Psychoactive Drug Use and Academic Motivation among Secondary School Students in Buhweju District

Asasira Yobu

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Declaration

I, Asasira Yobu declare that, this dissertation is original in nature and has never been submitted to any other academic institution for any academic award.

However, all the sources I used or quoted in this dissertation have been indicated and acknowledged accordingly by references.

Signature Date



16th September, 2024

ASASIRA YOBU

2022/MEd/014/PS

(Candidate)

Approval

This is to certify that the research report in this booklet has been conducted under my guidance and is now ready for submission to university authorities for further examination with my approval.

Signature Date



17th September, 2024

Supervisor's Name

ALOYSIUS RUKUNDO (PhD)

Dedication

I dedicate this work to my dear mum Twijukye Peace for her prayers, incredible love and encouragement even when she didn't know exactly what I was studying. To my siblings Ruth, Justus, Isaiah, Sayuni and Sarah, I say thank you for your support, encouragement and words of counsel. To my little daughter Asasira Alison I cheated on your time in order to compile this report. Lastly, I dedicate this report to all my friends and well-wishers for their constant support, prayers and encouragement during my academic journey.

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Abstract

The study aimed to establish the association between socio-demographic characteristics and psychoactive drug use, as well as the differences in academic motivation among secondary school student psychoactive drug users and non-users in Buhweju District. The study objectives were to establish the association between socio-demographic characteristics and psychoactive drug use, establish the differences in intrinsic and extrinsic academic motivation across psychoactive drug use, and assess amotivation levels between psychoactive drug users and non-users. Data was collected using self-administered, semi-structured questionnaires, and processed and analyzed using SPSS Version 27. Analysis was done using Chi-square, logistic regression, and independent t-tests. The study was conducted in eight randomly and purposively selected schools in Buhweju District, with a sample of 350 secondary school students who responded to the questionnaires. Findings revealed that Anglican students had higher odds of using psychoactive drugs compared to Catholic students (OR = 1.6, 95% CI [1.00, 2.4], p = 0.049). Additionally, students with no peer drug use observation had increased odds of engaging in psychoactive drug use (OR = 1.9, 95% CI [1.19, 2.9], p = 0.006). Intrinsic and extrinsic academic motivation showed no significant differences between drug users and non-users {t (343) = 0.8, p = 0.420}, {t (343) = -0.293, p = 0.770} respectively. However, psychoactive drug users exhibited higher levels of amotivation compared to non-psychoactive drug users {t (343) = 3.28, p = 0.001}. Conclusions included: Anglican student compared to Catholics, and those who did not observe peers using psychoactive drugs were more likely to use psychoactive drugs. Additionally, there was no significant difference in both intrinsic and extrinsic academic motivation between drug users and non-users, however higher amotivation were noticed among psychoactive drug users than non-users. Recommendations emphasized collaboration of schools with religious leaders, implementing peer education, and offering counseling and mentorship programs and personalized support for students showing high levels of amotivation.

Chapter one

Introduction

1.0 Overview

The study's context explored a situational analysis of both psychoactive drug use and academic motivation among students. It concentrates on addressing gaps left unexplored by prior research. Additionally, this chapter scrutinized the problem statement. The objectives aim to precisely outline the essence of the study, aiming to unlock insights tailored to the current circumstances.

1.1 Background to the Study

The exploration into the connection between secondary school students' use of psychoactive drugs and its impact on academic motivation is situated within a global context marked by growing concerns about the repercussions of substance abuse on educational outcomes. (Oluwafunmilayo et al., 2022). According to Wade et al. (2009), a psychoactive drug is a substance that alters perception, mood thinking and memory or behaviour by changing the body's biochemistry. In a similar view, Grigson, & Twining, (2002), defines a psychoactive drug as any chemical that changes cellular activity in any part of the body, which in turn affects the perception or behaviour of the person who has taken it by changing his /her conscious awareness of the world around him/her.

Psychoactive drug use on the other hand is the consumption of substances that, when taken in or administered into one's body system, affect mental processes like perception, consciousness, cognition, mood and emotions. (WHO, 2020). Globally, substance abuse, including the misuse of psychoactive drugs, is recognized as a pervasive

issue among adolescents, impacting cognitive function, academic motivation, and overall well-being (Lund et al., 2010). Gribanova (2020) defines motivation as an incentive to stimulate an action. Motivation is categorised into intrinsic motivation, extrinsic motivation and amotivation where intrinsic motivation refers to engagement in a behaviour that is inherently satisfying or enjoyable (Legault, 2016). Extrinsic motivation is defined by Sennett (2021) as a circumstance in which an individual completes a task or exhibits a behaviour due to external factors such as avoiding punishments, or getting a reward. While amotivation on the other hand refers to the lack or absence of volitional drive to engage in any activity (Deci and Ryan, 1985).

Adolescent use of psychoactive substances is recognized as a significant global public health issue, posing potential threats to cognitive functions, academic performance, and overall well-being (UNODC, 2020). The World Health Organization (WHO) emphasizes the dear need for extensive research to understand the intricate interplay between substance use and academic motivation worldwide, taking into account multifaceted contributing factors (Auerbach, et al., 2018). The WHO has drawn attention to the global prevalence of substance abuse among adolescents, emphasizing the importance of targeted interventions to mitigate its influence on educational achievement (Auerbach et al., 2018).

The global landscape concerning adolescent behavior raises escalating concerns about psychoactive drug use and its potential consequences on the academic motivation of secondary school students, attracting attention from researchers, policymakers, and educators globally due to its multifaceted implications for the well-being and academic performance of young individuals (Smith et al., 2020). Studies by Ramey and Regier

(2019). and Volkow, Michaelides, and Baler (2019) have revealed the adverse effects of psychoactive drug use on critical components of academic motivation, such as cognitive function, memory, and attention. Additionally, research by Mallett et al. (2017) has unveiled a troubling correlation between substance use and reduced academic motivation, highlighting the imperative to comprehend and address this issue on a global scale. Given the potential long-term repercussions of substance abuse on educational paths, this study aims to contribute to a comprehensive understanding of the factors shaping academic motivation among secondary school students in diverse cultural and educational settings.

In the United States, the abuse of prescription drugs, including stimulants, is a growing concern impacting academic performance (NIDA, 2022). A survey revealed that around 35% of high school students had engaged in illicit drug use, indicating a widespread educational challenge (Miech et al., 2021). Conversely, in European countries like the United Kingdom, alcohol and cannabis use are emphasized, with early initiation linked to lower academic achievement (EMCDDA, 2020). The European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) consistently monitors substance use trends, with varying prevalence rates among secondary school students in different countries, such as Spain, where nearly 25% of adolescents had used illicit drugs (EMCDDA, 2020; Martín-Sánchez et al., 2018).

In Asia, particularly in South Korea, academic pressure contributes to high rates of psychoactive drug use, with students turning to stimulant medications for cognitive enhancement (Lee, 2008). While in South Korea, where academic pressure is particularly high, research explores the interplay between academic stress, substance use, and motivation among students (Lee, 2008). In Japan, there is a concerning increase in the

misuse of prescription drugs, emphasizing the need for comprehensive interventions (Berry et al., 2020).

In South America, substance use patterns vary widely, with evidence suggesting an association between psychoactive drug use and lower academic motivation among students in Brazil (Jorge et al., 2018).). The Middle East also grapples with the issue, as studies in Lebanon and Jordan indicate a growing problem of psychoactive drug use among secondary school students (Karam et al., 2010). While the issue of psychoactive drug use is global, it is crucial to recognize the contextual nuances that shape this problem. These findings highlight the need for a global perspective when addressing the complex relationship between substance use and academic motivation among adolescents.

Africa indicates a concerning rise in psychoactive drug use among secondary school students, where factors like poverty and insufficient resources contribute to vulnerability (Adelekan et al., 1992). In the African context, secondary school students' psychoactive substance use is influenced by socio-economic, cultural, and environmental factors, which in turn affect their academic motivation and engagement (Flisher et al, 2003). The lack of specific research exploring the intricate relationship between psychoactive drug use and academic motivation in African secondary schools necessitates a comprehensive examination to inform targeted interventions and policies tailored to the region's unique challenges (López et al., 2021). Understanding these dynamics is crucial for developing effective strategies to address substance abuse and enhance academic motivation, ultimately contributing to the educational success and well-being of African youth.

Africa faces unique challenges in addressing substance abuse among youth, with dynamics such as poverty, lack of awareness, and limited access to mental health resources contributing to the issue (Dada, et al., 2016). The effect of psychoactive drug use on academic motivation is significant, affecting individual students and hampering the overall development of the education system. Existing research emphasizes the need for a thoroughly understanding of the relationship between substance abuse and academic motivation in the African context, considering cultural, socio-economic, and educational disparities (Adelekan et al., 2016). Addressing this issue is crucial for designing targeted initiatives that can curb the adverse effects of drug use on academic performance and contribute to the overall well-being of secondary school students in the region.

Nigeria indicates 12.1% prevalence rate for drug use among secondary school students, emphasizing the need for targeted interventions in the African context (Vanyukov et al., 2012). Nigeria, for instance, has grappled with rising rates of substance abuse, including the use of psychoactive drugs among secondary school students (Adeyemo, 2018). While in South Africa, a study conducted by Reddy et al. (2018) highlighted the impact of socio-economic factors on substance abuse among adolescents, emphasizing the need for targeted interventions in schools. The study found that students from disadvantaged socio-economic backgrounds were more vulnerable to engaging in substance abuse, negatively affecting academic motivation and achievement.

In Kenya, for instance, a study by Mbugua et al. (2017) explored the relationship between drug abuse and academic motivation, revealing a significant negative correlation between the two variables. The findings underscored the importance of addressing substance abuse issues to promote a conducive learning environment. The African Union,

recognizing the cross-cutting nature of substance abuse issues, has emphasized the need for collaborative efforts among member states to address this challenge (African Union, 2016). Such regional frameworks highlight the shared commitment to creating a healthy and supportive educational environment for students across the continent.

The educational landscape and socio-cultural dynamics of Uganda provide a unique backdrop for examining the challenges related to substance abuse among its youth. The Ministry of Education and Sports, along with the National Drug Authority and Ministry of Health, has recognized the potential impact of using drugs on academic motivation and achievement among secondary school students (Ministry of Education and Sports, Uganda, 2020). The study aims to examine the specifics of Uganda's context, shedding light on the locally available psychoactive substances and the contributing factors such as poverty, limited educational resources, and cultural influences that make Ugandan students vulnerable to substance abuse (UNODC, 2020).

Uganda, has witnessed a concerning rise in psychoactive substance use among its youth, including alcohol, cannabis, and prescription drugs (Rebecca, 2022). This trend is particularly alarming given the potential impact on academic motivation and academic performance among secondary school students, as reported by the Ministry of Health (Ministry of Health Uganda, 2020). The World Health Organization's (2016) survey identified psychoactive substance misuse as a growing public health issue among Ugandan adolescents, emphasizing the need for a closer examination of the unique socio-cultural factors influencing drug use patterns and academic motivation in Uganda.

The prevalence of psychoactive drug use among secondary school students in Uganda is particularly worrisome due to its potential detrimental effects on academic

performance and motivation, as consistently highlighted in global studies (Volkow et al., 2019). Despite the Ministry of Education and Sports' emphasis on fostering a positive learning environment, the specific dynamics of the intersection between psychoactive drug use and academic motivation within the Ugandan secondary school system remain underexplored (Kihumuro et al., 2022). Therefore, this study aims to address this gap, providing insights about the complex relationship between substance abuse and academic motivation in Uganda.

The escalating trend of psychoactive substance use among Ugandan adolescents, encompassing alcohol, tobacco, and illicit drugs, has prompted concerns about its impact on overall well-being and academic motivation, as highlighted by the Ministry of Education and Sports (2019). The urgent need to address factors hindering student motivation and performance in Uganda's highly competitive academic landscape is underscored, drawing attention to the specific association between psychoactive drug use and educational outcomes during adolescence, a crucial period for cognitive and emotional development (Tapert, et al., 2007). The Uganda Ministry of Health's report (2019) highlighted a noticeable rise in the abuse of psychoactive substances, linking them to negative consequences such as impaired cognitive function, mental health disorders, and compromised academic performance (UNODC, 2020). The Uganda National Examinations Board's studies (2021) further underscored a concerning decline in academic motivation and learner’s academic achievement among secondary school students, prompting an exploration of the potential association between psychoactive drug use and educational outcomes.

In Uganda, where apprehensions regarding substance abuse are escalating, a concentrated examination is imperative to comprehend the specific challenges faced by Ugandan secondary school students and to formulate precise interventions that address the repercussions of psychoactive drug use on academic motivation in the local setting (Auerbach et al., 2018). The study aims to contribute valuable insights that can inform targeted initiatives and policies tailored to the Ugandan context, addressing the critical intersection of psychoactive drug use and academic motivation among students in secondary schools.

Buhweju District has seven government aided and five private known secondary schools (District Education Office, 2023). The context of psychoactive drug use among secondary school students in Buhweju District, Uganda, is a multifaceted issue that demands attention due to its potential impact on academic motivation. Psychoactive substances, including but not limited to alcohol, cannabis, and stimulants, have been recognized as prevalent among youth globally, and Uganda's Buhweju district is no exception (Breslau et al., 2016). Understanding the contextual framework of this phenomenon is crucial for devising effective interventions to safeguard the academic well-being of students.

The socio-economic context of Buhweju District plays a significant role in shaping patterns of psychoactive drug use among students. Economic challenges, lack of access to educational resources, and limited employment opportunities may contribute to stressors that drive some students toward using psychoactive substance as a coping mechanism (Lund, et al, 2010). Additionally, social norms and peer influences within the community can contribute to the acceptability of drug use among students (Linton et al., 2018).

The structure and demands of the educational system in Buhweju District can also influence students' motivation and susceptibility to psychoactive drug use. High academic expectations, coupled with limited educational support and resources, may create an environment where students turn to substances to cope with the stress of academic pressures (O'Malley et al., 2015). Understanding the specific challenges within the educational system is crucial for developing targeted interventions. Individual psychological factors, such as mental health issues and perceived academic competence, are integral to the contextual framework. Students struggling with mental health problems may be more vulnerable to substance use as a form of self-medication (Hawkins et al., 2019). Moreover, a lack of intrinsic motivation and a sense of disconnection from educational goals may contribute to a decreased commitment to academic success (Vansteenkiste et al., 2019).

The dynamics within the community and family settings of Buhweju District are essential components of the contextual framework. Family support and communication, or lack thereof, can significantly impact a student's resilience against substance use (Bailey et al., 2018). As well cultural attitudes toward education and substance use within the community may also shape the choices students make in navigating academic challenges. Examining the contextual framework of psychoactive drug use and academic motivation among secondary school students in Buhweju District, Uganda, involves considering a multitude of interconnected factors, including social, economic, educational, psychological, and familial elements.

Whereas many studies on psychoactive drugs and academic motivations have been conducted globally, regionally and in Uganda as a country this specific research study will

concentrate on psychoactive drug use and academic motivation among secondary school students in Buhweju district Uganda.

1.2 Problem Statement

Academic motivation plays a pivotal role in shaping students' engagement, persistence, and achievement in their studies, as emphasized by Ryan and Deci (2000). The significance of maintaining high levels of academic motivation cannot be underrated, as it is crucial for students to reach their full potential, excel academically, and harness future educational and career opportunities.

In the contemporary and fiercely competitive educational landscape, the imperative of cultivating academic motivation among secondary school students has emerged as a pressing concern requiring immediate attention. In Buhweju, low academic motivation among secondary school students has led to a noticeable lack of interest, disengagement from learning, diminished self-efficacy, and decreased concentration, as highlighted by Byabagambi (2020). As a result, Buhweju district has consistently performed dismally in the Uganda Certificate of Education (UCE) examinations in 2020, 2021, and 2022 with a percentage pass of 10.53%, 13.91%, and 14.10% respectively (UNEB report; 2020, 2021, & 2022). Furthermore, the alarming rate of student dropout has become a cause for concern among school authorities (Lerner & Grolnick, 2020). If the issue of low academic motivation remains unaddressed, it could perpetuate a cycle of poor academic performance, limited career prospects, and increased dropout rates (Hester,2017), exacerbating the already concerning educational outcomes in the district. Additionally, failing to tackle this issue may lead to a widening gap between the academic performance of students in

Buhweju and their peers in more successful districts, further entrenching educational inequities and reducing the overall potential of the student population.

Various factors influence academic motivation, with psychoactive drug use being one of them. While previous studies have explored the relationship between motivation for, and interest in learning (Kwarikunda et al., 2020), these studies have not specifically examined how academic motivation may be impacted by the use of psychoactive drugs. Additionally, little is known about the complex relationship between psychoactive substance use and academic motivation among secondary school students.

This study therefore aims to bridge the existing gap in the current literature by exploring the relationship between psychoactive drug use and academic motivation among secondary school students in Buhweju district.

1.3 Purpose of the Study

The study aimed to establish the relationship between socio-demographic characteristics and psychoactive drug use and the differences in academic motivation among secondary school student psychoactive drug users and psychoactive drug non-users in Buhweju District.

1.3.1 Objectives of the Study

i. To establish the association between socio-demographic characteristics and psychoactive drug use among secondary school students in Buhweju district.

ii. To examine the differences in intrinsic academic motivation across psychoactive drug use among secondary school students in Buhweju District

iii. To establish the differences in extrinsic academic motivation across psychoactive drug use among secondary school students in Buhweju District

iv. To assess the differences between psychoactive drug use and amotivation among secondary school students in Buhweju District.

1.4 Hypotheses

i. There is no statistically significant relationship between socio-demographic characteristics and psychoactive drug use among secondary school students in Buhweju district

ii. There is no statistically significant difference in intrinsic motivation between secondary school students in Buhweju who use psychoactive drugs and non-psychoactive drug users.

iii. There is no statistically significant difference in extrinsic motivation between secondary student psychoactive drug users in Buhweju district and non-psychoactive users.

iv. There is no statistically significant difference in amotivation between secondary school student psychoactive drug users in Buhweju district and non-psychoactive users.

1.5 Scope of the Study

According to Creswell (2014), the scope of the study "sets the boundaries for the study, indicating who and what will be included and excluded". The study covered the geographical, content and time scope respectively aiming at establishing the entire dimensions constituting the state of its establishment as subsequently mapped in the captions:

1.5.1 Geographical Scope

Buhweju District, situated in Western Uganda, is a constituent part of the Ankole sub-region, with Nsiika as its principal town. The district shares borders with Rubirizi District to the west and northwest, Ibanda District to the northeast, Mbarara District to the east, Sheema District to the southeast, and Bushenyi District to the southwest. Nsiika, serving as the district headquarters, is located approximately 50km northwest of Mbarara and about 310km southwest of Kampala, the capital of Uganda.

Established in July 2010, Buhweju District was separated from Bushenyi District. As of 2002, the district, situated in the Ankole sub-region, was home to an estimated 2.2 million people. Notably, Buhweju boasts 7 government-aided secondary schools and 5 private ones, totaling to 12 schools, which will be comprehensively considered in the study. The geographic coordinates of the district are approximately 0018S, 30 20E.

1.5.2 Content Scope

The research centered on key areas of focus including the impact of psychoactive drug use on intrinsic motivation, and extrinsic motivation, and also the influence of psychoactive drug use on amotivation specifically among secondary school students. The

study examined two primary dimensions: the use of psychoactive drugs and academic motivation. The investigation into psychoactive drug use encompassed an examination of prevalence, types, and trends of psychoactive substance use among secondary school students in Buhweju District. Concurrently, the exploration of academic motivation aims to unravel the factors that either propel or impede students' dedication and enthusiasm for their studies. Adopting a content-focused approach, this research endeavoured to offer a thorough comprehension of the intricate relationship between psychoactive substance use and academic motivation.

1.5.3 Time Scope

The study was conducted over a period of eight months, from September 2023 up to April, 2024. During this timeframe, data collection was specifically carried out in April 2024, by engaging participants to gather relevant information vital to the research. The insights obtained during this phase were instrumental in generating findings that support the establishment of the link between the variables under investigation.

1.5.3 Population scope

The study was conducted using a sample size of 350 participants obtained from a total population of 3,862 secondary school students by the aid of the Krejcie & Morgan table. (Krejcie & Morgan, 1970).

1.6 Significance

The findings of the study conducted might play a pivotal role in shedding light on potential health risks linked to use of drugs by secondary school students. This insight will enable the development of targeted intervention strategies by policy makers aimed at mitigating these risks.

The study's results could have implications beyond health, as they will inform educational policies and programming. Should a significant correlation between drug use and academic motivation be identified, the study could catalyze the creation of school-based interventions and policies to prevent substance abuse and foster a positive academic environment. Additionally, if psychoactive drug use is found to negatively impact academic motivation, addressing this issue will become essential for ensuring the holistic development and mental health of students.

The study's broader impact might extend to raising community awareness about the potential consequences of psychoactive drug use among secondary school students. This heightened awareness is anticipated to stimulate community-driven initiatives focused on addressing substance abuse and providing support to students in maintaining a healthy academic focus.

The findings of this study could help educators develop school-based intervention strategies to mitigate the effects of psychoactive drug use and improve their schools' academic outcomes.

The findings are expected to help the Ministry of Education and Sports officials in understanding the causes of psychoactive drug use amongst secondary school students

hence helping them develop intervention strategies aimed at creating a supportive and a psychoactive drug-free environment that fosters academic motivation and success.

Furthermore, the research findings might make a valuable contribution to the existing body of knowledge by focusing on a specific geographical area, Buhweju District. By doing so, it will aim at filling the potential gaps in the literature and provide context-specific information that can benefit both local and global research on psychoactive drug use and academic motivation.

1.7 Theoretical framework

This research was guided by two theories: Bandura's Social Learning Theory and Self-Determination Theory (SDT). The integration of these two theories provides a comprehensive framework for understanding and addressing psychoactive drug use and academic motivation among secondary school students in Buhweju District. Bandura's Social Learning Theory highlights the role of observational learning, indicating that individuals develop behaviors through modeling and imitation of others in their social environment. Applying this theory to the context of psychoactive drug use allows for an analysis of how students behaviours may be influenced by the behaviors of their peers, family, or community members.

Additionally, Self-Determination Theory focuses on intrinsic motivation and the satisfaction of psychological needs for autonomy, competence, and relatedness. By incorporating SDT, one can examine the impact of students' perceived autonomy and competence on their motivation for academic achievement, and how these motivational factors may be linked to or affected by engagement in substance use. Together, these

theories offer a comprehensive understanding of the complex interplay between social influences, motivation, and behaviors related to both substance use and academic performance among secondary school students in Buhweju District, enabling the development of targeted interventions and support systems.

1.7.1 Self-Determination Theory (SDT)

Self-determination theory (SDT), developed by Deci and Ryan (1985), posits that individuals have three innate psychological needs: autonomy, competence, and relatedness. The theory suggests that satisfaction of these needs is very vital for fostering optimal human development and well-being. When applied to the context of secondary school students, SDT provides valuable insights into the implications of psychoactive drug use and its potential impact on academic motivation.

One of the key components of SDT is autonomy, which refers to the need for individuals to feel a sense of volition(control) and choice in their actions. In the context of psychoactive drug use among secondary school students, autonomy may be compromised as substance use can be driven by external pressures or peer influence, limiting the individual's perceived control over their choices (Ryan & Deci, 2000). When these needs are met, individuals exhibit higher levels of intrinsic motivation and better academic performance (Eisenberger, Shanock, & Harris, 2020). Conversely, drug use might compromise these psychological needs leading to decreased academic motivation (Cheon, Reeve, & Ntoumanis, 2019). This lack of autonomy in drug use may subsequently hinder the fulfillment of the autonomy need, potentially leading to negative consequences for academic motivation.

Competence, another fundamental need in SDT, relates to individuals' desire to feel effective and capable in their activities. Psychoactive drug use, particularly when it escalates to problematic levels, can have detrimental effects on academic competence. Substance use may impair cognitive functions, attention, and memory, affecting students' ability to engage effectively in their academic tasks (Arria et al., 2013). The compromised sense of competence resulting from drug use may contribute to a decline in academic motivation and performance among secondary school students.

Relatedness, the third need in SDT, emphasizes the importance of social connections and a sense of belonging. The association between psychoactive drug use and social dynamics among secondary school students can be complex. While substance use may be perceived as a way to fit in or establish social connections, it can also lead to social isolation and strained relationships, particularly if drug use is stigmatized or frowned upon in the school environment (Van et al., 2012). The impact on relatedness may have repercussions on academic motivation, as positive social interactions and a supportive school environment are crucial factors in fostering motivation and engagement.

Implication of SDT to the examination of psychoactive drug use and academic motivation among secondary school students reveals the intricate interplay between psychological needs and substance-related behaviors. Autonomy, competence, and relatedness emerge as critical factors that mediate the relationship between drug use and academic motivation. Interventions aimed at promoting optimal academic motivation should consider addressing these underlying psychological needs to create a supportive environment for students, fostering their autonomy, competence, and relatedness while discouraging detrimental substance use patterns.

1.7.2 Social Learning Theory

Social learning theory, developed by Albert Bandura, posits that individuals learn by observing the behaviors of others and the consequences of those behaviors. This theory emphasizes the role of modeling, imitation, and reinforcement in shaping human behavior. Applying social learning theory to the context of psychoactive drug use and academic motivation among secondary school students in Buhweju District can provide valuable insights into the factors influencing these behaviors.

Firstly, the social learning theory suggests that individuals are more likely to engage in a behavior if they observe others, especially role models, engaging in similar behaviour. In the case of psychoactive drug use among secondary school students, if they perceive their peers or significant others using drugs, they may be more inclined to experiment with substances themselves. Bandura argues that observational learning is a powerful mechanism in the acquisition of new behaviors, and the presence of drug use within the social environment can significantly impact an individual's likelihood of adopting such behaviors (Bandura, 1977).

Furthermore, social learning theory underscores the significance of reinforcement in shaping and sustaining behavior. Positive reinforcement, such as social approval or perceived rewards, can elevate the chances of drug use, whereas negative reinforcement, like relief from stress or issues, may also perpetuate drug use (Akers, 2017). This aspect of social learning theory suggests that grasping the reinforcing factors linked to drug use within the social context of Buhweju District is essential for crafting effective prevention and intervention strategies.

On the other hand, when considering academic motivation, social learning theory suggests that individuals may be motivated to engage in academic behaviours if they observe positive outcomes and reinforcement associated with such behaviours. In the context of secondary school students in Buhweju District, if they witness peers receiving praise, recognition, or other rewards for academic achievements, they may be more motivated to invest effort in their studies. Bandura's concept of vicarious reinforcement emphasizes that individuals can be motivated by observing others being reinforced for their actions (Bandura, 1986).

However, it's essential to note that the impact of social learning on academic motivation can be complex, as there may be conflicting influences from various social sources. For instance, if a student observes peers receiving social approval for non-academic behaviours, such as engaging in substance use, this may undermine the reinforcing value of academic success.

In conclusion, applying social learning theory to the study of psychoactive drug use and academic motivation among secondary school students in Buhweju District provides a framework for understanding the role of observation, modeling, and reinforcement in shaping behaviors. It emphasizes the significance of the social environment in influencing both positive and negative behaviors, highlighting the need for comprehensive interventions that address the social dynamics within the community. By recognizing and addressing the social aspects that contribute to psychoactive drug use and academic motivation, educators, policymakers, and community leaders can develop more targeted and effective strategies for promoting positive behaviors among secondary school students in Buhweju District.

1.8 Conceptual Framework

A conceptual framework serves as an interconnected set of concepts that guides and supports research, practice, or policy development (Kothari, 2020). Researchers utilize this tool to organize and structure their research questions and hypotheses (Creswell, 2023). O'Leary (2014) defines a conceptual framework as a coherent system of interrelated objectives and fundamental principles used to explain and predict organizational behavior.

Psychoactive drug use, indicated by the consumption of alcoholic drinks like beers, local brew, spirits, over the counter wines and many more, smoking of drugs like marijuana/bhang, tobacco, opium, heroin, bhang, cocaine, shisha and Kuber sniffing of glue and gasoline, as well as chewing of miraa/mairungi (khat) is hypothesized. Academic motivation is also hypothesized, involving intrinsic motivation, extrinsic motivation, and amotivation.

Various factors contribute to substance use and addiction, with ongoing debate about the impact of peer pressure versus societal pressures on students' consumption of substances such as alcohol, Mira, marijuana, and cocaine (Reeve & Jang, 2023). Volkow (2019) suggests that teens associating with drug-using peers are more likely to initiate substance use, highlighting the strong influence friends can have compared to cultural norms, family bonds, or educational programs.

The influence of psychoactive drugs is significant enough to adversely affect students' academic motivation (Patrick & Schulenberg, 2011). Intrinsic motivation, a central concept in developmental psychology, involves spontaneous exploration and curiosity (Ryan & Deci, 2021). It is considered crucial for open-ended cognitive development in students (Vansteenkiste & Ryan, 2022). Intrinsic motivation fosters

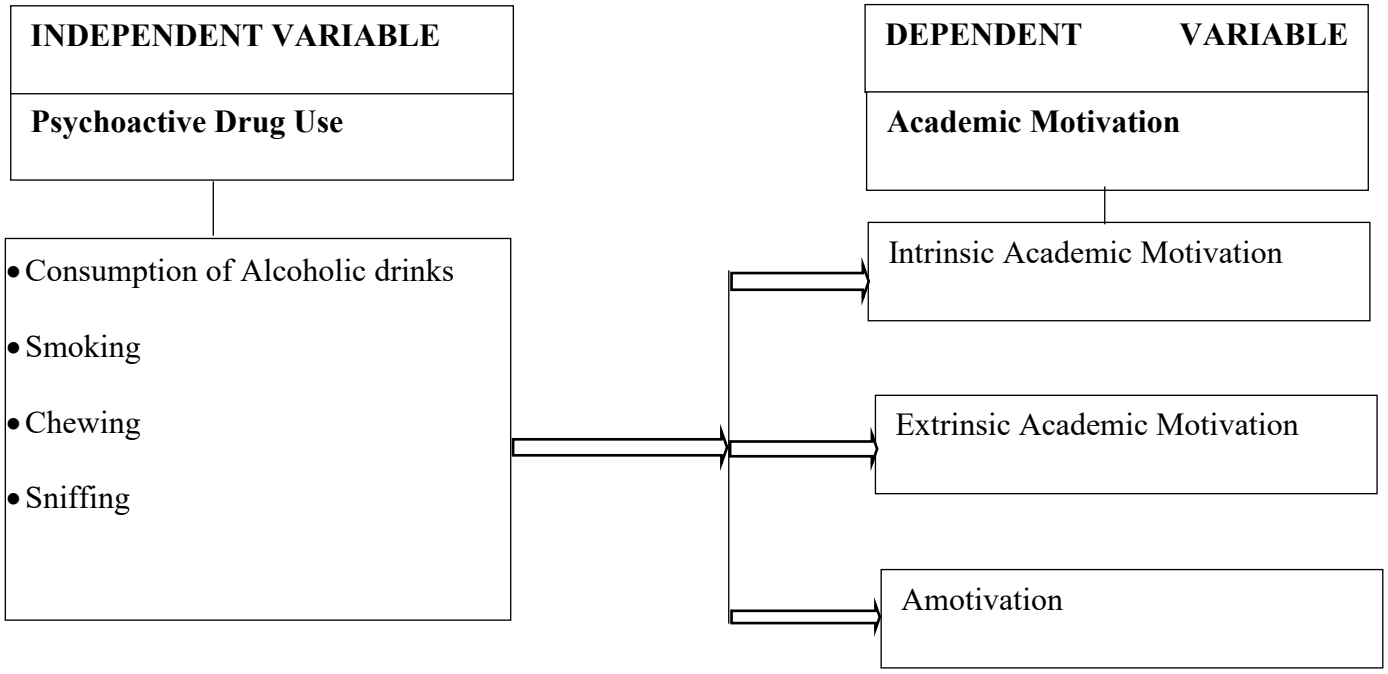
students' dedication to academics and helps them overcome challenges for academic success (Volkow, 2019).

Extrinsic rewards, such as money or praise, may undermine intrinsic motivation if perceived as controlling or detrimental to autonomy (Sheldon, 2010). Addressing extrinsic motivation is crucial to combat adolescent drug use, emphasizing support provision to fulfill basic psychological needs for higher motivation, engagement, and overall well-being (Petri & Govern, 2019). Amotivational syndrome, characterized by apathy, lack of motivation, and cognitive issues associated with substance use, is not an official mental health diagnosis but can be managed with therapy, medication, or a combination of both (Cox & Crimin, 2019; Clancy, 2016).

The conceptual framework depicted a dependent variable (DV) academic motivation conceptualised into intrinsic academic motivation, extrinsic academic motivation and academic amotivation, and its interrelationship with psychoactive drug use as the independent variable (IV) conceptualised into consumption of alcoholic drinks, smoking of drugs like marijuana/bhang, tobacco, opium, heroin, bhang, cocaine, shisha and Kuber sniffing of glue and gasoline, as well as chewing of miraa/mairungi (khat) as set in the illustration hereunder:

Figure 1

Conceptual framework for the relationship between psychoactive drug use and academic motivation among secondary school student



Source: *Created by author (2023)*

Chapter Two

Literature Review

2.0 Overview

In this chapter, a look at the review of literature related to the study "Psychoactive Drug Use and Academic Motivation among Secondary School Students in Buhweju District" was showcased. The chapter covered the literature on each of the objectives of the study that is; the relationship between socio-demographic characteristics and psychoactive drug use among secondary school students; the differences in intrinsic academic motivation across psychoactive drug use among secondary school students; the differences in extrinsic motivation across psychoactive drug use among secondary school students; the differences between psychoactive drug use and amotivation among secondary school students.

2.1 The association between socio-demographic characteristics and psychoactive drug use among secondary school students

Various studies have identified various socio-demographic characteristics that influence the magnitude of psychoactive drug use. Rukundo, et al. (2017) conducted qualitative study that explored determinants of psychoactive drug use among adolescents in Ugandan public schools through 12 focus group discussions. Findings identified peer pressure as the predominant influencer, followed by relief from domestic stress. The study underscored the need for targeted studies and suggested a gap in quantitative research in various settings to complement qualitative insights.

A cross- sectional study investigated the relationship between socio-demographic factors and involvement in alcohol, smoking, and substance use among 590 secondary school students in Lagos Mainland, Nigeria. This investigation utilized the Alcohol,

Smoking and Substance Involvement Screening Test (ASSIST) and the findings revealed 46% (n = 270) of participants were involved in PSU (Zainob, et al., 2021). Multiple regression analysis indicated significant associations ($F = 3.755$, $R = .193$, $p = .001$), suggesting age, gender, religion, ethnicity, class, and school predict substance involvement. Recommendations included addressing peer influence to mitigate substance use among Nigerian secondary school students.

Tekesa (2020) conducted a cross sectional study among 400 secondary school students in Ethiopia compared abuse scores among Orthodox ($M=20.61$, $SD=7.54$), Muslim ($M=17.73$, $SD=7.53$), and other faiths ($M=15.66$, $SD=7.94$) regarding alcoholic beverages, revealing a significant difference ($F(2, 397)=5.833$, $p<0.05$). Post hoc tests indicated Orthodox students had significantly higher scores compared to Muslim ($p<0.05$) and other faiths ($p<0.05$). No significant differences were found for tobacco ($F(2, 397)=0.206$, $p>0.05$) and khat abuse ($F(2, 397)=0.408$, $p>0.05$) across religions. This survey of 400 high school students in Afar used the ASSIST instrument, highlighting male predominance (60.5%) and varying patterns of substance use, necessitating targeted interventions based on gender-specific differences in alcohol abuse.

A cross sectional study conducted in October 2019 among senior secondary school students in Ado-Ekiti, southwestern Nigeria, employed random sampling and utilized a socio-demographic questionnaire, Kessler Psychological Distress Scale, and an adapted NIDA-Modified ASSIST for data collection (Obadeji et al., 2020). Results from 682 participants indicated lifetime and current prevalence rates of any substance at 17.3% (95% CI: 14.7%, 20.5%) and 11.7% (95% CI: 9.0%, 14.0%), respectively. Factors significantly associated with psychological distress included lifetime substance use (AOR=3.03, 95%

CI: 1.19, 7.72, p=0.020) and lack of direct parental care (AOR=2.04, 95% CI: 1.19, 3.48, p=0.009). Additionally, parental substance use (AOR=3.48, 95% CI: 1.57, 7.69, p=0.002) and male gender (AOR=2.97, 95% CI: 1.82, 4.83, p=0.001) were significantly associated with increased substance use risk, while having married parents (AOR=0.50, 95% CI: 0.27, 0.92, p=0.027) and living with parents (AOR=0.39, 95% CI: 0.20, 0.75, p=0.005) were protective factors.

In this cross sectional study of 494 secondary school students in Anambra State, Nigeria, the lifetime prevalence of psychoactive substance use was 22.5% (Mbachu et al., 2022). Specifically, alcohol had a prevalence of 21.9%, tobacco 1.8%, and illicit intravenous drugs 0.8%. Gender was significantly associated with alcohol consumption, with more males (30.3%) than females (13.8%) reporting alcohol use ($p<0.001$). Participants from lower socioeconomic classes (30.3%) and those attending public schools (30.8%) had higher rates of alcohol consumption compared to their counterparts from upper classes (11.8%) and private schools (13.8%) respectively ($p<0.001$). No significant associations were found between age, student status, social class, school category, and smoking or intravenous drug use among the participants.

Systematic reviews and meta-analyses were carried out to evaluate the extent of substance abuse among secondary students in Ethiopia (Abate, et al., 2021) and a comprehensive search across PubMed/Medline, ScienceDirect, and African Online Journals identified 545 articles, with 42 selected for evaluation. Twenty-nine cross-sectional studies involving 22,012 participants reported a prevalence of psychoactive substance abuse at 32.28% (95% CI: 26.74 to 37.82). Peer pressure was identified as a significant contributor to substance abuse in over 27.95% of cases. Additionally, the

lifetime prevalence of polysubstance abuse was approximately forty percent among Ethiopian students.

2.2 The Differences in intrinsic academic motivation across psychoactive drug use among secondary school students

According to Saaranen et al. (2015) internal factors are crucial motivators for some individuals. These factors could encompass significant career goals or self-image considerations (Pink, 2022). Intrinsic motivation refers to engagement in a behaviour that is inherently satisfying or enjoyable (Legault, 2016). Finding a role model or someone not to disappoint can serve as a powerful motivational force. For example, a parent may aspire to be a better person for the sake of their children (Singer et al., 2002). The impact of drugs on the body's various systems, including the brain and central nervous system, is highlighted by Stein et al., (2006). Drugs, altering both physical and mental states, directly affect decision-making and cognitive abilities (Khalil & Md Syed, 2016). Leffingwell & Babitzke (2007) suggest that drugs influence perceptions and interpersonal interactions. Commonly abused substances, such as marijuana, heroin, opioids, cocaine, methamphetamine, ecstasy, ketamine, and hallucinogens, affect the brain in diverse ways (Volkow, 2019). The chemical compounds in drugs disrupt normal psychological and physiological routines, leading to cravings and subsequent brain damage (Collingwood et al., 2000). Motivation becomes crucial in building self-confidence to resist drugs and implementing strategies for gradual cessation (Stein et al., 2006).

Self-determination, as outlined by Ryan and Deci (2017), is an inherent drive toward well-being, happiness, and personal growth. In the context of drug addiction,

intrinsic motivation aligns with the self-determination theory, where engagement in specific behaviours is driven by a desire for well-being (Ryan & Deci, 2021). Amotivation in drug addicts may stem from various factors, including a lack of competence, vision, or confidence (Khali & Md Syed, 2016; Clancy, 2016). Motivation, fuelled by clarity of vision and hope for the future, enables individuals to overcome obstacles and achieve success (Ryan & Deci, 2000). Patrick and Schulenberg (2011) argue that girls exhibit higher levels of behavioural engagement, with positive attitudes indirectly linked to less marijuana use through intrinsic motivation and reduced alcohol consumption. Werch, et al., (2000) emphasize the crucial role of motivation in forecasting the capacity of drug addicts to alter their behaviors. The motivation, defined as intentions, desires, goals, and needs, is directed toward abstinence and adherence to a noncriminal lifestyle (Krentzman, et al., 2012).

According to Acar (2014), individuals must recognize the risk associated with their lifestyle to make a conscious decision to avoid risky behaviours like drug use. Behavioural change, as suggested by Cheon et al., (2019), requires an individual to assess the severity of the problem and recognize the potential dangers of avoidance. Motivation plays a pivotal role in transitioning between stages, particularly from pre-contemplation to contemplation, as individuals become invested in altering their behaviour (Vitaro, et al., 2000). These findings underscore the significance of motivation throughout the various stages of treatment aimed at behaviour change (Krentzman et al., 2012).

2.3 The differences in extrinsic motivation across psychoactive drug use among secondary school students

Acar (2014) argues that the drug use issue among students in secondary school poses serious risks to their physical and mental well-being, as well as their academic and personal development. Reeve (2018) adds that extrinsic motivation related to age group is a significant factor linked to drug use. Beck (2004) defines extrinsic motivation as engaging in activities driven by external rewards or pressures, such as praise, recognition, or avoiding punishment. As well extrinsic motivation is defined by Sennett (2021) as a circumstance in which an individual completes a task or exhibits a behaviour due to external factors such as avoiding punishments, or getting a reward. In the context of drug use, students may be influenced by various extrinsic factors, such as peer pressure, social acceptance, or the desire to fit into a specific group (Volkow, 2019).

Kalat and Shiota (2012) note that students who are more extrinsically motivated are more likely to engage in psychoactive drug use. They may use drugs to gain popularity, enhance social status, or find a sense of belonging among their peers (Sheldon, 2010). The fear of rejection or exclusion can drive these students to experiment with drugs, even if they are aware of potential risks and negative consequences (Petri & Govern, 2013).

In contrast, students driven by extrinsic motivation might turn to drugs as a way to manage stress, anxiety, or other emotional difficulties, viewing drug use as an escape from problems or challenging situations (Volkow, 2019). Yang et al. (2021) highlights the need address extrinsic motivation as a significant risk factor for psychoactive drug use among secondary school students. Prevention programs should focus on promoting intrinsic motivation, defined as engaging in activities for personal growth or genuine interest (Aslam

et al., 2020). Drug abuse in the young generation is a widely researched problem (Hand, et al., 2018).

To mitigate drug use, schools should promote a positive climate, provide opportunities for personal development, and foster a sense of belonging and support (Ryan & Deci, 2000). Educating students about the risks and consequences of drug use, offering healthy coping strategies and alternatives, and encouraging decision-making based on personal values and goals can effectively reduce drug use among this population (Patrick & Schulenberg, 2011). Cogswell and Negley (2011) argue that drug abuse and addiction are challenging to treat due to a high relapse rate. Positive psychology suggests that self-directed motivation is crucial for behavioural change (Gillison et al, 2019). Within the frameworks assessing the effectiveness of drug abuse treatment, client's internal motivation for change is a significant factor (Wild et al, 2016). The self-determination theory of motivation highlights the role of environmental conditions, motivation, and readiness for change as predictors of substance abuse treatment adherence (Currie et al., 2019).

Current research focuses on the self-determination theory of motivation as the basis for theoretically informed qualitative inquiry (Ryan & Deci, 2020). Aligned with the humanistic school of thought, the self-determination theory emphasizes the impact of self-determination and self-motivation on human behavior for long lasting behavioral change (Werch et al., 2000). The study's rationale is that internal motivation (self-determination and autonomous motivation) is more effective in behavioral change than external motivation (encouragement/support by counselor or family) (Deci & Ryan, 2008). The client's determination, decision and commitment to achieving better treatment outcomes

are are essential for ensuring positive results in terms of treatment adherence and preventing relapse in drug abuse cases (Ryan & Deci, 2017).

2.4 The differences between psychoactive drug use and amotivation among secondary school students

Cannabis use has been associated with the development of an amotivational syndrome (Martinotti et al., 2014). Amotivation refers to the lack or absence of volitional drive to engage in any activity (Deci and Ryan, 1985). In a similar view, Stavrou (2008) defines amotivation as lack of motivation (absence of both intrinsic and extrinsic motivation) to engage in an activity. A noticeable increase in amotivation is observed among cannabis users compared to nonusers, often accompanied by other symptoms (Borges et al., 2016). Notably, students who use substances like cannabis for an extended period, specifically five years or more, exhibit higher levels of amotivation (Sussman et al., 2020). The impact of cannabis-related amotivation can be severe, potentially affecting an individual's life chances negatively (Volkow & Baler, 2014).

Johnston et al. (2012) express concern about high school students using drugs to impair their thinking and learning capacities. Recognizing a motivational syndrome as a diagnosable disorder requires careful observation (Mottonen, 2016). However, Williams et al. (2007) note that there is no standardized set of symptoms for clinicians to identify a motivational syndrome; instead, it is considered a feature of certain substance use disorders and may also be present in individuals with schizophrenia.

Khalil et al. (2016) highlight common symptoms of amotivational syndrome, such as apathy, emotional numbness, detachment, indifference, blunted emotions, lack of motivation, withdrawal from activities, and difficulty concentrating. The overlap of

symptoms with depression is emphasized by Cox and Crimin (2019), and Clancy (2016) suggests that individuals who believe they have amotivational syndrome may be struggling with depression. Ceasing substance use may alleviate some symptoms, but caution is advised, and medication adjustments should only be made under the guidance of a physician (Deci & Ryan, 2008).

Amotivational syndrome is associated with both prescribed and illicit substances, as well as other psychiatric, neurocognitive, or addictive disorders (Khali & Md Syed, 2016). Volkow and McLellan (2016) argue that a swift change in the relationship with alcohol and other drugs can be beneficial, with advanced programs for healing from a motivation and associated traits. Treatment options, including telehealth services for opioid use disorder, are highlighted by the American Society of Addiction Medicine (2019) and the National Institute on Drug Abuse (2020).

Potential causes of amotivational syndrome extend to SSRI antidepressants, with studies suggesting that a significant proportion of individuals prescribed these medications may experience apathy or emotional indifference (Rovai et al., 2013). Illicit substances, especially chronic, heavy cannabis use, and methamphetamine use disorder, are also linked to amotivational symptoms (Volkow & Baler, 2014; Center for Substance Abuse Treatment, 2015). Pre-existing mental health conditions, such as bipolar disorder, depression, mood disorders, and schizophrenia, further correlate with amotivation (National Institute on Drug Abuse, 2020).

Individuals with a motivational syndrome often describe impairments in personal and professional lives, relationships, and daily routines (Volkow & Korf, 2014). Seeking professional treatment is recommended, but coping strategies include self-care to reduce

stress and utilizing a support system (Matinotti et al., 2014; Reeve & Jang, 2023). Lowering stress levels naturally through addressing problems promptly and incorporating healthy activities like exercise and social engagement can be beneficial (Mottonen, 2016). Building and maintaining a support system also contribute to improving mood and overall mental wellness (Borges et al., 2016).

A longitudinal study to investigate the impact of cannabis use on self-reported motivation among 401 adolescents aged 14-17, using five bi-annual assessments and latent growth curve modeling was conducted (Pacheco-Colón et al., 2021). Contrary to expectations and findings in adult populations, the study did not find a significant longitudinal relationship between cannabis use and overall reduced motivation in adolescents. Instead, baseline cannabis use was associated with lower perceived value of school, suggesting potential implications for educational outcomes. The findings underscore the complexity of the link between cannabis use and motivation in adolescence and highlight the need for different approaches in understanding these dynamics. Future research could benefit from integrating qualitative methods to explore contextual factors and subjective experiences related to cannabis use and motivation among adolescents, thereby providing a more comprehensive understanding of these interactions.

2.5 Research Gap

The investigation underscores a lack of focused research on the influence of individual psychoactive drugs on academic motivation (Sussman et al., 2020). Current studies regarding psychoactive drugs and academic motivation tend to concentrate on general drug use rather than exploring the distinct effects of specific substances (Pedersen, et al., 2021).

DiNardo and Godoy (2022) identify a shortage of studies examining how different drugs impact academic motivation, hindering the understanding of potential positive or negative effects of individual drugs on academic drive. Furthermore, there is a scarcity of information on the prolonged consequences of psychoactive drug use on academic motivation (Sussman, et al., 2020). While some research has identified long-term impacts on academic motivation, a lack of comprehensive research in this area persists (Allen et al., 2022). Longitudinal studies are vital for discerning the enduring impacts of drug use on academic motivation (Gretton et al., 2021).

In a related context, Martinez et al. (2020) emphasize limited research comparing academic motivation across different age groups. They argue that studies on academic motivation and drug use predominantly focus on college-age students, neglecting those in secondary schools and below (Allen et al., 2022). Research is needed to compare the academic motivation of individuals using drugs across various age groups.

There are insufficient research studies on the role of social support in relation to drug use and academic motivation (Allen et al, 2020). The effect of social support on both using psychoactive drugs and academic motivation remains poorly understood (Yang et al, 2021). It is crucial to investigate how social support, particularly from families and peers, influences drug use and academic motivation among students (Kilinc & Yildirim, 2020). Additionally, Cheung (2021) notes inconsistencies in the definitions of academic motivation and drug use in research, suggesting that standardized definitions could rectify this issue and enhance the accuracy of understanding the relationship between these variables (Quach et al, 2020).

From the literature it is depicted that less research has been done on the relationship between psychoactive drugs and academic motivation among students in secondary schools. Therefore, this research will concentrate on psychoactive drug use and academic motivation among secondary school students in Buhweju District

Chapter Three

Methodology

3.0 Overview

This chapter presented a detailed explanation of the research methodology that was used in the study. The major purpose of this methodology was basically to guide the researcher on how to achieve the set objectives for the study in a systematic and logical manner. It entailed; research paradigm, research design, area of the study, study population and sample size, sampling strategy and sampling procedure, instruments/methods for data collection, quality data control, data analysis, ethical consideration as well as limitations among across-section of many entities.

3.1 Research Paradigm

A paradigm is a fundamental framework or set of beliefs that guides how researchers approach, conduct, and interpret their research studies (Hirose, & Creswell, 2023). The philosophical foundation for the study is post-positivism that relies on measurement and reason and contends that knowledge is revealed from a neutral and quantifiable observation of activity, action or reaction (Park, et al., 2020). This allowed the researcher to identify causal relationships between different variables under study through quantitative approach. This paradigm was important in the study because it allowed for the generalizability of the inferences hence replication of the findings.

3.2 Research Design

The study applied a quantitative research design, specifically cross-sectional design. The design was used to collect data in a given study area at one point in time as supported by (Sekaran and Bougie, 2010; Sekeran, 2003). The design was chosen because it saves time and thus cost effective while meeting the study's objectives (Sekaran and Bougie, 2010). This helped in collecting and analysing data as it existed in the field without alteration (Neuman, 2007; Sekaran, 2003). Quantitative data analysis techniques like Chi-square, Logistic regression and t-test were used under this design to test hypotheses and make inferences about the population based on the same data collected. It also allows researchers to make generalisations and draw conclusions based on empirical evidence rather than subjective opinions or interpretations (Flower & Lawrence, 2022).

3.3 Study Area

The study about psychoactive drug use and academic motivation among secondary school students was carried out in Buhweju District in southwestern Uganda and is bordered by Rubirizi District to the west and northwest, Ibanda District to the northeast, Mbarara District to the east, Sheema District to the southeast, and Bushenyi District to the southwest. Nsiika, the location of the district headquarters, is approximately 53 kilometres (33 miles), by road, northwest of Mbarara, the largest city in Ankole sub-region. Buhweju district has a large population consisting largely Banyankole ethnic with some Bakiga and Banyarwanda. Runyankole is the main language spoken in the area except in schools where English is a major medium of communication.

3.4 Study Population

The study population was students both girls and boys in secondary schools within Buhweju District, comprising of 3,862 students. Basically, there are 12 (twelve) secondary schools where 7 are government aided while 5 are privately established by individuals.

On average, the researcher considered 08 schools in Buhweju district, four from each constituency Buhweju and Buhweju west. The eight schools were selected purposively out of the 12 secondary schools in the district. Purposive selection was done to get an equal representation of schools in the district. These schools include Bihanga Community S.S, St. Joseph Bushozi S.S, St. Victor Katara S.S, Ndibalema Memorial Seed S.S, Engaju S.S, Kayanja Vocational S.S, St Antony Seed S.S Kyankanda and St Paul's S.S Bihanga.

3.4.1 Sample Size

The study was conducted with a sample size of 350 individuals comprising of 200 male and 150 female students of Bihanga Community S.S, St. Joseph Bushozi S.S, St. Victor Katara S.S, Ndibalema Memorial Seed S.S, Engaju S.S, Kayanja Vocational S.S, St Antony Seed S.S Kyankanda and St Paul's S.S Bihanga. The schools were chosen using lottery method where names were written on pieces of papers and then put in a tin and then shaken and the names of the 08 schools chosen from the tin at random without replacement. Eight schools make up 67% of the total number of schools and is higher than 50% and thus acceptable. (Mugenda and Mugenda, 2003).

These results of the study from these schools are be used for generalisation in other schools of Buhweju district as well as the whole country. From a study population of 3,862, a sample size of 350 participants was selected through the aid of (Krejcie & Morgan, 1970).

This is within the range of sample size determination table at confidence level of 95% and margin of error of 5% **(refer to appendix D).**

Table 1

Sample Size Selection

School	Total population	Percentage (%)	Sample size
Bihanga Community S.S	530	13.72	48
St. Joseph Bushozi S.S	415	10.74	38
St. Victor Katara S. S	360	9.32	33
Engaju S. S	610	15.79	54
St. Paul's S.S Bihanga	472	9.89	43
Kayanja Vocational S. S	490	12.69	44
St Antony Kyankanda S. S	690	17.87	63
Ndibalema Memorial S. S	295	7.64	27
Total	3862	100	350

Source*: Buhweju District Education Office (2024)*

3.5 Sampling Techniques

Probability sampling technique was employed in data collection. In probability sampling, proportionate sampling was applied in selecting the number of participants from different schools depending on their total population. This is to ensure that the sample selected represents all the groups of interest and obtain a good estimate for the overall target population.

Furthermore, simple random sampling will be applied in selecting the total sample size (participants) from the schools within the district under study. The advantage of employing simple random sampling method was that each individual in the population accorded an equal and independent chance of being chosen and the resulting data can be generalized to the broader population. (Fink, 2003).

3.6 Research Tool

The study applied only a quantitative approach hence the use of a questionnaire to generate data from the selected students in the secondary schools located within Buhweju District. Questionnaires were used as they could generate much data from the many secondary school students in Buhweju District in the shortest period as possible (Kothari, 2004).

Structured questionnaires were administered among secondary school students to gather data on the relationship between psychoactive drug use and intrinsic academic motivation, extrinsic academic motivation, and academic amotivation. Questionnaires were used because of being cheap to administer and able to collect responses with minimum errors and a high level of confidentiality (Fife-Schaw, 2020).

The study adopted a standardized questionnaire whose validity and reliability has already been established as 0.75 and 0.759 respectively and therefore the researcher did not pretest or validate the tool again. With this method, r varies between 0 and 1, and as r approaches 1, the reliability of the data increases (Sekaran, 2000; Creswell, 2022).

The relationship between psychoactive drug use and different variables under the study were measured using 5-point Likert scale questions with; 5 =strongly agree, 4=Agree, 3 Not sure, 2 Disagree, 1= strongly disagree, and a dichotomous scale question with 1=Yes and 0=No as indicated in Appendix A, structured according to the objectives. The questionnaire was subdivided into five different sections according to the variables under the study. These sections were as follows;

The first section collected demographic data like age, gender, class, religion and peer observation of PDU. The second section consisted a modified 3-item psychoactive drug use on scale adapted from Muoti, 2014 with a validity and reliability of 0.78 and developed by Muoti, 2014 and adapted by the researcher Psychoactive drug use was measured on a dichotomous question scale that is Yes (1), No (0).

The third section presented an 11-item survey on the intrinsic academic motivation scale as developed by Vassilis, Haralambos, George & Georgios, 2008 with a content validity index of 0.905 and internal consistency (Cronbach's alpha) of 0.81. The fourth section presented an 8-item on extrinsic motivation scale as developed by a Vassilis, Haralambos, George & Georgios, 2008 and adapted by researcher and was measured on a five-point Likert scale in which strongly agree is (5) Agree is (4) Not sure is (3), disagree (2), and Strongly Disagree (1) and the last section presented an 11-item survey for measuring amotivation as adapted from Vassilis, Haralambos, George & Georgios, 2008. As well amotivation which was measured on a five-point Likert scale that is; Strongly agree (5) Agree (4) Not sure (3), Strongly disagree, and Disagree (1).

3.7 Data Collection Procedure

The researcher obtained an ethical clearance letter from the Mbarara University of Science and Technology Research Ethics Committee (REC) and then presented it to the dean faculty of science to obtain an introductory letter to the field. The researcher then obtained permission from the district education officer Buhweju to access the premises of each secondary school in the district, and selection of secondary school students in each school was by using simple random sampling as indicated above. Respondents were given about 20 minutes to give their responses to the items in the questionnaire without

inconvenience in the presence of the researcher to avoid answer pooling and were expected to respond to the items in the questionnaire according to their opinions.

Every questionnaire consisted of introductory remarks highlighting the purpose of the study and all respondents were briefed before administering the questionnaire to them. The researcher also attached a consent form to each questionnaire to seek informed consent from the participants. In addition, the researcher attached an assent form for participants who maybe below 18 years (minors). The researcher did the distribution of the questionnaires with the help of a research assistant in all the different classes. The questionnaires were then be handed in by students, to the researcher immediately after completion and then counted. This helped in ensuring that all the distributed questionnaires were returned to the researcher.

3.8 Data Management

In this section, the data collected using questionnaires was cross-checked for errors and omissions and was then be entered into a computer to ease its retrieval and analysis. The data was then be put in a zipped file and encrypted to securely store it and prevent unauthorized access. The data was also stored on an external hard drive as a backup and disaster recovery plan in the event of an unexpected incident on the computer. Responses, as obtained from the questionnaire, were then be coded and categorized into useful and relevant data. Data processing was then be done with the aid of the Statistical Package for Social Sciences (SPSS Version 27) for statistical analysis. The same package was used to process data into descriptive and inferential statistics.

3.9 Data Analysis Techniques

Data from the questionnaires was analyzed using both descriptive and inferential statistics. Descriptively, the analysis involved calculating means, standard deviations, percentages, and frequencies whereby descriptively, mean, standard deviation, frequencies percentages were applied to analyze the responses from the questionnaires. After that, inferential statistics-Chi- square, logistic regression and an independent t-test was used to test the hypotheses.

After collection of all the data, the researcher cleaned the data, which required selecting complete questionnaires and separating them from the incomplete ones. The data was then be categorized, coded, and entered in the computer for analysis using the Statistical Package for Social Sciences (SPSS V.27). Inferential statistics comprised of Chi-square, logistic regression analysis and a t-test. In this case, logistic regression and Chi-square were used to test the relationship between socio demographic characteristics and Psychoactive drug use while the independent t-test was used to test other Hypotheses. Tables were also used in data presentation.

Table 2

Methods which were used to Analyze Data

SN	Objective	DV	IV	Statistical Tool
I	To establish the association between socio-demographic characteristics and psychoactive drug use among secondary school students in Buhweju district.	Psychoactive drug use	Socio-demographic characteristics	Chi square and logistic regression
II	To examine the differences in intrinsic academic motivation across psychoactive drug use among secondary school students in Buhweju District	Academic motivation	Psychoactive drug use	An independent t-test
III	To establish the differences in extrinsic academic motivation across psychoactive drug use among secondary school students in Buhweju District.	Academic motivation	Psychoactive drug use	An independent t-test
IV	To assess the differences between psychoactive drug use and amotivation among secondary school students in Buhweju District.	Academic motivation	Psychoactive drug use	An independent t-test

3.9.2 Ethical Considerations

At the commencement of data collection, the researcher initiated the process by obtaining ethical clearance from the Research Ethics Committee (REC), reference number MUST-2023-1286. Subsequently, a letter of introduction from Mbarara University of Science and Technology faculty of science was acquired. Using this introductory letter, the researcher approached the district education officer Buhweju for authorisation to reach out to secondary schools. The researcher then approached potential participants, seeking their consent to participate in the study.

Participants above 18 years and those below 18 years were provided with a consent form and an assent form respectively to sign, confirming their legal engagement in the research. The researcher then apprised participants of the study's purpose and potential benefits. Emphasizing the purely academic nature of the research, the researcher assured participants that their responses will be treated with the utmost confidentiality and privacy by keeping their identity and any identifying information anonymous and the participant’s name was not be written or be associated with any part of the written report of the research and keeping their responses confidential by not disclosing it to anyone beyond the study's intended scope.

Furthermore, participants were reassured regarding the protection of their personal information, particularly any sensitive details related to the study. The researcher made a concerted effort to use friendly and approachable language, fostering a comfortable environment during data collection process.

Chapter Four

Data Analysis, Presentation and Interpretation

4.0 Overview

This chapter presents the findings of the study, analysis, interpretation and discussion. The purpose of this study was to explore the correlation between psychoactive drug use and academic motivation among secondary school students in Buhweju District. This study was based on the following objectives:

i. To establish the association between socio-demographic characteristics and psychoactive drug use among secondary school students in Buhweju district.
ii. To examine the differences in intrinsic academic motivation across psychoactive drug use among secondary school students in Buhweju District
iii. To establish the differences in extrinsic academic motivation across psychoactive drug use among secondary school students in Buhweju District.
iv. To assess the differences between psychoactive drug use and amotivation among secondary school students in Buhweju District.

4.1 Response rate

The questionnaires were given to 350 students in the secondary schools in Buhweju District, and of the 350 questionnaires distributed, 343 questionnaires were returned giving a response rate of 97.4%, exceeding the 70% cutoff considered sufficient for additional examination in survey studies (Draugalis et al., 2008).

4.2 Characteristics of respondents.

Among the 343 secondary school students enrolled, a majority of males, 56.3% (n = 193), compared to females, 43.7% (n = 150) aged 16-18 years, 74.1% (n = 254), Catholics 59.5% (n = 204) and reported observing peers using psychoactive drugs, with 63.0% (n = 216). Most students were in Senior three, 43.4% (n = 149).

Table 3

Characteristics of Respondents (N = 343)

Characteristics		**Frequency**	**Percent**
Gender	Male	193	**56.3**
	Female	150	43.7
Age (years)	13-15	32	9.3
	16-18	254	74.1
	19-21	48	14.0
	≥22	9	2.6
Class of study	Senior 2	126	36.7
	Senior 3	149	43.4
	Senior 4	55	16.0
	Senior 5	2	0.6
	Senior 6	11	3.2
Religion	Catholic	204	59.5
	Protestant	133	38.8
	Islam	6	1.7
Peer psychoactive drug use observation	Yes	216	63.0
	No	127	37.0

4.3 Descriptive statistics of study variables

Table 4

Descriptive Statistics of Study Variables (N =343)

Variable	Minimum - Maximum	Mean ± SD	Skewness	Kurtosis	Normality
IAM	15.0 - 55.0	46.0 ± 6.5	-1.1	2.0	Normal
EAM	17.0 - 40.0	34.8 ± 4.3	-1.0	0.9	Normal
AM	19.0 - 52.0	36.1 ± 6.6	-0.1	0.1	Normal

Intrinsic academic motivation (IAM), extrinsic academic motivation (EAM), and amotivation (AM) display to a large extent skewness and kurtosis values falling within acceptable limits (skewness around ±1. These distributions, while not perfectly normal, are deemed suitable for statistical analyses assuming normality based on common cutoffs for skewness and kurtosis.

4.1 The association between socio-demographic characteristics and psychoactive drug use

Findings revealed that in bivariate analysis, the Anglican students had 1.6 times higher odds of the psychoactive drug use (PDU) compared to their Roman Catholics counterparts (OR = 1.6, 95% CI [1.00, 2.4], p = 0.049). After adjusting for potential confounding factors, the adjusted odds ratio (AOR) remained statistically significant, with Anglicans showing 1.7 times higher odds of the PDU relative to Roman Catholics (AOR = 1.7, 95% CI [1.1, 2.7], p = 0.026). Individuals who did not observe their peers use psychoactive drugs demonstrated significantly higher odds of the Psychoactive drug use compared to their counterpart who did the observation in both crude and adjusted analyses. The crude odds ratio (COR) showed that individuals who did not observe their peers use psychoactive

drugs had 1.9 times higher odds of the outcome (OR = 1.9, 95% CI [1.19, 2.9], p = 0.006). After adjustment for gender in multivariate model, including variables with P<0.2 the association remained robust, with individuals who did not observe their peers use psychoactive drugs having 2.1 times higher odds of the outcome (AOR = 2.1, 95% CI [1.3, 3.4], p = 0.002).

Table 5

The Relationship Between Socio-Demographic Characteristics and Psychoactive Drug Use (PDU) (N = 343)

Characteristics		PDU (N = 343)		COR (95%CI)	P	AOR (95%CI)	P
		No, 195 (56.9)	Yes, 148 (43.1)				
Gender	female	81 (41.5)	69 (46.6)	1			
	male	114 (58.5)	79 (53.4)	0.8(0.5-1.3)	0.340	0.7(0.4-1.1)	0.147
Age (years)	13-15	14 (7.2)	18 (12.2)	1			
	16-18	146 (74.9)	108 (73.0)	0.6 (0.27-1.2)	0.144	0.5 (0.2-1.1	0.093
	19-21	30 (15.4)	18 (12.2)	0.5 (0.19-1.2)	0.101	0.4(0.1-1.1)	0.070
	≥22	5 (2.6)	4 (2.7)	0.6 (0.14-2.8)	0.532	0.5(0.1-3.0)	0.443
Religion	Catholic	125 (64.1)	79 (53.4)	1			
	Anglican	67 (34.4)	66 (44.6)	1.6 (1.00-2.4)	0.049*	1.7(1.1-2.7)	**0.026***

	Islam	3 (1.5)	3 (2.0)	1.6 (0.31-8.0)	0.580	1.5(0.3-8.2)	0.63
Class	Senior 2	71 (36.4)	55 (37.2)	1			
	Senior 3	80 (41.0)	69 (46.6)	1.1 (0.69-1.8)	0.659	1.3(0.8-2.2)	0.356
	Senior 4	38 (19.5)	17 (11.5)	0.6 (0.30-1.1)	0.109	0.7(0.3-1.4)	0.303
	Senior 5	1 (0.5)	1 (0.7)	1.3 (0.08-21.1)	0.858	1.0(0.0-26.9)	0.983
	Senior 6	5 (2.6)	6 (4.1)	1.6 (0.45-5.3)	0.488	2.9(0.7-12.4)	0.148
Peer Observation of PDU	Yes	135 (69.2)	81 (54.7)	1			
	No	60 (30.8)	67 (45.3)	1.9 (1.19-2.9)	0.006**	2.1(1.3-3.4)	**0.002****

*p <0.05. **p<0.01.

4.3 The differences in intrinsic academic motivation across psychoactive drug use among secondary school students in Buhweju District

An independent t-test was conducted to assess the relationship between intrinsic academic motivation (IM) and psychoactive drug use. The mean intrinsic motivation scores for respondents who reported psychoactive drug use (M = 46.3, SD = 6.2) were higher than those who did not (M = 45.7, SD = 7.1) were compared. However, there was no statistically significant difference in intrinsic motivation between the psychoactive drug use group (M = 46.3, SD = 6.2) and the non-psychoactive drug use group (M = 45.7, SD = 7.1), t(343) = 0.8, p = 0.420.

Table 6

The Relationship Between Psychoactive Drug Use and Intrinsic Motivation (N = 343)

Psychoactive Drug Use	N	Mean	SD	t	df	p-value
Yes	213	46.3	6.2			
No	130	45.7	7.1	0.8	341	0.420

4.4 **The differences in extrinsic motivation across psychoactive drug use among secondary school students in Buhweju District.**

An independent t-test was conducted to examine the relationship between extrinsic motivation and substance use. The mean extrinsic motivation scores for respondents who reported psychoactive drug use (M = 34.7, SD = 4.4) and those who did not (M = 34.9, SD = 4.0) were compared. There was no statistically significant difference in extrinsic motivation between the psychoactive drug use group (M = 34.7, SD = 4.4) and the non-psychoactive drug use group (M = 34.9, SD = 4.0), t(343) = -0.293, p = 0.770.

Table 7

The relationship between psychoactive drug use and Extrinsic motivation (N = 343)

Psychoactive Drug Use	N	Mean	SD	t	df	p-value
Yes	213	34.7	4.4			
No	130	34.9	4.0	-.293	341	0.770

4.5 The differences between psychoactive drug use and amotivation among secondary school students in Buhweju District.

An independent t-test was conducted to explore the relationship between amotivation and substance use. The mean amotivation scores for respondents who reported psychoactive drug use (M = 37.0, SD = 6.3) and those who did not (M = 34.7, SD = 6.8) were compared. Respondents who reported psychoactive drug use had significantly higher levels of amotivation (M = 37.0, SD = 6.3) compared to those who did not (M = 34.7, SD = 6.8), t(343) = 3.28, p = 0.001.

Table 8

The Relationship Between Psychoactive Drug Use and Amotivation (N = 343)

Psychoactive Drug Use	N	Mean	SD	t	df	p-value
Yes	213	37.0	6.3			
No	130	34.7	6.8	3.28	341	0.001*

Table 9

Summary of the Hypotheses Test Results

Hypothesis	Statement	Results
$H0_1$	There is no statistically significant relationship between socio-demographic characteristics and psychoactive drug use among secondary school students in Buhweju district	Rejected
$H0_2$	There is no statistically significant difference in intrinsic motivation between secondary school students in Buhweju who use psychoactive drugs and non-psychoactive drug users.	Accepted
$H0_3$	There is no statistically significant difference in extrinsic motivation between secondary student psychoactive drug users in Buhweju district and non-psychoactive users.	Accepted

$H0_4$	There is no statistically significant difference in amotivation between secondary school student psychoactive drug users in Buhweju district and non-psychoactive users.	Rejected

Chapter Five

Discussion, Conclusions and Recommendations

5.0 Overview

The chapter offers the discussion, summary of findings, conclusions, recommendations and areas for further study corresponding to the study results. The study pursued to evaluate how psychoactive drug use affects secondary school students' academic motivation. The study alludes to literature on socio-demographic characteristics, psychoactive drug use and academic motivation (intrinsic academic motivation, extrinsic academic motivation and amotivation).

5.1 Discussion

5.1.2 The relationship between socio-demographic characteristics and psychoactive drug use

This quantitative cross-sectional study among secondary school students in Buhweju district contributes to the existing literature on substance abuse among adolescents by contextualizing findings within the socio-demographic landscape of Uganda. Consistent with findings from Zainob et al. (2021), who explored substance involvement among secondary school students in Lagos Mainland, Nigeria, the study underscores the role of socio-demographic factors such as religion in shaping substance use behaviors. Zainob et al. (2021) highlighted significant associations between age, gender, religion, ethnicity, class, and school with substance involvement, aligning with our observation of Protestants exhibiting higher odds of psychoactive drug use (PDU)

compared to Catholics. This suggests that religious affiliation may influence substance use patterns differently across regions.

Moreover, qualitative insights from Rukundo et al. (2017) emphasized peer pressure as a predominant influencer of psychoactive substance use (PASU) among Ugandan adolescents. Our study corroborates this finding by identifying non-PDU individuals as having higher odds of PDU, reflecting the complex interplay of peer dynamics and individual decision-making processes in substance use behaviors. However, as noted by Rukundo et al. (2017), there remains a notable gap in quantitative research to complement qualitative insights, urging for comprehensive approaches that integrate both methodologies to enhance understanding and inform effective intervention strategies.

Furthermore, Tekesa's (2020) cross-sectional study among Ethiopian secondary school students highlighted significant differences in abuse scores among religious groups concerning alcoholic beverages. Although our study did not specifically examine alcohol abuse across religious affiliations, the findings underscore the importance of considering cultural and religious contexts in substance abuse prevention efforts. The gender-specific patterns of substance use identified by Tekesa (2020) also resonate with our observation of higher odds of PSU among non-PSU individuals, emphasizing the need for tailored interventions that address gender-specific risk factors. This study in Buhweju district contributes valuable insights into the socio-demographic determinants of substance use among adolescents in Uganda. By addressing gaps identified in previous literature and aligning with findings from diverse regional contexts, these study findings underscore the necessity for targeted interventions that consider peer and religious influences on substance use behaviors. These insights are crucial for developing effective strategies aimed at

reducing substance abuse and promoting the well-being of adolescents in Ugandan hard to reach settings.

The study revealed that students in Buhweju District who reported not observing their peers consume psychoactive substances demonstrated elevated odds of engaging in psychoactive drug use (OR = 1.9; 95% CI = 1.19, 2.9, p = 0.006). This finding is intriguing as it suggests that the absence of visible peer substance use does not necessarily reduce the risk of an individual engaging in such behavior. Instead, it indicates that unique and varying risk factors are at play among students. Comparing these findings with those of Wu, et al. (2007), there exists both congruences and divergences. Wu et al. emphasize the critical role of peer influence on adolescent substance use, with a significant positive association between peer relationships and deviant peer behavior ($p<0.001$). Adolescents surrounded by deviant peers are more likely to engage in substance use, thus this underscores the powerful impact peers can have on individual behaviors during adolescence.

However, this study diverges from this perspective by showing that even in the absence of observation of peers consuming psychoactive substances, students still exhibited higher odds of engaging in such behaviors. This could suggest several underlying mechanisms. One possibility is that students who do not see their peers using substances might be influenced by other factors, such as curiosity, personal stressors, or the misconception that substance use is a private or hidden activity that their peers are engaging in away from public view. Additionally, such students who do not observe peers consuming substances might be lacking awareness of its negative consequences or perceive it as less risky, thus being more inclined to experiment. Also, the study findings

deviate from the social learning theory adapted by the study, indicating that perceived norms and actual behaviors might differ, and the lack of direct observation does not necessarily equate to a lack of influence.

5.1.2 Differences in intrinsic academic motivation across psychoactive drug use among secondary school students

Study findings indicated no statistically significant difference in intrinsic motivation (IM) between secondary school students in Buhweju district who reported psychoactive drug use ($M = 46.3$, $SD = 6.2$) and those who did not ($M = 45.7$, $SD = 7.1$), $t(341) = 0.8$, $p = 0.420$. Intrinsic motivation, defined as engaging in behaviors for inherent satisfaction or enjoyment (Legault, 2016), is crucial for personal growth and well-being (Ryan & Deci, 2017). These results suggest that while drug use did not significantly diminish intrinsic motivation in this context, it remains essential to monitor and support adolescents' intrinsic motivation as a protective factor against substance use (Ryan & Deci, 2021). Literature supports the notion that intrinsic motivation can be influenced by various internal factors, such as personal goals and self-image (Pink, 2022; Singer et al., 2002), as this aligns well with the self-determination theory adopted by this study with regards to individual's competence, underscoring the need for tailored interventions that bolster positive internal motivators among students vulnerable to substance use. Future research could explore longitudinal effects to better understand how intrinsic motivation evolves in relation to drug use over time, thereby informing more targeted prevention and treatment strategies (Ryan & Deci, 2000; Krentzman et al., 2012). Additionally, integrating qualitative methods could provide deeper insights into the subjective experiences shaping intrinsic motivation and its interaction with substance use behaviors among adolescents

(Acar, 2014; Cheon et al., 2019). These efforts are crucial for promoting resilient motivational frameworks that support healthy decision-making and positive developmental outcomes in students.

5.1.2 The differences in extrinsic motivation across psychoactive drug use among secondary school students

Based on the findings from the independent t-test, which revealed no statistically significant difference in extrinsic motivation scores between secondary school students who reported psychoactive drug use ($M = 34.7$, $SD = 4.4$) and those who did not ($M = 34.9$, $SD = 4.0$), $t(341) = -0.293$, $p = 0.770$, several implications can be drawn.. Extrinsic motivation, defined as engaging in activities driven by external rewards or pressures (Beck, 2004; Sennett, 2021), plays a significant role in adolescents' decisions regarding drug use, influenced by factors such as peer pressure and social acceptance (Volkow, 2019; Sheldon, 2010). Despite the lack of statistical significance in this study, literature suggests that extrinsically motivated students may still be at risk of using drugs to gain social status or cope with stress (Kalat & Shiota, 2012; Volkow, 2019). Therefore, prevention programs should focus on cultivating intrinsic motivation, which is driven by personal growth and genuine interest (Aslam, 2020), to reduce susceptibility to drug use among adolescents. Educating students about the risks associated with drug use, promoting healthy coping strategies, and fostering environments that support personal development and self-determination are essential strategies (Patrick & Schulenberg, 2011; Gillison et al., 2019).

Future research could explore longitudinal effects to better understand how extrinsic motivation evolves over time in relation to substance use behaviors, thereby informing more targeted prevention and intervention efforts in school settings (Ryan &

Deci, 2020; Wild et al., 2016). By addressing both intrinsic and extrinsic motivational factors comprehensively, we can enhance strategies aimed at mitigating drug use and promoting positive youth development.

5.1.3 Differences in amotivation across psychoactive drug use among secondary school students

This study revealed a significant association between psychoactive drug use and increased levels of amotivation among secondary school students in Buhweju District, Uganda, there are several critical implications for interventions and future research. Similar to the findings, a longitudinal study among 401 adolescents aged 14-17, using five bi-annual assessments and latent growth curve modeling by (Pacheco-Colón et al., 2021) found that baseline cannabis use was associated with lower perceived value of school. Such findings underscore the importance of early detection and intervention strategies targeting substance use behaviors among adolescents to prevent or mitigate the development of amotivational symptoms (Martinotti et al., 2014; Deci & Ryan, 1985). Implementing school-based educational programs that raise awareness about the potential consequences of substance use on motivation could be effective. Additionally, the study expounds on how essential it is to have comprehensive mental health support systems within educational settings to address both substance use disorders and motivational deficits (Borges et al., 2016; Volkow & Baler, 2014). Lastly, future research should explore culturally specific factors influencing substance use and amotivation among adolescents in diverse settings, employing mixed-methods approaches to deepen our understanding and inform tailored interventions (Khalil et al., 2016; Volkow & McLellan, 2016). These efforts are crucial for

promoting positive youth development and improving overall well-being among hard-to-reach populations.

5.2 Conclusions

Students of the Anglican dominion in Buhweju District exhibit higher odds of psychoactive drug use compared to Roman Catholics indicating a significant association with religious affiliation. Students who reported not observing peers consume psychoactive substances showed elevated odds of engaging in psychoactive drug use.

Intrinsic academic motivation does not differ significantly between secondary school students who engage in psychoactive drug use and those who do not in Buhweju District, highlighting that intrinsic motivational factors may not be distinguishing factors in psychoactive drug use behaviors.

Extrinsic academic motivation levels show no significant difference between secondary school students who report psychoactive drug use and those who do not in Buhweju District, suggesting that external incentives or pressures may not strongly influence drug use behaviors among students.

Secondary school students in Buhweju District who engage in psychoactive drug use exhibit higher levels of amotivation compared to non-users, underscoring a potential link between drug use and reduced motivation levels among students.

5.3 Recommendations

Based on the study findings in relation to relevant stakeholders, the following recommendations were made:

Schools should collaborate with religious leaders in increasing awareness about the impact of psychoactive drug use (PDU) on academic motivation, to prevent the high risk of psychoactive drug use among students of the Anglican dominion through awareness campaigns and support systems in communities where these students come from.

Schools should implement peer education programs to address the risk profiles associated with peer psychoactive drug use through encouraging students to form support groups that promote drug-free lifestyles and educate them on the dangers of psychoactive drug use. Integrate substance abuse education into peer mentoring programs to encourage positive behaviors among students and these programs should focus on building resilience and promoting healthy coping mechanisms

School counselors/teachers should provide counseling and mentorship programs that address intrinsic and extrinsic motivations among students to boost students' interest and participation in academic and extracurricular activities emphasizing the correlation between drug use and academic performance. Incorporate motivational enhancement techniques into classroom activities and individualized support plans.

Schools should create intervention strategies for students exhibiting higher levels of amotivation through offering personalized support to help these students set and achieve personal and academic goals, reducing their likelihood of turning to psychoactive drug use.

Every school should have a working club that sensitizes students against psychoactive drugs, their use and effects. Within such clubs, participatory peer-to-peer education can be utilized by use of carefully selected films and soap operas targeting adolescents, debates, seminars, dramatization and essay competitions

There is need for life skills training by schools focusing on skills such as peer resistance and assertiveness. Students need to learn and know when to say ‘no’ and ‘yes’ when in appropriate places and situations as this would protect them from the bandwagon effects that usually led them to psychoactive drug use.

District Education officers/Regional directorate of Education Standards (DES) Agency officers are encouraged to implement comprehensive training programs for school staff on identifying early signs of drug use and providing appropriate interventions. Support schools in conducting regular assessments of school climate and student well-being to inform targeted interventions.

Ministry of Education and Sports (MoES) policy makers and academia should advocate for curriculum reforms that integrate substance abuse prevention education from early grades through secondary education. Also, MoES should support research initiatives that explore effective strategies for promoting positive motivations and reducing substance use among students.

There is need for an integrated approach by involving the community and non-governmental organizations already working with psychoactive drug users to integrate their activities within the educational setting.

Researchers should conduct longitudinal studies to explore the complex relationships between psychoactive drug use (PDU), motivation, and academic outcomes

among secondary school students. Collaborate with schools to gather comprehensive data that informs targeted interventions and policy recommendations.

5.4 Areas for further studies

This study has not considered comparison of psychoactive drug use amongst students in day and boarding schools. A separate study is needed to address this.

Since psychoactive drug use is not only a problem of adolescents in school environments but also those out of school, more research is needed on adolescents other than those in secondary schools in Buhweju district

The sources where secondary school students obtain psychoactive drugs and logistics have not been addressed in the study. Another study is therefore necessary to establish these sources.

There seems to be limited research on the influence of parents on children towards psychoactive drug use. Since adolescents normally depend on their parents emotionally, and economically, there is need to establish how parents affect their children with regards to psychoactive drug use.

REFERENCES

Abate, S. M., Chekol, Y. A., & Minaye, S. Y. (2021). Prevalence and risk factors of psychoactive substance abuse among students in Ethiopia: A systematic review and meta-analysis. *Annals of Medicine and Surgery, 70*, 102790. https://doi.org/10.1016/j.amsu.2021.102790

Acar, A. B. (2014). Do intrinsic and extrinsic motivation factors differ for Generation X and Generation Y? *International Journal of Business and Social Science, 5*(12), 12-20.

Adelekan, M. L., Abiodun, O. A., Obayan, A. O., Oni, G., & Ogunremi, O. O. (1992). Prevalence and pattern of substance use among undergraduates in a Nigerian university. *Drug and Alcohol Dependence, 29*(3), 255-261. https://doi.org/10.1016/0376-8716(92)90100-Q

Adelekan, M. L., Odejide, A. O., & Ohaeri, J. U. (2018). Substance use and psychosocial and academic problems among senior secondary students in Nigeria. *Drug and Alcohol Dependence, 35*(3), 243-250. https://doi.org/10.1016/0376-8716(94)90005-1

Adeyemo, D. A. (2018). Substance use among secondary school students in Nigeria: A case study. *Journal of Addiction Research & Therapy, 9*(1), 1-7. https://doi.org/10.4172/2155-6105.1000348

African Union. (2016). Africa's agenda for children 2040: Fostering an Africa fit for children. *African Union*. https://au.int/en/documents/20160909/agenda-2040-fostering-africa-fit-children

Akers, R. (2017). *Social learning and social structure: A general theory of crime and deviance*. Routledge.

Allen, H. K., Lilly, F., Green, K. M., Zanjani, F., Vincent, K. B., & Arria, A. M. (2022). Graduate student burnout: Substance use, mental health, and the moderating role of advisor satisfaction. *International Journal of Mental Health and Addiction, 20*(2), 1130-1146. https://doi.org/10.1007/s11469-022-00596-9

Allen, K. A., Bowles, T., & Weir, K. (2020). Promoting academic motivation and engagement: The role of social support. *Frontiers in Psychology, 11*, 1072. https://doi.org/10.3389/fpsyg.2020.01072

Aslam, S., Anwer, M., & Yousaf, M. S. (2020). Effect of motivational strategies on science students' cognitive engagement. *Journal of Educational Sciences, 7*(1), 1-13.

Auerbach, R. P., Mortier, P., Bruffaerts, R., Alonso, J., Benjet, C., Cuijpers, P., ... & Kessler, R. C. (2018). WHO world mental health surveys international college student project: Prevalence and distribution of mental disorders. *Journal of Abnormal Psychology, 127*(7), 623-638. https://doi.org/10.1037/abn0000362

Bandura, A. (1977). *Social learning theory*. Prentice Hall.

Barkoukis, V., Tsorbatzoudis, H., Grouios, G., & Sideridis, G. (2008). The assessment of intrinsic and extrinsic motivation and amotivation: Validity and reliability of the Greek version of the Academic Motivation Scale. *Assessment in Education: Principles, Policy & Practice, 15*(1), 39-55. https://doi.org/10.1080/09695940701876128

Berry, S. K., Takakura, W., Bresee, C., & Melmed, G. Y. (2020). Pain in inflammatory bowel disease is not improved during hospitalization: The impact of opioids on pain and healthcare utilization. *Digestive Diseases and Sciences, 65*(6), 1777-1783. https://doi.org/10.1007/s10620-019-05943-1

Bolderston, A., & Li, W. (2020). An introduction to experimental design. *Journal of Medical Imaging and Radiation Sciences, 51*(3), 341-350. https://doi.org/10.1016/j.jmir.2020.01.001

Borges, G., Bagge, C. L., & Orozco, R. (2016). A literature review on the association between substance use, impulsive behaviour, and cognitive impairment in youths. *Substance Use & Misuse, 51*(13), 1751-1757. https://doi.org/10.1080/10826084.2016.1191514

Breslau, N., Fenn, N., Peterson, E., Anthony, J. C., & Kramer, M. (2016). Early cannabis use and the risk of psychosis: What is the nature of the association? *Psychological Medicine, 46*(4), 673-683. https://doi.org/10.1017/S003329171500237X

Bugbee, B. A., Beck, K. H., Fryer, C. S., & Arria, A. M. (2019). Substance use, academic performance, and academic engagement among high school seniors. *Journal of School Health, 89*(2), 145-156. https://doi.org/10.1111/josh.12723

Byabagambi, J. B. (2020). Improving the quality of voluntary medical male circumcision: A case study from Uganda. In J. B. Byabagambi (Ed.), *Improving health care in low-and middle-income countries: A case book* (pp. 177-194). Springer. https://doi.org/10.1007/978-3-030-44088-7_9

Byabagambi, M. (2020). Buhweju District Local Government: Education department. *Ministry of Education and Sports*.

Campbell, N. R., Fernandes, C. C., & Halff, A. W. (2021). Alpha7 nicotinic receptors as therapeutic targets in schizophrenia: Novel insights and clinical perspectives.

Journal of Psychopharmacology, 35(3), 243-260. https://doi.org/10.1177/0269881120983757

Carhart-Harris, R. L., & Goodwin, G. M. (2017). The therapeutic potential of psychedelic drugs: Past, present, and future. *Neuropsychopharmacology, 42*(11), 2105-2113. https://doi.org/10.1038/npp.2017.84

Carlini, E. A., Noto, A. R., Sanchez, Z. M., Carlini, C. M., Locatelli, D. P., & Abeid, L. R. (2018). High complexity of the psychoactive drug scenario: The new Brazilian law on drugs and its implications for public health. *Revista de Saúde Pública, 52*, 6. https://doi.org/10.11606/S1518-8787.2018052000392

Casas-Arrue, R., Santurtun, A., Artextxe, J., Martin, I., Ochoa, C., & Torres-Padron, M. E. (2020). Improving algorithm selection through experimental design: A new method and its supervised classification. *Expert Systems with Applications, 157*, 113378. https://doi.org/10.1016/j.eswa.2019.113378

Castaño, M., Guillermo, A., Becoña, J., Elisardo, L., Restrepo, P., Sandra, Y., ... Scoppetta, T. (2020). Toward the design and validation of a scale to assess amotivational syndrome in chronic marijuana users (ESATHC). *International Journal of Mental Health and Addiction, 18*(2), 305-313. https://doi.org/10.1007/s11469-019-00132-y

Center for Substance Abuse Treatment. (2015). *Methamphetamine treatment: A practitioner's reference* (SMA15-4150). Substance Abuse and Mental Health Services Administration. https://store.samhsa.gov/product/Methamphetamine-Treatment-A-Practitioner-s-Reference/SMA15-4150

Cheon, S. H., Reeve, J., & Ntoumanis, N. (2019). A needs-based intervention for motivating learning in physical education: Results of a cluster-randomized trial. *Journal of Educational Psychology, 111*(5), 1052-1068. https://doi.org/10.1037/edu0000338

Cheon, S. H., Reeve, J., & Ntoumanis, N. (2019). A needs-based intervention for reducing time spent on video gaming, impulsivity, and increasing prosocial behaviour. *Social Psychological Science, 10*(5), 665–670. https://doi.org/10.1177/1948550618823889

Clancy, T. (2016). Amotivation: A review of the literature. *Journal of Aging and Mental Health, 20*(3), 244–252. https://doi.org/10.1080/13607863.2015.1109081

Cogswell, J., & Negley, S. K. (2011). The effect of autonomy supportive therapeutic recreation programming on integrated motivation for treatment among persons who abuse substances. *Therapeutic Recreation Journal, 45*(1), 47–61. https://bctra.org/wp-content/uploads/tr_journals/32-92-1-PB.pdf

Collingwood, J., Reynolds, R., Kohl, H. W., & Smith, W. (2000). Youth motivation for involvement in physical activity. *Physical Education and Sport Pedagogy, 5*(2), 141–156. https://doi.org/10.1080/1740898000050206

Cox, R. H., & Crimin, J. M. (2019). *Sports psychology: Concepts and applications*. McGraw-Hill Education.

Creswell, J. W. (2014). *A concise introduction to mixed methods research*. SAGE Publications.

Creswell, J. W. (2019). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). SAGE Publications.

Creswell, J. W. (2020). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE Publications.

Creswell, J. W. (2022). *Qualitative, quantitative, and mixed methods approaches* (6th ed.). SAGE Publications.

Creswell, J. W., & Creswell, J. D. (2021). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE Publications.

Currie, C., Inchley, J., Molcho, M., Lenzi, M., Vesleska, Z., & Wild, F. (2019). Health behavior in social-aged children (HBSC) study protocol: Background, methodology and mandatory items for the 2017/18 survey. University of St. Andrews.

Dada, S., Burnhams, N. H., Erasmus, J., Parry, C., Bhana, A., Timol, F., et al. (2016). Monitoring alcohol, tobacco, and other drug use trends in South Africa (July–December 2016). *Research Brief, 19*(1), 1–19.

Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. Springer Science & Business Media.

Deci, E. L., & Ryan, R. M. (2008). Self-determination theory: A macrotheory of human motivation, development, and health. *Canadian Psychology/Psychologie Canadienne, 49*(3), 182–185. https://doi.org/10.1037/a0012801

Deci, E. L., & Ryan, R. M. (2020). Intrinsic motivation. In S. K. Whitbourne (Ed.), *The encyclopedia of adult development and aging* (pp. 1–3). John Wiley & Sons. https://doi.org/10.1002/9781118521373.wbeaa208

Deci, E. L., & Ryan, R. M. (2021). Intrinsic and extrinsic motivation. *The Oxford handbook of human motivation* (pp. 129–146). Oxford University Press.

Degenhardt, L., Glantz, M., Evans-Lacko, S., et al. (2017). Estimating treatment coverage for people with substance use disorders: An analysis of data from the World Mental Health Surveys. *World Psychiatry, 16*(3), 299–307. https://doi.org/10.1002/wps.20457

DiNardo, E., & Godoy, P. D. (2022). The impact of stimulant misuse on academic motivation: A longitudinal study of college students. *Journal of Substance Abuse, 57*, 108476. https://doi.org/10.1016/j.jsat.2022.108476

Draugalis, J. R., Coons, S. J., & Plaza, C. M. (2008). Best practices for survey research reports: A synopsis for authors and reviewers. *American Journal of Pharmaceutical Education, 72*(1). https://doi.org/10.5688/aj720111

Eisenberger, R., Shanock, L., & Harris, K. J. (2020). Employee extrinsic motivation: It's more than carrots and sticks. *Journal of Organizational Behavior, 41*(S1), S43–S61. https://doi.org/10.1002/job.2401

Englund, M. M., White, H. R., & Grant, J. D. (2006). The effect of ecstasy use on short-term academic outcomes: A longitudinal investigation using sibling fixed effects analysis. *Journal of Adolescent Health, 39*(6), 824–832. https://doi.org/10.1016/j.jadohealth.2006.06.010

European Monitoring Centre for Drugs and Drug Addiction (EMCDDA, 2020). Drug-related hospital emergency presentations in Europe: Update from the Euro-DEN Plus expert network. Luxembourg: Publications Office of the European Union.

European Monitoring Centre for Drugs and Drug Addiction (EMCDDA, 2020). *Drug-related hospital emergency presentations in Europe: Update from the Euro-DEN Plus expert network*. Luxembourg: Publications Office of the European Union.

Fife-Schaw, C. (2020). Questionnaire design. In G. M. Breakwell, D. B. Wright, & J. A. Smith (Eds.), *Research methods in psychology* (pp. 343–374). SAGE Publications.

Fink, A. (2003). *How to sample in surveys* (Vol. 7). SAGE Publications.

Flisher, A. J., Parry, C. D., Evans, J., Muller, M., & Lombard, C. (2003). Substance use by adolescents in Cape Town: Prevalence and correlates. *Journal of Adolescent Health, 32*(1), 58–65. https://doi.org/10.1016/S1054-139X(02)00446-3

Flower, C. P., & Lawrence, F. R. (2022). *An introduction to quantitative research methods: An integrated approach with IBM SPSS statistics*. Oxford University Press

Giedd, J. N., Blumenthal, J., Jeffries, N. O., Castellanos, F. X., Liu, H., Zijdenbos, A., ... & Rapoport, J. L. (2018). Brain development during childhood and adolescence: A longitudinal MRI study. *Nature Neuroscience, 2*(10), 861–863.

Gillison, F. B., Rouse, P., Standage, M., Sebire, S. J., & Ryan, R. M. (2019). A meta-analysis of techniques to promote motivation for health behaviour change from a self-determination theory perspective. *Health Psychology Review, 13*(1), 110–130.

Gretton, H. M., Ayline, S., Baddeley, J. L., & Duckworth, S. L. (2021). A prospective examination of long-term effects of cannabis use on academic motivation and achievement in a large population-based cohort of Canadian adolescents. *PLoS ONE, 16*(2), e0246303.

Gribanova, S. (2020). The impact of intrinsic and extrinsic motivators on IT professionals: Case of Latvia. *SHS Web of Conferences, 92*, The 20th International Scientific Conference Globalization and its Socio-Economic Consequences 2020.

Grigson, P. S., & Twining, R. C. (2002). Cocaine-induced suppression of saccharin intake: A model of drug-induced devaluation of natural rewards. *Behavioral Neuroscience, 116*(2), 321–326.

Grolnick, W. S., & Ryan, R. M. (2022). Parent-initiated motivation: The importance of "why" and "how." In L. Lebowitz & A. L. Alvord (Eds.), *Parenting and family processes in child therapy* (pp. 179–194). Guilford Press.

Hand, D. J., Fox, P., Reya, I., & Cooper, H. (2018). Drug use among secondary school students: Understanding the socio-environmental factors. *International Journal of Environmental Research and Public Health, 15*(9), 1885.

Hawkins, J. D., et al. (2019). Unleashing the power of prevention. *American Psychologist, 74*(4), 387–405.

Hester, S. R. (2017). *The effect of motivation on academic performance in traditional and non-traditional freshmen college students* (Doctoral dissertation). Grand Canyon University.

Hingson, R. W., Heeren, T., & Winter, M. R. (2017). Age at drinking onset and alcohol dependence: Age at onset, duration, and severity. *Archives of Pediatrics & Adolescent Medicine, 160*(7), 739–746.

Hirose, M., & Creswell, J. W. (2023). Applying core quality criteria of mixed methods research to an empirical study. *Journal of Mixed Methods Research, 17*(1), 12–28.

Hofmann, A. (1980). *LSD: My problem child.* McGraw-Hill.

Johnston, L. D., O'Malley, P. M., Bachman, v J. G., & Schulenberg, J. E. (2012). *Monitoring the Future national results on adolescent drug use: Overview of key findings, 2011* (p. 78). Institute for Social Research, The University of Michigan.

Jorge, K. O., Ferreira, R. C., Kawachi, I., Zarzar, P. M., & Pordeus, I. A. (2018). Peer group influence and illicit drug use among adolescent students in Brazil: A cross-sectional study. *Cadernos de Saúde Pública, 34*(3).

Kalat, J. W., & Shiota, M. N. (2012). *Emotion* (2nd ed.). Wadsworth.

Karam, E. G., Ghandour, L. A., Maalouf, W. E., Yamout, K., & Salamoun, M. M. (2010). A rapid situation assessment (RSA) study of alcohol and drug use in Lebanon. *Lebanese Medical Journal, 58*(2), 77. http://europepmc.org/abstract/med/20549893

Khalil, A. B., & Md Syed, M. B. (2016). Substance use and mental health correlates of improved amotivation in a national sample of male prisoners in Malaysia. *Substance Abuse Treatment, Prevention, and Policy, 11*(1), 1–8.

Kihumuro, R. B., Kaggwa, M. M., Nakandi, R. M., Kintu, T. M., Muwanga, D. R., Muganzi, D. J., ... & Harms, S. (2022). Perspectives on mental health services for medical students at a Ugandan medical school. *BMC Medical Education, 22*(1), 1–13.

Kilinc, A., & Yildirim, I. (2020). The role of social support and academic motivation in predicting university students' academic adjustment. *Europe's Journal of Psychology, 16*(2), 265–280.

Kim, A., & Hye-Geum, M. (2019). Apathy syndrome in a patient previously treated with selective serotonin reuptake inhibitors for depression. *Yeungnam University Journal of Medicine, 36*(3), 249–253. https://doi.org/10.12701/yujm.2019.00150

Kishioka, S., & Nomura, M. (2020). Recent progress in drug development targeting alpha7 nicotinic acetylcholine receptors for neuropsychiatric disorders. *Expert Opinion on Drug Discovery, 15*(7), 743–760.

Kothari, C. R. (2020). *Research methodology: Methods and techniques.* New Age International.

Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement, 30*, 607–610.

Krentzman, A. R., Farkas, K. J., & Townsend, A. L. (2012). Spirituality, religiosity, and substance use: Assessing the influence of spiritual formation. *The International Journal of Alcohol and Drug Research, 11*(1), 27–38.

Kwarikunda, D., Schiefele, U., Ssenyonga, J., & Muwonge, C. M. (2020). The relationship between motivation for, and interest in, learning physics among lower secondary school students in Uganda. *African Journal of Research in Mathematics, Science and Technology Education, 24*(3), 435–446.

Lapratte, A., Lacroix, C., Brust, P. G., Sotty, F., & Prickaerts, J. (2020). How to use nicotinic agonists to improve cognition without causing addiction or toxicity. *Frontiers in Pharmacology, 11*, 272.

Lee, N. K., & Rawson, R. A. (2008). A systematic review of cognitive and behavioural therapies for methamphetamine dependence. *Drug and Alcohol Review, 27*, 309–317.

Leffingwell, T. R., & Babitzke, A. C. (2007). Predictors of college student marijuana use: A structural equation modeling approach examining environmental factors, psychological distress, and control variables. *Addictive Behaviors, 32*(9), 1949–1953.

Lerner, R. E., & Grolnick, W. S. (2020). Maternal involvement and children's academic motivation and achievement: The roles of maternal autonomy support and children's affect. *Motivation and Emotion, 44*(3), 373–388.

Linton, R., et al. (2018). Peer and individual level associations between deviant peer involvement and adolescent substance use: A systematic review and meta-analysis. *Journal of Youth and Adolescence, 47*(3), 477–487.

López, G., Orchowski, L. M., Reddy, M. K., Nargiso, J., & Johnson, J. E. (2021). A review of research-supported group treatments for drug use disorders. *Substance Abuse Treatment, Prevention, and Policy, 16*(1), 1–21.

Lund, C., Breen, A., Flisher, A. J., Kakuma, R., Corrigall, J., Joska, J. A.,… & Patel, V. (2010). Poverty and common mental disorders in low and middle-income countries: A systematic review. *Social Science & Medicine, 71*(3), 517–528.

Mallett, K. A., Turrisi, R., Hultgren, B. A., Sell, N., Reavy, R., & Cleveland, M. (2017). When alcohol is only part of the problem: An event-level analysis of negative consequences related to alcohol and other substance use. *Psychology of Addictive Behaviors, 31*(3), 307–315. https://doi.org/10.1037/adb0000266

Marks, J. (1974). *The search for the "Manchurian candidate": The CIA and mind control.* Times Books.

Martinez, A. P., Higgins, G. E., & Zhang, Y. (2020). The long-term effects of college binge drinking on academic motivation and graduation: A cohort study. *Journal of Drug Issues, 50*(1), 45–68. https://doi.org/10.1177/0022042619883650

Martinotti, G., Di Nicola, M., Tedeschi, D., Callea, A., De Risio, L., Janiri, L., & Pozzi, G. (2014). Alcohol, cannabis, and non-medical use of prescription drugs in adolescents: A cross-sectional study. *Journal of Addiction Medicine, 8*(6), 386–392. https://doi.org/10.1097/ADM.0000000000000067

Martín-Sánchez, F. J., Brizzi, B. N., González del Castillo, J., Cantó Blázquez, V., González Jiménez, C., Aguilo Mir, S., ... & Lázaro del Nogal, M. (2018). Characteristics and outcomes of older adults presented to Spanish emergency departments after a fall. *European Geriatric Medicine, 9*, 631–640. https://doi.org/10.1007/s41999-018-0099-7

Mbachu, C. N. P., Ebenebe, J. C., Mbachu, I. I., Ndukwu, C. I., Elo-Ilo, J. C., Azubuike, C. M., ... & Uwakwe, R. (2022). Sociodemographic profile of psychoactive substance use among selected secondary school students in rural Nigeria. *International Journal of Adolescent Medicine and Health, 34*(5), 275–280. https://doi.org/10.1515/ijamh-2019-0065

Mbugua, T., Kuria, M., Ndetei, D., & Mailu, S. (2017). The relationship between alcohol and drug abuse and academic performance among secondary school students in Kenya. *Journal of Alcoholism & Drug Dependence, 5*(6), 1–6. https://doi.org/10.4172/2329-6488.1000272

Miech, R., Patrick, M. E., Keyes, K., O'Malley, P. M., & Johnston, L. (2021). Adolescent drug use before and during US national COVID-19 social distancing policies. *Drug and Alcohol Dependence, 226*, 108822. https://doi.org/10.1016/j.drugalcdep.2021.108822

Ministry of Education and Sports Uganda. (2020). *Performance management guidelines for tertiary institutions and schools*. Policy Manual.

Mottonen, T. (2016). The association between drug use and work motivation: Evidence from Finland. *Nordic Studies on Alcohol and Drugs, 33*(6), 531–541. https://doi.org/10.1515/nsad-2016-0050

Mugenda, O. M., & Mugenda, A. G. (2003). *Research methods: Quantitative & qualitative approaches* (Vol. 2, No. 2). Acts Press.

Muoti, S. K. (2014). *Effects of drug and substance abuse on academic performance among secondary school students, Kathonzweni District, Makueni County, Kenya* (Doctoral dissertation). University of Nairobi.

Murphy, K. M., Auchter, A. M., & Sher, K. J. (2020). Longitudinal associations of alcohol and marijuana use with college persistence and degree attainment: A three-wave investigation. *Journal of Studies on Alcohol and Drugs, 81*(3), 340–355. https://doi.org/10.15288/jsad.2020.81.340

National Institute on Drug Abuse. (2020). *Opioids*. https://www.drugabuse.gov/drug-topics/opioids

National Institute on Drug Abuse. (2022). *Prescription drug misuse and abuse*. https://www.drugabuse.gov/publications/research-reports/prescription-drugs/misuse-prescription-drugs

Neuman, W. L. (2007). *Basics of social research* (3rd ed.). Pearson.

NIDA. (2023, June 30). *Drug overdose death rates*. https://nida.nih.gov/research-topics/trends-statistics/overdose-death-rates

Nutton, V. (2005). The reception of the Canon of Avicenna in the Renaissance. In E. Edson & E. Savage-Smith (Eds.), *Medieval views of the cosmos* (pp. 225–246). Oxford University Press.

O'Leary, Z. (2014). *The essential guide to doing your research project* (2nd ed.). SAGE Publications, Inc.

Obadeji, A., Kumolalo, B. F., Oluwole, L. O., Ajiboye, A. S., Dada, M. U., & Ebeyi, R. C. (2020). Substance use among adolescent high school students in Nigeria and its relationship with psychosocial factors. *Journal of Research in Health Sciences, 20*(2), e00480. https://doi.org/10.34172/jrhs.2020.23

Oluwafunmilayo, O. V., John, O. O., Olabode, O. N., Blessing, A. O., Manirambona, E., Vicerra, P. M. M., & Lucero-Prisno III, D. E. (2022). Prevalence and pattern of psychoactive substance use among government secondary school students in central Nigeria. *PAMJ-One Health, 8*, 35–43. https://doi.org/10.11604/pamj-oh.2022.8.35.35139

O'Malley, P. M., Bachman, J. G., Schulenberg, J. E., & Johnston, L. D. (2015). Substance use in adolescence and early adulthood: A comparison of annual, periodic, and daily measures. *Journal of Studies on Alcohol and Drugs, 76*(6), 870–878. https://doi.org/10.15288/jsad.2015.76.870

Pacheco-Colón, I., Hawes, S. W., Duperrouzel, J. C., & Gonzalez, R. (2021). Evidence lacking for cannabis users slacking: A longitudinal analysis of escalating cannabis use and motivation among adolescents. *Journal of the International Neuropsychological Society, 27*(6), 637–647. https://doi.org/10.1017/S1355617721000250

Pagel, W. (1958). *Paracelsus: An introduction to philosophical medicine in the era of the Renaissance*. Karger.

Park, Y. S., Konge, L., & Artino, A. R. (2020). The positivism paradigm of research. *Academic Medicine, 95*(5), 690–694. https://doi.org/10.1097/ACM.0000000000003093

Patrick, M. E., & Maggs, J. L. (2010). College students' evaluations of alcohol consequences as positive and negative. *Psychology of Addictive Behaviors, 24*(1), 56–62. https://doi.org/10.1037/a0017824

Patrick, M. E., & Schulenberg, J. E. (2011). Prevalence and predictors of adolescent alcohol use and binge drinking in the United States. *Alcohol Research: Current Reviews, 34*(2), 195–200. https://doi.org/10.15288/jsad.2011.34.195

Pedersen, W., Von Soest, T., & Morland, J. (2021). Associations between academic motivation, alcohol use, and cannabis use among Norwegian college and university students. *Addictive Behaviors Reports, 14*, 100383. https://doi.org/10.1016/j.abrep.2021.100383

Petri, H. L., & Govern, J. M. (2013). *Motivation: Theory, research, and applications* (6th ed.). Thomson Wadsworth.

Pink, D. H. (2022). *Drive: The surprising truth about what motivates us* (Revised and updated). Penguin.

Pizzagalli, D. A., Holmes, A. J., Dillon, D. G., Goetz, E. L., Birk, J. L., Bogdan, R., ... & Fava, M. (2018). Reduced caudate and nucleus accumbens response to rewards in unmedicated individuals with major depressive disorder. *American Journal of Psychiatry, 166*(6), 702-710.

Quach, D., Chung, H., Taves, A., & Parkin, S. (2020). Examining the link between social support and academic motivation among college students with attention-deficit/hyperactivity disorder (ADHD). *Journal of College Counseling, 23*(2), 157-175.

Ramey, T., & Regier, P. S. (2019). Cognitive impairment in substance use disorders. *CNS Spectrums, 24*(1), 102-113.

Rebecca, S. (2022). Factors influencing substance abuse amongst health care professionals in Kampala, Uganda. *Unpublished master's thesis*.

Reddy, P., James, S., Sewpaul, R., Koopman, F., Funani, N. I., Sifunda, S., ... & Naidoo, N. (2018). The impact of socio-economic status on substance use patterns in South African learners. *Journal of Child & Adolescent Mental Health, 30*(2), 93-109.

Reeve, J. (2023). *Understanding motivation and emotion* (7th ed.). Wiley.

Reeve, J., & Jang, H. (2023). Understanding and promoting autonomous, controlled, and amotivated motivation: A longitudinal examination across school transitions. *Journal of Educational Psychology, 115*(1), 29-44.

Rovai, L., Maremmani, A. G., Pacini, M., Pani, P. P., Rugani, F., Lamanna, F., ... & Maremmani, I. (2013). Negative dimension in psychiatry: Amotivational syndrome as a paradigm of negative symptoms in substance abuse. *Rivista di Psichiatria, 48*(1), 1-9. https://doi.org/10.1708/1228.13610

Rukundo, A., Kibanja, G., & Steffens, K. (2017). Factors influencing psychoactive substance use among adolescents in public secondary schools in Uganda. *International Journal of Alcohol and Drug Research, 6*(1), 69-76.

Ryan, R. M., & Deci, E. L. (2000). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary Educational Psychology, 25*(1), 54-67.

Ryan, R. M., & Deci, E. L. (2017). *Self-determination theory: Basic psychological needs in motivation, development, and well-being*. Guilford Publications.

Saaranen, T., Tuominen, T., Tammelin, T., & Taanila, A. (2015). Physical activity and sedentary behaviour in adolescents: The role of individual and social environmental factors. *Scandinavian Journal of Public Health, 43*(7), 674-682.

Schultes, R. E., & Hofmann, A. (1992). *Plants of the gods: Their sacred, healing, and hallucinogenic powers*. Healing Arts Press.

Sekaran, U. (2003). *Research methods for business: A skill-building approach* (4th ed.). John Wiley & Sons.

Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill-building approach* (7th ed.). John Wiley & Sons.

Sheldon, K. M. (2010). *Current directions in motivation and emotion*. Allyn & Bacon.

Sheldon, K. M., Jang, H., Kim, Y., & Kasser, T. (2021). Maximizing well-being through extrinsic goal pursuit: A motivational fit perspective. *Personality and Social Psychology Review, 25*(1), 29-54.

Singer, M. R., Szklo, M., & Dietz, W. H. (2002). Alcohol consumption and well-being in a cohort of U.S. adults. *American Journal of Public Health, 92*(2), 265-271.

Smith, M. E., & Farah, M. J. (2011). Are prescription stimulants "smart pills"? The epidemiology and cognitive neuroscience of prescription stimulant use by normal healthy individuals. *Psychological Bulletin, 137*(5), 717-741.

Smith, Z. R., Langberg, J. M., Cusick, C. N., Green, C. D., & Becker, S. P. (2020). Academic motivation deficits in adolescents with ADHD and associations with academic functioning. *Journal of Abnormal Child Psychology, 48*, 237-249.

Stavrou, N. A. (2008). Intrinsic motivation, extrinsic motivation, and amotivation: Examining self-determination theory from a flow theory perspective. *Unpublished doctoral dissertation*.

Stein, L. A. R., Colby, S. M., Barnett, N. P., Monti, P. M., Golembeske, C., LeBeau-Crosby, E., & Woolard, R. H. (2006). Enhancing substance abuse treatment and engagement in incarcerated adolescents. *Psychological Services, 3*(1), 25-34.

Substance Abuse and Mental Health Services Administration. (2019). *Preventing substance misuse and substance use disorders: A comprehensive approach*. https://www.samhsa.gov/sites/default/files/programs_campaigns/underage_drinking/files/preventing-substance-misuse-and-substance-use-disorders-comprehensive-approach.pdf

Sussman, S., Lisha, N., & Griffiths, M. (2020). Prevalence of substance use and academic motivation among college students. *Addictive Behaviors, 103*, 106228.

Tapert, S. F., Schweinsburg, A. D., Drummond, S. P., Paulus, M. P., Brown, S. A., Yang, T. T., & Frank, L. R. (2007). Functional MRI of inhibitory processing in abstinent adolescent marijuana users. *Psychopharmacology, 194*(2), 173-183.

Tekesa, T. W. (2020). Psychoactive substance: Determining its harmful and dependent use patterns and associated level of risks among high school students in Afar Region, Ethiopia. *Online Submission, 12*(1), 22-29.

United Nations Office on Drugs and Crime. (2021). *World drug report 2021*. United Nations.

Van Ryzin, M. J., Fosco, G. M., & Dishion, T. J. (2012). Family and peer predictors of substance use from early adolescence to early adulthood: An 11-year prospective analysis. *Addictive Behaviors, 37*(12), 1314-1324.

Vansteenkiste, M., & Ryan, R. M. (2022). On becoming and staying intrinsically motivated: An embodied perspective. In A. J. Elliot, C. S. Dweck, & D. S. Yeager (Eds.), *Handbook of competence and motivation* (3rd ed., pp. 87-110). Guilford Press.

Volkow, N. D., & Baler, R. D. (2014). Addiction science: Uncovering neurobiological complexity. *Neuropharmacology, 76*, 235-249.

Volkow, N. D., & McLellan, A. T. (2016). Opioid abuse in chronic pain: Misconceptions and mitigation strategies. *New England Journal of Medicine, 374*(13), 1253-1263.

Volkow, N. D., & Morales, M. (2020). The brain on drugs: From reward to addiction. *Cell, 181*(3), 453-465.

Wade, D., Hides, L., Baker, A., & Lubman, D. (2009). Substance misuse in first-episode psychosis. *The recognition and management of early psychosis: A preventive approach* (2nd ed., pp. 243-256).

Wall, H., & Arnstein, S. (2012). Transforming power: From zero-sum to win-win? In *Contexts for participation* (pp. 95-122). Springer.

Werch, C. E., Pappas, D. M., Carlson, J. M., Edgemond, P. A., & DiClemente, C. C. (2000). Relationship between substance use and self-motivation assessment score and other measures of adolescent substance use. *Journal of Drug Education, 30*(2), 115-130.

Weston-Green, K., Huang, X. F., & Deng, C. (2021). Role of alpha-7 nicotinic acetylcholine receptors in the pathophysiology and treatment of neuropsychiatric disorders. *CNS Drugs, 35*(3), 269-292.

Williams, T. M., Daglish, M. R. C., & Lingford-Hughes, A. (2007). Brain opioid receptor binding in early abstinence from opioid dependence: Positron emission tomography study. *The British Journal of Psychiatry, 191*, 63-69.

Wu, G. H. M., Chong, M. Y., Cheng, A. T., & Chen, T. H. H. (2007). Correlates of family, school, and peer variables with adolescent substance use in Taiwan. *Social Science & Medicine, 64*(12), 2594-2600.

Yang, H., Wang, Y., Lin, L., & Zhang, Y. (2021). The mediating role of academic self-efficacy in the relationship between social support and academic motivation: A longitudinal study. *Learning and Individual Differences, 86*, 101972.

Zainob, A. A., Olujide, A. A., & David, I. O. (2021). Socio-demographic predictors of alcohol, smoking, and substance involvement among secondary school students in Nigeria. *IFE PsychologIA: An International Journal, 29*(2), 71-78.

Zeigler, D. W., Wang, C. C., Yoast, R. A., Dickinson, B. D., McCaffree, M. A., Robinowitz, C. B., & Sterling, M. L. (2005). The neurocognitive effects of alcohol on adolescents and college students. *Preventive Medicine, 40*(1), 23-32.

APPENDICES

Appendix A: Questionnaire

QUESTIONNAIRE FOR STUDENTS ON PSYCHOACTIVE DRUG USE AND ACADEMIC MOTIVATION AMONG SECONDARY SCHOOL STUDENTS IN BUHWEJU DISTRICT.

LETTER OF TRANSMITTAL *serial no…...*

Dear Respondent,

I am ***ASASIRA YOBU*** a Master of Education in Educational Psychology student in the Department of Educational Foundations and Psychology at **MUST**. This questionnaire is designed to gather information on Psychoactive Drug Use on Academic Motivation among Secondary School Students in Buhweju District. This research will aim to recommend how to curb the use of psychoactive drug that may make learning difficult among secondary school students.

The information you give will be treated with utmost confidentiality, therefore you will not be required to indicate your names anywhere on this questionnaire as a measure of confidentiality and anonymity. The information provided will be used for the purpose of this study **ONLY**. I kindly request you to fill out the questionnaire. Your responses will be highly appreciated

Section A: Demographic details (Tick (√) appropriately)

1. Please indicate your age by ticking the appropriate box

10-12years ☐ 13-15years ☐ 16-18years ☐

19-21 years ☐ 21 years and ☐ above

2. What is your gender

Male ☐ 2) Female ☐ 3) others ☐

3. What is your religion? (please tick in the box that applies to you)
Catholic ☐

Protestant ☐

Islam ☐

Others (specify) _____

4. Which class are you in?

Senior one ☐ Senior two ☐

Senior three ☐ senior four ☐

Senior five ☐ senior six ☐

5. Have you observed any of your classmates or other students in school consuming substances like alcohol, tobacco, mairungi, opium shisha, marijuana, cocaine, Kuber and other substances that can change one's body system and affect their mental processes like perception, consciousness, cognition, mood and emotions?

Yes ☐ ☐ No

SECTION B: PSYCHOACTIVE DRUG USE SCALE

Direction for this Section: Kindly use Tick (√) appropriately)
1- Yes 0- No
For the last 12 months have you;

		2	1
1	Consumed alcohol (beers, kwete, spirits, akariga, omunansi, over the counter wines, tonto, alcoholic kombucha, mukomboti)		
2	Smoked tobacco		
3	Smoked opium (black pill, Chinese tobacco)		
4	Smoked heroin (black tar, China white, white dynamite		
5	Smoked bhang (hashish, marijuana, cannabis ganja, weed)		
6	Sniffed glue		
7	Sniffed gasoline (petrol)		
8	Smoked Cocaine (nose candy, crack happy powder)		
9	Chewed miraa (mairungi/khat)		
10	Used Kuber (smokeless tobacco, mouth freshener)		
11	Smoked shisha (water pipe, Hubble bubble)		

SECTION C: INTRINSIC ACADEMIC MOTIVATION

Please indicate the extent to which you agree with the following statements using a 5-point Likert scale (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree):

		1	2	3	4	5	
1	I enjoy learning new things at school						
2	I feel a sense of accomplishment when I understand a challenging concept.						
3	I am interested in exploring topics beyond what is covered in my school curriculum.						
4	I find pleasure in discovering connections between different subjects.						
5	I am curious and motivated to delve deeper into subjects that interest me.						
6	I feel that I have a say in the way I learn and demonstrate my knowledge at school.						
7	I believe that my teachers encourage and support my independent thinking and creativity.						
8	I feel that I have the freedom to pursue my academic interests and passions at school.						
9	I feel valued and appreciated for my academic efforts by my teachers and peers.						
10	I believe that my school provides opportunities for me to showcase my unique talents and abilities						
11	I feel that my academic accomplishments are acknowledged and celebrated at school						

SECTION D: EXTRINSIC ACADEMIC MOTIVATION

Please indicate the extent to which you agree with the following statements using a 5-point Likert scale (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree):

		1	2	3	4	5
1	I am motivated to do well in school to receive good grades.					
2	I am motivated to participate in school activities to receive recognition or rewards.					
3	I am motivated to study and excel in school to gain approval from my parents or teachers.					
4	I am motivated to perform well in school to gain access to future opportunities or a good job.					
5	I am motivated to excel in my studies to gain social recognition or status among my peers.					
6	I am more likely to complete my assignments if I know there is a reward attached to it.					

7	I feel that my parents' or teachers' approval motivates me to work harder in school.					
8	I believe that the promise of a future job or career opportunities makes me work harder in my studies.					

SECTION E: ACADEMIC AMOTIVATION

Please indicate the extent to which you agree with the following statements using a 5-point Likert scale (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree):

		1	**2**	**3**	**4**	**5**
1	I find it hard to see the relevance of what I am learning in school.					
2	I often feel disinterested in my schoolwork.					
3	I feel like I am just going through the motions in my school work.					
4	I do not feel motivated to participate in extracurricular activities at school.					
5	I feel like I have little control over my academic outcomes.					
6	I feel supported by my teachers in my academic endeavors.					
7	I feel that my school provides adequate opportunities for me to pursue my interests and passions.					
8	I feel that my school provides adequate opportunities for me to pursue my interests and passions.					
9	I feel that my school environment is conducive to my motivation and engagement in learning					
10	Doing well in school is important to me.					
11	I see value in the learning and personal growth that can occur through my school experiences.					

THANK YOU FOR YOUR ASSISTANCE AND CO-OPERATION

Appendix B: Required sample size

Required Sample Size†

Population Size	Confidence = 95% Margin of Error				Confidence = 99% Margin of Error			
	5.0%	3.5%	2.5%	1.0%	5.0%	3.5%	2.5%	1.0%
10	10	10	10	10	10	10	10	10
20	19	20	20	20	19	20	20	20
30	28	29	29	30	29	29	30	30
50	44	47	48	50	47	48	49	50
75	63	69	72	74	67	71	73	75
100	80	89	94	99	87	93	96	99
150	108	126	137	148	122	135	142	149
200	132	160	177	196	154	174	186	198
250	152	190	215	244	182	211	229	246
300	169	217	251	291	207	246	270	295
400	196	265	318	384	250	309	348	391
500	217	306	377	475	285	365	421	485
600	234	340	432	565	315	416	490	579
700	248	370	481	653	341	462	554	672
800	260	396	526	739	363	503	615	763
1,000	278	440	606	906	399	575	727	943
1,200	291	474	674	1067	427	636	827	1119
1,500	306	515	759	1297	460	712	959	1376
2,000	322	563	869	1655	498	808	1141	1785
2,500	333	597	952	1984	524	879	1288	2173
3,500	346	641	1068	2565	558	977	1510	2890
5,000	357	678	1176	3288	586	1066	1734	3842
7,500	365	710	1275	4211	610	1147	1960	5165
10,000	370	727	1332	4899	622	1193	2098	6239
25,000	378	760	1448	6939	646	1285	2399	9972
50,000	381	772	1491	8056	655	1318	2520	12455
75,000	382	776	1506	8514	658	1330	2563	13583
100,000	383	778	1513	8762	659	1336	2585	14227
250,000	384	782	1527	9248	662	1347	2626	15555
500,000	384	783	1532	9423	663	1350	2640	16055
1,000,000	384	783	1534	9512	663	1352	2647	16317
2,500,000	384	784	1536	9567	663	1353	2651	16478
10,000,000	384	784	1536	9594	663	1354	2653	16560
100,000,000	384	784	1537	9603	663	1354	2654	16584
300,000,000	384	784	1537	9603	663	1354	2654	16586

† Copyright, The Research Advisors (2006). All rights reserved.

Appendix C: Informed Consent Form (For adults)

MBARARA UNIVERSITY OF SCIENCE AND TECHNOLOGY

RESEARCH ETHICS COMMITTEE

P.O. Box 1410 Mbarara, Tel: +256-48-543-3795, Fax: +256-48-542-0782

E-mail: irc@must.ac.ug, mustirb@gmail.com

INFORMED CONSENT FORM

This document outlines the research study and expectations for potential participants. It should be written in layman terms and typed on MUST-REC letterhead.

Instructions

1. The wording of this document should be directed to the potential participant not MUST-REC
2. If a technical term must be used, then define it the first time it is used and any acronyms or abbreviations used should be spelled out the first time they are used.
3. All the sections of this document must be completed without any editing or deletions.
4. Please use a typing font that is easily distinguishable from the questions of this form. Preferably the font size should be 12.

Study title – This should be the same as on all other documents related to the study.

PSYCHOACTIVE DRUG USE AND ACADEMIC MOTIVATION AMONG SECONDARY SCHOOL STUDENT IN BUHWEJU DISTRICT.

Principal Investigator(s)

Asasira Yobu

+256-783929942/+256-702795545

asasirayobumbareba@gmail.com

Introduction

Leave blank for REC office only: **MUST-REC Stamp:**	REC OFFICE USE ONLY: APPROVAL DATE: 31/01/2024 APPROVED CONSENT IRB VERSION NUMBER: 2024-01 PI NAME: Asasira Yobu IRB NO: MUST-2023-1286

What you should know about this study:

1. You are being asked to join a research study.
2. This consent form explains the research study and your part in the study.
3. Please read it carefully and take as much time as you need.
4. You are a volunteer. You can choose not to take part and if you join, you may quit at any time. There will be no penalty if you decide to quit the study.

Brief background to the study

The exploration into the connection between secondary school students' use of psychoactive drugs and its impact on academic motivation is situated within a global context marked by growing concerns about the repercussions of substance use on educational outcomes. According to Wade (2004), a psychoactive drug is a substance that alters perception, mood thinking and memory or behaviour by changing the body's biochemistry. In a similar view, Twining (1998), defines a psychoactive drug as any chemical that changes cellular activity in any part of the body, which in turn affects the perception or behaviour of the person who has taken it by changing his /her conscious awareness of the world around him her

Psychoactive drug use on the other hand is the consumption of substances that, when taken in or administered into one's body system, affect mental processes like perception, consciousness, cognition, mood and emotions. (WHO,2020)

Globally, substance use, including the misuse of psychoactive drugs, is recognized as a pervasive issue among adolescents, impacting cognitive function, academic motivation, and overall well-being (Lund, Breen, Flisher, Kakuma, Corrigall, Joska, & Patel, 2010). Gribanova (2020), defines motivation as an incentive to stimulate an action. Adolescent's use of psychoactive substances is recognized as a significant global public health issue, posing potential threats to cognitive functions, academic performance, and overall well-being (UNODC, 2020). The World Health Organization (WHO) emphasizes the need for extensive research to understand the intricate interplay between substance use and academic motivation worldwide, taking into account multifaceted contributing factors (Auerbach, Mortier,

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RESEARCH ETHICS COMMITTEE
P.O. BOX 1410, MBARARA

Bruffaerts, Alonso, Benjet, Cuijpers, & Kessler, 2018). The WHO has drawn attention to the global prevalence of substance abuse among adolescents, emphasizing the importance of targeted interventions to mitigate its influence on educational achievement (Auerbach et al., 2018).

The global landscape concerning adolescent behavior raises escalating concerns about psychoactive drug use and its potential consequences on the academic motivation of secondary school students, attracting attention from researchers, policymakers, and educators globally due to its multifaceted implications for the well-being and academic performance of young individuals (Smith, Langberg, Cusick, Green, & Becker, 2020). Studies by Ramey and Regier (2019), and Volkow, Michaelides, and Baler (2019) have revealed the adverse effects of psychoactive drug use on critical components of academic motivation, such as cognitive function, memory, and attention.

Purpose of the research project

Include a statement that the study involves research, estimated number of participants, an explanation of the purpose(s) of the research procedure and the expected duration of the subject's participation.

The study aims to explore the correlation between psychoactive drug use and academic motivation among secondary school students in Buhweju District.

The study population consists of secondary school students and the study will work with a sample size of 352 which will be drawn from both male and female students in the secondary schools within Buhweju District and will be selected from the entire population through the aid of Krejcie & Morgan tables (Krejcie & Morgan, 1970).

In this study, participants will be engaged for about 20 minutes where they will utilize this time to give their responses to the items in the questionnaire.

Why you are being asked to participate?

Explain why you have selected the individual to participate in the study.

The choice of selecting you to participate in the study is the nature of the study as it is focusing secondary school students in Buhweju District of which you are part where the study about psychoactive drug use and academic motivation is to be carried out in belief that secondary school students use psychoactive drugs which in turn have an influence their academic motivation.

Leave blank for REC office only: **MUST-REC Stamp:**	**REC OFFICE USE ONLY:** APPROVAL DATE: 31/01/2024 APPROVED CONSENT IRB VERSION NUMBER: 2024-01-20 PI NAME: Asasira Yobu IRB NO: MUST-2023-1286

Procedures

Provide a description of the procedures to be followed and identification of any procedures that are experimental, clinical etc. If there is need for storage of biological (body) specimens, explain why, and include a statement requesting for consent to store the specimens and state the duration of storage.

The researcher will seek approval from the Institutional Review Committee (IREC) of MUST, ratification with the Uganda national council for science and technology (UNCST), and then seek administrative clearance from the faculty of Science. The data collection exercise will comply with the COVID-19 SoPs

Risks or discomforts

Describe any reasonably foreseeable risks or discomforts-physical, psychological, social, legal or other associated with the procedure, and include information about their likelihood and seriousness. Discuss the procedures for protecting against or minimizing any potential risks to the subject. Discuss the risks in relation to the anticipated benefits to the subjects and to society.

There are no any known or anticipated risks associated with your participation in this study. Where such risks shall be discovered in the process of the study, they shall be kept at bare as minimum as possible

Benefits

Describe any benefits to the subject or other benefits that may reasonably be expected from the research. If the subject is not likely to benefit personally from the experimental protocol note this in the statement of benefits.

The study will benefit from your responses and experiences. This will not lead to direct personal benefits for you. However generally the findings of the study will benefit you indirectly in the following ways;

The findings of the study conducted will play a pivotal role in shedding light on potential health risks associated with psychoactive drug use among secondary school students. This insight will enable the development of targeted intervention strategies by policy makers aimed at mitigating these risks.

The study's broader impact will extend to raising community awareness about the potential consequences of psychoactive drug use among secondary school students. This heightened

Leave blank for REC office only:	REC OFFICE USE ONLY:
MUST-REC Stamp:	APPROVAL DATE: 31/01/2024
	APPROVED CONSENT IRB VERSION NUMBER: 2024-01-20
	PI NAME: ASIASIRA YOBU
	IRB NO: MUST-2023-1286

awareness is anticipated to stimulate community-driven initiatives focused on addressing substance abuse and providing support to students in maintaining a healthy academic focus. The findings of this study will help educators develop school-based intervention strategies to mitigate the effects of psychoactive drug use and improve their schools' academic outcomes.

Furthermore, the research findings will make a valuable contribution to the existing body of knowledge by focusing on a specific geographical area, Buhweju District. By doing so, it will aim at filling the potential gaps in the literature and provide context-specific information that can benefit both local and global research on substance use and academic motivation.

Incentives or rewards for participating

It is assumed that there are no costs to subjects enrolled in research protocols. Any payments to be made to the subject, e.g., travel expenses, token of appreciation for time spent, must also be stated, including when the payment will be made.

There is a token of appreciation for the time spent and this will be offered immediately to the participants after handing in of the questionnaires to the researcher.

Protecting data confidentiality

Provide a statement describing the extent, if any, to which confidentiality or records identifying the subjects will be maintained. If data is in form of tape recordings, photographs, movies or videotapes, researcher should describe period of time they will be retained before destruction. Showing or playing of such data must be disclosed, including instructional purposes.

You are required to be honest in your responses as your identity and any identifying information will remain anonymous and your name will not be written anywhere on this questionnaire and neither will it be associated with any part of the written report of the research. Your responses and those of your colleagues will be kept confidential.

Protecting subject privacy during data collection

Describe how the privacy of the participant will be ensured during the process of data collection.

I will endeavor to ensure your privacy by ensuring your identity remaining anonymous and your name will not be written anywhere on this questionnaire.

Leave blank for REC office only: **MUST-REC Stamp:**	**REC OFFICE USE ONLY:** APPROVAL DATE: 31/01/2024 APPROVED CONSENT IRB VERSION NUMBER: 2024-01-2 PI NAME: Asasira Yobu IRB NO: MUST-2023-1286

Right to refuse or withdraw
Include a statement that participation is voluntary and that refusal to participate will involve no penalty or loss of benefits to which the subject is otherwise entitled.

Its your right to withdraw your consent and participation in the study at any time without out any disturbance and there is no penalty for discontinuing participation.

What happens if you leave the study?
Include a statement that the subject may discontinue participation at any time without penalty or loss of benefits.

You may leave participating in the study at any time you wish and there will be no any penalty upon your withdrawal from the study.

Who do I ask/call if I have questions or a problem?
Include contact for the researcher and Chairperson, MUST-REC.

Assoc. Prof. Paul Alele

Chairman, MUST-REC

P.O. Box 1410 Mbarara

Tel: 0485433795/0773573372

What does your signature or thumbprint on this consent form mean?

Your signature on this form means

- You have been informed about this study's purpose, procedures, possible benefits and risks
- You have been given the chance to ask questions before you sign
- You have voluntarily agreed to be in this study

Name of adult participant	Signature/Thumbprint of participant/ Parent/Guardian/Next of Kin	Date
_____	_____	_____

Leave blank for REC office only	REC OFFICE USE ONLY:
MUST-REC Stamp:	APPROVAL DATE: APPROVED CONSENT IRB VERSION NUMBER: PI NAME: IRB NO:

Name of person obtaining consent	Signature	Date
Print Name of witness	Signature or thumbprint or mark	Date

Leave blank for REC office only: **MUST-REC Stamp:**	**REC OFFICE USE ONLY:** APPROVAL DATE: 31/01/2024 APPROVED CONSENT IRB VERSION NUMBER: 2024-01-20 PI NAME: Asasira Yoel IRB NO: MUST - 2023-1286

Appendix D: Assent Form (For minors)

MBARARA UNIVERSITY OF SCIENCE AND TECHNOLOGY
RESEARCH ETHICS COMMITTEE
P.O Box 1410 Mbarara, Tel: +25648-543-3795, Fax: +256-48-542-0782
E-mail: irc@must.ac.ug, mustirb@gmail.com

INFORMED ASSENT FORM

Study title

PSYCHOACTIVE DRUG USE AND ACADEMIC MOTIVATION AMONG SECONDARY SCHOOL STUDENTS IN BUHWEJU DISTRICT

Principal Investigator(s)

Asasira Yobu
+256-783929942/+256-702795545
asasirayobumbareba@gmail.com

Purpose of the Study

I would like to invite you to take part in a research study. The study aims to explore the correlation between psychoactive drug use and academic motivation among secondary school students in Buhweju District.

Before you decide if you want to participate, its important that you understand what will happen and why am conducting this research.

Why you are being asked to participate?

You are being asked to participate in this study because you are a student in a secondary school in Buhweju district where the study about psychoactive drug use and academic motivation is to be carried out in belief that secondary school students use psychoactive drugs which in turn have an influence their academic motivation.



Your participation

Your participation is voluntary. This means that you do not have to take part in the study if you don't want to, and it is your right to withdraw your participation at any time without any consequences.

Privacy and confidentiality

I will endeavor to ensure your privacy and confidentiality as your identity will remain anonymous and your name will not be written anywhere on the questionnaire and your responses will be kept confidential.

Permission

I have been told that my guardians have allowed me to participate, if I want to. I know that I can stop at any time I want to and it will be okey if I want to stop.

Name_____ Date……

Name of person obtaining consent	Signature	Date



Appendix E: Ethical Approval Form

MBARARA UNIVERSITY OF SCIENCE AND TECHNOLOGY
RESEARCH ETHICS COMMITTEE

Mbarara University of Science & Technology
P. O. Box 1410, Mbarara
RESEARCH ETHICS COMMITTEE
31 JAN 2025
APPROVED
VALID UNTIL DATE SHOWN ABOVE

31/01/2024

To: ASASIRA YOBU

MBARARA UNIVERSITY OF SCIENCE AND TECHNOLOGY
0783929942

Type: Initial Review

Re: MUST-2023-1286: Psychoactive Drug Use and Academic Motivation among Secondary School Students in Buhweju District

I am pleased to inform you that at the **162nd** convened meeting on **07/12/2023**, the MUST Research Ethics Committee meeting voted to approve the above referenced application.
Approval of the research is for the period of **31/01/2024** to **31/01/2025.**

As Principal Investigator of the research, you are responsible for fulfilling the following requirements of approval:

1. All co-investigators must be kept informed of the status of the research.
2. Changes, amendments, and addenda to the protocol or the consent form must be submitted to the REC for re-review and approval **prior** to the activation of the changes.
3. Reports of unanticipated problems involving risks to participants or any new information which could change the risk benefit: ratio must be submitted to the REC.
4. Only approved consent forms are to be used in the enrollment of participants. All consent forms signed by participants and/or witnesses should be retained on file. The REC may conduct audits of all study records, and consent documentation may be part of such audits.
5. Continuing review application must be submitted to the REC **eight weeks** prior to the expiration date of **31/01/2025** in order to continue the study beyond the approved period. Failure to submit a continuing review application in a timely fashion may result in suspension or termination of the study.
6. The REC application number assigned to the research should be cited in any correspondence with the REC of record.
7. You are required to register the research protocol with the Uganda National Council for Science and Technology (UNCST) for final clearance to undertake the study in Uganda.

The following is the list of all documents approved in this application by MUST Research Ethics Committee:

No.	Document Title	Language	Version Number	Version Date
1	Protocol	English	2024	2024-01-20
2	Informed Consent forms	ENGLISH	2024	2024-01-20
3	Assent form if applicable to your study	ENGLISH	2024	2024-01-20
4	Data collection tools	ENGLISH	2024	2024-01-20

Yours Sincerely

Dr. Paul Alele
For: MUST Research Ethics Committee



Appendix F: Introductory Letter

MBARARA UNIVERSITY OF SCIENCE AND TECHNOLOGY
P.O. Box 1410, Mbarara, Uganda, Tel:+256 4854 20851, Fax: +256 4854 20782
OFFICE OF THE DEAN
FACULTY OF SCIENCE

Your ref:
Our Ref: FOS/20

Date: 27-FEB-2024

Buhweju D.L.G.

Received & Forwarded to secondary schools for assistance

District Inspector of Schools 01 MAR 2024 Buhweju District Local Gov't

Dear Sir/Madam,

INTRODUCTORY LETTER TO COLLECT RESEARCH DATA

I write to introduce to you Mr/Ms ASASIRA YOBU, Registration Number 2022/MED/014/PS who is a Postgraduate Student at Mbarara University of Science and Technology (MUST) under the Faculty of Science.

He/She is studying courses leading to the award of a degree of Master of Science in MASTER OF EDUCATION IN EDUCATIONAL PSYCHOLOGY

As part of his/her graduation load, Mr/Ms is expected to carry out Research and write a Report as part of the fulfilment for the award of a degree of Master of Science.

Mr/Ms Research Topic/Title is:
PSYCHOACTIVE DRUG USE AND ACADEMIC MOTIVATION AMONG SECONDARY SCHOOL STUDENTS IN BUHWEJU DISTRICT

He/She is under the supervision of:
(1) Dr. ALOYSIUS RUKUNDO
(2) Dr. .....

The student has identified your organization as one of the best places to collect data that is most appropriate for his/her study. The data is basically for academic purposes only. The student is well equipped with ethical issues.

Any assistance to the effect is highly appreciated.

Yours sincerely

Assoc. Professor Julius B Lejju
DEAN

Mbarara University of Science and Technology
Dean - Faculty of Science
P.O. Box 1410, Mbarara

website: http://www.must.ac.ug