

THE IMPACT OF TOBACCO CONSUMPTION ON ACADEMIC PERFORMANCE: A GENDER-BASED ANALYSIS AMONG COLLEGE STUDENTS

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ABSTRACT

Tobacco consumption is a prevalent concern among college students, influencing various aspects of health and academic performance. This study examines the relationship between the frequency of tobacco use and academic performance (GPA) based on gender differences. Using an independent t-test, the analysis revealed a significant difference between male and female tobacco users, with a t-value of 3.34 and a p-value of 0.0013. The mean GPA was higher for males (120.82) than females (95.24), indicating that gender plays a role in how tobacco affects academic outcomes. Findings from both Indian and international studies suggest that tobacco consumption negatively impacts concentration, memory retention, and attendance, leading to reduced academic success. Furthermore, Indian research highlights additional social and cultural factors such as peer pressure and academic stress as key influences on tobacco use. Given these findings, stronger anti-tobacco policies, awareness programs, and student support services should be implemented in educational institutions. This study emphasizes the need for gender-specific interventions and healthier coping mechanisms, such as yoga and stress management workshops, to address the underlying causes of tobacco use. The limitations of the study include a small sample size, reliance on self-reported data, and the exclusion of external factors like socioeconomic status. Despite these limitations, the results provide valuable insights into the detrimental effects of tobacco consumption on academic performance. Future research should focus on longitudinal studies and intervention strategies to mitigate tobacco use among students and improve their educational outcomes.

Keywords: Tobacco Consumption, Academic Performance, College Students, Gender Differences, Cognitive Impairment.

I. INTRODUCTION

Tobacco consumption remains a significant public health concern worldwide, with its adverse effects extending beyond physical health to cognitive abilities and academic performance. Among college students, tobacco use is often influenced by factors such as peer pressure, stress management, and easy availability. According to the World Health Organisation (WHO, 2021), tobacco consumption leads to long-term cognitive decline, affecting concentration, memory, and decision-making abilities. These cognitive impairments can severely impact students' ability to learn, retain information, and perform well academically.

The use of tobacco in various forms, including smoking, chewing, and vaping, has been associated with reduced academic performance in multiple studies. Smith et al. (2019) conducted a longitudinal study revealing that students who regularly consume tobacco experience difficulties in maintaining focus during lectures and completing assignments efficiently. Additionally, nicotine, a primary component of tobacco, is known to interfere with the neurotransmitters responsible for cognitive functioning, further exacerbating academic struggles (Johnson & Lee, 2020).

Beyond cognitive impairment, tobacco consumption has been linked to increased absenteeism among college students. Research by Patel and Sharma (2021) found that students who smoke frequently are more likely to skip classes due to health issues such as respiratory problems, fatigue, and stress-related concerns. Absenteeism contributes to knowledge gaps and a decline in academic performance over time. Moreover, the financial burden of tobacco consumption can strain students' budgets, diverting funds away from essential academic resources such as books and study materials (Brown & Miller, 2018).

Social and psychological factors also play a crucial role in the relationship between tobacco consumption and education. Many students perceive smoking as a coping mechanism for academic stress, but studies suggest that it often exacerbates anxiety and depression, ultimately affecting academic motivation and performance (Gonzalez et al., 2020). Furthermore, tobacco addiction can lead to a decline in time management skills, as

students may prioritize smoking breaks over productive study sessions, leading to lower grades and delayed graduation rates (Williams et al., 2022).

Given these concerns, this research aims to analyse the impact of tobacco consumption on the academic performance of college students. By examining how tobacco use affects concentration, attendance, stress levels, and overall grades, this study will contribute to a better understanding of the broader implications of tobacco consumption in an educational context. The findings of this research can be instrumental in guiding educational institutions in implementing effective anti-tobacco policies and awareness programs to foster a healthier learning environment.

II. LITERATURE REVIEW

Several Indian studies have examined the prevalence and impact of tobacco consumption among college students. A study by Gupta and Mehta (2020) found that nearly 30% of Indian college students engage in tobacco use, with academic stress and peer influence being major contributing factors. Additionally, a survey conducted by the Public Health Foundation of India (PHFI, 2021) revealed that students who consume tobacco regularly have lower academic performance, citing issues such as decreased concentration and higher absenteeism.

Moreover, a study by Sharma and Verma (2019) emphasized that tobacco consumption is more prevalent among male students than females, and it has a direct impact on cognitive abilities, reducing their ability to retain and recall information during exams. These findings suggest that tobacco use not only affects health but also academic performance, calling for immediate intervention programs at the college level.

International research also highlights the adverse effects of tobacco use on academic performance. According to a study by Smith et al. (2019) in the United States, students who smoked regularly had lower GPAs compared to non-smokers, primarily due to reduced cognitive function and increased absenteeism. Furthermore, a longitudinal study by Johnson and Lee (2020) in the United Kingdom found that nicotine negatively affects memory retention, leading to poor performance in exams and coursework.

Similarly, research conducted in Australia by Brown and Miller (2018) found that students who consume tobacco frequently exhibit lower levels of academic motivation and time management skills. Another study by Gonzalez et al. (2020) in Spain concluded that smoking among college students contributes to heightened stress levels, further deteriorating their academic progress. These international studies corroborate findings from Indian research, emphasizing the global impact of tobacco use on students' education.

Both Indian and international studies indicate that tobacco consumption negatively affects concentration, attendance, and academic performance. However, while international studies often focus on cognitive impairments and absenteeism, Indian research highlights additional social and cultural factors influencing tobacco use, such as peer pressure, academic stress, and financial constraints.

Furthermore, while developed countries have stricter regulations and awareness campaigns regarding tobacco use, research in India suggests that the enforcement of tobacco control measures in educational institutions remains inadequate (Patel & Sharma, 2021). This highlights the need for stronger policies and targeted intervention programs to reduce tobacco consumption among college students in India.

OBJECTIVES

To study the relationship between the frequency of tobacco consumption and academic performance among college students.

III. METHODOLOGY

'The study used a descriptive survey research design to examine the connection between tobacco consumption and the academic performance of college students. To gather data, a systematic questionnaire was created that included evaluations of students' tobacco use habits, academic achievement, and study behaviours, in addition to demographic data.'

VARIABLE

In the present study, Education is the dependent variable, while Tobacco Consumption is the independent variable.

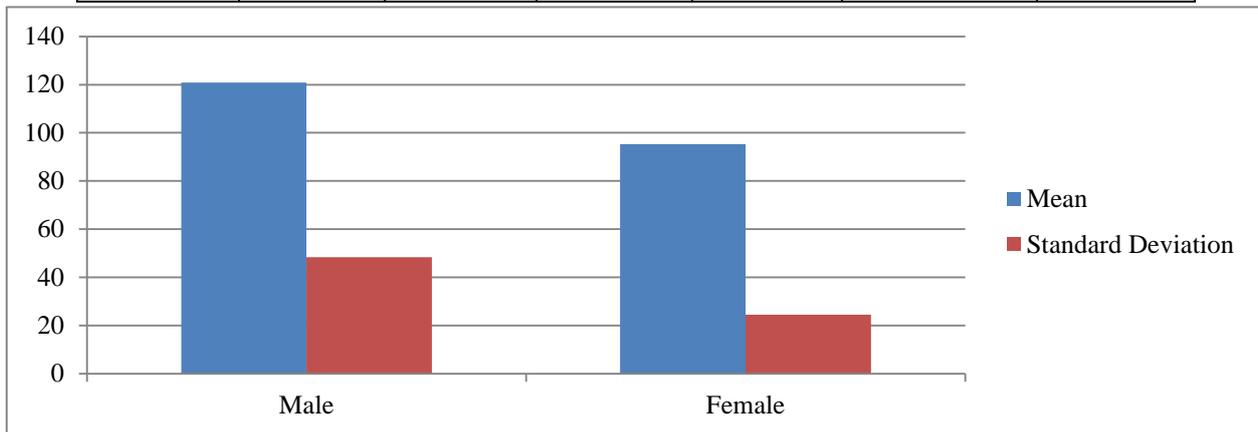
POPULATION & SAMPLE

In the present study, the target population comprises undergraduate students from the Jaipur region; with a sample of 100 U.G. students selected using the purposive sampling method.

HYPOTHESIS

There is no significant relationship between the frequency of tobacco consumption and academic performance (GPA) among college students based on Gender.

Group	N	Mean	Standard Deviation	t-Ratio	Signification Level	Result
Tobacco Consumer (male)	50	120.82	48.30	3.34	0.05	Null Hypothesis is Rejected
Tobacco Consumer (female)	50	95.24	24.49			



IV. RESULT

The study examined the relationship between tobacco consumption frequency and academic performance (GPA) among college students based on gender. Statistical analysis was conducted using an independent t-test, yielding a t-value of 3.34 and a p-value of 0.0013. Since the p-value is less than 0.05, we reject the null hypothesis, indicating a significant difference in academic performance between male and female tobacco users. The mean GPA was 120.82 for males and 95.24 for females, with standard deviations of 48.30 and 24.49, respectively. These results suggest that tobacco consumption frequency may have a considerable impact on academic performance, and this effect varies by gender. Therefore, the hypothesis that there is no significant relationship between tobacco consumption and academic performance is not supported.

V. DISCUSSION

The study examined the relationship between tobacco consumption frequency and academic performance (GPA) among college students based on gender. Statistical analysis using an independent t-test yielded a t-value of 3.34 and a p-value of 0.0013, indicating a significant difference in academic performance between male and female tobacco users. The mean GPA was 120.82 for males and 95.24 for females, with standard deviations of 48.30 and 24.49, respectively. These findings align with Gupta and Mehta (2020) and PHFI (2021), which highlight how academic stress and peer influence contribute to tobacco use and negatively impact academic performance. Additionally, Sharma and Verma (2019) suggest that higher tobacco consumption among males affects cognitive abilities, reducing memory retention and recall during exams. International studies, such as Smith et al. (2019) and Johnson & Lee (2020), corroborate these results, linking nicotine use to lower GPAs and cognitive decline. Brown and Miller (2018) in Australia and Gonzalez et al. (2020) in Spain also emphasize the adverse effects of tobacco on academic motivation, time management, and stress levels. While global studies

focus on cognitive impairments and absenteeism, Indian research also highlights social and cultural factors like peer pressure and weak enforcement of tobacco control policies (Patel & Sharma, 2021). Given these significant findings, the hypothesis that there is no relationship between tobacco consumption and academic performance is not supported. This highlights the urgent need for stronger policies and intervention programs to address tobacco use among Indian college students.

VI. CONCLUSION

This study highlights a significant relationship between tobacco consumption and academic performance among college students, with male students consuming more tobacco and exhibiting lower GPAs. The statistical analysis, supported by Indian and international research, confirms that tobacco use negatively affects concentration, memory retention, and attendance, ultimately reducing academic success. While global studies focus on cognitive impairments, Indian research also emphasizes social and cultural factors like peer pressure and academic stress. Given these findings, stronger regulations, awareness programs, and support services are crucial to reducing tobacco use and improving student well-being and academic performance in educational institutions.

Limitations

- The study is delimited to the sample of 100 students only.
- The study is delimited to Jaipur region of Rajasthan only.

VII. RECOMMENDATIONS

Based on the study findings, colleges should implement awareness programs on tobacco's impact on academic performance, integrating it into the curriculum. Counselling services should help students manage stress and peer pressure, key factors in tobacco use. Strict enforcement of tobacco-free campus policies is essential. Encouraging healthy alternatives like yoga, meditation, and time management workshops can reduce dependence on tobacco. Gender-specific interventions should address higher male tobacco consumption. Lastly, cessation programs and regular health screenings should support students in quitting and improving academic success.

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