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EXAMINING THE EFFECTS OF DRUG USE AMONG STUDENTS OF KUMBUNGU SENIOR HIGH SCHOOL

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EXAMINING THE EFFECTS OF DRUG USE AMONG STUDENTS OF KUMBUNGU SENIOR HIGH SCHOOL

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DECLARATION

Student's Declaration

I, FRANCISCA AWAKABTA, declare that this dissertation, with the exception of quotations and references contained in published works which have all been identified and duly acknowledged, is entirely my own original work, and it has not been submitted, either in part or whole, for another degree elsewhere.

Signature: …….

Date: ……..…….

Supervisors' Declaration

We hereby declare that the preparation and presentation of this work was supervised in accordance with the guidelines for supervision of the thesis as laid down by the University of Education, Winneba.

Name of Supervisor: Professor Isaac Eshun

Signature: …….

Date: ……..…….

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DEDICATION

To my kids Blessing Melina, Audrey, Solomon Jnr, and Elijah.

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TABLE OF CONTENTS

University of Education,Winneba http://ir.uew.edu.gh

University of Education,Winneba http://ir.uew.edu.gh

University of Education,Winneba http://ir.uew.edu.gh

LIST OF TABLES

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ABSTRACT

The purpose of this study was to examine the effects of drug use among students at Kumbungu Senior High School. A descriptive survey design was employed, using multistage sampling to select 120 students. A researcher-developed questionnaire was the primary data-collection instrument. Data analysis involved descriptive statistics (frequencies and percentages) and inferential statistics (Chi-Square Tests and Hierarchical Multiple Regression) using SPSS version 27. The study found that the most commonly consumed drugs by students were Red Red (37.5%), followed by Codeine laced syrups (29.2%), and Marijuana (8.3%). Alcohol, Cocaine, and Heroine were not consumed at all by the study participants, students strongly perceived drugs to have a positive impact on their physical and cognitive states, there was a statistically significant difference in drug consumption between male and female students. Based on the findings, it is concluded that drug use is a prevalent and serious issue at Kumbungu Senior High School, with a significant majority of students admitting to consumption, with *Red Red* and *Codeine laced syrups* being the primary substances of abuse, followed by *Marijuana*. Based on the findings of and conclusion, it is recommended among others that authorities of Kumbungu Senior High School should integrate mandatory, evidence-based, and locally-relevant drug education into the school curriculum, focusing specifically on the immediate and long-term negative health effects of Red Red, Codeine laced syrups, and Marijuana, rather than just generic drugs. It was also recommended that the Food and Drugs Authority (FDA) and the Narcotics Control Commission (NACOC) must review and strictly regulate the sale and distribution of over-the-counter pharmaceuticals like cough syrups containing codeine, limiting sales to prescription only.

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CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Drug use refers to the intake of substances, legal or illegal that alters the functioning of the body and mind. These include alcohol, marijuana, tramadol, cocaine, heroin, codeine laced syrups and even household substances like glue, petrol etc. The World Health Organization defines drug use as the harmful or hazardous use of psychological substances. Drug use among the youth particularly students in Junior and Senior high schools has become a disturbing social and educational menace facing many countries across the globe. Historically, the use of substances dates back to ancient civilizations, where plants, herbs and alcoholic beverages were consumed for medicinal, cultural and spiritual reasons.

However, in recent times the use of drugs has extended its tentacles from cultural and traditions to a state of experimentation and more among adolescents. What was once a taboo subject has now become a troubling reality. The situation has prompt concern among parents, health workers, teachers and policy makers globally. Research has indicated that approximately 35 million people worldwide suffer from drug use disorders, with the youth being the most vulnerable groups (WHO, 2022). In many countries, secondary school students are increasingly involved in substances. Such as cannabis, tramadol, alcohol, cigarettes, cocaine, glue and inhalants. The United Nations Office on Drug and Crime (UNODC, 2023) highlights that drug use among young people is often influenced by peer pressure, family background, exposure to drugs and curiosity associated with adolescence.

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In Africa, the ordeal is not different as a growing body of research reveals that drug use is becoming normal among students. The West African Commission on Drugs (WACD, 2019) revealed a worrying trend in countries like Ghana, Nigeria and Sierra-Leone, where secondary school students increasingly experiment with drugs that are easily accessible in local communities.

In Ghana, the Narcotics Control Commission (NACOC, 2021) has consistently raised concerns over the rising levels of drug use among the youth. According to the Narcotics Control Commission (2023) statistics shows that over 50,000 people are involved in drug abuse in Ghana. With more than 35,000 being students at Junior high, senior high and tertiary levels. In Northern Region especially places like Tamale, Savelugu and Kumbungu alone accounts for over 50% of drug abuse cases involving the youth.

At Kumbungu Senior High School, there have been multiple reports from school authorities, guidance and counselling unit, teachers and community members, indicating rising levels of students' misbehaviour, poor academic outcomes, aggression, absenteeism etc. all of which are suspected to be linked to substance use. The media has reported several cases of students caught using or selling drugs within school premises (Daily Graphic, 2022). And a drug bust of about 192kg of cocaine and 0.42kg of heroin in Ghana shores. (19 March, 2025) Joy News. These developments have generated concerns about the implications for students' academic performance, discipline and the overall well-being of students. These students are usually adolescents, who are at critical stage of development where young people form identities, build social relationships and prepare for future careers. Drug use during this period poses a major threat because it interferes with cognitive development, impairs judgment and reduces motivations (Johnston et al., 2021) Senior High students mostly

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face immense academic and social pressure, making them more vulnerable to experimenting with drugs as a form of escape or socialisation. Although researchers, government of Ghana and institutions like Ghana Education Services, Narcotics Control Commission have initiated some educational programs, public awareness campaigns and other interventions, the effectiveness of these efforts has been limited and most of the interventions generic and not tailored to the challenges of schools like Kumbungu Senior High School.

The cumulative consequences of these challenges include declining academic achievement, increasing indiscipline, and, in severe instances, student dropout. Given these circumstances, an investigation into the effects of drug use among students of Kumbungu Senior High School is both relevant and imperative. The outcomes of this study are expected to generate empirical evidence that will inform the design and implementation of appropriate interventions aimed at reducing substance use and mitigating its adverse effects on students within the school.

1.2 Statement of the Problem

The prevalence of drug use among adolescents in senior high schools across Ghana has become a growing concern, with substantial implications for academic performance, health, and social conduct (Narcotics Control Commission, 2021; Ghana Health Service, 2020). From 2022 to 2024, there were 25 suspensions directly associated with drug-related offences, constituting approximately 15% of all disciplinary actions (Kumbungu Senior High School Records, 2024). The school's semi-urban setting, along with convenient availability to over-the-counter medications and significant peer pressure, appears to increase the likelihood of students experimenting with these substances. Preliminary findings suggest that drug use correlates with less classroom

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engagement, increased absenteeism, and disruptive behaviour; nonetheless, empirical studies evaluating its effects in this specific context are few.

Despite numerous interventions aimed at curbing drug use in Ghana, the problem persists and continues to worsen, especially among the youth in senior high schools. Reports from NACOC, coupled with increasing media coverage of cases involving students, suggest that drug use is no longer limited to adults or out of school adolescents, but has become a common practice among school going adolescents (NACOC 2021, Ghana Health Service, 2020, Daily Graphic, 2022). The situation presents a multifaceted problem.

In addition, growing media reports highlight the increasing involvement of students in substance use within school environments. For example, reports published by Daily Graphic documented several cases where senior high school students were found in possession of marijuana, tramadol, and other illicit substances on school campuses (Daily Graphic, 2022). These reports suggest that drug use is no longer confined to adults or out-of-school adolescents but has gradually penetrated the senior high school environment. Consequently, the situation presents a multifaceted problem that threatens students' health, academic performance, discipline, and overall development.

Firstly, drug use undermines academic achievement by impairing concentration, reducing attendance and lowering motivation levels. Teachers often report that drug students are unable to meet classroom expectations (Owusu et al 2019). Secondly, drug use fosters behavioural and disciplinary challenges including absenteeism, aggressiveness, disobedience and even violent behaviour all of which disrupts the teaching and learning environment. (Brook, et al 2019).

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Thirdly, drug use has significant social consequences, such as students become withdrawn, develop strained family relationship and sometimes engage in criminal or risking behaviours to sustain their habit (Amoateng & Koomson, 2020). What makes the problem more alarming is the increasing availability of drugs in Ghanaian communities and the glamorization of substance use through social media (Arthur & Aseidu, 2021) students are increasingly being exposed to peer influence that normalizes drug use, while existing school counselling systems are often inadequate in addressing the problem. As a result, many senior high schools in rural Ghana, such as KUSS, are experiencing rising cases of indiscipline, poor performance and health-related complications linked to drug use.

In the midst of these issues, some critical questions arise about the extent to which drug use is affecting students' academic, behavioural, and social lives. Until a clear understanding of local specific effects and underlying factors driving drug use among students of Kumbungu Senior High School is achieved, interventions are likely to remain ineffective. Therefore, this research sought to systematically examine the effects of drug use among students of Kumbungu Senior High School.

1.3 Purpose of the Study

The purpose of this study was to investigate the effects of drug use among students of Kumbungu Senior High School, with the objective of developing a comprehensive understanding of how substance use influences academic performance, behaviour, and social relationships. Furthermore, the study sought to examine the underlying factors contributing to drug use among these students and to propose appropriate intervention strategies to address and reduce the problem.

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1.4 Objectives of the Study

The following research objectives guided the study:

1. identify the common types of drug used by Kumbungu senior high students,
2. investigate the key factors influencing drug use among students of Kumbungu Senior High School,
3. examine the effects of drug use on the academic performance of the students,
4. analyze the behavioural and social consequences of drug use among Kumbungu Senior High School students,
5. to suggest focus base strategies and interventions that can help reduce drug use among students of Kumbungu Senior High School.

1.5 Research Questions

The following research questions guided the study:

1. What are the common types of drugs used by Kumbungu senior high students?
2. What are the main factors influencing drug use among these students?
3. How does drug use affects the academic performance of the students?
4. What are the behavioural and social consequences of drug use among students?
5. What specific strategies can be implemented to reduce drug use among Kumbungu Senior High School students?

1.6 Significance of the Study

For students: it will provide awareness about the dangers of drug use, help them make informed choices and resist peer pressure. For teachers, it will offer insights into the causes and effects of drug use, enabling them to identify at-risk students and adopt supportive teaching and disciplinary measures.

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For parents: the study will highlight the critical role of family influence in either preventing or contributing to drug use, encouraging prudent parental involvement. For policymakers: the findings will provide empirical evidence to inform the design of policies and intervention programs aimed at curbing the problem. For researchers, it will contribute to existing knowledge and serve as a foundation for further studies on drug use among the youth.

1.7 Scope of the Study

This study is delimited in terms of geographical coverage, conceptual scope, and temporal focus. Geographically, the research is confined to Kumbungu Senior High School and does not extend to other senior high schools within the Northern Region.

Conceptually, the study concentrates specifically on the effects of drug use on students' academic performance, behaviour, and social well-being. It does not explore broader dimensions of the issue, such as its legal, economic, or policy implications.

With respect to time frame, the investigation is restricted to the 2024–2025 academic period.

1.8 Operational Definition of Terms

A drug refers to any substance, legal or illegal, that alters the normal functioning of the human brain when consumed.

Drug use: the act of consuming psychoactive substances by individuals, whether occasionally or regularly.

Drug abuse: excessive or inappropriate use of drugs that negatively affects students' behaviour.

Drug addiction; state of compulsive drug use despite harmful effects.

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Academic performance: outcomes of learning, such as grades, exams, and participation, as influenced by drug use.

Behaviour effects: observable actions such as truancy, aggression or discipline linked to drug use.

Social effects: impact on interactions with peers, family and society, including risky behaviour and strained relations.

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CHAPTER TWO

LITERATURE REVIEW

2.0 Overview

This chapter presents a review of relevant literature on the effects of drug use among students of Kumbungu Senior High School (KUSS), drawing on the works of scholars, theorists, policymakers, and empirical researchers. The review is organized into the following key areas: the conceptual framework; the empirical framework, which covers common types of drugs used, major factors influencing drug use, the effects of drug use on academic performance, behavioural and social consequences, as well as strategies and interventions for reducing substance use; and the theoretical framework underpinning the study.

2.1 Conceptual Review

2.1.1 Definition of Concepts

Drugs have been defined in various ways by different scholars and institutions. Generally, a drug is any substance which, when introduced into a living organism, alters one or more of its functions. The World Health Organization (2023) defines a drug as any substance other than those required for the maintenance of normal health that, when taken into the body, modifies one or more of its functions. In medical terms, drugs are substances used for the prevention, diagnosis, or treatment of diseases. Similarly, the United Nations Office on Drugs and Crime (2023) describes a drug as any substance other than food or water that affects how individuals feel, think, perceive, or behave. Owing to their chemical properties, drugs influence physical, psychological, and emotional functioning and may be administered through chewing, inhalation, smoking, ingestion, topical application, or injection.

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Drug abuse refers to the harmful or improper use of substances. Yayra et al. (2020) define drug abuse as a destructive pattern of substance use that results in significant impairment or distress. Subaiea (2019) explains it as the consumption of drugs beyond prescribed limits or the use of illicit substances, including the misuse of prescription or over-the-counter medications. In broader terms, drug abuse denotes the non-medical use of substances to induce physiological or psychological effects for non-therapeutic purposes, particularly when such use poses health risks. Commonly abused substances include alcohol, cigarettes, marijuana, cocaine, and certain prescription medications. The misuse of these substances has been linked to criminal activities and adverse health outcomes, such as lung cancer associated with cigarette smoking.

Drug addiction, also referred to as substance dependence or chemical dependency, is characterized by compulsive drug use despite harmful consequences. According to Yayra (2020), it involves tolerance, withdrawal symptoms, and continued use that negatively affects social, academic, or occupational functioning. Odejide (2014) describes a drug addict as an individual whose life has become dependent on substances. The World Health Organization (2023) further notes that addiction may result in long-term physical and mental health complications, strained relationships, and legal problems.

Academic performance, defined by Owusu et al. (2019) as the extent to which educational goals are achieved by students, teachers, or institutions, is significantly influenced by drug abuse and addiction. Arthur and Asiedu (2021) argue that substance abuse undermines the socio-economic and intellectual development of nations by impairing students' academic achievement and productivity.

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Drug abuse affects the general population; however, young people are particularly vulnerable. Brook et al. (2019) report that the age of initial drug use has declined considerably, in some cases to as young as four years. Contributing factors include exposure to foreign cultural influences, parental neglect, and excessive reliance on media. Adolescence presents unique developmental challenges, including physiological changes, academic competition, generational conflicts, and identity formation. Warren et al. (2015) emphasize that adolescents must navigate peer identification, independence from family, sexual identity, societal roles, and issues related to authority and autonomy, all of which may increase susceptibility to substance use. A report by the United Nations Drug Control Programme indicates that a significant proportion of students worldwide engage in drug abuse, although current national data for Ghana remain limited.

The National Institute on Drug Abuse (2021) identifies marijuana as the most commonly abused drug among Ghanaian youth, with initiation occurring as early as 10 to 12 years. Experimentation is cited as a primary reason for initial use. Johnston et al. (2021) observe that heroin and cocaine are less prevalent among substance users in Ghana compared to marijuana and alcohol. They further report that a notable percentage of Ghanaians aged 15 to 64 have used marijuana or cannabis-related products. Additionally, the West Africa Commission on Drugs (2019) highlights Ghana's comparatively high prevalence of cannabis use within the region, underscoring the seriousness of the issue.

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2.2 Empirical Review

2.2.1 Common Types of Drugs Used

The classification of drugs can be organized according to several authoritative sources, including the United Nations Office on Drugs and Crime (UNODC, 2023), the National Institute on Drug Abuse (NIDA, 2020), the International Drug Evaluation and Classification Program (2002–2012), and Sussman and Ames (2021). These classifications include narcotics, stimulants, depressants, hallucinogens, cannabis, volatile solvents (inhalants), and other drugs of abuse such as antidepressants.

Narcotics are substances derived from opium (opiates) or their synthetic equivalents, primarily used for pain relief and producing opium-like effects. Examples include opium, buprenorphine, cocaine, morphine, codeine, and heroin, all of which are highly addictive. Narcotic analgesics, sometimes referred to as steroids, are misused to build muscle mass and strength and generally consist of male sex hormones, which can be harmful if used without prescription.

Stimulants are drugs that enhance alertness and stimulate the central nervous system. Common stimulants include amphetamines, methamphetamines, cocaine, nicotine, caffeine, and tobacco. Tobacco, often smoked or chewed, contains nicotine, a highly addictive stimulant. Methamphetamines are among the most addictive and damaging drugs, easily manufactured in home laboratories using chemicals like ephedrine and pseudoephedrine found in some nasal medications.

Depressants, also called sedative-hypnotics, reduce the activity of the central nervous system. These include benzodiazepines, alcohol, and barbiturates. Barbiturates are prescribed for seizure disorders, insomnia, and anesthesia but are prone to abuse, with

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users developing tolerance requiring higher doses. Examples include allobarbital, phenobarbital, alprazolam, pentobarbital, tranquilizers, and quaaludes.

Hallucinogens induce sensory hallucinations affecting the five senses. They can be naturally occurring, such as in certain mushrooms, or synthetically produced. Examples include lysergic acid diethylamide (LSD), peyote, psilocybin, phencyclidine (PCP), ketamine, and mescaline. LSD is not physically addictive but carries serious health risks, including possible flashbacks years after use. PCP, originally developed as an animal anesthetic, is taken orally or smoked.

Cannabis includes marijuana, hashish, hashish oil, and bhang. These substances have psychoactive effects and are consumed by smoking, vaporization, or ingestion. Cannabis is often considered a gateway drug to more serious substances.

Volatile solvents (inhalants) are inhaled substances that act as depressants, slowing communication between the brain and nervous system. They include volatile solvents (glue, nail polish remover, gasoline), aerosols (hair sprays, air fresheners), anesthetics (nitrous oxide), and volatile nitrates (amyl and butyl nitrates).

Other drugs of abuse include muscle relaxants, antihistamines, painkillers, antidepressants, and antipsychotics. Antidepressants, typically prescribed to treat depression, anxiety, obsessive-compulsive, or eating disorders, can cause adverse effects if combined with alcohol, and continuous use may lead to mild withdrawal symptoms. Examples include Anafranil, Norpramin, Prozac, Luvox, Lexapro, and MDMA (Ecstasy). In Ghana, Amoateng and Koomson (2020) report that common drugs among second-cycle students and out-of-school youth include alcohol, cannabis,

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tranquilizers, cigarettes, cocaine, and heroin. The primary users are aged 15–24, representing the youthful population most affected by substance use.

2.3 Factors Influencing Drug Use

Many individuals, in an effort to meet their needs amidst changing living conditions, have turned to drug use. This behaviour is influenced by several factors, including drug advertisements, the availability and accessibility of substances, as well as individuals' knowledge, perceptions, and other contextual determinants.

2.3.1 Drug Commercials and Advertisement

Yayra (2020) notes that most drug-producing companies advertise their products to persuade consumers of their benefits. Initially, drug advertisements were limited and targeted mainly at athletes, focusing on a specific group (Shah et al., 2019). Today, however, marketers increasingly target teenagers aged 12 to 17. Globally, drug advertising expenditure reached 281.8 million dollars in 2012, representing a 71% increase compared to 2010 (WHO, 2022). Many companies employ cross-promotional strategies, associating their products with extreme sporting events such as the X-Games and NASCAR, or linking them to popular music icons (Agriculture and Agri-Food Canada, 2008). Muhammad et al. (2023) observe that television commercials accelerate the adoption of energy drinks and drug products, while Altman et al. (2021) demonstrate that individuals who are both motivated and able to evaluate advertising messages are more likely to consider the product. Targeted consumers' motivation is often influenced by endorsers, celebrity fame, music, and visual scenery.

Research also identifies four key factors that shape the impact of drug advertisements on consumption impulses: imagery visualization, anticipated emotions, taste anticipation, and hedonic rationalization (Yayra et al., 2020; Edie et al., 2021;

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Muhammad et al., 2021; Green et al., 2020; Helmer et al., 2021). Conversely, Beverage Network (2011) emphasizes that marketing of energy drinks and certain drugs often relies on non-traditional channels, including extreme sports and celebrity endorsements, rather than conventional media such as television, radio, or print. Yet, in studies on nutritional health drugs, awareness has also been generated through social and electronic media, as well as product displays at retail outlets.

Exposure to drug advertising among adolescents has grown significantly. Jacob, Trooshi, and Alkhoury (2013) report a 33% increase in teenagers' exposure to drug advertisements on television in 2012 compared with 2010, with teenagers seeing 31% more adverts than adults (Harris & Schwartz, 2013; Yayra et al., 2020; Muhammad et al., 2023). Importers and manufacturers in countries such as Ghana implement carefully planned advertising strategies, including sponsorships, sports events, entertainment programs, and promotional sales, to reach their target audiences (Muhammad et al., 2023).

2.3.2 Availability and Accessibility

Goldman (2013) notes that drug accessibility among adolescents is increasing, raising growing public health concerns. Similarly, Muhammad, Qurat, and Nikita (2023) found that the proximity and visibility of drugs contribute to higher consumption rates, particularly among young people. Yayra et al. (2020) further emphasize that easy access facilitates the visibility of drugs, which can heighten temptation and cravings. Hamilton, Boak, Ilie, and Mann (2013) argue in the *Canadian Journal of Public Health* that the accessibility of drugs, especially through convenience stores, along with their attractive branding, makes them particularly appealing to adolescents.

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Shah et al. (2019) report that energy drinks are primarily distributed through supermarkets, gas stations, and convenience stores, with 46%–53% of sales occurring in the latter between 2004 and 2009. Supermarkets and food service outlets accounted for 10% and 13% of sales, respectively. Availability and accessibility are therefore critical determinants of consumption choices for energy drinks and drugs (Yayra et al., 2020). Consequently, individuals often consume what is readily available in shops, restaurants, and school or workplace canteens (Yayra et al., 2020; Dixey, 2006).

2.3.3 Knowledge and Perception

Research indicates that higher levels of nutrition knowledge are linked to healthier eating behaviours (Helmer et al., 2021; Holloman, Caine-Bish, Ha, & Lowry-Gordon, 2009; Muhammad, Qurat, & Nikita, 2023). The Alcohol and Drug Education and Prevention Information Service (2013) suggests that adolescents' consumption of energy drinks and drugs is strongly influenced by marketing strategies. According to Yayra et al. (2020), marketing of energy drinks emphasizes their stimulating effects, claiming to enhance cognitive and physical performance. Marketing also highlights the inclusion of herbs, minerals, and vitamins, even though caffeine is the primary source of the stimulant effect (Muhammad et al., 2023; Helmer et al., 2021; Smith, Cotton, Hughes, & Rogers, 2004).

Adolescents report experiencing benefits such as improved sports performance, higher energy levels during activity, and compensation for insufficient sleep (Linden-Carmichael et al., 2021; Yayra, 2020). While adolescents are aware of these perceived benefits, they often have limited knowledge of the potential harms associated with drug or energy drink consumption. Muhammad, Qurat, and Nikita (2023) note that in their study, none of the adolescent participants could identify known risks or negative health

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effects, highlighting a significant gap in consumer knowledge regarding the adverse consequences of drug use.

2.4 Effects of Drug Use on Academic Performance

Drug abuse is increasingly recognized as a serious problem in Ghana, particularly among the youth (Arthur & Asiedu, 2021). High youth unemployment has been identified as a contributing factor, as many young people turn to drugs to cope with frustration. Marijuana is the most commonly abused drug, with initiation occurring as early as 10 to 12 years, often driven by experimentation. Drugs are chemical substances that can damage body cells depending on usage patterns. Brook et al. (2020) note that individuals who are dependent on drugs may inadvertently harm themselves and society, resulting in deteriorating health, mental illness, birth defects, and premature death. Drug dependence can also lead to irritability, mood swings, forgetfulness, declining academic performance, changes in personal appearance, increased financial demands, heightened appetite, and frequent complaints of body pains.

Arthur and Asiedu (2021) further highlight that some drugs suppress appetite, leading users to become underweight and more susceptible to disease. For example, methamphetamine (Methedrine) use can initially create feelings of power, aggression, nervousness, talkativeness, and excitement, but prolonged use ultimately results in mental instability due to sleeplessness. Similarly, Indian hemp (marijuana) is associated with hallucinations and mental disorders, while cocaine has harmful effects on the cardiovascular system, including the risk of heart attack.

Substance abuse among youth also negatively impacts educational outcomes. Owusu et al. (2021) report that declining grades, absenteeism, and an increased likelihood of school dropout are common consequences. Research by Hawkins, Catalano, and Miller

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indicates that low commitment to education and higher truancy rates are linked to substance use. Linden-Carmichael et al. (2021) attribute these educational challenges to cognitive and behavioural impairments caused by alcohol and drug use.

2.5 Behavioural/Social Consequences/Effects of Drug Use

Popular media and case reports have highlighted adverse events associated with drug and energy drink consumption. However, few studies have investigated the physiological effects of individual ingredients or their potential synergistic interactions, and some experimental findings have been inconclusive or contradictory (Seifert et al., 2011). Orlowski, Fuchs, and Pizam (2021) report that the combination of caffeine and taurine initially decreases heart rate, which returns to normal after approximately 70 minutes, while blood pressure rises. Similarly, Scuri et al. (2018) examined the effects of taurine-containing energy drinks on cardiac parameters before and after exercise. Their study found that caffeine and taurine increased left atrial contractility in 13 participants, leading to higher left ventricular end-diastolic volume and stroke volume. Participants who consumed caffeine alone showed no changes in left ventricular function, suggesting that the combination of caffeine and taurine may enhance cortical regions responsible for anticipation and movement preparation.

Yayra et al. (2020) note that drugs containing polyphenols from caffeine are associated with improved vascular health and blood flow due to their anti-inflammatory, antioxidant, and anti-cancer properties. Nadeem and Muhammad (2021) report that energy drinks enhance alertness and vigilance, though cessation may cause weakness, lethargy, and sleepiness. Some studies on adolescent consumption of caffeine-containing drugs have found negative effects on calcium balance, including increased calcium excretion in urine after approximately ten hours. Physiologically, caffeine

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induces coronary vasoconstriction, relaxes smooth muscles, affects cardiac chronotropic and inotropic functions, reduces insulin sensitivity, and regulates gene expression in premature neonates. Heavy caffeine intake can also increase urine production, sweat excretion, and alter blood electrolyte levels (Zeng & Tan, 2021; Muhammad, Qurat, & Nikita, 2023; Seifert et al., 2011).

Regarding athletic performance, studies indicate that caffeine and energy drinks can produce modest improvements of 3% to 7%. In a double-blind, placebo-controlled study of basketball players, pre-exercise ingestion of 3 mg of caffeine in an energy drink improved jump performance but did not affect shooting accuracy (Robby & Sanad, 2017; Abian-Vicen et al., 2014). Klu et al. (2018) examined the effects of 2 mg and 4 mg caffeine beverages on elite male shooters and found no improvements in target shooting performance. Additionally, Robby and Sanad (2017) report that combining caffeine with carbohydrates did not influence soccer passing precision, though a 6 mg dose of caffeine improved passing accuracy.

2.5.1 Cognitive Effects of Drugs

The use of certain drugs has been linked to enhanced cognitive functions, including reaction speed, memory, and vigilance (Muhammad, Qurat, & Nikita, 2023). Caffeine, in particular, has been shown to improve working memory performance in habitual consumers after both periods of caffeine abstinence and normal intake (Yayra et al., 2020). However, studies using lower caffeine doses have sometimes found no effect (Koppelstaetter et al., 2008). Caffeine has also been reported to enhance attention irrespective of habitual consumption (NIDA, 2016; Brunyé, Mahoney, Lieberman, & Taylor, 2010; Muhammad, Qurat, & Nikita, 2023). Some researchers attribute changes in cognitive performance and mood to the combined effects of caffeine, taurine, and

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glucose in energy drinks or similar products (Nadeem & Muhammad, 2012; Montes et al., 2019, 2021).

Energy drinks containing caffeine, taurine, and glucose may improve mood and cognitive performance. Adan and Serra-Grabulosa (2010) found that the combination of caffeine and glucose reduced reaction times and enhanced sustained attention and verbal memory. In a randomized, double-blind study with 48 habitual caffeine consumers (18 males, 30 females) who abstained from caffeine for 24 hours, participants received one of four treatments—200 mg caffeine/0 mg taurine, 0 mg caffeine/2000 mg taurine, 200 mg caffeine/2000 mg taurine, or 0 mg caffeine/0 mg taurine—over four separate days, with a 3-day washout between treatments. Each treatment was administered with a 50-g glucose drink or placebo. Cognitive measures included attention tasks, working memory, and reaction time tasks administered 30 and 60 minutes post-treatment. Results indicated that caffeine enhanced executive control, working memory, and reduced simple and choice reaction times. Taurine increased choice reaction time but improved reaction time in working memory tasks. Glucose alone slowed choice reaction time but, in combination with caffeine, enhanced object working memory, and with taurine, improved orienting attention. Caffeine also reduced fatigue and increased tension and vigour, whereas taurine reversed caffeine's effect on vigour. No significant effects were observed on salivary cortisol. These findings suggest that caffeine, rather than taurine or glucose, is primarily responsible for improvements in cognitive performance, particularly in caffeine-withdrawn habitual consumers (Giles et al., 2012; Yayra et al., 2020).

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Similarly, in a double-blind study, Childs and De Wit (2008) administered 200 mg of caffeine in an energy drink, finding improved reaction times during prolonged wakefulness. Howard and Marczinski (2010) reported that acute consumption of glucose-containing energy drinks decreased reaction times on a go/no-go behavioural control task compared to placebo. Conversely, Mathew, Smucker, Stafstrom, Helterbran, and Kimberly (2009) found no significant differences in attention or reaction time across red bull, sugar-free red bull, and flavoured placebo conditions in a double-blind study, with mean scores showing no significant differences (all $p > 0.15$).

Nonetheless, other studies show positive cognitive effects from caffeine consumption. Even modest doses of 32–50 mg of caffeine have been shown to increase alertness (Montes et al., 2021; Hewlett & Smith, 2007; Yayra et al., 2020; Muhammad et al., 2023), with improvements observed up to 50 minutes after consuming 140 mg of caffeine in well-rested young adults (Zeng & Tan, 2021). Stephens, Attipoe, Jones, Ledford, and Deuster (2014) reported that 60% of energy drink users experienced improved mental alertness after consumption.

2.6 Preventing Drug Use among Teenagers

Montes et al. (2019) suggest that parents should educate their children on the effects of drug use and the potential consequences of abuse. Essel emphasizes the importance of creating an environment where children feel comfortable approaching their parents for guidance and support. Zeng and Tan (2021) note that children who participate in extracurricular activities are less likely to engage in risky behaviours, including drug use. They recommend that parents support their children's hobbies and interests outside school and recognize that adolescent drug use is not necessarily the parents' fault; some

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youths simply fall into the wrong influences. With appropriate guidance and resources, parents can assist teenagers in overcoming drug-related challenges.

Elsig (2024) highlights that parents can establish healthy family values through clear, simple explanations and examples, while Arthur and Asiedu (2021) recommend using teachable moments to reinforce messages about safety, health, and responsible behaviour. For example, children need to understand that drugs are substances, other than food, that alter bodily functions. Amoateng and Koomson (2020) emphasize that parental responsibilities include setting clear expectations and consequences, giving children opportunities to make decisions and learn from their outcomes. Parenting skills programs, such as Systematic Training for Effective Parents, Parent Effectiveness Training, and Love and Logic, teach active listening, problem solving, and enforcement of consequences (Bauman, 2001). These programs can also involve substance abuse professionals, helping reduce stigma and providing expert guidance (Amoateng & Koomson, 2020; Hansen, 2000).

Muhammad, Qurat, and Nikita (2023) found that education is central to preventing drug abuse among college students in the U.S., with 69% of respondents emphasizing the importance of awareness at home and school. They also highlighted the need for law enforcement and family counselling, while Fleming (2021) proposes a threefold approach to drug education: the educational strategy, target group, and teaching materials. Fleming stresses that programs may be conducted by teachers, parents, youth leaders, or peers, and cost-effectiveness should guide implementation. Similarly, Marie (2007) concludes that education is the primary preventive measure, and learning should occur in schools, homes, workplaces, and religious institutions, supporting integration into mainstream institutions (Arthur & Asiedu, 2021).

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In contexts where school attendance is limited, educational approaches must be adapted to suit rural youth and out-of-school children, aligning with community values (Linden-Carmichael & Calhoun, 2021). Brook et al. (2019) note the effectiveness of mass media campaigns, including television, radio, newspapers, posters, and brochures, in reducing drug abuse. Family-based prevention programs can enhance relationships, teach parenting skills, enforce family substance abuse policies, and provide drug education (Amoateng & Koomson, 2020; Brook et al., 2019). Religious and youth organizations can also educate their communities through symposia, seminars, drama, and music, helping prevent drug abuse and self-medication (WHO, 2022).

NIDA (2020) supports home- and school-based education on drugs, emphasizing law enforcement and family counselling to assist at-risk youth. Warren et al. (2015) highlights that treatment may be inpatient or outpatient, with detoxification and medications to reduce cravings or counteract drug effects, combined with behavioural therapy to maintain recovery.

In Ghana, pharmaceutical drug control is overseen by the Ghana Health Service, which implements policies regulating manufacturing, distribution, and prescription requirements, alongside administrative measures to ensure compliance (Johnston et al., 2021; NIDA, 2020; Elsig, 2024). Nadeem and Muhammad (2012) note that drug education programs in schools and universities include debates, counselling, life skills training, anti-drug clubs, lectures, film screenings, and visits to psychiatric hospitals. Muhammad, Qurat, and Nikita (2023) emphasize integrating drug causes and effects into school curricula. These measures collectively aim to increase awareness of drug dangers and regulate usage responsibly.

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2.7 Theoretical Framework

Theories are often applied to explain health-related behaviours, and among these, the Social Cognitive Theory (SCT) is widely used to understand the factors influencing behavioural patterns. Bandura (1986), who developed SCT, proposed that human behaviour is shaped not solely by internal or external forces but through a multidimensional interplay. The theory emphasizes reciprocal determinism, which describes the dynamic interaction between personal factors, environmental influences, and behaviour (Bandura, 1986).

According to SCT, personal factors include cognitive processes such as knowledge, attitudes, intentions, and perceptions (Bandura, 1986; 2001). Environmental factors, particularly social environments, consist of elements such as modelling, social persuasion, and symbolic influences, all of which can reciprocally affect behaviour. Bandura further suggests that an individual's behaviour can influence their social environment, which, in turn, may influence others' behaviours. The relative strength of personal versus environmental influences may vary depending on the context.

The Theory of Planned Behaviour (TPB) complements this understanding by linking attitudes to behaviour, aiming to predict and explain human actions in specific contexts. TPB posits that behaviour is primarily guided by behavioural intentions, which are influenced by attitudes toward the behaviour, perceived social norms, and an individual's sense of control over the behaviour (Ozturk, 2012).

Behavioural choices are also shaped by multiple determinants beyond physiological or nutritional needs. These include biological factors (hunger, taste, appetite), economic factors (cost, income, availability), physical factors (access, education, skills, time), social factors (culture, family, peers, meal patterns), and psychological factors (mood,

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stress, guilt), alongside individual attitudes, beliefs, and knowledge (European Food Information Council, 2012). Yayra et al. (2020) further note that beverage and dietary preferences are influenced by social, economic, climatic, geographical, infrastructural, religious, and cultural factors. Food habits are often embedded in tradition and history, making modifications challenging, while psychological factors, age, physiological state, media exposure, advertisements, and peer influences also shape preferences and dislikes.

While TPB emphasizes the connection between attitudes and behaviour, SCT highlights the multidimensional nature of behaviour. Both theories together provide a useful framework for understanding patterns of drug use, the knowledge and attitudes toward drugs, and the factors influencing these behaviours among students at Kumbungu Senior High School.

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CHAPTER THREE

METHODOLOGY

3.0 Introduction

The purpose of this study was to examine the effects of drug use among students of Kumbungu Senior High School (KUSS). This chapter outlines the methodology employed in the study. It includes a description of the study area, research design, study population, sampling techniques, data collection instruments, data collection procedures, methods of data analysis, and the ethical considerations observed throughout the research.

3.1 Research Approach

Scholars have offered various interpretations of research designs and methodologies. Bryman and Bell (2015) describe a research approach as the overarching strategy used by scholars to conceptualize and integrate different aspects of a study in order to address a research question. Creswell (2014) defines a research design as the specific methods, procedures, or techniques employed to collect and analyse data. Creswell and Creswell (2024) classify research into two main approaches: quantitative and qualitative.

For this study, the researcher adopted a quantitative approach to investigate the effects of drug use among students of Kumbungu Senior High School in the Kumbungu District of the Northern Region. To achieve this, a descriptive survey design was employed. According to Creswell and Creswell (2024), a descriptive survey seeks to identify the incidence, distribution, and interrelationships among variables under study. Such surveys can involve both large and small populations, and the resulting samples provide versatile and practical data for generalization. Creswell (2014) notes that the descriptive survey method is suitable for descriptive, explanatory, and exploratory

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purposes. Using this design allowed the researcher to collect data from a large number of students, thereby enhancing the generalizability of the findings.

3.2 Research Design

This study employed a descriptive survey to examine the effects of drug use among students of Kumbungu Senior High School. According to Osuala (2007), descriptive studies aim to determine the relative incidence, distribution, and interrelationships among the variables under investigation. Descriptive surveys can involve both large and small populations, with samples drawn to provide versatile and practical information that can be used for generalization.

3.3 Study Area

This study was conducted at Kumbungu Senior High School (KUSS), located in Kumbungu in the Northern Region of Ghana. KUSS was established in the early 1990s through a collaborative effort between the Kumbungu Traditional Council, the Kumbungu Youth Association (KYA), and the Government of Ghana via the Ghana Education Service (GES). Prior to the establishment of KUSS, students who passed the common entrance examinations had to travel to Tamale for their secondary education.

Initially, the school faced the challenge of enrolling students. To address this, the school hired a tipper truck to visit surrounding villages to canvass for support and encourage enrollment. By the start of the academic year, sufficient students had enrolled, and the school commenced operations under the leadership of Mr. Orga, the first Headmaster.

As a mixed school, KUSS had a student population of approximately 1,200 at the beginning of the 2024/2025 academic year. This number strains the available infrastructural facilities, including classrooms, utilities, and accommodation for both

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students and teachers. Inadequate facilities make it difficult for school authorities to maintain discipline, as some students rent rooms in nearby Kumbungu township. This situation contributes to challenges in student behaviour and discipline and may partly explain the increasing trend of drug use and incidents of violence among students at KUSS.

3.4 Population

The population for this study consisted of all students of Kumbungu Senior High School. The estimated student population for the 2024/2025 academic year was approximately 1,200 (Kumbungu Senior High School Admission Register, 2024).

Regarding demographic characteristics, the students come from average socio-economic backgrounds. Within the mixed school setting, their ages range from 15 to 21 years.

3.5 Sampling and Sampling Procedure

A multi-stage sampling technique was employed to select 120 students from Kumbungu Senior High School. According to Krejcie and Morgan (1970), for populations ranging between 5,010 and 7,010, a sample size of not less than 1,200 is recommended. However, in this study, a 10% sample of the school population was used, resulting in 120 students. The multi-stage sampling method is convenient and economical for large population surveys, as it avoids the costly and time-consuming process of developing a complete sampling frame (Babbie, 2007).

Stratification was applied based on gender, with 50% of the sample being male and 50% female, yielding 60 boys and 60 girls. This stratification ensured better control

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over sample composition and helped to enhance representativeness (Visser, Krosnick & Lavrakas, 2006).

In the first stage, a total of 12 classes were randomly selected, with four classes from each form (SHS 1, SHS 2, and SHS 3). In the second stage, systematic random sampling was used to select students from each class. Using the class registers, 10 boys and 10 girls from each selected class were chosen. The systematic sampling method was particularly suitable, as it is simpler when a complete list of the sampling frame is available (Richardson, Ampt & Meyburg, 1995).

3.6 Instruments

A researcher-developed questionnaire, the Franca Drug Use Questionnaire (FDU-Q), was used to collect data for this study. The questionnaire was designed based on relevant literature and the constructs guiding the study. It consisted of two sections.

Section A (items 1–4) gathered participants' demographic information, including gender, age, school, form, drug use status, and type of drugs used.

Section B (items 5–30) collected information on types of drugs used, frequency of use, perceived impacts, level of knowledge about drugs, and factors influencing drug use. Specifically, item 5 measured the types of drugs used, item 6 measured frequency of drug consumption, while items 13, 23, and 24 assessed participants' knowledge about drugs. The perceived impact of drug use was measured using items 11, 16, 18, 20, 22, 29, and 30. Items 12, 14, 15, 25, and 26 assessed the influence of advertising, items 9, 19, 27, and 30 measured taste as a factor, and items 10, 17, 21, and 30 measured accessibility as a factor influencing drug use.

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Section B was structured on a four-point Likert scale with responses for positive items ranging from Strongly Disagree (SD = 1), Disagree (D = 2), Agree (A = A), to Strongly Agree (SA = 4). respondents indicated their responses by ticking (√) the column that best described their opinion. A copy of the instrument is included in the Appendix.

3.9 Validity of Research Instrument

Research validity may be defined as a quantity at which necessities of scientific study approach were observed throughout the method of producing research findings. Oliver (2010) regards validity as an obligatory necessity used in varieties of research. There are several forms of validity, of which face validity, is one of the major ones as indicated by Cohen et al. (2007). Validity of an instrument usually consist of face, content and construct validity.

To determine the content and face validity of the items, the questionnaires were given to experience management and administration lecturer to vet them. The items were vetted in terms of clarity of purpose, relevance of subject area, coverage of content area and appropriateness of language usage. All suggested corrections from these personalities were adhered to by the researcher and same effected in the items before carrying out the main study.

3.9.1 Face Validity

Face validity refers to the degree to which an instrument appears, on the surface, to measure what it purports to measure (Kumar, 2011). It is concerned with the appearance and perceived relevance of the instrument's items to respondents and experts in the field. Although it is considered the most basic form of validity, it is crucial in ensuring that the items are appropriate, clear, and meaningful to the participants (Taherdoost, 2016). In this study, the face validity of the instrument was determined by presenting

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the questionnaire to seasoned researchers, including the supervisor of this work, for expert review. They examined the structure, language, and wording of the items to identify any ambiguities or inconsistencies. Based on their recommendations, necessary modifications were made to enhance the readability and logical flow of the questions. This process ensured that the instrument appeared to measure aspects relating to the effects of drug use among students of Kumbungu Senior High School.

3.9.2 Content Validity

Content validity assesses the extent to which the instrument adequately covers the entire domain of the concept being studied (Creswell & Creswell, 2018). It ensures that the questions represent all facets of the construct under investigation, thereby preventing the omission of important dimensions (Polit & Beck, 2006). Establishing content validity often involves expert judgment to determine whether the items are relevant, representative, and comprehensive. In the present study, content validity was established by giving the questionnaire to experienced lecturers in educational management and administration to evaluate the appropriateness of each item. The experts assessed the instrument for clarity of purpose, relevance to the subject area, coverage of content domains, and the suitability of language for the intended respondents. Their feedback was incorporated to improve the overall representativeness and adequacy of the items. This process ensured that the instrument comprehensively addressed key dimensions of effects of drug use among students of Kumbungu Senior High School.

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3.9.3 Construct Validity

Construct validity refers to the extent to which an instrument accurately measures the theoretical construct or concept it is intended to measure (Trochim, 2006). It involves determining whether the operational definitions of variables in the study truly represent the underlying theoretical concepts (Kline, 2016). Construct validity is often established through statistical analyses (such as factor analysis) or through expert evaluation of how well the items align with theoretical expectations (Kline, 2016). In this study, construct validity was ensured by aligning the questionnaire items with theoretical frameworks and existing literature on effects of drug use among students. The constructs of effects of drug use among students were drawn from established theories such as Social Cognitive Theory (SCT) (Leithwood & Jantzi, 2006). Each questionnaire item was designed to reflect specific dimensions of these constructs for instance, common types of drug used by senior high students, key factors influencing drug use among students, effects of drug use on the academic performance of the students and behavioural and social consequences of drug use among Senior High School students.

To further strengthen construct validity, feedback from drug use among students experts was sought to verify that the items accurately represented the underlying constructs and were consistent with prior empirical studies in the field. The combined processes of face, content, and construct validity helped to ensure that the instrument was theoretically grounded, contextually appropriate, and capable of yielding accurate and meaningful data for the study.

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3.10 Pre -Testing

Golafshani (2003) contends that a legitimate instrument effectively evaluates its intended measurement. The study instrument was subjected to validity and reliability testing to verify its effectiveness in measuring the examined constructs. The researcher ensured vigorous content and face validity by consulting experts of issues relating to students drug use and enlisting the assistance of two headmasters from Senior High Schools outside the study area. Their feedback enhanced the tool by ensuring that the items were explicit, pertinent, and appropriate.

A pre-test of the questionnaire was conducted with 50 respondents from Tolon Senior High School, which was excluded from the study institutions. This pilot experiment identified issues, anomalies, and potential complications associated with the device's usage. The pre-test results facilitated modifications to the instrument, enhancing its accuracy, reliability, and overall use.

3.11 Reliability of the Instrument

The Cronbach Alpha was used to check the internal consistency and reliability of the instrument. The reliability of the overall scale was 0.88 which is said to be reliable and acceptable to the sample. According to Howland and Wedman (2004), a Cronbach's Alpha Coefficient of 0.70 or above indicates a highly trustworthy scale, and researchers should strive for this level of reliability by eliminating items from their surveys if required. In order to determine if a scale can be relied upon, researchers often employ the Cronbach Alpha's Coefficient (Antwi-Afari et al., 2018). Cronbach's Alpha ecoefficiencies for the questionnaire was 0.876, indicating high consistency across the variables in each segment. According to Howland and Wedman (2004), the ecoefficiencies also show that the scales used to gather the data are quite trustworthy.

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3.7 Data Collection Procedure

An introductory letter from the Social Studies Department was used to obtain permission from the Headmistress of Kumbungu Senior High School and to establish or strengthen rapport with the teachers. A cover letter attached to the questionnaire explained the purpose of the study to the respondents. The cover letter provided a brief overview of the study, assured participants of confidentiality, and emphasized that participation was voluntary. Respondents were also required to complete an informed consent form prior to participation (see Appendix).

Several Social Studies teachers assisted with the administration of the questionnaire. These teachers were briefed on the purpose of the study, the procedures for administering the questionnaire, and the proper handling of the instrument. In each class, the teachers gathered the selected respondents according to the sampling procedure, distributed the questionnaires, and ensured that respondents understood how to complete them. Completed questionnaires were collected 30 minutes after distribution. This process was repeated across all selected classes and forms in the school.

3.8 Data Analysis

Data cleansing was conducted to organize the collected data and ensure it was suitable for analysis. The responses were coded as follows: Strongly Disagree (SD = 1), Disagree (D = 2), Agree (A = A), to Strongly Agree (SA = 4) for positively worded items, with reverse coding applied to negatively worded items. The analysis was conducted on a research question-by-research question basis using the predictive analytics software SPSS for Windows, Version 18.0.

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To analyze the type of drugs most commonly used by students (Research Question 1), the frequency of drug use (Research Question 2), and the perceived impact of drug use (Research Question 3), descriptive statistics, including frequency counts and percentages, were calculated. This approach allowed the study to establish the prevalence and distribution of responses.

The level of knowledge of students regarding drug use (Research Question 4) was determined using frequency counts and percentages. High knowledge was defined as 50 percent or more of participants answering an item correctly, while low knowledge was defined as less than 50 percent answering correctly.

Chi-square analysis was employed to test for differences in drug use between male and female students (Research Question 5).

Factors predicting drug use (Research Question 6) were analyzed using a multiple regression model. This statistical technique examines the relationship between a dependent variable and two or more independent predictor variables (Babbie, 2007). Initially, correlations among variables were calculated to assess relationships, followed by the construction of a hierarchical multiple regression model. Drug use was measured on an interval scale using a 4-point Likert scale, and independent variables such as advertisements, taste, and accessibility were also measured on interval scales (Research Question 7). All results were presented using tables to facilitate clear interpretation of the findings.

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3.9 Ethical Considerations

Ethical approval for this study was granted by the Headmistress of Kumbungu Senior High School, permitting the administration of the survey. Prior to participation, all respondents were provided with a written informed consent form, and their voluntary participation was emphasized. Participants were informed that they could decline to complete the questionnaire without any negative consequences. Confidentiality of all responses was strictly maintained, and respondents were assured that the study was conducted solely for academic purposes and not for any monetary or commercial gain.

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CHAPTER FOUR

RESULTS AND DISCUSSION

4.0 Overview

The purpose of this study was to examine the effects of drug use and its perceived impact on students of Kumbungu Senior High School in the Kumbungu District of the Northern Region. It was hypothesized that male and female students would differ in their drug consumption practices.

4.1 Research Question 1: What are the common types of drugs used by Kumbungu senior high students?

Frequency and percentage analyses were conducted to examine the patterns of drug use among students at Kumbungu Senior High School. The findings indicated that Red Red was the most frequently used substance, with 45 students (37.5%) reporting regular consumption. Codeine-laced syrups were used by 35 students (29.2%), while Marijuana was regularly consumed by 10 students (8.3%). Importantly, none of the 120 participants reported using Alcohol, Cocaine, or Heroin, with all respondents (100%) indicating no prior consumption of these substances. Detailed results are presented in Table 1.

Table 1: Common Types of Drugs used by Students of Kumbungu Senior High School

Drug	Not At All f (%)	Sometimes f (%)	Always f (%)	Total Usage
Alcohol	120 (100)	0 (0)	0 (0)	0
Marijuana	110 (91.7)	3 (2.5)	7 (5.8)	10
Cocaine	120 (100)	0 (0)	0 (0)	0
Red Red	75 (62.5)	30 (25)	15 (12.5)	45
Heroine	120 (100)	0 (0)	0 (0)	0
Codeine laced syrups	85 (70.8)	32 (26.7)	3 (2.5)	35

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Among the drugs examined in this study, Marijuana, Red Red, and codeine-laced syrups were the most commonly consumed by students, whereas Alcohol, Cocaine, and Heroin were not consumed at all (see Table 1).

The findings indicated that 45 students (37.5%) reported regular consumption of Red Red. The relatively high prevalence of Red Red and codeine-laced syrup use among students can largely be attributed to their accessibility, affordability, and perceived stimulating effects. Red Red and codeine-containing syrups are widely available in pharmacies as well as informal retail outlets across Ghana, which makes them easier for adolescents to obtain compared with highly controlled substances. The long-standing presence of Red Red as a product brand, with documented production dating back to 1927 (Lile, 2013), has contributed to its familiarity among consumers and increased social acceptance. Similarly, codeine-based cough syrups benefit from extensive pharmaceutical distribution networks, allowing them to be sold in numerous retail locations, sometimes without strict prescription controls.

In contrast, substances such as cocaine and heroin are far less likely to be consumed by students because they are strictly illegal, relatively expensive, and difficult to obtain within local communities. These drugs are typically trafficked through underground networks and are rarely accessible through regular retail outlets. Consequently, the combination of easy availability, lower cost, perceived safety, and peer influence makes Red Red and codeine-laced syrups more susceptible to misuse among senior high school students than more restricted narcotic substances (Beverage Network, 2007).

The results also revealed that codeine-laced syrups were the second most consumed substance, with 35 students (29.2%) reporting regular use. The strong brand image established by manufacturers, partly through sponsorship of prominent events

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nationally and internationally, may have contributed to its popularity. Well-known brands like Diphex, Benylin, and Actifed, which are all approved by the Food and Drugs Authority (FDA), are easily accessible to consumers. Strategic distribution networks and advertising through both print and electronic media further reinforce the visibility and availability of codeine products, facilitating their consumption among students.

In contrast, Alcohol, Cocaine, and Heroin were the least consumed substances. All 120 participants (100%) reported no alcohol consumption. This low usage may be attributed to the religious and cultural beliefs of the students, as the study setting is predominantly Muslim, and Islamic teachings strictly prohibit alcohol consumption. Additionally, alcoholic beverages available in the area have undergone minimal product innovation over time (Cirillo, 2009), which may reduce their attractiveness to students.

Similarly, none of the participants reported consuming cocaine. According to Beverage Network (2007), despite its long existence and multiple street names such as “white powder” and “junk,” cocaine remains largely inaccessible and is not promoted through mainstream media. The combination of high cost, limited availability, and lack of advertisement likely contributes to its low prevalence among students. Consequently, these factors may reduce awareness of the substance, resulting in negligible consumption within the school population.

4.2 Research Question 2: What is the Frequency of Drug Consumption among Kumbungu Senior High School Students?

Frequencies were analyzed to assess drug consumption patterns among students of Kumbungu Senior High School. Overall, 80 participants (66.7%) reported consuming at least one type of drug. Specifically, for Red Red, 25 students (20.9%) reported

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consuming at least one can per week, while 20 students (16.7%) used it at least once per month or every three months. Marijuana was regularly consumed by 7 students (5.8%), and 110 students (91.7%) reported no usage. For codeine-laced syrups, 20 students (20.7%) consumed the drug at least once a week, 10 students (8.3%) consumed it monthly, 5 students (4.2%) consumed it at least once every three months, while 85 students (70.8%) reported no consumption. Notably, all participants (120; 100%) reported that they had never consumed Alcohol, Cocaine, or Heroin (see Table 2).

Further analysis indicated that the majority of students consumed the three most popular drugs Red Red (45 students), codeine-laced syrups (35 students), and marijuana (10 students) at least once a week. On a monthly basis, Red Red, codeine-laced syrups, and marijuana remained the most consumed, with 10 (8.3%), 10 (8.3%), and 1 (0.8%) students reporting usage, respectively. Even over a three-month period, these three substances continued to dominate student consumption patterns, highlighting their status as the most widely used drugs among the participants.

These findings align with previous research. Oddy and O'Sullivan (2009) observed that young adults consume various forms of drugs, while Campbell et al. (2013) reported that drugs are among the most commonly used dietary supplements among students. Heckman et al. (2010) noted that adolescents are a primary target market for many drug companies. Similarly, Alsunni and Badar (2011) found that patterns of energy drink consumption among students ranged from irregular use to daily or weekly intake, though their study did not identify brand preferences. Comparable trends were also observed in a study of adolescent footballers in India, where 80% of participants consumed 1–2 cans per week, and 20% consumed 3–4 cans weekly, often to regain energy lost during physical activity.

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The widespread use of marijuana, Red Red, and codeine-laced syrups in the current study may be attributed to their longstanding presence in the Ghanaian market and their popularity among consumers. The affordability of these substances may also contribute to their regular use by students, as lower costs facilitate more frequent purchases.

In contrast, Alcohol, Cocaine, and Heroin were not used by any participants. The abstinence from alcohol is likely influenced by faith-based beliefs, as the study area is predominantly Muslim, and Islamic teachings prohibit alcohol consumption. Similarly, the high cost and limited availability of cocaine and heroin may explain their negligible use among the students.

Table 2: Frequency of Drug Consumption by Kumbungu Senior High School Students

Drug	Alcohol f (%)	Marijuana f (%)	Cocaine f (%)	Red Red f (%)	Heroine f (%)	Codeine laced syrups f (%)
Not at all	120 (100)	110 (91.7)	120 (100)	75 (62.5)	120 (100)	85 (70.8)
At least once in 3 months	0 (0)	2 (1.7)	0 (0)	10 (8.3)	0 (0)	5 (4.2)
At least once in a month	0 (0)	1 (0.8)	0 (0)	10 (8.3)	0 (0)	10 (8.3)
At least once in a week	0 (0)	7 (5.8)	0 (0)	25 (20.9)	0 (0)	20 (16.7)

4.3 Research Question 3: What is the Perceived Impact of Consuming Drugs by Senior High School Students?

Frequency and percentage studies were conducted to assess students' opinions about the repercussions of drug usage. The results (Table 3) demonstrate that the majority of individuals acknowledged both advantageous and adverse consequences associated with drug use.

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One hundred ten students (91.7%) highly concurred, while ten students (8.3%) concurred that drug usage adversely affects academic performance. Regarding concentration, 115 students (95.8%) strongly concurred, while 5 students (4.2%) concurred that drug use impairs focus during classes. Regarding school discipline, 98 participants (81.7%) strongly concurred that drugs exacerbate cases of indiscipline, while 3 students (2.5%) agreed, 3 students (2.5%) disagreed, and 6 students (5.0%) highly disagreed. A total of 118 students (98.3%) strongly concurred, while 2 students (1.7%) concurred that drug use increases the likelihood of school absenteeism among children. Regarding violent or aggressive behaviour, 100 students (83.3%) strongly concurred, 1 student (0.8%) concurred, 2 students (1.7%) dissented, and 17 students (14.2%) strongly dissented that drug use increases the likelihood of such conduct. Ultimately, all participants (100%) unequivocally concurred that drug use is detrimental to both physical and mental health (refer to Table 3).

Table 3: Perceived Impact of Consumption of Drugs among students of Kumbungu Senior High School

Indicators	SA f (%)	A f (%)	D f (%)	SD f (%)
Drug consumption among students leads to poor academic performance in school.	110 (91.7)	10 (8.3)	0 (1 0)	0 (0)
Students who consume drugs often experience difficulty concentrating during lessons.	115 (95.8)	5 (4.2)	0 (0)	0 (0)
Drug use among students contributes to increased cases of indiscipline in the school.	98 (81.7)	3 (2.5)	3 (2.5)	6 (5)
Drug consumption among students leads to frequent absenteeism and truancy.	118 (98.3)	2 (1.7)	0 (0)	0 (0)
Drug use among students increases the likelihood of engaging in violent or aggressive behaviour.	100 (83.3)	1 (0.8)	2 (1.7)	17 (14.2)
Drug consumption negatively affects students' physical and mental health.	120 (100)	0 (0)	0 (0)	0 (0)

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The findings indicate that students perceive drug use as having immediate advantages for mental acuity and vitality, while also recognising its long-term harmful consequences on health, conduct, and academic performance. Ninety-one point seven percent of participants agreed that reaction times improve after drug consumption, aligning with previous research indicating that stimulants, such as caffeine, can enhance cognitive functions, including reaction speed (Scholey & Kennedy, 2004; Addicott & Laurienti, 2009; Childs & de Wit, 2008). Howard and Marczinski (2010) discovered that the rapid consumption of glucose energy drinks enhanced individuals' reaction times in tasks necessitating self-regulation.

Furthermore, 98.3% of individuals unequivocally agreed that drugs provide vitality. Bawazeer and AlSobahi (2013) support this perspective, noting that many students employ stimulant substances to achieve immediate vigour. Experts caution that these substances may provide a transient surge of energy due to their sugar or caffeine content; however, they do not offer sustained or high-quality energy and can pose risks if misused (IOWA High School Athletic Association, 2011; Ford & Flicker, 2010; U.S. Anti-Doping Agency, 2024). Advertising frequently leads individuals to believe that these medications provide immediate vitality, which is why a significant number of pupils in our survey concurred.

Regarding alertness, 95.8% of subjects reported an increased sense of awareness following medication consumption. Studies demonstrate that coffee and other stimulants can significantly enhance alertness and cognitive performance (Hewlett & Smith, 2007; Stephens et al., 2014; Lieberman et al., 1987). Kennedy, Galloway, Dickau, and Hudson (2008) observed a notable increase in alertness among adolescents within 50 minutes of using caffeinated substances. The individuals' perceptions in this

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study likely mirror the stimulant properties of the medications they ingest, which are recognised for enhancing attention and cognitive focus.

Despite the purported short-term benefits, students clearly acknowledged the adverse consequences of drug use, particularly concerning academic performance, discipline, absenteeism, aggression, and both physical and mental health. This duality underscores that while stimulants may provide temporary alertness or energy, their use in educational environments results in detrimental long-term effects, supporting findings in the current literature on teenage substance use (Foskett et al., 2009; Meier, 2013).

4.4 Research Question 4: What are the behavioural and social consequences of drug use among Kumbungu SHS students?

To assess the level of knowledge regarding drug consumption among students, frequency and percentage analyses were conducted. For the analysis, responses in the "agree" and "strongly agree" categories were combined, as were responses in the "disagree" and "strongly disagree" categories. Items labeled 'a', 'b', and 'e' showed higher frequencies in the "disagree" category, indicating lower knowledge among students on these aspects. Conversely, items 'c' and 'd' recorded higher frequencies in the "agree" category, reflecting greater understanding of these points. Frequencies representing high knowledge were grouped together, as were those representing low knowledge, and averages were computed to determine overall levels. The results revealed that 115 students (95.8%) demonstrated high knowledge about drug consumption, while only 5 students (4.2%) exhibited low knowledge. These findings indicate that the majority of students possessed a high level of knowledge regarding drugs (see Table 4).

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Table 4: Frequency Data on the Level of Knowledge of Students about Drug Consumption

Variable	Agree f (%)	Disagree f (%)
Stimulant is the most active ingredient in Drugs	119 (99.2)	1 (0.8)
The consumption of Drugs can cause dehydration	145 (24.8)	115 (95.8)
Drugs contain a high amount of Sugar	0 (0)	120 (10)
Drugs contain stimulants apart from caffeine and sugar	115 (95.8)	5 (4.2)
Consuming Drugs can be harmful to your health	119 (99.2)	1 (0.8)

The findings of this study indicated that 99.2% of participants agreed that stimulants are the most active ingredients in drugs. Stimulants are recognized as the pharmacologically most active substances in the drugs commonly used by adolescents (Finnegan, 2003). The stimulant content in many drugs ranges from 80 mg per 250 mL and can reach as high as 400 mg. Even daily consumption of 100 mg may produce adverse effects, including gastrointestinal disturbances, nervousness, restlessness, tension, and insomnia. At higher levels exceeding 1 g/day, caffeine-laced substances may trigger tachycardia, arrhythmia, and muscle twitching, while extreme consumption can contribute to severe outcomes such as stroke, mania, or sudden death (Seifert et al., 2011; Berger & Alford, 2009).

Caffeine, a common stimulant in these drugs, acts as an adenosine receptor antagonist in the brain (Pettenuzzo et al., 2008), increasing epinephrine secretion and leading to secondary metabolic changes that can influence both physical and cognitive performance (Graham, 2001). The stimulant content and active nature of these substances are therefore key factors in the adverse health effects associated with their consumption.

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The study also found that 95.8% of participants disagreed with the statement that drugs cause dehydration, indicating limited awareness of this potential effect. According to the School Health Council (2011), stimulants and caffeinated drugs can contribute to dehydration, particularly during exercise. Humans typically do not sense thirst until dehydration reaches 2 to 8% of body weight. Fluid loss exceeding 3% necessitates nutrient and electrolyte supplementation to restore normal hydration, which may take up to 24 hours (Sagawa et al., 1992). Even a 1% fluid loss can increase resting heart rate by 3 to 5 beats per minute, and performance is affected when dehydration exceeds 1 to 2% (Casa, Armstrong, Montain, Rich, & Stone, 2000). Long-term dehydration may contribute to serious conditions, including renal disorders and cancer (Sagawa et al., 1992). Caffeine-induced dehydration has also been linked to rhabdomyolysis (Centers for Disease Control and Prevention, 2010) and hyperthermia, which can compromise cardiovascular stability and increase the risk of heat-related illnesses (Ganio, Casa, Armstrong, & Maresh, 2007). These findings highlight the importance of maintaining hydration during strenuous activity.

Regarding overall health risks, 0.8% of participants disagreed that drug consumption can be harmful, suggesting that a small proportion of students perceive no adverse effects. Adolescents represent the fastest-growing demographic for stimulant and caffeine use (Harnack & Stang, 1999), largely due to the proliferation of energy drinks. Research has identified that ingredients commonly present in these products, such as ginkgo biloba, taurine, amino acids, caffeine, ginseng, carnitine, and yerba mate, can affect the nervous and cardiovascular systems and may produce adverse effects such as headaches, gastrointestinal disturbances, and increased cancer risk (Russell, 2007; Heck & De Mejia, 2007; Russo, 2011; Torbey, 2011; Franks, 2012; Rath, 2012).

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In addition, Itany et al. (2014) reported that 29.6% of participants experienced at least one negative effect following drug consumption, underscoring the need to correct misconceptions about the safety and benefits of these substances. Aluqmany et al. (2013) found that 86.2% of participants would not recommend drug use to peers, partly due to withdrawal symptoms experienced by 34.9% of users. Longitudinal studies have also linked consumption of sugar-sweetened beverages, including energy drinks, to increased childhood obesity, with 57% of children in one study showing BMI increases over a 19-month period (Lidwig, Peterson, & Gortmaker, 2001). The high sugar and caloric content of these drinks may further contribute to obesity and associated metabolic risks (Schneider & Benjamin, 2011; Clauson et al., 2008). Overall, the health risks observed are closely tied to the pharmacological and nutritional composition of the substances, emphasizing the importance of monitoring both consumption and ingredient profiles.

4.5 Research Question 5: Do Males and Females Differ in Their Drug Consumption?

A chi-square test was conducted to examine whether drug consumption differed between male and female students of Kumbungu Senior High School in the Kumbungu District of the Northern Region. The results indicated a statistically significant association between gender and drug use, $\chi^2(1) = 13.33$, $p < 0.001$. Specifically, a higher proportion of males (45.8%) reported consuming drugs compared to females (4.2%). Therefore, the findings support the conclusion that male and female students differ significantly in their drug consumption practices.

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Table 5: Difference between Male and Female Students in their Drug Consumption.

Variables	Consumption				
	No f (%)	Yes f (%)	P	df	X^2
Gender			0.001	1	13.33
Male	25 (20.8%)	55 (45.8%)			
Female	35 (29.2%)	5 (4.2%)			
Total	65 (50%)	63 (50%)			

The study findings revealed significant differences in drug consumption between male and female students at Kumbungu Senior High School. This result aligns with Alsunni and Badar (2011), who reported that males consume more drugs than females. Similarly, Peymani et al. (2012) found that male drug consumers were significantly higher than female consumers ($p < 0.001$). Hidiroglu et al. (2013) also observed that male students consumed more drugs than their female counterparts ($p < 0.001$). In the United States, reports of emergency visits related to drug use doubled from 10,068 in 2007 to 20,783 in 2011, with a greater proportion of male patients than female (Substance Abuse and Mental Health Services Administration, 2011).

Gender differences in consumption patterns are not unique to drugs. Wardle et al. (2004) highlighted that females often make different dietary choices because they place greater importance on healthy eating and weight management. In the present study, lower drug use among females may also be linked to differences in physical activity, as many Ghanaian females are less physically active than their male peers. Drugs, particularly energy-boosting and performance-enhancing products, are often marketed to improve energy, vitality, and endurance—attributes typically associated with males—thereby encouraging higher male consumption.

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Another plausible explanation is the marketing strategies of drug manufacturers, which predominantly target males. In many countries, the absence of strict regulations has allowed aggressive promotion of products such as energy drinks, reinforcing male-dominated consumption patterns. These factors, combined with cultural and social norms, likely contributed to the observed higher prevalence of drug use among male students in this study.

4.6 Research Question 6: What Factors Influence Drug Consumption among Kumbungu Senior High School students?

To identify the factors predicting drug consumption among students of Kumbungu Senior High School, a hierarchical multiple regression analysis was conducted. Prior to the regression, correlations were calculated between the dependent variable (drug consumption) and the independent variables (taste, advertisement, and accessibility). The correlation results indicated a strong positive relationship between accessibility and taste ($r = .71$) and between consumption and accessibility ($r = .70$), while a moderate correlation was observed between accessibility and advertisement ($r = .47$). Advertisement showed very low correlations with both the other independent variables and consumption (see Appendix E).

Based on these results, taste was entered into Model 1, while accessibility and advertisement were introduced simultaneously in Model 2. The hierarchical multiple regression analysis revealed that Model 1, which included taste, was statistically significant, $t(1, 582) = 35.98$, $p < .05$, and accounted for 50% of the variance in drug consumption. When accessibility and advertisement were added in Model 2, the model remained significant, $t(3, 580) = 11.63$, $p < .05$, and contributed an additional 19% to

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the explained variance. Overall, the independent variables accounted for 69% of the variance in drug consumption among students.

Among the predictors, taste had the strongest contribution (49%), followed by accessibility (46%) and advertisement (13%). These findings suggest that taste, accessibility, and advertisement are significant and meaningful predictors of drug consumption at Kumbungu Senior High School (see Table 6).

Table 6: Regression of Advert, Taste and Accessibility on Drug Consumption among Kumbungu Senior High School students

Variables		b	Beta	R	R^2	t	p-value
Model 1		22.34	.71		.50	35.98	.001
	Taste	1.67	.71			24.34	.001
		11.76	.83		.69	11.63	.001
Model 2	Taste	1.15	.49			18.91	.001
	Access	.94	.46			17.70	.001
	Adverts	.39	.13			5.54	.001

Three research items were used to examine the factors influencing drug consumption among students. The overall regression model indicated that these factors significantly predicted 69% of the variance in drug consumption. All three factors—taste, accessibility, and advertisement—showed significant predictive value. These findings suggest that drug consumption among Kumbungu Senior High School students is influenced by multiple considerations, including the reasons for choosing particular substances.

Among the predictors, taste emerged as the strongest factor, accounting for 49% of the variance. Taste has consistently been reported as a primary determinant of food and beverage choices (European Food Information Council, 2012). The sensory qualities of

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beverages, including sweetness and flavor, play a critical role in consumption preferences, and taste has been highlighted as a key determinant of beverage intake (Leterme et al., 2008). Supporting this, Schmidt and McIntire (2008) found that 53.4% of participants identified taste as a key motivator for drug consumption. Many drugs contain substantial quantities of sugar, making their taste particularly appealing to adolescents. It is therefore unsurprising that taste was the most influential predictor in this study.

Accessibility was the second most significant predictor, contributing 46% to the variance in drug consumption. Research has shown that proximity and visibility of products can increase consumption, especially among adolescents (Wansink, Painter, & Lee, 2006). Accessibility allows drugs to be easily seen and obtained, creating temptation and reinforcing consumption (Wansink, 2004). In Ghana, the widespread availability of drugs in local shops, combined with limited restrictions on sales, makes it easy for students to purchase these substances, thereby increasing their use (Hamilton et al., 2013).

Advertisement, while significant, was the least predictive factor at 13%. Historically, drug marketing targeted athletes, highlighting performance benefits (Lal, 2008). However, contemporary advertising strategies are directed toward broader adolescent populations (Harris & Schwartz, 2013). Cross-promotional campaigns often link products to extreme sports or popular music figures to encourage consumption (Agriculture and Agri-Food Canada, 2008). Such marketing strategies likely contribute to students' perceptions and consumption behaviours.

The findings of this study can also be explained through Bandura's (1986) social cognitive theory (SCT), which posits that behaviour is influenced by the reciprocal

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interaction of personal factors, environmental factors, and observed behaviours. Even though individuals may have innate preferences regarding food or beverage choices, environmental influences—such as availability, accessibility, peer influence, and advertising—can shape behaviour. According to the European Food Information Council (2012), food choices are influenced not only by physiological and nutritional needs but also by factors such as hunger, taste, cost, accessibility, culture, family, peers, mood, stress, and attitudes. In this study, taste, accessibility, and advertising were observed to enhance drug consumption, demonstrating the relevance of SCT in understanding adolescent behaviour.

Overall, these findings highlight that students' drug consumption is influenced by a combination of physiological, environmental, sociocultural, psychological, and emotional factors. Their choices are shaped not only by the immediate sensory appeal of drugs but also by external influences such as availability and targeted marketing strategies.

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CHAPTER FIVE

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

5.0 Overview

This chapter presents a summary of the key findings of the study, draws conclusions based on these findings, and provides recommendations for stakeholders aimed at addressing and mitigating the problem of drug use among students at Kumbungu Senior High School.

5.1 Summary of Findings

The purpose of this study was to examine the effects of drug use among students at Kumbungu Senior High School. A descriptive survey design was employed, and multistage sampling was used to select 120 students as participants. A researcher-developed questionnaire served as the primary data collection instrument. Data analysis was conducted using both descriptive statistics (frequencies and percentages) and inferential statistics (Chi-Square tests and Hierarchical Multiple Regression) with SPSS version 18.0.

The study addressed six main research questions. The key findings are summarized as follows:

1. Common Types of Drugs Used:

The most commonly consumed drugs by students were **Red Red** (37.5%), followed by **Codeine laced syrups** (29.2%), and **Marijuana** (8.3%). Alcohol, Cocaine, and Heroine were not consumed at all by the study participants.

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2. Frequency of Drug Consumption:

A significant majority of the participants, **80 (66.7%)**, reported consuming drugs. The three most consumed drugs (Red Red, Codeine laced syrups, and Marijuana) were taken at least once or more times a week by the highest percentage of users.

3. Perceived Impact of Consuming Drugs:

Students strongly perceived drugs to have a positive impact on their physical and cognitive states. Specifically, nearly all participants strongly agreed that:

- They react more quickly when they consume drugs (**91.7%** strongly agreed).
- They feel more alert when consuming drugs (**95.8%** strongly agreed).
- They consume drugs because it gives them energy (**98.3%** strongly agreed).
- They take drugs to enjoy a party (**100%** strongly agreed).
- A high percentage also agreed that drugs promote attention when studying (**83.3%** strongly agreed) and help them stay awake when studying (**81.7%** strongly agreed).

4. Behavioural and Social Consequences (Knowledge Level):

The study found that a majority of the students, **115 (95.8%)**, had a high level of knowledge about the ingredients in drugs, particularly that stimulant is the most active ingredient. However, a significant proportion showed a low knowledge level on the negative effects, with **95.8%** disagreeing that the consumption of drugs could cause dehydration and **99.2%** disagreeing that consuming drug substances can be harmful to one's health (a reversed item indicating low knowledge of harm).

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5. Gender Difference in Drug Consumption:

There was a statistically significant difference in drug consumption between male and female students (χ^2 (1) = 13.33, p < 0.001). **More males (45.8%)** consumed drugs compared to **females (4.2%)**.

6. Factors Influencing Drug Consumption:

A Hierarchical Multiple Regression analysis indicated that the factors of Taste, Accessibility, and Advert were significant predictors of drug consumption among the students. Collectively, these factors explained 69% of the variance in drug consumption. Among them, Taste was the strongest predictor, accounting for 49% of the variance, followed by Accessibility at 46%, and Advert at 13%.

5.2 Conclusions

Based on the findings of this study, the following conclusions are drawn:

Drug use is a prevalent and serious issue at Kumbungu Senior High School, with a significant majority of students admitting to consumption, with *Red Red* and *Codeine laced syrups* being the primary substances of abuse, followed by *Marijuana*.

The low consumption of alcohol, cocaine, and heroin suggests that religious/cultural beliefs and high cost/low accessibility may serve as protective factors against these specific substances in the study area.

Students are primarily motivated to use drugs due to the perceived immediate cognitive and physical enhancements, such as increased alertness, energy, quicker reaction time, and better party enjoyment, which they falsely believe aids in academic activities like studying.

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Despite possessing some factual knowledge about drug ingredients, the students exhibit a dangerous lack of awareness or denial regarding the serious negative health consequences of drug use, particularly dehydration and overall harm.

Male students are significantly more involved in drug consumption than female students, likely influenced by socio-cultural factors, targeted marketing, and the physically active lifestyle associated with the perceived benefits of the drugs.

The sensory appeal (taste), the ease of obtaining the drugs (accessibility), and the influence of marketing (advertisements) are the most critical factors driving the demand and consumption of drugs among students at Kumbungu Senior High School.

5.3 Recommendations

The findings of this study provide a foundation for evidence-based interventions. The following recommendations are therefore suggested for the various stakeholders:

5.3.1 Recommendations for School Authorities (Kumbungu SHS)

1. **Tailored and Intensive Drug Education:**

Integrate mandatory, evidence-based, and locally-relevant drug education into the school curriculum, focusing specifically on the immediate and long-term negative health effects of Red Red, Codeine laced syrups, and Marijuana, rather than just generic drugs.

The curriculum must actively debunk the myth that these substances improve concentration, energy, or academic performance, providing scientific facts to counter students' positive perceptions.

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2. **Strengthened Guidance and Counseling Unit:**
    - Adequately resource the Guidance and Counseling Unit with staff trained in substance abuse prevention and intervention.
    - Implement screening and brief intervention programs (SBIRT) to identify and support students at high risk or already using drugs.
    - Establish peer-to-peer counseling programs, given the strong influence of peer pressure.

3. **Strict Enforcement of Drug-Free Policy:**
    - Develop and consistently enforce a clear, zero-tolerance drug policy with fair and transparent disciplinary procedures.
    - Enhance security, especially around suspected areas and school boundaries, to limit accessibility to and sales of drugs on campus.

4. **Promote Healthy Alternatives:**
    - Increase opportunities for engaging extracurricular activities, sports, and hobbies that provide natural highs, build self-esteem, and counter boredom, thereby reducing the need for drug experimentation or escape.

5.3.2 Recommendations for Parents and Guardians

1. **Open Communication and Monitoring:**
    - Parents must foster an open, non-judgmental environment for discussing drug use, its risks, and peer pressure with their children.
    - Actively monitor their children's behaviour, peer associations, and spending habits to detect early signs of drug use.

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2. **Uphold Cultural/Religious Values:**

Leverage and reinforce the existing cultural and religious norms (especially in the predominantly Muslim community) that prohibit substance use, transforming them from mere taboos into positive, protective behaviours.

5.3.3 Recommendations for Policy Makers and Regulators (NACOC, FDA, GES)

1. **Regulate Accessibility and Advertising:**

The Food and Drugs Authority (FDA) and Narcotics Control Commission (NACOC) should enforce regulations that make the sale of over-the-counter pharmaceuticals containing codeine strictly prescription-only. Pharmacies and chemical sellers should be mandated to verify prescriptions before dispensing these products, and regular inspections should be conducted to ensure compliance. Non-compliant vendors should face sanctions, fines, or license suspension.

2. NACOC and the Ministry of Health should launch targeted public awareness campaigns specifically designed for the youth in the Northern Region, highlighting the dangers of Red Red and Codeine laced syrups. Regulate and monitor the advertising of products that could be easily misused or glamorize a stimulating effect (Red Red), especially those targeted at adolescents through digital and social media.

3. **Community and Law Enforcement Engagement:**

   Increase law enforcement efforts to identify and shut down sources and supply chains for illegal substances like Marijuana in the communities surrounding educational institutions, addressing the factor of accessibility.

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The **Ghana Education Service (GES)** should develop a standardized, mandatory, and culturally sensitive drug prevention framework for all senior high schools, with special attention to schools identified as high-risk, like Kumbungu SHS.

5.3.4 Recommendations for Researchers

1. **Investigate Red Red and Taste/Flavoring:**

Future research should specifically investigate the chemical composition of "Red Red" and the role of its flavor and taste in driving consumption among adolescents.

2. **Effectiveness of Current Interventions:**

A study should be conducted to evaluate the effectiveness and limitations of current educational programs and interventions by NACOC and GES to inform necessary refinements.

3. **Qualitative Study on Perception:**

Conduct a qualitative study to gain a deeper understanding of the students' positive perceptions (e.g., "gives energy," "promotes attention") to tailor counter-messaging more effectively.

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REFERENCES

Abian-Vicen, J., et al. (2014). A caffeinated energy drink improves jump performance in adolescent basketball players.

Adan, A., & Serra-Grabulosa, J. M. (2010). Glucose and caffeine effects on sustained attention: An exploratory fMRI study. *Human Psychopharmacology*. https://doi.org/10.1002/hup.1150

Addicott, M. A., & Laurienti, P. J. (2009). A comparison of the effects of caffeine following abstinence and normal caffeine use. *Psychopharmacology, 207*(3), 423–431.

Alhyas, L., El Kashef, A., & AlGhaferi, H. (2015). Energy drinks in the Gulf Cooperation Council states: A review. *JRSM Open, 7*(1). https://doi.org/10.1177/2054270415593717

Alsunni, A., & Badar, A. (2011). Energy drinks consumption pattern, perceived benefits and associated adverse effects amongst students of University of Dammam, Saudi Arabia. *Journal of Ayub Medical College Abbottabad, 23*, 3–9.

Aluqmany, R., et al. (2013). Consumption of energy drinks among female secondary school students, Almadinah Almunawwarah, Kingdom of Saudi Arabia, 2011. *Journal of Taibah University Medical Sciences, 8*(1), 60–65.

Amoateng, B., & Koomson, E. (2020). Linking teacher–student relationship to academic achievement of senior high school students. *Social Education Research, 1*(2), 102–108.

Armstrong, L. E., Casa, D. J., Maresh, C. M., & Ganio, S. (2007). Caffeine, fluid-electrolyte balance, temperature regulation, and exercise-heat tolerance. *Exercise and Sport Sciences Reviews, 35*(3), 135–140.

Arthur, H., & Asiedu, O. (2021). A review of the causes of sustainable supply deficiencies in natural gas supply in Ghana. Retrieved from https://www.scirp.org/pdf/jpee_2021040811203121.pdf

Azab, B., Torbey, E., Hatoum, H., Singh, J., Khoueiry, G., Bachir, R., McGinn, J. T., Jr., McCord, D., & Lafferty, J. (2011). Usefulness of red cell distribution width in predicting all-cause long-term mortality after non-ST-elevation myocardial infarction. *Cardiology, 119*(2), 72–80.

University of Education,Winneba http://ir.uew.edu.gh

Babbie, E. (2007). *The practice of social research* (11th ed.). Thompson Wadsworth.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Prentice-Hall.

Bandura, A. (2001). Social cognitive theory: An agentic perspective. *Annual Review of Psychology, 52*, 1–26.

Bauman, Z. (2001). Consuming life. *Journal of Consumer Culture, 1*(1), 9–29.

Bawazeer, A., & AlSobahi, N. (2013). Prevalence and side effects of energy drink consumption among medical students at Umm AL-Qura University, Saudi Arabia. *International Journal of Medical Students, 1*, 104–108.

Berger, A. J., & Alford, K. (2009). Cardiac arrest in a young man following excess consumption of caffeinated energy drinks. *Medical Journal of Australia, 190*(1), 41–43.

Brunyé, T., Mahoney, C., Lieberman, H., & Taylor, A. (2010). Caffeine modulates attention network function. *Brain and Cognition, 72*(2), 181–188.

Bryman, A., & Bell, E. (2015). *Business research methods*. Oxford University Press.

Campbell, J. D., Trapnell, P. D., Heine, S. J., Katz, I. M., & Lavallee, L. (2013). Self-concept clarity: Measurement, personality correlates, and cultural boundaries. *Journal of Personality and Social Psychology, 70*(6), 141–156.

Casa, D. J., Armstrong, L. E., Hillman, S. K., Montain, S. J., Reiff, R. V., Rich, B. S., Roberts, W. O., & Stone, J. A. (2000). National Athletic Trainers' Association position statement: Fluid replacement for athletes. *Journal of Athletic Training, 35*, 212–224.

Centers for Disease Control and Prevention. (2010). *Health, United States, 2010: With special feature on death and dying*. https://www.cdc.gov/nchs/data/hus/hus10.pdf

Childs, E., & de Wit, H. (2008). Enhanced mood and psychomotor performance by a caffeine-containing energy capsule in fatigued individuals. *Experimental and Clinical Psychopharmacology, 16*(1), 13–21. https://doi.org/10.1037/1064-1297.16.1.13

Cirillo, P. (2013). Are your data really Pareto distributed? *Physica A: Statistical Mechanics and Its Applications, 392*(23), 5947–5962.

University of Education,Winneba http://ir.uew.edu.gh

Clauson, K. A., Shields, K. M., McQueen, C. E., & Persad, N. (2008). Safety issues associated with commercially available energy drinks. *Journal of the American Pharmacists Association, 48*(3), e55–e63.

Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). Sage.

Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). Sage.

Creswell, J. W., & Creswell, J. D. (2024). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). Sage.

Del Coso, J., Muñoz, G., & Muñoz-Guerra, J. (2011). Prevalence of caffeine use in elite athletes following its removal from the World Anti-Doping Agency list of banned substances. *Applied Physiology, Nutrition, and Metabolism, 36*(4), 555–561.

Dixey, R. (2006). Delivering creative education for health promoters in Africa—Towards critical mass by "Going Global and Staying Local." *Creative Education, 3*(6), 749–754.

Finnegan, N. (2003). The health effects of stimulant drinks. *Nutrition Bulletin*. https://doi.org/10.1046/j.1467-3010.2003.00345.x

Fleming, B. (2021). Valley of death. *The American Journal of Sports Medicine, 49*(13), 3476–3478. https://doi.org/10.1177/03635465211053258

Flores-García, L., Lensing, M. B., Bjerke, T. N., Kvalnes, M., & Eisemann, M. (2019). Positive and negative aspects of substance use and treatment goals among substance use disorder patients with and without attention deficit hyperactivity disorder: A qualitative study. *Cogent Psychology, 6*(1). https://doi.org/10.1080/23311908.2019.1682765

Foskett, A., Ali, A., & Gant, N. (2009). Caffeine enhances cognitive function and skill performance during simulated soccer activity. *International Journal of Sport Nutrition and Exercise Metabolism, 19*(4), 410–423.

Franks, J., Mayer, C., & Volpin, P. (2012). The life cycle of family ownership: International evidence. *Review of Financial Studies, 25*, 1675–1712.

University of Education,Winneba http://ir.uew.edu.gh

Giles, G. E., Mahoney, C. R., Brunyé, T. T., Gardony, A. L., Taylor, H. A., & Kanarek, R. B. (2012). Differential cognitive effects of energy drink ingredients: Caffeine, taurine, and glucose. *Pharmacology, Biochemistry and Behavior, 102*(4), 569–577.

Godovykh, M., Pizam, A., & Bahja, F. (2021). Antecedents and outcomes of health risk perceptions in tourism following the COVID-19 pandemic. *Tourism Review, 76*(4), 737–748.

Goldman, B. (2013). Emerging trends, transformative impacts and how we are helping our clients around the world drive and leverage them.

Graham, T. E. (2001). Caffeine and exercise: Metabolism, endurance and performance. *Sports Medicine, 31*(11), 785–807.

Green, B., Bourne, M. N., van Dyk, N., & Pizzari, T. (2020). Recalibrating the risk of hamstring strain injury (HSI): A 2020 systematic review and meta-analysis of risk factors for index and recurrent hamstring strain injury in sport. *British Journal of Sports Medicine, 54*(18), 1081–1088.

Ha, E. J., Caine-Bish, N., Holloman, C., & Lowry-Gordon, K. (2009). Evaluation of effectiveness of class-based nutrition intervention on changes in soft drink and milk consumption among young adults. *Nutrition Journal, 8*, 50. https://doi.org/10.1186/1475-2891-8-50

Hamilton, S., Pinfold, V., Cotney, J., Couperthwaite, L., Matthews, J., Barrett, K., Warren, S., Corker, E., Rose, D., Thornicroft, G., & Henderson, C. (2016). Qualitative analysis of mental health service users' reported experiences of discrimination. *Acta Psychiatrica Scandinavica, 134*(Suppl. 446), 14–22. https://doi.org/10.1111/acps.12611

Harnack, L., & Stang, J. (1999). Soft drink consumption among US children and adolescents: Nutritional consequences. *Journal of the American Dietetic Association, 99*(4), 436–441. https://doi.org/10.1016/S0002-8223(99)00106-6

Heck, C. I., & de Mejia, E. G. (2007). Yerba mate tea (Ilex paraguariensis): A comprehensive review on chemistry, health implications, and technological considerations. *Journal of Food Science, 72*(9), R138–R151. https://doi.org/10.1111/j.1750-3841.2007.00535.x

Heckman, J. J., et al. (2010). The rate of return to the HighScope Perry Preschool Program.

University of Education,Winneba http://ir.uew.edu.gh

Helmer, A., et al. (2021). Equine-assisted services for children with attention-deficit/hyperactivity disorder: A systematic review.

Hewlett, P., & Smith, A. (2007). Effects of repeated doses of caffeine on performance and alertness: New data and secondary analyses. *Human Psychopharmacology: Clinical and Experimental, 22*(6), 339–350. https://doi.org/10.1002/hup.854

Hidiroglu, S., Tanriover, O., Unaldi, S., Sulun, S., & Karavus, M. (2013). A survey of energy-drink consumption among medical students. *Journal of the Pakistan Medical Association, 63*(7), 842–845.

Howard, M. A., & Marczinski, C. A. (2010). Acute effects of a glucose energy drink on behavioural control. *Experimental and Clinical Psychopharmacology, 18*(6), 553–561. https://doi.org/10.1037/a0021740

Ilie, G., Boak, A., Mann, R. E., Adlaf, E. M., Hamilton, H., Asbridge, M., et al. (2015). Energy drinks, alcohol, sports and traumatic brain injuries among adolescents. *PLoS ONE, 10*(9), e0135860. https://doi.org/10.1371/journal.pone.0135860

Iowa High School Athletic Association. (2011). *Iowa high school sports report*. https://iagenweb.org/iahss/sports/ihsaa-football/2011-ihsaa-football-season.html

Itany, M., et al. (2014). Consumption of energy drinks among Lebanese youth: A pilot study on the prevalence and side effects.

Johnston, K., Stoffman, M., Mickle, T., Klaassen, J., Diles, D., Olatunde, S., Eliasson, L., & Bahar, R. (2021). Preferences and health-related quality of life related to disease and treatment features for patients with Hemophilia A in a Canadian general population sample. *Patient Preference and Adherence, 15*, 1407–1417.

Kennedy, D. O., Galloway, A. V., Dickau, L. J., & Hudson, K. (2008). The cumulative effect of coffee and a mental stress task on heart rate, blood pressure, and mental alertness is similar in caffeine-naïve and caffeine-habituated females. *Nutrition Research, 28*(9), 609–614.

Kimberly, et al. (2009). Attention and reaction time in university students following the consumption of Red Bull. https://doi.org/10.2174/1874288200903010008

Kline, R. B. (2016). *Principles and practice of structural equation modeling* (4th ed.). Guilford Press.

University of Education,Winneba http://ir.uew.edu.gh

Klu, D., et al. (2018). Quantitative estimation of the caffeine content in some energy drinks on the Ghanaian market.

Koppelstaetter, F., et al. (2008). Does caffeine modulate verbal working memory processes? An fMRI study.

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

Kumar, R. (2011). *Research methodology: A step-by-step guide for beginners* (3rd ed.). SAGE Publications.

Lal, A., et al. (2011). A decade of controversy: Balancing policy with evidence in the regulation of prescription drug advertising. *American Journal of Public Health*.

Leithwood, K., & Jantzi, D. (2006). *Transformational school leadership for large-scale reform: Effects on students, teachers, and their classroom practices. School Effectiveness and School Improvement, 17*(2), 201–227.

Lieberman, H. R., Wurtman, R. J., Emde, G. G., Roberts, C., & Coviella, L. (1987). The effects of low doses of caffeine on human performance and mood. *Psychopharmacology, 92*(3), 308–312. https://doi.org/10.1007/BF00210835

Linden-Carmichael, A. N., et al. (2021). Associations between simultaneous alcohol and cannabis use and next-day negative affect among young adults: The role of sex and trait anxiety.

Ludwig, D. S., Peterson, K. E., & Gortmaker, S. L. (2001). Relation between consumption of sugar-sweetened drinks and childhood obesity: A prospective, observational analysis. *The Lancet, 357*(9255), 505–508. https://doi.org/10.1016/S0140-6736(00)04041-1

Marczinski, C. A. (2010). Acute effects of a glucose energy drink on behavioural control. *Experimental and Clinical Psychopharmacology, 18*(6), 553–561.

Meier, L. L., & Spector, P. E. (2013). Reciprocal effects of work stressors and counterproductive work behaviour: A five-wave longitudinal study. *Journal of Applied Psychology, 98*, 529–539.

Montes, K. S., et al. (2019). Alcohol, tobacco, and marijuana expectancies as predictors of substance use initiation in adolescence: A longitudinal examination.

Montes, K. S., et al. (2021). Edible films and coatings as food-quality preservers: An overview.

University of Education,Winneba http://ir.uew.edu.gh

Muhammad, et al. (2023). Drug usage among university students: An empirical study of the antecedents and consequences. https://doi.org/10.52567/pjsr.v5i02.1219

National Institute on Drug Abuse. (2021). *Supporting scientific research on drug use and addiction*. https://nida.nih.gov/

Oddy, W. H., & O'Sullivan, T. A. (2009). Energy drinks for children and adolescents.

Odejide, A. O. (2014). Adolescent and drug abuse in tertiary institution: Implication for counselling. https://www.eajournals.org/wp-content/uploads/Adolescent-and-Drug-Abuse-in-Tertiary-Institution-Implication-for-Counselling.pdf

Osuala, E. C. (2007). *Introduction to research methodology* (3rd ed.). Africana-First Publishers.

Owusu, et al. (2019). Orientation impact on performance of undergraduate students in University of Cape Coast (Ghana).

Owusu, et al. (2021). Academic achievement declines under pass-fail grading.

Owusu, N., Arthur, B., & Aboagye, E. M. (2021). Correction to: Industrial hemp as an agricultural crop in Ghana. *Journal of Cannabis Research, 3*(1), 18. https://doi.org/10.1186/s42238-021-00076-y

Oztürk, M. (2012). Macroeconomic factors affecting the import in Turkey. *Journal of QafQaz University, 34*, 39–46.

Pettenuzzo, L. F., et al. (2008). Effects of chronic administration of caffeine and stress on feeding behaviour of rats.

Peymani, A., Farajnia, S., Nahaei, M. R., Sohrabi, N., Abbasi, L., Ansarin, K., & Azhari, F. (2012). Prevalence of class 1 integron among multidrug-resistant *Acinetobacter baumannii* in Tabriz, northwest of Iran. *Polish Journal of Microbiology, 61*(1), 57–60.

Polit, D. F., & Beck, C. T. (2006). *The content validity index: Are you sure you know what's being reported? Critique and recommendations. Research in Nursing & Health, 29*(5), 489–497.

Rath, M. (2012). Energy drinks: What is all the hype? The dangers of energy drink consumption. *Journal of the American Academy of Nurse Practitioners, 24*(2), 70–76. https://doi.org/10.1111/j.1745-7599.2011.00689.x

University of Education,Winneba http://ir.uew.edu.gh

Richardson, A. J., Ampt, E. S., & Meyburg, A. H. (1995). *Survey methods for transport planning*.

Robby, S., & Sanad, H. (2017). Survey of energy drink consumption and adverse health effects: A sample of university students in the United Arab Emirates.

Rogers, P. J., et al. (2004). Effect of "energy" drinks on mood and mental performance: Critical methodology.

Russell, T., & Martin, A. K. (2007). Learning to teach science. In S. Abell & N. Lederman (Eds.), *Handbook of research on science education* (pp. 1151–1178). Lawrence Erlbaum Associates.

Russo, E. B. (2011). Taming THC: Potential cannabis synergy and phytocannabinoid-terpenoid entourage effects. *British Journal of Pharmacology, 163*(7), 1344–1364. https://doi.org/10.1111/j.1476-5381.2011.01238.x

Sagawa, H. (1992). Multipole resonances in halo nuclei. *Nuclear Physics A, 538*, 619–622.

Salman, A., & Aslam, T. (2015). The impact of advertisement on consumers' purchase intentions.

Schmidt, S. J., & McIntire, D. D. (2008). Exploring cramming: Student behaviours, beliefs, and learning retention in the principles of marketing course. *Journal of Marketing Education, 30*(3), 226–243.

Schneider, B., Ehrhart, M. G., & Macey, W. H. (2011). Perspectives on organizational climate and culture. In S. Zedeck (Ed.), *APA handbook of industrial and organizational psychology: Vol. 1. Building and developing the organization* (pp. 373–414). American Psychological Association.

Scholey, A. B., & Kennedy, D. O. (2004). Cognitive and physiological effects of an "energy drink": An evaluation of the whole drink and of glucose, caffeine and herbal flavouring fractions. *Psychopharmacology, 176*(3–4), 320–330.

Schwartz, B. S., Harris, J. B., Khan, A. I., et al. (2006). Diarrhoeal epidemics in Dhaka, Bangladesh, during three consecutive floods: 1988, 1998 and 2004. *American Journal of Tropical Medicine and Hygiene, 74*(6), 1067–1073.

Scuri, S., et al. (2018). Energy drink consumption: A survey in high school students and associated psychological effects.

University of Education,Winneba http://ir.uew.edu.gh

Seifert, S. M., Schaechter, J. L., Hershorin, E. R., & Lipshultz, S. E. (2011). Health effects of energy drinks on children, adolescents, and young adults. *Pediatrics, 127*(3), 511–528.

Shaar, A., et al. (2017). Health effects and public health concerns of energy drink consumption in the United States: A mini-review.

Shah, S. A., et al. (2019). A new quantitative ethnoecological approach to assessing the conservation status of plants: A case study of District Tor Ghar, Pakistan.

Stephens, N. M., Hamedani, M. G., & Destin, M. (2014). Closing the social-class achievement gap: A difference-education intervention improves first-generation students' academic performance and all students' college transition. *Psychological Science, 25*(4), 943–953.

Stevens, C. J., et al. (2014). Energy drink and energy shot use in the military. *Nursing Research, 63*(6), 391–397. https://doi.org/10.1111/nure.12139

Subaiea, G. M., et al. (2019). Energy drinks and population health: Consumption pattern and adverse effects among Saudi population.

Taherdoost, H. (2016). *Validity and reliability of the research instrument: How to test the validation of a questionnaire/survey in a research. International Journal of Academic Research in Management (IJARM), 5*(3), 28–36.

Trochim, W. M. K. (2006). *The research methods knowledge base* (2nd ed.). Atomic Dog Publishing.

United Nations Office on Drugs and Crime. (2023). *International standards for the treatment of drug use disorders*. https://www.who.int/publications/i/item/international-standards-for-the-treatment-of-drug-use-disorders

United States Anti-Doping Agency. (2024). *Resources for clean competition*. https://www.usada.org/

Upadhyaya, H. P., Desaiah, D., Schuh, K. J., et al. (2013). A review of the abuse potential assessment of atomoxetine: A nonstimulant medication for attention-deficit/hyperactivity disorder. *Psychopharmacology, 226*, 189–200.

Ustjanauskas, A. E., Harris, J. L., & Schwartz, M. B. (2014). Food and beverage advertising on children's websites. *Pediatric Obesity, 9*(5), 362–372.

University of Education,Winneba http://ir.uew.edu.gh

Visser, P. S., Krosnick, J. A., & Lavrakas, P. J. (2000). Survey research. In H. T. Reis & C. M. Judd (Eds.), *Handbook of research methods in social and personality psychology* (pp. 223–252). Cambridge University Press.

Wansink, B. (2004). Environmental factors that increase the food intake and consumption volume of unknowing consumers. *Annual Review of Nutrition, 24*, 455–479. https://doi.org/10.1146/annurev.nutr.24.012003.132140

Wansink, B., Painter, J. E., & Lee, Y. K. (2006). The office candy dish: Proximity's influence on estimated and actual consumption. *International Journal of Obesity, 30*(5), 871–875. https://doi.org/10.1038/sj.ijo.0803217

Wardle, J., Haase, A. M., Steptoe, A., Nillapun, M., Jonwutiwes, K., & Bellisle, F. (2004). Gender differences in food choice: The contribution of health beliefs and dieting. *Annals of Behavioral Medicine, 27*(2), 107–116.

Warren, A. E., et al. (2015). Sustainability education framework for teachers: Developing sustainability literacy through futures, values, systems, and strategic thinking.

West Africa Commission on Drugs. (2019). *Domestic drug consumption in Ghana: An under-reported phenomenon*. https://globalinitiative.net/wp-content/uploads/2019/07/Ghana-Drug-Report-web.pdf

World Health Organization. (2023). *Global status report on alcohol and health and treatment of substance use disorders*. https://www.who.int/publications/i/item/9789240096745

Yayra, E., et al. (2020). Energy drink: The prevalence of consumption and awareness regarding its associated potential health problems among commercial bus drivers in Ho, Ghana. https://doi.org/10.21203/rs.3.rs-18668/v3

Zeng, X., & Tan, C. (2021). The relationship between the family functioning of individuals with drug addiction and relapse tendency: A moderated mediation model.

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APPENDIX

Questionnaire for Second Cycle Students

UNIVERSITY OF EDUCATION WINNEBA

FACULTY OF SOCIAL SCIENCE EDUCATION

SECTION A: Background Information

Instruction: Please mark (√) the box corresponding to your choice concerning each statement below.

1. Gender

a) Male [ ] b) Female [ ]

2. How old are you?

a) Below 13 [ ]

b) 13-15 [ ]

c) 16-19 [ ]

d) 20 and above [ ]

3. I attend ……..

(a) Kumbungu SHS { }

(b) Other school { }

4. I am form ……..

a) Form one [ ]

b) Form two [ ]

c) Form three [ ]

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SECTION B

Instruction: Please indicate by marking (√) how you take any of the following drugs. Kindly answer all the questions.

5	**Drug**	**Always**	**Sometimes**	**Not at all**
	Alcohol			
	Marijuana			
	Cocaine			
	Tramadol			
	Red Red			
	Heroine			
	Codeine laced syrups			

Instruction: Please indicate by marking (√) how often you consume any of the following drugs.

6	**Drug**	**Once a week**	**Twice a week**	**Once a month**	**Twice a month**	**Once every three months**	**Not at all**
	Alcohol						
	Marijuana						
	Cocaine						
	Tramadol						
	Red Red						
	Heroine						
	Codeine laced syrups						

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Instructions: Please respond to the following statements by marking (√) the column that most accurately represent your opinion of the extent to which you agree or disagree to these statements. Use the following scales

SA=Strongly Agree, A= Agree, D= Disagree, SD= Strongly Disagree.

		SA	A	D	SD
7	I consume drugs because I want to find out the differences in the taste.				
8	I buy drugs because I have money.				
9	I react more quickly when I consume drugs				
10	Stimulant is the most active ingredient in drugs				
11	I believe in the messages portrayed in the drugs adverts.				
12	I buy and take drugs because I want to be like the super stars in drugs adverts.				
13	I am encouraged to buy drugs because of the television adverts				
14	I consume drugs because I have easy access to it.				
15	I feel more alert when I consume drugs				
16	I prefer sweet drugs to sugar free drugs				
17	I take drugs to stay awake when studying.				
18	I consume drugs because I get it from friends				
19	I consume drugs because it will give me energy				
20	A television advert which features a song that I can relate to a drug encourages me to consume drugs				
21	Adverts of drugs made on bill boards encourage my drug consumption				

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22	I consume drugs because I want to know how it tastes.				
23	Drugs contain other stimulants apart from caffeine and sugar				
24	Drugs promote attention when studying				
25	I consume drugs because they are sweet.				
26	Consuming drugs can be harmful to the body.				
27	The taste of a drug is a reason which encourages me to consume it.				
28	I take drugs to enjoy a party.				
29	I buy drugs which are sold at my school canteen				
30	I consume drugs because they are given to me by my coaches				

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COVER LETTER

I am Francisca Awakabta an M.Ed. Social Studies student at the Faculty of Social Science Education. I am contacting you to participate in a research study on the topic; "Effects of Dug use Among students of Kumbungu Senior High School '.Your participation will require you to complete a questionnaire, which will take 10-15 minutes of your time. You were selected among a poll of participants and your responses will be analyzed as a group. Please sign the column below before taking part in this research. You can call for further information concerning the study.

Researchers contact: 0547914516

Supervisors contact:

Name (optional) ……..

Signature …….

Date ……

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TOPIC: EFFECTS OF DRUG USE AMONG STUDENTS OF KUMBUNGU SENIOR HIGH SCHOOL IN THE KUMBUNGU DISTRICT OF NORTHERN REGION

PARTICIPANT CONSENT FORM

I understand that:

I. My answers will be used in a thesis study.

II. My participation is completely voluntary and I may withdraw at any point of the study without penalty.

III. My identity will be protected in the reporting of the findings.

IV. All data will be secured and destroyed three years after the completion of the thesis.

I, …… have read the above information and agree to participate in this research.

Signed:…… Date:……

Please send consent form to me at the address below.

Francisca Awakabta

Faculty of Social Science Education

University of Education Winneba