The Hidden High: Exploring the Relationship between Tobacco Use, Anxiety, and Academic Performance among University Students in Kenya

Author: Karen Afandi Chagwaya
Kenya Projects Organization, Lino House,
P.O Box 15509-00503, Mbagathi - Nairobi, Kenya
Email: karenchagwaya@gmail.com

Abstract: *Tobacco use among university students continues to pose a major public health and behavioral challenge globally, with growing concern in Kenya's higher education institutions. University students face unique pressures related to autonomy, academic stress, and social influence, making them highly susceptible to tobacco initiation and dependence. The purpose of this paper is to explore the relationship between tobacco use, anxiety, and academic performance among university students, highlighting how psychological distress contributes to both substance use and diminished academic outcomes. The paper first presents an overview of tobacco use patterns among young adults, followed by an examination of the psychological links between anxiety and tobacco consumption, and finally discusses how these factors affect learning and academic success. The paper further looks into strategies aimed at managing tobacco use within university settings, emphasizing the importance of integrating mental health support and awareness programs into campus life. It concludes that understanding and addressing the psychological roots of tobacco use are essential to enhancing students' well-being and fostering a tobacco-free academic culture in Kenya and beyond.*

INTRODUCTION

Tobacco use among young adults remains a persistent global public health challenge, despite decades of awareness campaigns and legislative control. University students represent one of the most vulnerable populations due to increased autonomy, exposure to peer influence, and academic stress (World Health Organization, 2021). Worldwide, studies have reported rising rates of cigarette smoking, vaping, and shisha (waterpipe) use among university populations, with the behavior often associated with experimentation, social identity, and psychological coping mechanisms (Sallam et al., 2025; Eissenberg & Shihadeh, 2009). About 80% of the world's

smokers live in low- and middle-income countries, where the burden of addiction and related diseases is most severe (World Cancer Report, 2020; World Health Organization [WHO], 2021). This paper therefore reviews the relationship between tobacco use, anxiety, and academic performance among university students in Kenya.

THE HIDDEN HIGH

Overview of Tobacco Use among University Students

Tobacco use continues to pose a significant public health challenge despite years of awareness campaigns, research, and government regulation. According to the World Health Organization (2021), tobacco claims more than eight million lives each year, and more than 80 percent of the world's 1.3 billion users live in low- and middle-income countries. Among these users, young adults remain particularly at risk because of increased independence, curiosity, and social influence. The university period marks a stage of life where students explore new experiences and encounter diverse social environments, which can encourage experimentation with substances such as tobacco (Sallam et al., 2025). In many modern universities, tobacco use has expanded beyond traditional cigarette smoking to include e-cigarettes, vaping, and shisha. These products are often marketed as modern or safer options, appealing to young adults who seek to fit in with social trends (Eissenberg & Shihadeh, 2009). However, these products still contain nicotine and other harmful substances that can lead to addiction and serious health consequences. For many students, the habit begins as a social activity or a way to cope with academic and emotional pressures. Studies indicate that stress, anxiety, and the desire for social belonging strongly influence smoking behavior among students (El Ansari et al., 2015; Ministry of Health, 2022).

In the Kenyan context, tobacco use among university students remains a growing concern. The National Authority for the Campaign Against Alcohol and Drug Abuse (NACADA, 2024) reports that about one in five university students have used tobacco products such as cigarettes, shisha, or e-cigarettes. Despite the existence of the Tobacco Control Act of 2007, enforcement of tobacco laws within campuses is often weak. The Ministry of Health (2022) attributes this challenge to limited monitoring, easy access to tobacco, and a perception among students that smoking is socially acceptable. Flavored tobacco and inexpensive brands have also made it easier for young people to start and sustain the habit. Culturally, tobacco use among university students in Kenya often takes place in relaxed social settings such as hostels, entertainment joints, and off-campus gatherings where institutional supervision is minimal (WHO, 2021). The persistence of tobacco use in this group reflects a combination of personal choice, social influence, and institutional gaps in prevention efforts.

Tobacco Use and Anxiety: Psychological Perspectives

A growing body of psychological and medical research links tobacco use to anxiety and difficulties in emotional regulation. Among university students, smoking and vaping are often perceived as coping strategies to manage academic stress, loneliness, and social anxiety (Morrell et al., 2020). For many young adults, the transition to university life brings new pressures, including financial challenges, academic expectations, and the struggle to build social networks. In this context, tobacco use appear to offer momentary relief or a sense of control. The self-medication hypothesis provides a useful framework for understanding this behavior, suggesting that individuals use substances such as tobacco to relieve negative emotions or physiological symptoms of anxiety through the neurochemical effects of nicotine (Kassel et al., 2003).

However, while nicotine can create short-term calmness, studies consistently show that it worsens anxiety symptoms in the long run. Regular nicotine exposure alters the brain's stress regulation pathways, leading to increased restlessness, irritability, and dependence (Fluharty et al., 2017). Research by Lechner et al. (2019) found that students who reported high levels of anxiety were more likely to develop nicotine dependence, which in turn intensified their anxiety over time. This cycle of temporary relief followed by heightened stress contributes to sustained tobacco use among students who may be unaware of the long-term psychological costs.

In African university contexts, the association between anxiety and tobacco use is particularly concerning because of the limited availability of mental health support and counseling services. Many institutions lack structured mental health programs, leaving students to rely on self-managed coping mechanisms that may include substance use. Studies conducted in Nigeria and South Africa indicate that perceived stress, poor coping skills, and peer pressure significantly predict tobacco use among university students (Okagua et al., 2016; Sreeramareddy et al., 2018). Similar findings have been observed in Kenya, where students often describe smoking as a means to manage academic tension or to conform to peer expectations (Ouma & Maina, 2019). These patterns highlight that psychological distress can act both as a cause and a consequence of tobacco use. The emotional strain linked to academic life, financial uncertainty, and social adaptation contributes to the onset of smoking, while prolonged nicotine dependence worsens anxiety and disrupts emotional stability. Addressing tobacco use among university students therefore requires more than prohibitive policies. Effective interventions must integrate mental health education, peer counseling, and stress management programs that help students adopt healthier coping mechanisms (World Health Organization, 2021).

Tobacco Use and Academic Performance

The relationship between tobacco use and academic performance among university students has attracted growing interest in public health and education research. Numerous studies have

consistently shown that students who use tobacco experience poorer concentration, irregular sleep patterns, and reduced cognitive functioning, all of which contribute to lower academic productivity (Zhou et al., 2022). Although nicotine may create a temporary sense of alertness, prolonged use leads to dependency and withdrawal symptoms that disrupt attention and memory. As the brain adapts to nicotine stimulation, students may experience fatigue, irritability, and loss of motivation, which negatively affect their ability to study effectively (Centers for Disease Control and Prevention [CDC], 2021).

Tobacco use also influences students' learning behaviors and attitudes. Those who smoke regularly are more likely to skip classes, procrastinate on assignments, and display reduced enthusiasm for academic engagement compared to their non-smoking peers (Okoli et al., 2016). These behavioral changes often stem from nicotine dependence and the mental fatigue associated with substance use. Furthermore, anxiety and restlessness linked to tobacco withdrawal can further reduce concentration and cognitive performance. Fluharty et al. (2017) observed that students who rely on smoking as a way to cope with stress often experience a worsening of anxiety over time, creating a self-reinforcing pattern of emotional strain and academic decline.

Tobacco consumption undermines both the physical health and the intellectual potential of university students. The combined effects of anxiety, dependence, and reduced concentration interfere with learning and achievement, limiting students' ability to meet academic expectations. Addressing this issue requires a holistic approach that includes counseling services, stress management programs, and awareness initiatives. Universities should promote positive coping strategies that enhance students' mental health and academic performance (World Health Organization, 2021).

The Mediating Role of Anxiety between Tobacco Use and Academic Outcomes

Anxiety serves as an important psychological bridge connecting tobacco use to students' academic performance. Numerous studies indicate that students who experience persistent anxiety are more likely to begin using tobacco as a means of temporary emotional relief or stress management (Khalid et al., 2020). The pressures of university life, including examinations, workload, and social adjustment, create an environment where tobacco is perceived as an accessible coping tool. However, while nicotine may initially induce a sense of calm, prolonged use disrupts emotional stability and deepens dependence. This dependence gradually heightens anxiety and tension, trapping students in a recurring cycle of psychological distress and tobacco use (Taylor et al., 2015).

The reciprocal model proposed by Taylor and colleagues explains this phenomenon as a feedback loop in which tobacco use temporarily reduces stress, but withdrawal symptoms and dependency later increase the individual's sensitivity to anxiety (Taylor et al., 2015). In the academic setting, this emotional imbalance manifests in poor concentration, reduced motivation, and disorganized study patterns. Students experiencing test anxiety or performance pressure are particularly vulnerable, as they often turn to tobacco in moments of panic or exhaustion, believing it enhances alertness or composure (Huang et al., 2019). Over time, this behavior undermines academic consistency and leads to poorer learning outcomes.

Many institutions lack sufficient resources to address emotional challenges, leaving students to rely on informal coping methods such as smoking or vaping. Cultural stigma surrounding mental health also prevents some learners from seeking help, further reinforcing harmful behaviors. The emotional exhaustion that arises from managing both academic and psychological stress therefore strengthens the connection between anxiety and tobacco dependence (Ouma & Maina, 2019). Ultimately, the interaction between emotional instability and nicotine addiction not only weakens academic achievement but also erodes overall well-being. Interventions that address this dual problem must combine academic support with structured mental health programs that build resilience and teach healthy coping skills. Incorporating peer mentorship, stress reduction workshops, and accessible counseling services can help students break the link between anxiety and tobacco use, thereby improving both academic outcomes and emotional health (World Health Organization, 2021).

Strategies towards Addressing Tobacco Use

Effectively addressing tobacco use among university students calls for multi-layered and evidence-based strategies that combine institutional commitment, behavioral interventions, and mental health support. Universities serve as critical settings for shaping young adults' health behaviors, making them ideal environments for prevention and rehabilitation initiatives. According to the World Health Organization (2021), integrated programs that combine smoke-free policies, cessation support, and awareness campaigns have proven successful in reducing tobacco consumption in university settings. Such strategies should aim not only to restrict use but also to cultivate a supportive environment that empowers students to make healthier lifestyle choices.

Although the Tobacco Control Act (2007) provides a national framework for regulating tobacco use, its implementation within universities remains limited. Many institutions lack consistent enforcement mechanisms or dedicated cessation services. The Ministry of Health (2022) notes that awareness campaigns are sporadic and often under-resourced, leading to low compliance with smoke-free policies. Universities must therefore move beyond policy formulation to

establish comprehensive wellness programs that integrate counseling, peer mentorship, and recreational alternatives as proactive tools against tobacco dependency.

Mental health interventions also play a vital role in these strategies. Students frequently resort to smoking as a coping mechanism for anxiety, stress, or social pressure. Embedding psychological counseling and stress management workshops within university health services can help address the underlying emotional triggers that sustain tobacco use (Fluharty et al., 2017). Peer-based initiatives, where trained students serve as wellness ambassadors, have also been found to increase engagement and promote sustained behavior change (Morrell et al., 2020).

Collaboration between universities, public health agencies, and organizations such as the National Authority for the Campaign Against Alcohol and Drug Abuse (NACADA) is essential to achieving long-term impact. NACADA (2024) emphasizes the need for partnerships that integrate research, awareness creation, and community outreach to tackle substance use among youth. By pooling resources and expertise, these partnerships can design interventions that are culturally relevant and responsive to students' lived experiences. Promoting smoke-free campuses, strengthening counseling infrastructure, and embedding health education into the curriculum would create safer, more supportive learning environments that discourage tobacco use and enhance overall student well-being.

CONCLUSION

Tobacco use among university students represents more than a public health problem; it reveals the emotional, social, and academic pressures that many young adults face while pursuing higher education. For some, smoking or vaping begins as a way to cope with anxiety, loneliness, or the demands of academic life, yet it gradually worsens these same challenges by heightening stress and reducing concentration. The link between tobacco use, anxiety, and poor academic performance calls for compassionate, student-centered approaches that address the roots of the problem rather than focusing solely on control. Kenyan universities can play a vital role by fostering supportive environments where counseling, peer guidance, and health education are easily accessible. Encouraging open conversations about stress, self-care, and healthy coping habits can empower students to make informed choices and improve their overall well-being. A tobacco-free campus culture will grow naturally when students feel understood, supported, and guided toward healthier ways of managing life's pressures.

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