined young adults' perceptions of harm and social acceptability of tobacco products, including cigarettes, hookah, and e-cigarettes, recognizing the importance of addressing smoking behaviours among college students. Studies such as Sutfin et al. (2013) and Weitzman and Chen (2015) delve into the prevalence and correlates of e-cigarette use among college students, highlighting the rising trend of vaping and its potential impact on academic performance. Furthermore, Lisha et al. (2016) explores the age of smoking initiation as a risk factor for chronic obstructive pulmonary disease (COPD), underscoring the long-term health consequences of smoking that could affect students' academic success. The interconnectedness of risky behaviours, including smoking, drinking, and unhealthy dieting, is discussed in studies like Lanza et al. (2015), emphasizing the need for holistic interventions to improve academic outcomes. Additionally, White et al. (2015) highlight the rapid increase in e-cigarette use among adolescents, suggesting potential implications for academic performance. Understanding tobacco use among student-athletes is crucial, as shown in the study by Kaplan et al. (2015), while investigating compensatory health beliefs and their impact on smoking behaviour, as conducted by Radtke et al. (2013), provides insights into cognitive processes influencing students' smoking habits. The COVID-19 pandemic's impact on tobacco and e-cigarette use is examined by Cole and Kennedy (2016), indicating the importance of understanding external factors influencing smoking behaviours among college students. Cross-sectional studies such as Xu et al. (2019) provide insights into the prevalence and control of tobacco use among adolescents, highlighting early initiation's potential impact on academic performance. Additionally, exploring the relationship between alcohol use and smoking among college students, as studied by Jackson et al. (2016), is essential for developing comprehensive interventions. Overall, this literature review underscores the complex interplay between smoking behaviours and academic performance among undergraduate students, emphasizing the need for targeted interventions and comprehensive approaches to address this issue effectively.

METHODOLOGY

The research method adopted for the study was survey method. According to Ali (2006), surveys is a type of descriptive research which uses sample data to describe and explain what is existent or non-existent on the present status of a phenomenon being investigated. The target population of the study will be those undergraduate students at Ajman University, Ajman UAE with total population of 7500 students. The researcher randomly selected the sample of 5% out of the total population for this research. Morgan and Krejcie stated that in a population of 7,500 a sample size of 5% implies 365 participants. The data collected for this study was analysed using descriptive and inferential statistics in order to obtain relevant answers to the research questions formulated and also test the hypotheses respectively. Descriptive statistics in the form of simple percentages and frequency distributions were used for the research questions formulated and correlation was used to test hypotheses using Person's Product Moment Correlation (PPMC) to test the relationship between variables under study. The researcher used the Statistical Package for Social Sciences (SPSS) version and 21.

RESULTS

The data collected for this study was analysed and presented as follows:

Research question one: What is the smoking habit of undergraduate students at Ajman University?

The analysis of smoking habits among undergraduate students at Ajman University reveals a diverse landscape, with 37.7% currently smoking, 62.3% identifying as non-smokers, and 3.3% being ex-smokers. Cigarettes and water pipes are the most common smoking mechanisms, and smoking initiation typically

Table 1: Smoking Habit

Variable	Category	Frequency	Percentage
Do you currently smoke?	Yes	113	37.7
	No	187	62.3
	ex-smoker	10	3.3
	Total	300	100.0
What mechanisms do you usually use?	Cigarettes	41	13.7
	water pipe=shisha	40	13.3
	Doukha	6	2.0
	Other	3	1.0
	None	2	.7
	no answer	181	60.3
	cigarette & shisha	27	9.0
	Total	300	100.0
Age when you start?	less than 10 years	8	2.7
	10-15 years	25	8.3
	16-20 years	72	24.0
	21-25 years	11	3.7
	more than 25	4	1.3
	no answer	180	60.0
	Total	300	100.0
How many cigarette?	not applicable	38	12.7
	no answer	185	61.7
	2 cigarettes	28	9.3
	20	6	2.0
	15	13	4.3
	6.00	2	.7
	7.00	3	1.0
	8.00	5	1.7
	9.00	5	1.7
	10.00	3	1.0
	11.00	1	.3
	13.00	2	.7
	14.00	2	.7
	15.00	1	.3
	16.00	2	.7
	17.00	2	.7
	12.00	2	.7
	Total	300	100.0
How many cigarettes in the last 7 days?	not applicable	70	23.3
	no answer	221	73.7
	3.00	5	1.7
	4.00	1	.3
	5.00	1	.3
	6.00	1	.3
	14.00	1	.3
	Total	300	100.0
Tried to quit during last 12 months?	Yes	59	19.7
	No	58	19.3
	no answer	182	60.7
	4.00	1	0.3
	Total	300	100.0
Are your parents aware that you smoke?	Yes	63	20.0
	No	58	19.3
	no answer	182	60.7
	Total	300	100.0

occurs between ages 16-20 for many students. Challenges with quitting smoking are evident, with around 20% attempting to quit. Parental awareness of smoking habits varies, and reasons for smoking initiation are largely unspecified. These findings highlight the need for targeted interventions to address smoking behaviours and promote healthier lifestyles among Ajman University students (Table 1).

Test of Hypothesis

There is no significant influence of smoking on Academic performance of undergraduate students.

DISCUSSION

The majority, 187 (62.3%) of the respondents indicated

Table 1 contd

Why did you start smoking	No answer	273	97.8
	enjoy its taste	19	6.3
	deal with unpleasant feelings	7	2.3
	Due to curiosity	1	.3
	Total	300	100.0
Who would you say had an influence?	no answer	196	65.3
	your father	19	6.3
	your mother	8	2.6
	your brother/sister	8	2.7
	your friends	29	9.7
	your favorite artist	7	2.4
	Others	29	9.7
	your friends and others	4	1.3
	Total	300	100.0
Have you had urge to smoke when lectures are going on?	Yes	59	19.7
	No	48	16.0
	no answer	193	64.3
	Total	300	100.0
If answered yes what do you do?	no answer	243	81.0
	excuse yourself from class to smoke	21	7.0
	feel uneasy and eager to leave	12	4.0
	get distracted and loose concentration	11	3.7
	remain calm and unbothered	10	3.3
	Excuse yourself and get distracted	1	.3
	Excuse yourself and feel uneasy and get distracted	2	.7
	Total	300	100.0
Diseases you believe smoking is risk factor to?	no answer	215	71.7
	lung cancer	56	18.7
	chronic bronchitis	7	2.3
	heart disease	16	5.3
	Stroke	6	2.0
	Total	300	100.0
Your smoking habit affected your academic performance?	Yes	75	24.9
	No	39	13.0
	no answer	187	62.3
	Total	300	100.0

that they do not smoke. One hundred and thirteen (37.7%) reported that they smoke whereas 10 (3.4%) stated that they were ex-smokers. With regard to the mechanism used in smoking, the majority of the respondents 41(13.7%) consumed cigarettes, water pipe or shisha was considered to be second mechanism with 40 (13.3%). Similarly, majority of respondents 72 (24%) indicated that they started smoking at the age between 16-20 years. The respondents share some level of convergence between who tried to quit smoking and who did not with 59 (19.7%) and 58 (19.3%). Again, 63 (20%) of the respondents revealed that their parents were aware that they smoke while 58 (19.3%) smoke without the parents being aware. Worthy to note was the fact that a high number of the respondents 273 (97.8%) couldn't answer why they started smoking. Also, 29 (9.7%) of the respondents highlighted that their friends influenced them to smoke. Fifty nine (19.7%) indicated that they normally had the urge to smoke when lectures are going on. Lastly, the majority of respondents believed that smoking was a risk factor for especially lung cancer with 56 (18.7%) responses, the majority also indicated that

Table 2: Regression analysis for predicting the smoking on academic performance.

Variable	b Coefficient	Beta coefficient	Sig.
Smoking	-.173	-.245	0.000
Constant	1.823		
R-Squared	.090		
% Explained	90		

smoking habits affected their academic performance composing 75 (24.9) responses.

Smoking was examined using an index of questions from the questionnaire. All independent variables were included in the regression analysis with the dependent variable being smoking. The results of the regression analysis as summarized in (Table 2) and indicate that smoking had significant influence on academic performance of undergraduate students at 0.05 significant level. Therefore, the null hypothesis there is no significant influence of smoking on Academic performance of undergraduate student. The R^2 was 0.09 indicating that 9% of the total variance was explained.

Conclusion

In conclusion, smoking remains a significant global health concern with pervasive effects on various aspects of individuals' lives, including their academic performance. Despite extensive research documenting the detrimental health consequences of smoking, its association with academic outcomes among undergraduate students continues to be an area of concern and ongoing investigation. This study aimed to provide a comprehensive examination of the influence of smoking on the academic performance of undergraduate students, focusing on the intricate interplay between smoking behavior, health outcomes, and educational achievements. Through a review of recent research findings and emerging trends, this study sought to deepen our understanding of the complex relationship between smoking and academic success, shedding light on underlying mechanisms and potential intervention avenues. The prevalence of smoking among undergraduate students, as highlighted by recent studies, underscores the persistent challenge of tobacco use in this demographic, necessitating targeted intervention to address this issue effectively. Furthermore, while smoking behavior exerts a significant influence on academic performance, factors such as age and self-esteem/self-efficacy were found to be significant predictors of smoking habits among students at Ajman University. Overall, this study contributes to our understanding of the multifaceted relationship between smoking and academic performance, emphasizing the importance of comprehensive approaches to promote student well-being and success.

Recommendations

Based on the findings above the following recommendations were made:

1. The undergraduate students should avoid smoking cigarette in order to preserve their lungs for proper respiratory activity.
2. The university management should prohibit smoking the within the school premises.

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