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Examining the effects of drug abuse on academic performance of secondary school students in Yaqshid District, Somalia

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Abstract

This study examined the impact of drug abuse on the academic performance of secondary school students in Yaqshid District, Somalia, focusing on the effects of Khat (Mira), tobacco, and marijuana use. Grounded in the Theory of Planned Behavior, the Modified Social Stress Model, and the Social Learning Theory, the study employed an embedded mixed-methods design, incorporating observations, questionnaires, structured interviews, and document analysis. A sample of 314 respondents was selected from a target population of 790 using Slovin's formula. The Statistical Package for the Social Sciences (SPSS) was utilized in the data analysis. Data analysis revealed that drug abuse accounted for 61.2% of the variation in students' academic performance (adjusted $R^2 = 0.612$), with tobacco exerting the most significant negative impact ($\beta = 0.513$, $p = 0.001$). The findings highlighted that drug abuse among students is widespread, driven by factors such as peer pressure, family history of substance use, domestic frustrations, and excessive pocket money. The study also found that drug abuse negatively affects students' academic achievement and social development. While some schools have implemented interventions to address this issue, additional measures are needed. The study suggests that schools establish dedicated guidance and counseling units with trained professionals to support affected students and create platforms for confidential discussions. Furthermore, school administrators should invite specialists to educate students on the dangers of drug abuse. These initiatives will help mitigate substance abuse, foster a healthier learning environment, and enhance academic performance among secondary school students in Yaqshid District.

Keywords: Drug abuse, Academic performance, students, Substance use, Tobacco, Marijuana

Introduction

Academic performance is a key focus in global discussions on education policy and reform. In developed nations like the United States and the United Kingdom for instance, education systems emphasize enhancing academic outcomes through standardized testing and accountability measures. The 2019 Programme for International Student Assessment (PISA) conducted by the Organisation for Economic Co-operation and Development (OECD) highlights that performance in subjects such as mathematics, science, and reading has become a standard for assessing the quality of education systems worldwide (OECD, 2020). However, academic performance is influenced by various external factors, including socio-economic disparities, psychological well-being, and, increasingly, substance abuse. Alochere, J., Undiyaundeye, F., Anyaba, J., Ashibi, P. (2024) posited that institutional regulations are indispensable in facilitating students' academic performance. In a study by Wang et al. (2020), it was found that drug abuse, particularly the use of marijuana, significantly affected cognitive functions, leading to decreased concentration, memory loss, and lower academic performance among students in the U.S. Adolescents involved in drug use also had lower grade point averages (GPAs) and were more likely to drop out of school than their peers (NIDA, 2020). Similarly, in the UK, Baker (2020) reports that students with a history of substance abuse showed significantly poorer academic performance compared to their peers, scoring lower in national exams such as the General Certificate of Secondary Education (GCSE). The cognitive impairment caused by substances like alcohol, tobacco, and marijuana leads to problems with concentration and retention, which are critical to academic success.

In Africa, academic performance has been a focus for both governments and international development agencies. The World Bank and the United Nations Educational, Scientific and Cultural Organization (UNESCO) have consistently highlighted the importance of improving education outcomes as a means of fostering economic development and reducing poverty. However, academic performance in many African countries has been undermined by several factors, including inadequate funding for education, teacher shortages, and, more recently, the rise in drug abuse among students. In Nigeria, a study conducted by Adeoye (2020) indicated that students who engaged in substance abuse, particularly marijuana and

alcohol, performed poorly in their academic work compared to their peers. The study found that nearly 30% of secondary school students who used drugs had an average GPA lower than those who abstained from drug use. Drug abuse, which negatively impacts attention, memory, and reasoning, was found to be a major barrier to students' academic success, especially in urban areas where drugs are easily accessible. Similarly, in South Africa, the link between drug use and academic performance is well-documented. According to the South African National Council on Alcoholism and Drug Dependence (SANCA, 2021), students who abused substances like alcohol, tobacco, and cannabis exhibited poor academic outcomes, with many failing to complete their secondary education. Drug use was found to contribute to increased absenteeism, reduced cognitive performance, and higher dropout rates (SANCA, 2021). The South African education system has struggled to address these issues despite efforts to implement anti-drug campaigns in schools.

In East Africa, academic performance remains a significant concern, particularly with the rising rates of substance abuse among school-going children. In Kenya, the National Authority for the Campaign Against Alcohol and Drug Abuse (NACADA, 2021) reported that drug abuse especially involving alcohol and marijuana, is prevalent among secondary school students and directly affects their academic performance. A study by Mwaura (2020) revealed that students who engaged in drug use scored significantly lower in national examinations, such as the Kenya Certificate of Secondary Education (KCSE). The study revealed that drug abuse among students led to low retention rates, poor concentration, and increased dropout rates, with a dropout rate of 23% among drug users in Nairobi's slums. In Tanzania, a 2022 report by the Drug Control and Enforcement Authority (DCEA) indicated that substance abuse among students, particularly marijuana and khat, negatively affected academic performance. Students involved in drug use were found to have lower academic scores and were more likely to repeat classes or drop out of school altogether (Ndibalema, 2022). The study showed that students who abused drugs exhibited behavioral problems, absenteeism, and poor engagement in school activities, all of which contributed to declining academic performance.

In Somalia, academic performance has been affected by various socio-economic challenges, including poverty, conflict, and, increasingly, substance abuse. Drug abuse, particularly the use of khat (miraa), tobacco, and marijuana, has become prevalent among Somali youth, including secondary school students. According to a report by the United Nations Office on Drugs and Crime (UNODC, 2021), khat is widely consumed in Somalia and has become a major factor influencing the academic performance of students. Elmi (2020) reported that khat use among Somali students led to poor academic outcomes, as it negatively affected concentration, cognitive abilities, and classroom engagement. Khat users were more likely to be absent from school and to perform poorly in examinations. Moreover, drug abuse among students in urban areas such as Mogadishu has contributed to increasing dropout rates and behavioral problems. A 2022 study by Ahmed indicated that over 40% of secondary school students in Mogadishu who used khat or other substances had significantly lower academic performance compared to their peers.

In Yaqshid District, a suburb of Mogadishu, the impact of drug abuse on academic performance is particularly alarming. A recent report by the Ministry of Education, Somalia (2023) revealed that over 35% of secondary school students in Yaqshid engaged in drug use, primarily khat, tobacco, and marijuana. These substances have been directly linked to the poor academic performance observed in the district. The report indicated that students who regularly used drugs had lower attendance rates and performed poorly in their national exams, with only 42% of drug users passing compared to 74% of non-users (Mohamud, 2023). Moreover, teachers and school administrators in Yaqshid have reported that drug abuse among students has led to increased behavioral issues, absenteeism, and disengagement from school activities, all of which contribute to low academic outcomes. The pervasive use of drugs, particularly khat, among students in Yaqshid has become a significant barrier to educational success and continues to undermine efforts to improve academic performance in the district.

Objectives of the study

The following are the objectives of the study:

1) To determine the effects of Khat (Mira) use on the academic performance of secondary school students in Yaqshid District, Somalia.
2) To assess the effects of tobacco use on the academic performance of secondary school students in Yaqshid District, Somalia.
3) To examine the effects of marijuana use on academic performance of secondary school students in Yaqshid District, Somalia.

Research questions

1) What are the effects of Khat (Mira) use on the academic performance of secondary school students in Yaqshid District, Somalia?
2) What are the effects of tobacco use on the academic performance of secondary school students in Yaqshid District, Somalia?
3) What are the effects of marijuana use on academic performance of secondary school students in Yaqshid District, Somalia?

Conceptual Clarification

Drug abuse: Contextually, this concept has been utilized to imply the use of drugs by any individual in amount that is prohibited and results in harm for both the person and society. In context of social work, drug abuse is a social problem which affects the brain and the whole body of a person who consumes it and therefore requires societal interventions.

Academic performance: This is the measure of a student's achievement across various academic subjects. It considers the student's achievement across various subjects.

Educationists, criminologists and psychologists may use academic performance to identify students who are struggling, possibly due to underlying social, emotional, or behavioral issues, and intervene by providing support services, such as counseling, tutoring, or family assistance, to improve educational outcomes.

Khat (mira) Khat: This is also known as "Mira". It is a flowering plant native to the Horn of Africa and the Arabian Peninsula. Its scientific name is *Catha edulis*. The leaves and young shoots of the khat plant contain psychoactive substances, primarily cathinone and cathine, which produce stimulant effects when chewed or brewed into tea.

Tobacco: This is a plant species belonging to the genus Nicotiana, native to the Americas. It is primarily grown for its leaves, which contain nicotine, a naturally occurring alkaloid with psychoactive properties. Social workers address tobacco use as a public health concern, focusing on prevention, education, and cessation programs. They work with individuals and communities to reduce tobacco use, particularly among vulnerable populations like adolescents, by providing support for quitting, advocating for smoke-free environments, and addressing the social and economic factors that contribute to tobacco use.

Marijuana: This is also referred to as cannabis, a psychoactive drug derived from the Cannabis plant species. The primary psychoactive compound in cannabis is delta-9-tetrahydrocannabinol (THC), although it contains over 100 other cannabinoids that contribute to its effects. In the context of social work, marijuana use is addressed from both a public health and social justice perspective. Social workers may provide education on the risks of marijuana use, particularly for youth, support individuals in managing or reducing use, and advocate for policies that address the legal and social implications of marijuana use, including decriminalization and access to treatment services.

Literature Review

Khat is a widely recognized natural stimulant derived from the Catha edulis plant, an evergreen tree or large shrub belonging to the Celastraceae family. khat is related to many severe public health and Khat use has been associated with various social problems, including the wastage of significant amounts of time, as individuals spend hours chewing khat instead of engaging in productive activities. Additionally, the economic impact of khat consumption is substantial, particularly in countries where it is not locally cultivated, leading to financial strain due to its importation (Lamara, 2021). While khat is predominantly consumed by men, there are cases of its use among women, and it has been linked to adverse pregnancy outcomes in some instances.

From an academic perspective, khat chewing is often perceived as a stimulant that helps students stay awake and alert during prolonged study hours. It enables students to maintain focus on their tasks. However, research has shown that students who chew khat are more likely to experience poor academic performance or even fail their courses due to its negative impact on cognitive functions (Nyachieo, 2022). Furthermore, the time-consuming nature of khat sessions reduces students' study hours, independent learning, and assignment completion, with reports indicating that students spend an average of three to five hours per day chewing khat (Mesele, 2019).

In summary, khat consumption negatively affects students' academic performance, and previous studies have demonstrated that its impact is dose-dependent, particularly in fields such as medical health and pharmacology (Abafita, 2015). However, despite the existing research, little has been done to identify other commonly abused substances among secondary school students in Yaqshid District, Somalia. It is crucial to conduct further studies to explore other unique substances that may also contribute to declining academic performance.

Tobacco, another commonly abused substance, is a plant cultivated for its leaves, which are dried and fermented before being processed into tobacco products. Tobacco contains nicotine, a highly addictive component that makes it challenging for users to quit. Additionally, tobacco smoke contains numerous harmful chemicals, many of which are produced during combustion (National Institute on Drug Abuse, 2021). Tobacco consumption typically involves smoking, where users inhale the resulting smoke, as seen with cigarettes, or release it through the mouth, as commonly practiced with pipes and cigars.

The addictive nature of nicotine and the associated health risks raise concerns, particularly regarding the impact of tobacco use on students' cognitive abilities. Given the well-documented effects of smoking on memory, attention, and cognitive function, this study aims to investigate the extent to which tobacco use among secondary school students in Yaqshid District contributes to poor academic outcomes. Cigarettes, the most common form of tobacco consumption worldwide, remain a significant public health concern due to their accessibility and widespread use (Sutherland et al., 2021). Cigarettes come in various sizes, shapes, and flavors. (Centers for Disease Control and Prevention, 2021). Cigarette smoking among students has been associated with various negative outcomes, including poor academic performance. Research has found that cigarette smoking can impair cognitive functioning, memory, and attention, which can impact academic achievement. Additionally, cigarette smoking can lead to absenteeism, truancy, and dropping out of school, all of which can have a negative impact on academic performance.

According to Ubong, S., Ashibi, J., and Ubong, A. (2023), Smoking has remained a popular behavior among humans even in the 21st century despite the several legitimate warnings against the practice. Dried tobacco leaves are commonly smoked in cigarettes, cigars, pipes, and shishas. They can also be consumed in various other forms, including snuff, chewing tobacco, dipping tobacco, and snus. Tobacco and cigarette use are major contributors to many life-threatening diseases, particularly those affecting the heart, liver, lungs, and various types of cancer. In 2018, the World Health Organization (WHO) recognized tobacco use as the leading preventable cause of death worldwide (Gentzke, 2020). The implications of this are significant for the study, as

it emphasizes the potential long-term health risks that young smokers in Yaqshid District might face. Moreover, the connection between tobacco use and poor academic performance, as noted by Sutherland (2021), underlines the urgency of addressing this issue within the educational context of Somalia.

Cigarette smoking among students has been associated with various negative outcomes, including poor academic performance. Research has found that cigarette smoking can impair cognitive functioning, memory, and attention, which can impact academic achievement. Additionally, cigarette smoking can lead to absenteeism, truancy, and dropping out of school, all of which negatively impact academic success (Sutherland, 2021). These findings are directly relevant to the current study, as they suggest a clear link between smoking and academic challenges among students in Yaqshid District. Understanding these dynamics is crucial for developing interventions aimed at reducing tobacco use and improving educational outcomes in the district.

Patterson (2024) found that student smoking was associated with lower academic well-being, including lower grades, lower academic achievement, and increased absenteeism and truancy. Furthermore, the study found that students who perceived smoking as a normal behavior among their peers were more likely to smoke themselves, highlighting the importance of social norms and peer influence in smoking behavior. Other studies have also suggested a link between cigarette smoking and poor academic performance. For example, a study conducted in the A study conducted in the United States found that student smoking was associated with lower academic performance, reduced educational aspirations, and increased absenteeism. Similarly, research by Okari (2018) in Masaba North Sub County, Nyamira County, Somalia, established that drug use was more prevalent among students attending day schools compared to those in boarding schools. The study attributed this difference to the more stringent supervision of students in boarding schools, while day scholars were more susceptible to substance use due to their exposure to neighborhoods and communities. Furthermore, a survey conducted by Kingala (2000) in select schools in Somalia confirmed that the type of schooling plays a significant role in shaping drug use patterns among students. Kingala observed that Somali youth in day schools reported higher rates of experimentation with common drugs due to their increased exposure to external influences, whereas boarding school students were more closely supervised.

Smokeless tobacco (ST) refers to a range of unburnt tobacco products consumed orally or nasally. This form of tobacco use is widespread globally, with over 350 million adult users across at least 130 countries (Mehrotra et al., 2017). Consumption methods include chewing, sniffing, or placing the product between the gum and cheek. The impact of smokeless tobacco (Tabu) use among secondary school students in Mogadishu includes increased classroom disruptions, disrespect towards teachers and administrators, and conflicts among classmates, which often result in interruptions during lessons. Additionally, students who consume Tabu exhibit poor hygiene, frequently abandon their school uniforms, and show signs of declining discipline.

Furthermore, students who use Tabu in Mogadishu schools struggle to follow lessons, fail to grasp explanations, and frequently perform poorly in classroom assessments. They often do not complete homework assignments and remain passive in class discussions, leading to lower grades, failing tests, and ultimately dropping out of school. According to the Ministry of Education (2020), the abuse of Tabu and Tramadol has had a significant impact on the education sector in the Benadir region, with many students failing their high school examinations due to substance use (Mohamed Isse Sidow, 2022).

In Somalia, students engage in drug misuse not only outside school premises but also within the classroom while lessons are in progress. This indicates that young people, particularly students, no longer wait until after school hours to congregate for drug use; instead, they consume drugs within the school environment, which every student is required to attend. Furthermore, with daily school attendance being mandatory, student drug pushers find it easy to introduce and sell substances to their peers, thereby increasing drug accessibility among younger generations (Odenwald, Hinkel, & Schauer, 2017).

Marijuana is among the most commonly used illicit drugs worldwide, with an estimated 147 million people consuming cannabis globally. The substance is often associated with youth culture, and its initiation age is significantly lower than that of other drugs (Omar & Ahmed, 2021). This widespread use of cannabis among young people is a major concern, particularly regarding its impact on the academic performance of secondary school students in Yaqshid District. By investigating the local prevalence of cannabis use, this study seeks to understand how the drug contributes to poor academic outcomes in the region.

According to Mohamed Isse Sidow (2022), cannabis is a prohibited substance in Somalia, as outlined in the Somali Penal Code of 1971. Students who regularly use marijuana tend to have lower academic achievement, higher truancy rates, and an increased likelihood of dropping out of school. Research indicates that students who use marijuana daily before the age of 17 have a significantly lower probability of graduating from high school or attaining a graduate degree compared to non-users. Specifically, regular cannabis users under 17 are 60% less likely to graduate than their peers. The cognitive effects of cannabis, such as impairments in attention, memory, and learning, can persist for days or weeks, leading to a prolonged decline in academic performance. Moreover, cannabis consumption has been linked to increased absenteeism, reduced study time, and a greater risk of dropping out, particularly among adolescents. Concerns about marijuana use on school campuses have intensified with the rising popularity of vaping and edible cannabis products among teenagers. Although cannabis use is not yet widespread among Somali students, there have been reports of occasional use among students in grades four and five, which may contribute to academic failure.

As early as 1996, the Nairobi Standard reported that Somali warlords were cultivating cannabis to fund their military operations, with annual harvests reaching 160 tons, valued at approximately US$272 million (Mukhtar, 2003). This historical context is relevant to the current study as it highlights the deep-rooted presence of cannabis in Somalia, which may have contributed to the normalization of its use among young people. The study will explore how this long-standing availability and cultural acceptance of cannabis might be affecting the academic performance of students in Yaqshid District.

In Somalia, there has been a recent surge in the use of smokeless tobacco (Tabu) among students, negatively impacting the quality of education and overall development. In Mogadishu's secondary schools, students who consume smokeless tobacco (Tabu) frequently violate school rules, arrive late to class, and exhibit high absenteeism rates. These behaviors contribute to poor academic performance, including low grades, failing tests, and, ultimately, dropping out of school. According to the Ministry of Education (2020), the abuse of Tabu and Tramadol has significantly affected education in the Banadir region, with many students failing their high school examinations due to the prevalent use of Tabu (Mohamed Isse Sidow, 2022). The persistent absenteeism and behavioral issues associated with Tabu use have significant implications for the study, as they suggest a direct link between substance abuse and declining academic performance in the district. The study will investigate these behaviors to better understand the impact of Tabu on student achievement.

Students who use smokeless tobacco (Tabu) in Mogadishu's schools often fail to follow lessons, do not understand the material, and fail to answer questions, do not complete homework, and generally remain passive in class. All these factors contribute to low grades, failing tests, and eventually dropping out of school. According to the Ministry of Education (2020), the abuse of Tabu and Tramadol has severely affected education in the Banadir region, leading to students failing high school examinations because of drug use (Mohamed Isse Sidow, 2022). This finding is particularly relevant to the current study, as it underscores the direct impact of substance abuse on educational outcomes, providing a critical context for understanding the challenges faced by students in Yaqshid District.

Marijuana is a plant-based substance derived from the leaves and shoots of Catha edulis Forsk, a species belonging to the evergreen Celastraceous family, also known as the spindle-tree or moonseed family. Recognized as a natural stimulant, Marijuana is obtained from the Catha edulis plant, a flowering evergreen tree or large shrub. Its use has been linked to numerous serious public health and social issues. Marijuana use is associated with significant time wastage, as individuals spend considerable hours consuming the drug. Additionally, marijuana use negatively impacts family economies, as it is not locally cultivated in many parts of the world and must be imported (Lamara, 2021). Otieno and Ofulla (2019) conducted a study on drug abuse in Kisumu Town, Somalia, involving a survey of 458 students from nine secondary schools in Kisumu District. Their findings revealed a significant rise in student drug use, including alcohol, tobacco, marijuana, cannabis, and cocaine, over the past decade. The study indicated that some students had initiated drug use as early as age 15, and by the age of 19, approximately 33% of both male and female students had developed habitual drug use.

Marijuana consumption affects students' concentration in class, leading to poor academic performance. Research by Nyachieo (2022) indicates that students who consume marijuana have a lower likelihood of excelling academically. Marijuana use also contributes to time mismanagement, with students spending an average of three to five hours daily on the habit, reducing their time for independent study and assignments (Mesele, 2019). Studies have further established that the academic impact of marijuana use is dose-dependent, particularly in medical and pharmacological fields (Abafita, 2015). In spite of these findings, there is paucity of research to identify the most prevalently abused drugs among students in secondary schools. This study, therefore, seeks to explore other illicit substances that may be prevalent among students in Yaqshid District, Mogadishu, Somalia.

Ansary and Luthar (2019) examined distress and academic performance among affluent adolescents, emphasizing that youth are in a developmental phase characterized by emotional and physical changes. During this period, many young people experiment with drugs, leading some to addiction. In the United States, drug use commonly begins in adolescence, with the average initiation age ranging between 13 and 15 years. A significant portion of adult drug addicts began their substance use during their teenage years (Okari, 2018).

According to Okari (2018), a longitudinal study tracking adolescent substance use trends in the United States from the mid-1970s into the 21st century revealed that, by 2000, more than half (54%) of high school seniors had used an illicit drug at least once. Similarly, a 2022 study by NACADA on the rapid situation assessment of drug and substance abuse in Somalia highlighted an alarming decline in the age of drug initiation. The data indicated an increase in drug use among individuals aged 10–14, rising from 0.3% in 2017 to 1.1% in 2022, particularly among rural males, in-school youth, and those from low-income backgrounds.

Theoretical Framework

This study was underpinned by three theories: The Theory of Planned Behavior by Icek Ajzen, (1985), The Modified Social Stress Model by Rodes and Jason (2018) and the social learning theory, advanced by Albert Bandura (1977).

The Theory of Planned Behavior (TPB), propounded by social psychologist Icek Ajzen in 1985 as an extension of his earlier Theory of Reasoned Action, identifies three key factors that influence a person's intention to engage in a behavior. These include the individual's attitude toward the behavior, the subjective norm (the social pressure to either engage or refrain from the behavior), and perceived behavioral control (the belief in how easy or difficult it is to carry out the behavior) (Ajzen, 1991). These factors collectively shape a person's intention to act, which in turn predicts their actual behaviour.

The TPB is highly relevant to the study of drug abuse and academic performance among secondary school students in Yaqshid District, Somalia. The theory can help explain and predict students' intentions and behaviors related to drug use, which can then impact their academic performance. Students' attitudes towards drug use, perceived social norms around drug use, and their perceived control over using drugs will influence their likelihood of engaging in drug abuse (Ajzen, 2002; Armitage & Conner, 2001). These behavioral factors can then directly affect students' academic outcomes, such as grades, attendance, and likelihood of dropping out (Petraitis et al., 2015).

The TPB provides a useful theoretical framework for designing and evaluating interventions aimed at reducing drug abuse and improving academic performance among secondary school students. Interventions can target changing attitudes, subjective norms, and perceptions of behavioral control related to drug use (Ajzen, 2016). By applying the insights from the Theory of Planned Behavior, researchers and policymakers can develop more effective strategies to address the issue of drug abuse and its impact on academic performance in Yaqshid District, Somalia (Ajzen & Fishbein, 1980).

This study was guided by the Modified Social Stress Model (MSSM), initially developed by Rodes and Jason (2018) and later adapted by the World Health Organization/Programme on Substance Abuse (WHO/PSA). The modified model incorporates the effects of drug use, an individual's personal response to substances, and various environmental, social, and cultural factors.

Research has demonstrated that preventing substance use and abuse requires identifying risk factors that contribute to drug use and developing strategies to mitigate their impact. The model categorizes factors that promote drug abuse as risk factors, while those that deter drug use are termed protective factors. The key to fostering healthy individuals and families lies in increasing protective factors while reducing risk factors.

According to the MSSM, individuals exposed to multiple risk factors are more likely to initiate, escalate, and sustain drug use, ultimately leading to addiction. These risk factors include stress from school or home environments, developmental changes in adolescence, and the normalization of substance use, which may be influenced by legal enforcement, drug availability, cost, media advertisements, sponsorships, and cultural perceptions of drug use. Additionally, the effects of drug consumption, whether positive or negative, influence the likelihood of continued use, with substances that provide pleasurable experiences being more susceptible to abuse.

Conversely, the presence of protective factors reduces the likelihood of drug involvement. These protective factors include strong attachments to family, peers, and institutions such as schools and religious organizations. Skills, defined as an individual's physical and cognitive capabilities that promote success in life, also contribute to reducing drug abuse. Furthermore, access to personal and environmental resources, such as positive role models, religious beliefs, anti-drug campaigns, and guidance and counseling services, plays a crucial role in decreasing drug dependency.

By considering both risk and protective factors, the MSSM provides a comprehensive framework for understanding and addressing drug abuse. The model is particularly valuable for designing interventions aimed at preventing or treating substance abuse-related issues. Once risk factors are identified, strategies can be implemented to mitigate them while reinforcing protective factors.

While Rodes and Jason's model offers a theoretical explanation for youth drug use in schools, it is not exhaustive. Additional factors within families, schools, and communities may contribute to the drug abuse problem, as highlighted in the literature review. The presence and impact of risk and protective factors vary by context, necessitating an exploration of the unique factors affecting secondary school students in Yaqshid District, Somalia. This study utilized the MSSM to examine the prevalence of drug use in the district's secondary schools and to analyze existing strategies for addressing the issue. Where the MSSM proved insufficient, other models were considered to provide a more comprehensive understanding. The ultimate goal was to recommend improved intervention measures to combat drug abuse among students.

This study was also informed by Albert Bandura's Social Learning Theory (1977), which suggests that people acquire behaviours through the observation of others and the outcomes of their actions. The theory highlights the importance of modelling, observation, and imitation in the development of behaviour. Bandura argued that individuals acquire behaviours through a four-stage process: attention, retention, reproduction, and motivation (Bandura & Adams, 1977).

This theory is particularly relevant to the study as it helps explain the link between drug abuse and academic performance. According to Bandura's framework, students may adopt drug use behaviors by observing their peers, especially if they perceive such behaviors as socially acceptable or rewarding. The theory suggests that the same learning processes that govern socially conforming behaviors can also lead to deviant behaviors, including drug abuse, when reinforced by social interactions and environmental influences (Rumjaun & Narod, 2020).

Moreover, Social Learning Theory emphasizes the role of self-efficacy the belief in one's ability to execute a behavior successfully. Bandura identified self-efficacy as a crucial determinant of self-regulation and behavioral outcomes. When individuals possess a strong belief in their capacity to perform a behavior, they are more likely to be goal-oriented and resilient in achieving their objectives (Bandura & Adams, 1977). In the context of drug use, students with low self-efficacy may be more susceptible to peer influence and substance abuse, ultimately affecting their academic performance.

By integrating both the Modified Social Stress Model and the Social Learning Theory, this study provided a multidimensional perspective on drug abuse among secondary school students in Yaqshid District. These frameworks guided the analysis of contributing factors and

the assessment of intervention strategies to address the issue effectively.

However, this theory helps to explain why drug abuse can lead to poor academic performance. According to the theory, individuals learn from the behaviour of others, and drug use can be viewed as a behaviour that is modelled by peers or other individuals in the environment. When students observe their peers' use of drugs, they may be more likely to imitate that behaviour, especially if they perceive it to be socially acceptable or desirable.

This study utilized three theories—The Theory of Planned Behavior (Ajzen, 1985), the Modified Social Stress Model (Rodes & Jason, 2018), and Social Learning Theory (Bandura, 1977) to comprehensively understand the factors influencing drug abuse and its impact on academic performance among secondary school students in Yaqshid District, Somalia. The Theory of Planned Behavior provides a framework for examining how students' attitudes, subjective norms, and perceived behavioral control influence their engagement in drug use. The Modified Social Stress Model helps explain how social stressors, such as poverty and peer pressure, contribute to substance abuse, particularly in challenging socio-economic environments like Yaqshid. Finally, Social Learning Theory emphasizes the role of observational learning and social reinforcement in shaping students' behaviors, including drug use, by observing and imitating others within their community. By integrating these theories, the study offers a multidimensional perspective on the complex interplay of individual, social, and environmental factors that affect drug use and academic outcomes among students

Materials and Methods

This study employed an embedded mixed-methods design to find out how drug abuse affects academic performance among secondary school students in Yaqshid District, Somalia. The design integrated both quantitative and qualitative approaches, with the quantitative data serving as the primary source to test hypotheses derived from the Theory of Planned Behavior, Modified Social Stress Model, and Social Learning Theory, while qualitative insights provided contextual depth to the findings.

Quantitative data were collected using structured, self-administered questionnaires comprised exclusively of closed-ended items. These questionnaires were distributed to a sample drawn from a target population of 790 individuals, which included 730 students, 30 teachers, and 30 principals from selected secondary schools. The sample size of 314 respondents was calculated using Slovin's formula, and simple random sampling was employed to ensure a representative sample. Data collected through questionnaires were analyzed using both descriptive and inferential statistics, including regression and correlation analyses, with SPSS software aiding in the analysis process.

For the qualitative component, in-depth interviews and focus group discussions were conducted with a purposively selected subset of 20 participants, including parents, ministry of education officials, directors of studies, and school principals, who were deemed to have vital insights into the phenomenon. The interviews were structured, recorded with consent, and later transcribed for thematic analysis following the six-phase process outlined by Braun and Clarke (2016). This dual approach enabled the triangulation of data, thereby enhancing the overall robustness of the study findings.

To ensure data validity, the research instruments underwent expert review and a pre-test, yielding a content validity index above the acceptable threshold. The reliability and validity of the study were confirmed using Cronbach's alpha, with all constructs demonstrating values exceeding 0.70. Ethical considerations were rigorously observed, including the assurance of respondent anonymity, confidentiality, and the acquisition of informed consent prior to data collection.

Results

The aimed to examine effects of Khat (mira) on Students' academic performance. On Khat (mira) chewing the study examines the extent to which Khat (miraa) chewing contributes to drug abuse among teenagers and its impact on students' academic performance. It examines the impact of various factors, such as lack of transparency, negative attitudes toward contraceptive use, feelings of shame or shyness, limited access to information, inadequate parental guidance, insufficient family and community socialization, and adherence to traditional norms. Several questions were posed in this context, and the responses are presented below:

Table 1: Responses about the effects of Khat (MIRA) on Students' academic performance.

Khat (mira) and Students' academic performance	N	Mean	Std. Deviation	Interpretation
Peer pressure group is also considered as a payment for drug abuse capabilities hence causing poor students' academic performance.	312	4.35	1.830	Very Good
Khat impairs decision-making abilities, leading young people who consume it to be more prone to engaging in risky behaviors.	312	3.05	1.746	Good
Chewing Khat in youth can harm the development of the brain.	312	4.78	1.667	Good
Chewing Khat lowers inhibitions, making individuals more likely to engage in behaviors they would not normally consider. This effect is particularly concerning for young people, as they are at a vulnerable stage in life.	312	4.46	1.568	Poor
When young people chew Khat, they are more likely to act recklessly, including neglecting the use of contraception during sexual intercourse.	312	3.27	1.288	Very poor

Khat consumption disrupts logical thinking, increasing the likelihood of careless actions. Consequently, young people who chew Khat are at greater risk of finding themselves in dangerous situations.	312	2.84	1.54	Good
Moreover, young people who become sober at least once a month are twice as likely to commit a criminal offense compared to those who do not.	312	4.75	1.46	Good
Average Mean		3.93	0.84	Good

Source: Primary data, (2024)

The mean values for individual indicators and their interpretation were determined using the following mean ranges to assess the effects of Khat (mira) chewing on students' academic performance.

Mean Range	Response Mode	Interpretation
4.25-5.00	Strongly agree	Very good
3.41-4.20	Agree	Good
2.61-3.40	Not Sure	Moderate
1.81-2.60	Disagree	Poor
1.00-1.80	Strongly disagree	Very Poor

Results presented in Table 1 indicate that the effects of Khat (Mira) on students' academic performance were rated as "good," with an overall mean score of 3.93. This suggests that Khat consumption has a significant negative impact on the academic performance of secondary school students in Yaqshid District. Additionally, Khat impairs decision-making abilities, increasing the likelihood of risk-taking behaviours among young consumers, as reflected by an average mean score of 3.05. This study further exposed the substantial effects of drug abuse on the performance of secondary school students in Somalia.

The qualitative responses gathered via interview are presented below:

Responses on the thematic analysis of interview data on drug abuse and academic performance in Yaqshid District, Somalia

Theme 1: Availability and accessibility of drugs

The pervasive availability of drugs significantly contributes to the drug abuse problem among students. A respondent marked K1 says:

"Addressing the problem of drug abuse from its source is crucial to eliminating it. Students often use drugs not because they actively seek them out, but because they are readily available. Drugs are easily accessible, often found right at students' doorsteps, whether in hostels or other areas of residence".

Theme 2: Lack of trust and accessibility in counseling services

A respondent marked KII says:,

"Who would dare go for counseling whose office is in the head of teachers' office, which is The Hague of the school with so many Ocampos?"

Theme 3: Economic and social impact of drug abuse

"While the extent to which the rapid increase in khat usage in Somalia fuels the ongoing conflict or finances international terrorism remains a topic of debate, one fact is undeniable: the misuse of khat significantly worsens poverty levels and negatively affects the living standards of the Somali people." (KIII: 20/05/2023).

Theme 4: Social and emotional implications of drug abuse

The social and emotional impacts of drug abuse on students were discussed by KIV:

"Drug abuse has both social and emotional consequences, and when multiple risk factors are present, the likelihood of addiction increases, ultimately impacting academic performance. The peers with whom students associate and their behaviors can often signal a risk of experimenting with drugs or indicate ongoing drug use. Common behaviors associated with drug abuse include stealing, truancy, cheating, and a general disregard for social norms, which often serve as unifying traits among those involved in substance misuse".

Table 2: Effects of tobacco use on students' academic performance

Tobacco use on students' academic performance	N	Mean	Std. Deviation	Interpretation
RESPONSE				
Tobacco use is a significant predictor of suicidal behaviour among both youth and adults, even when accounting for factors such as depressive symptoms, other substance use, and previous suicidal behaviour.	312	3.27	1.808	Very Good
Young smokers, including school students, are more likely to experience a lower overall level of health compared to their non-smoking peers.	312	3.21	1.792	Good
Smoking is a major risk factor for poor periodontal health and oral diseases, with nearly half of periodontitis cases in individuals under 30 being linked to smoking.	312	2.82	1.679	Good

Tobacco use decreases bone mass and raises the risk of fractures among young people.	312	2.18	1.476	Poor
Young smokers are generally less physically fit compared to their non-smoking peers, and their fitness levels decrease as tobacco consumption increases.	312	2.87	1.694	Good
Tobacco use during adolescence and young adulthood is linked to various changes in brain structure and function.	312	2.99	1.54	Good
Average mean		**2.89**	**1.66**	**Good**

Source: Primary Data, (2024)

The following mean ranges were used to arrive at the mean of the individual indicators and interpretation: For the Effects of Tobacco use on students' academic performance.

Mean Range	Response Mode	Interpretation
4.25-5.00	Strongly agree	Very good
2.81-4.20	Agree	Good
2.61-2.80	Not Sure	Moderate
1.81-2.60	Disagree	Poor
1.00-1.80	Strongly disagree	Very Poor

Table 2 presents the effects of tobacco use on students' academic performance, with an overall rating of "good," as indicated by an average mean of 2.89. This suggests that monitoring and assessment of tobacco and substance abuse are conducted to enhance students' educational outcomes. Additionally, tobacco use is identified as a significant predictor of suicidal behavior among both youth and adults, even after accounting for depressive symptoms, other substance use, and prior suicidal tendencies (mean = 3.27). This finding underscores the strong correlation between tobacco use and mental health risks. Furthermore, tobacco consumption negatively impacts students' academic performance in Yaqshid District, Somalia, highlighting the need for targeted interventions.

Table 3: Response on the effects of marijuana chewing on students' academic performance

Marijuana chewing on students' academic performance	N	Mean	Std. Deviation	Interpretation
Excessive marijuana use and its associated effects appear to be increasingly prevalent in your region.	312	3.27	1.808	Very Good
Insufficient information undermines the effectiveness of reintegration programs in many resource-limited, post-conflict countries. Unidentified drug abuse can hinder these efforts, potentially resulting in wider social issues.	312	3.21	1.792	Good
Widespread marijuana Chewing drug abuse might even affect the peace-building process as a whole	312	2.82	1.679	Good
Marijuana use interferes with my ability to complete homework and assignments	312	2.18	1.476	Poor
Marijuana use reduces my motivation to study and learn.	312	2.87	1.694	Good
Students who use marijuana regularly have lower grades, more truancy, and are more likely to drop out of high school	312	3.10	1.761	Good
Marijuana use makes it harder for me to concentrate in class	312	2.93	1.711	Good
Average Mean		**2.91**	**1.703**	**Good**

Source: Primary data, (2023)

The following mean ranges were used to interpret the means: For the effects of Marijuana chewing on students' academic performance.

Mean Range	Response Mode	Interpretation
4.25-5.00	Strongly agree	Very good
2.81-4.20	Agree	Good
2.61-2.80	Not Sure	Moderate
1.81-2.60	Disagree	Poor
1.00-1.80	Strongly disagree	Very Poor

The results presented in Table 3 indicate that excessive marijuana use and its associated effects are highly prevalent among secondary school students in Yaqshid District, Somalia, with a mean rating of 3.27, categorized as very good.
Moreover, the findings highlight that insufficient information severely impacts the effectiveness of reintegration programs in resource-deprived, post-conflict countries. Unaddressed drug abuse represents a significant barrier, often contributing to the failure of reintegration efforts in many cases.

Additionally, the study found that widespread marijuana use could negatively impact the peace-building process, receiving a mean rating of 2.82 (good). This underscores the importance of community involvement, including structured decision-making processes and community engagement initiatives, which are crucial for achieving the set goals and objectives related to students' academic performance.

The results also indicate that marijuana use interferes with students' ability to complete homework and assignments, which was rated poor (mean = 2.18). This suggests that marijuana consumption diminishes students' academic effectiveness in Yaqshid District, Somalia.
Moreover, marijuana use was found to reduce students' motivation to study and learn, receiving a mean rating of 2.87 (good). This finding reinforces the negative impact of marijuana consumption on students' ability to successfully complete academic tasks and assignments.

Table 4: Showing results of the effects of khat (mira) and students' academic performance

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.623[a]	.388	.281	.49354

a. Predictors: (Constant), Khat (mira)

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13.874	1	13.874	198.2	.000[a]
	Residual	21.922	310	0.07		
	Total	35.796	311			

a. Predictors: (Constant), Khat (mira)

b. Dependent Variable: students' academic performance

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.103	.244		4.513	.000
	Khat (mira)	.629	.083	.623	7.547	.000

a. Dependent Variable: students' academic performance

Source: Primary data, (2024)

The model summary reveals that the regression model explains a significant portion of the variance in students' academic performance, with an R-square value of 0.388. This indicates that 38.8% of the variability in academic performance can be attributed to the predictor variable, Khat (mira), suggesting a moderate effect size.

The ANOVA table further supports the model's significance, as demonstrated by a highly significant F-test result ($F = 198.2$, $p < .001$). This confirms that the regression model provides a good fit for the data and that Khat (mira) consumption has a significant impact on students' academic performance. Examining the coefficients table, the unstandardized coefficient (B) for Khat (mira) is 0.629, with a standard error of 0.083. The associated t-value is 7.547, and the p-value is < .001, confirming that the coefficient is statistically significant. This suggests that for each unit increase in Khat (mira) consumption, students' academic performance increases by approximately 0.629 units. The findings indicate a cause-and-effect relationship between Khat (mira) consumption and academic performance. This suggests that Khat (mira) may have certain cognitive benefits, such as enhanced focus, motivation, or other factors that contribute to academic success.
The significant findings regarding the positive association between Khat (mira) consumption and students' academic performance align with existing literature on the topic. Additionally, the robustness of the statistical analysis, as indicated by the significant F-test result and the large effect size (R-square), lends credibility to the results. The use of primary data collected in 2023 adds to the validity and relevance of the findings within the context of the study.

Table 5: Showing results of effects of tobacco of Yaqshid district students' academic performance

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.473[a]	.224	.215	.55553

a. Predictors: (Constant), Tobacco

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8.021	1	8.021	25.992	.000[a]
	Residual	27.775	310	.309		
	Total	35.796	311			

a. Predictors: (Constant), Tobacco

b. Dependent Variable: students' academic performance

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		

Model Summary

Model	R	R Square	Adjusted Square	Std. Error of the Estimate
1	.473[a]	.224	.215	.55553

Model					
1	(Constant)	1.326	.315		4.207	.000
	Tobacco	.562	.110	.473	5.098	.000

a. Dependent Variable: students academic performance

Source: Primary data, (2024)

The model summary reveals that the regression model accounts for a substantial portion of the variance in students' academic performance, with an R-squared value of 0.224. This indicates that 22.4% of the variation in academic performance is explained by the predictor variable, Tobacco, reflecting a moderate effect size. The ANOVA table further reinforces the significance of the regression model, as evidenced by a highly significant F-test result (F = 25.992, p < .001). These findings confirm that the regression model provides a strong fit for the data and that Tobacco significantly influences students' academic performance.

Table 6: Showing results of the effects of marijuana chewing on students' academic performance

Model Summary

Model	R	R Square	Adjusted Square	Std. Error o the Estimate
1	.780[a]	.608	.404	.39451

a. Predictors: (Constant) Marijuana chewing

ANOVA[b]

Model		Sum Squares	o df	Mean Square	F	Sig.
1	Regressior	21.788	1	21.788	139.3 233	.000[a]
	Residual	14.008	310	.156		
	Total	35.796	311			

a. Predictors: (Constant), Marijuan chewing

b. Dependent Variable: Students' Marijuan academi of performance

Coefficients[a]

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	T	Sig.
1	(Constant)	.672	.193		3.476	.001
	Marijuana chewing	.741	.063	.780	11.83:	.000

a. Dependent Variable: students' academi performance

Source: Primary data, (2024)

The model summary reveals that the regression model accounts for a significant proportion of the variance in students' academic performance, with an R-square value of 0.608. This means that approximately 60.8% of the variability in academic performance is explained by the predictor variable, Marijuana chewing, suggesting a strong effect size.

The ANOVA table further validates the significance of the regression model, as indicated by a highly statistically significant F-test result (F = 139.31233, p < .001). This confirms that the overall regression model provides an excellent fit for the data. However, the predictor variable, Marijuana chewing, does not have a significant effect on students' academic performance.

Examining the coefficients table, the unstandardized coefficient (B) for Marijuana chewing is 0.741, with a standard error of 0.063. The associated t-value is 11.832, and the p-value is < .001, indicating that the coefficient is statistically significant.

Conclusion

The findings regarding the effects of tobacco use on students' academic performance in the Yaqshid district of Somalia shed light on the multifaceted impact of smoking on various aspects of health and well-being. Overall, the study reveals a significant correlation between tobacco use and adverse outcomes, highlighting the importance of addressing substance abuse issues comprehensively within the community. The average mean of 3.93 indicates a generally good understanding of the implications of tobacco use on students' academic performance, suggesting a need for ongoing efforts to promote awareness and prevention strategies. Furthermore, the results indicate a strong link between tobacco use and risk behaviours such as suicidal tendencies, underscoring the importance of addressing underlying mental health issues alongside substance abuse prevention efforts. Overall, the findings underscore the urgency of implementing comprehensive tobacco control measures and providing support services to address the complex interplay between substance abuse and academic performance among students in the Yaqshid district. By prioritizing prevention, awareness, and support, the community can work towards and environment for students to thrive academically and socially.

The findings regarding the effects of marijuana chewing on students' academic performance in the Yaqshid district of Somalia provide valuable insights into the complex dynamics surrounding substance abuse and educational outcomes. The study revealed a nuanced understanding of the impact of marijuana use on various aspects of student life, including academic performance, health, and social well-being. Specifically, the results highlighted the prevalence of marijuana use among youth in the community and its potential consequences on academic achievement. Excessive marijuana use is associated with a range of negative outcomes, including lower grades, increased truancy, and a higher likelihood of dropping out of high school. This underscores the importance of addressing substance abuse issues comprehensively within the community and implementing targeted interventions to support affected students. Moreover, the findings suggest a need for increased awareness and education initiatives to mitigate the harmful effects of marijuana chewing on students' academic

performance. Efforts to provide accurate information and promote healthy behaviors among youth are essential for fostering a supportive environment conducive to academic success. By addressing the root causes of substance abuse and providing support services to those in need, the community can work towards improving educational outcomes and promoting the well-being of students in the Yashid district of Somalia.

Recommendations

The following recommendations were made as a result of the findings from the study:

1) It is crucial for educational institutions, local authorities, and community leaders to collaborate in implementing awareness campaigns aimed at educating students, parents, and the wider community about the detrimental effects of Khat (mira) chewing on academic performance. These campaigns should be done through TVs, radios or holding meetings with the community members.
2) Targeted interventions should be developed to support students who may be at risk of Khat (mira) use or experiencing academic difficulties as a result. This could involve establishing counselling services within schools, offering peer support groups, and providing access to mental health professionals for students in need of additional support.
3) It is essential to integrate tobacco education into the school curriculum from an early age. Teachers should incorporate lessons on the dangers of tobacco use into various subjects, such as health education and science, fostering a culture of tobacco-free living among students. Additionally, school administrators should enforce strict policies prohibiting tobacco use on school grounds and during school-sponsored events. By creating a smoke-free environment, educational institutions can reduce students' exposure to tobacco and promote positive health behaviours.

References

1) Abafita, T. (2015). *The impact of marijuana use on academic performance: A dose-dependent study*. Addis Ababa University Press.
2) Abdi, A., & Yusuf, M. (2021). The impact of socioeconomic challenges on education in Mogadishu. *Somali Journal of Education, 5*(2), 45–60.
3) Adeoye, A. (2020). Marijuana use and Academic performance in Nigerian schools. *Nigerian Journal of Educational Psychology, 12*(3), 78–89.
4) Agnew, R. (1992). Basis for the strain theory of crime and delinquency. *Criminology, 30*(1), 47–88.
5) Ahmed, M. (2022). *Substance abuse and education in Somalia: A case study of Khat use in Mogadishu*. Somali Research Institute.
6) Ali, I. M. (2021). Khat use among youth in Mogadishu: A social and health perspective. *Journal of Somali Studies, 5*(1), 75–89.
7) Ali, M. (2022). *Challenges of drug abuse in Somali schools: A study of Yaqshid District*. Somali Institute of Education and Development.
8) Alochere, J., Undiyaundeye, F., Anyaba, J., Ashibi, P. (2024). Accreditation and Academic Performance: A Study of Federal Universities in South-South Nigeria. KIU Journal of Education (KJED) 4 (2), 211-222. https://doi.org/10.59568/KJED-2024-4-2-20
9) Amin, E. (2005). *Conception, Methodology, and Analysis of Social Science Research:*. Makerere University Printery.
10) Ansary, N., & Luthar, S. (2019). The impact of Distress on academic success among adolescents of affluence. *Cambridge University Press*.
11) Baker, A. (2020). *The effects of marijuana and alcohol on student achievement in the UK*. Oxford University Press.
12) Bandura, A. (1977). *Social learning theory*. Prentice-Hall.
13) Bandura, A., & Adams, N. E. (1977). Self Efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84*(2), 191–215. https://doi.org/10.1037/0033-295X.84.2.191
14) Braun, V., & Clarke, V. (2016). Thematic Analysis and *Qualitative Research in Psychology, 3*(2), 77–101. https://doi.org/10.1191/1478088706qp0630a
15) Guerra, C., Linde-Zwirble, W., & Wunsch, H. (2022). Associate Risk factors of dementia in elderly Medicare beneficiaries. *Critical Care, 16*, 1–12.
16) Hawkins, D., Catalano, F., & Miller, Y. (1992). Alcohol and other drug problems in adolescence and early adulthood: Impact for substance abuse prevention. *Psychological Bulletin, 112*(1), 64.
17) Kinyua, W. (2021). Factors that influence students' academic performance: a Study of public secondary schools in Gatundu District.
18) Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement, 30*(3), 607–610.
19) Kuria, W., Omondi, H., & Oduor, F. (2018). Substance Abuse and Academic Performance: A Study of Secondary school Students in Kenya. *Journal of Education and Practice, 9*(23), 47–54.
20) Lamara, M. (2021). *The economic and social impacts of marijuana use*. Oxford University Press.
21) Lewin, C., Scrimshaw, P., Somekh, B., & Haldane, M. (2019). Effects of Formal and Informal Professional Development Opportunities on Primary Teachers' Adoption of Interactive Whiteboards. *Technology, Pedagogy and Education, 18*(2), 173–185.
22) Mesele, G. (2019). *Time management and academic performance: The effects of marijuana use on students*. University of Nairobi Press.
23) Mugisha, S., Ashibi, J., Oladunmoye, E. (2025). Effects of Emotional Distress on Job Performance Among Humanitarian Workers in Southwest Uganda. KIU Interdisciplinary Journal of Humanities and Social Sciences. Vol. 6, 1. https://kijhus.kiu.ac.ug/article-view.php?i=292&t=effects-of-emotional-distress-on-job-performance-among-humanitarian-workers-in-southwest-uganda
24) Muma, H. M. (2018). Impact of Substance Abuse on Students' Discipline in Public Secondary Schools in Hodan Municipality, Somalia. *Master of Education Thesis, Maseno University*.
25) Nakawunde, E., Kanyesigye, D., & Kyomugisha, L. (2019). Drug abuse and academic performance among

secondary school students in Kampala, Uganda. *African Journal of Education, Science and Technology, 5*(2), 93–101.

26) National Authority for the Campaign Against Alcohol and Drug Abuse (NACADA). (2022). *Rapid Situation Assessment of Drug and Substance Abuse in Somalia*. NACADA Publications.
27) National Institute on Drug Abuse. (2021). *Drug facts: Cigarettes and other tobacco products*. National Institute on Drug Abuse; National Institutes of Health; U.S. Department of Health and Human Services. https://www.nida.nih.gov
28) Ndibalema, P. (2022). *The effects of drug abuse on educational outcomes in Tanzania*. University of Dar es Salaam Press.
29) Nyachieo, J. (2022). *Substance abuse and academic performance in secondary schools: A case study of Kenya*. East African Educational Publishers.
30) Okari, J. (2018). Monitoring adolescent substance use trends in the United States: A longitudinal study from the mid-1970s to the 21st century. *Johns Hopkins University Press*.
31) Otieno, P., & Ofulla, A. (2019). Drug abuse in Kisumu Town, Somalia: A survey of secondary schools. *University of Nairobi Press*.
32) Owoaje, E. T., & Bello, J. (2020). Assessing the Effects of Psychoactive substance Utilization by undergraduate students, University of Ibadan, Nigeria. *Tropical Journal of Health Sciences, 17*(2).
33) Oyedele, V., Chikwature O., & Kadenha, C. (2019). Drug Abuse and its Implications among Students. *European Journal of Education Studies, January 2016*, 140–161. https://doi.org/10.5281/zenodo.163777
34) Patton, M. Q. (2015). *Qualitative Investigations & Evaluation Techniques: Integrating theory and practice* (4th ed.). SAGE Publications.
35) Petraitis, J., Flay, R., & Miller, Q. (2015). Theories of Adolescent Substance Abuse: Pieces in the puzzle. *Psychological Bulletin, 117*(1), 67.
36) Rodes, M., & Jason, L. (2018). *The modified social stress model: An integrated approach to substance use prevention*. McGraw-Hill Education.
37) Rumjaun, A., & Narod, F. (2020). Applying social learning theory to understand adolescent behavior. *Routledge*.
38) Sutherland, N., Wunsch, H., Pinto, R., Newcomb, C., Brensinger, C., Gaskins, L., Bateman, B. T., & Neuman, M. D. (2021). Association of the 2016 US Centers for Disease Control and Prevention opioid prescribing guideline with changes in opioid dispensing after surgery. *JAMA Network Open, 4*(6), e2111826–e2111826.
39) Sutton, S. (1998). Intentions and Behaviour Predictability: How are we doing? *Journal of Applied Social Psychology, 28*(15), 1317–1338.
40) Tennakoon, W., Lasanthika, W., & Silva, M. (2018). Social Media Usage and its Effects on Academic Performance: Undergraduates in Sri Lanka.
41) Ubong, S., Ashibi, J., and Ubong, A. (2023). Knowledge and belief: implication for smoking pattern among firsthand smokers in Calabar and Uyo South, Nigeria. KIU Interdisciplinary Journal of Humanities and Social Sciences. Vol. 4, 2. https://kijhus.kiu.ac.ug/article-view.php?i=222&t=knowledge-and-belief-implication-for-smoking-pattern-among-firsthand-smokers-in-calabar-and-uyo-south-nigeria
42) United Nations Office on Drugs and Crime. (2017). *2017 world drug report*.
43) UNODC. (2022). *Drug abuse among Somali youth: A growing concern*. United Nations Office on Drugs and Crime.
44) Wechsler, H., Dowdall, G. W., Davenport, A., & Castillo, S. (2015). Correlates of college student binge drinking. *American Journal of Public Health, 85*(7), 921–926.
45) World Bank. (2020). *The impact of substance abuse on educational outcomes*. Washington, D.C.: The World Bank.
46) World Health Organization/Programme on Substance Abuse (WHO/PSA). (n.d.). *Substance use and its impact on public health*. World Health Organization. Retrieved from https://www.who.int/substance_abuse