ENSIGN GLOBAL UNIVERSITY, KPONG

EASTERN REGION, GHANA

FACULTY OF PUBLIC HEALTH

DEPARTMENT OF COMMUNITY HEALTH

SUBSTANCE USE AND ITS ASSOCIATED FACTORS AMONG ADOLESCENTS IN NINGO PRAMPRAM MUNICIPALITY IN THE GREATER ACCRA REGION, GHANA

By

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NOVEMBER, 2025

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DECLARATION

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person nor material which to a substantial extent has been accepted for the award of any other degree or diploma at Ensign Global University, Kpong or any other educational institution, except where due acknowledgment is made in the thesis.

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(Head of Academic Program) Signature Date

DEDICATION

This work is dedicated to three people, Mrs. Benedicta Amoah, Mr. Jerome- Jerry Yevugah and Mr. Joshua Seyram Amoah, who have supported me and whose prayers and encouragement have been the foundation of my academic journey.

Also, to the adolescents that am so passionate about, may this research contribute, in its own way, to creating healthier, safer, and more hopeful futures for young people everywhere.

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To my family and friends, thank you for your endless love, prayers, and motivation.

LIST OF ABBREVIATIONS

Abbreviation	Full Meaning
WHO	World Health Organization
UNODC	United Nations Office on Drugs and Crime
DALY	Disability-Adjusted Life Years
SSA	Sub-Saharan Africa
VALD	Vision for Alternative Development
GSHS	Global School-Based Student Health Survey
WTS	Waterpipe Tobacco Smoking
CDC	Centers for Disease Control and Prevention
NDPC	National Development Planning Commission
GSS	Ghana Statistical Service
ASURCM	Adolescent Substance Use Risk Continuum Model
SHS	Senior High School
AOR	Adjusted Odds Ratio
CI	Confidence Interval
STIs	Sexually Transmitted Infections

ABSTRACT

Background: Substance use in adolescents has become a growing concern globally. Its use affects the quality of life of adolescents as well as burdening them with short- and long-term effects encompassing their physical, social and mental wellbeing.

General aim: The main aim of this study was to examine substance use and it associated factors among adolescents in Ningo Prampram municipal.

Methodology: A cross-sectional study design was employed using a quantitative approach. Study population was adolescents between the ages of 15 -19 residing in the Ningo Prampram municipality. Using a simple random sampling technique, a sample size of 183 students were selected. Structured questionnaires were administered to students and data were analyzed using STATA 18.

Results: Awareness of substances was very high, particularly for alcohol (95.1%), shisha (90.2%), cigarettes and marijuana (85.3% each). Lifetime prevalence of any substance use was 38.6%, while past-30-day use was 10.9%, with alcohol being the most commonly used (34.2%). Bivariate analysis identified male sex, living with guardians/extended family, and environmental exposure as significant risk factors for substance use. Logistic regression confirmed that seeing people use substances in the home or community (AOR=2.31, 95% CI: 1.01–5.31) and living with guardians/extended family (AOR=2.98, 95% CI: 1.02–8.68) significantly increased the odds of use, while being in SHS 3 was protective (AOR=0.19, 95% CI: 0.06–0.59).

Conclusion: Overall, the findings suggest high awareness but relatively lower current use, with environmental exposure and household structure emerging as critical determinants of adolescent substance use in the municipality.

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CHAPTER ONE

1.0 INTRODUCTION

1.1 Background

The critical phase where an adolescents brain develops, specifically in the control of cognitive functions and systemic growth should be a special area of concern when discussing substance use in adolescents, long-term neurobiological effects of early substance use initiation showed that, there is indeed structural and chemical changes in the brain of the adolescent particularly in the use of substances such as alcohol, tobacco and cannabis using neuroimaging (Boer, El Marroun and Muetzel, 2024)

The adolescent period, a period between 10 – 19 years as defined by the WHO, is a developmental phase which is linked to a greater risk of experimenting and using substances. Substance use in adolescents covers the use and abuse of alcohol, illicit drugs, and prescription medications. Substance use in adolescents has become a significant public health concern due to its short-term to long-term health effects and safety, and overall quality of life in adolescents.

According to the United Nations Office on Drugs and Crime (UNODC) World Drug Report 2022, about 284 million people aged 15 – 64 years used drugs worldwide in 2020, a 26 percent increase over the previous decade. Substance use is one of the major causes of Disability Adjusted Life Years (DALY) among adolescents. The DALY due to substance use in Africa has been estimated to be more than twice that of high-income countries (Mohammed, 2024).

A recently published study by Kugbey (2023) revealed that the overall prevalence of 'any substance use' among adolescents in sub-Saharan Africa was 41.6%, with alcohol and tobacco being the highest prevailing substances (40.8% and 45.6%, respectively). Marsiglia et al. (2024)

narrative review also shows an increasing concern of adolescent substance use across Sub-Saharan Africa, with the current prevalence rate of substance use in Western Africa region at 31.2 – 32.9%. Their study showed that male adolescents showed high usage as compared to the females with alcohol and tobacco as the specific substances that were used.

Recent studies by Amadu et al (2024) in Ghana shows that, out of 50,000 individuals who use drugs, 35,000 are students aged 12 to 35 enrolled in junior high, senior high, or tertiary institutions. The remaining 15,000 users are adults, comprising 6,000 women and 9,000 men. Marijuana use has been identified as a major contributor to mental health issues among both young people and adults in the country, with some users ending up in psychiatric hospitals, on the streets, or in prayer camps. The non-governmental organization Vision for Alternative Development (VALD) reported that 12.8% of students aged 13 to 15 who took part in the 2009 Global Youth Tobacco Survey in Ghana had used tobacco products and discovered that cannabis is both the most affordable and the most commonly abused drug in the country.

Further evidence shows a rise in prevalence of substance use in the adolescents age bracket, a study by Kyei-Gyamfi et al. (2024) revealed a prevalence rate of 12.3%, with the two substances commonly used being, alcohol (56.9%) and cigarettes (26.4%). The 2012 Global School-Based Student Health Survey (GSHS) discovered that, about 8.3% of students smoked cigarettes, 15.4% took in alcohol, and 9.4% reported past-month intoxication, 94.3% of adolescents engaged in smoking started before age 14 and this was specifically prevalent in Senior High Schools. Though cigarettes smoking contributed to the most common form tobacco used, Waterpipe tobacco smoking (WTS), also referred to as shisha, is earning popularity among female adolescents in Ghana, largely due to a false belief that it is less destructive as compared to cigarette smoking (Darko and Glozah, 2024).

Adolescent substance use is linked to high-risk behaviors such as road traffic accidents, violence, irresponsible sexual practices, mental health problems, and suicide, alongside broader consequences including moral degradation, assault, psychosis, and even manslaughter, highlighting the need to examine its associated factors in the Ningo-Prampram Municipality and propose appropriate public health interventions (Kyei-Gyamfi, 2024).

1.2 Problem Statement

The World Health Organization reports (2023) states, a growing concern of substance use among millions of adolescents. Tobacco use among adolescent between the ages of 13 – 15 is estimated at 43million with the most commonly used substance being alcohol. Alcohol use among adolescents is predominant in the 15 – 19 age bracket, estimated at about 155million adolescents who have ever used alcohol. The United Nations Office on Drugs and Crime (2021) reports shows that cannabis is the most commonly used illicit drug among youth, with an increasing prevalence in North America and Europe.

On the global front, more than 50% of evidence reported to a crime laboratory is associated to drugs, despite many governments putting in the needed effort to solve this half a century problem which continues to persist. While some countries are being assisted to crack down on drug production and cultivation, there are drug shipment interceptions going on in other countries and strengthening measures on drug production and sales within countries, as well as the implementation of youth and adult drug abuse prevention programs. But unfortunately, these measures have failed to achieve the desired effectiveness (Bhanujirao et al., 2022)

Sub-Saharan Africa is also witnessing a growing rate of substance use among adolescents, which is more concerning as the sub-Saharan region has 70% of its population under the age of 20, and it is one of the youngest regions (Marsiglia et al ,2024). Which could lead to population that is dependent on substances and it consequences affecting the overall development of the region.

In Ghana, substance use among adolescents remains underreported despite its noted consequences. According to Kyei-Gyamfi et al. (2024), about 7% of children aged 8–17 in Ghana are lifetime users of alcohol. This makes any study into adolescent substance use important, as this phase is important in the life of every human being.

Studies have shown that adolescent residing in the northern to middle belt of the country have their geographical location as a protective factor (Kyei-Gyamfi, 2024), indicating that adolescents in the southern and coastal regions are more at risk of substance use. Ningo Prampram municipality is an area along the coastal belts, and there has been reports on increase substance use among the youth, which has been linked to the high level of unemployment in the municipality (Akwetey&Martey, 2024). Due to these factors, it has become necessary to investigate this problem in the Ningo Prampram municipal and also to identify associated risk factor.

The reason for concern, as stated by Bhanujirao et al (2022), about the high rates of substance and alcohol addiction among adolescents is because some of the significant problems that have been associated with its use range from higher rates of aggression to suicidal attempts. Substance use among adolescents usually contributes to behavioral problems that strain interpersonal relationships, leading to disciplinary actions in schools, and increasing interactions with the legal system. Additionally, there is a two-way link between substance use and sleep disturbances in youth, where poor sleep negatively affects their overall health and daily functioning. This often creates a cycle in which life challenges prompt increased substance use, which then exacerbates those challenges and contributes to worsening mental health (Ball et al., 2022).

According to Turnbridge (2021), a U.S.-based addiction treatment Centre, adolescent substance use has damaging consequences on one's adult life. Introducing substances into one's system when critical brain developing is ongoing hinders higher order cognitive processes. Consequently, this causes long-term effects on adolescents. According to the centers for disease control and prevention, some of these consequences are; alteration in the growth and development of the adolescent brain, risky behaviors such as unprotected sex leading to sexually transmitted infection and adolescent pregnancy and acquiring adult health problems such as high blood pressure, sleep disorder and heart diseases. Studies has also shown that adolescents who use substances are more likely to overdose, prescription drugs, opioids self-medication, sedative and tranquilizers, Additionally, long term substance use disorders and addiction problems are associated with adolescent substance use which has been revealed in studies. That said, no cure exists for substance use disorders. Substance use disorders remain chronic and has lasting effects.

1.3 Rational of The Study

This study sought to examine substance use and it associated factors among adolescents, to examine knowledge level, to measure prevalence, identify types of substances that are commonly used including non-traditional substances such as shisha and ecstasies, and finally identify the risk factors associated with substance use in the Ningo Prampram municipality. The increase vulnerability of a person during the adolescent phase, coupled with a desire to experiment new things, as well as forming of self-identity makes this developmental phase a critical one. Studies done nationally and regionally on adolescent substance use has associated it with many negative outcomes such as, declining academic underperformance, risky sexual behaviors, violence, mental health disorders and long-term dependency. (Kyei Gyamfi et al, 2024 & Appati et al, 2021). While studies conducted globally and in some African contexts have shown similar risk patterns associated with adolescent substance use, the nature and extent of adolescent substance use differs significantly across settings due to environmental, socio-cultural and economic differences.

A study by Kyei Gyamfi et al (2024) showed that alcohol and cigarettes were the substances commonly used among adolescents. Mohammed et al (2024) study also revealed that, alcohol and tramadol were the most commonly used substances among adolescents. These two studies were conducted on a national and regional level, with very limited municipality-specific information on the topic. In particular, the Ningo-Prampram Municipality which is a growing urban rural municipal in the Greater Accra Region has it adolescent also facing same unique challenges like adolescents everywhere else, some of these challenges including urbanization, peer influence, family related challenges, psychological and emotional changes as well as easy accessibility and availability of substance.

According to the Ghanaian times (2024) there was a destruction of at least 151,899.54 kilograms of illicit narcotic drugs by the Narcotic Control Commission (NACOC) at Bundase in the Ningo-Prampram municipal of the Greater Accra Region. These were drugs seized from suspects between 2021 and 2024. These large number of drugs destroyed in Bundase a community in the municipality, suggests that Ningo-Prampram is a significant location for drug storage, trafficking, or distribution networks in Ghana, making the municipality a relevant and critical location for this study. In spite of these contextual realities, scanty to no factual data exist on the prevalence of substance use and its associated factors among adolescents the municipality

An attempt to bridge these gaps is important for several reasons. Firstly, identifying the prevalences of adolescent substance use at the municipal level will provide evidence to inform school and community-based interventions. Secondly, it will contribute to the existing body of literature by generating context-specific insights that may be different from national averages and findings in other regions. lastly, the finding from this study will serve as a valuable resource for policymakers, health and educational authorities, as well as relevant stakeholders when designing and implementing public health programmes and policies which is aimed at empowering the adolescent and improving their health and well-being in the municipality.

Therefor this study does not seek to only fill in an important knowledge gap but also provide support in evidence-based interventions, and add to a broader effort to protect the health and future of adolescents in Ghana.

1.4 Conceptual Framework

This study adapts the Adolescent Substance Use Risk Continuum Model (ASURCM) developed by Miller and Cook (2017) as its guiding conceptual framework. The model puts adolescent substance use along a continuum varying from *no use* → *experimental use* → *occasional use* → *regular/heavy use* → *substance use disorder*.

The ASURCM is based on the guiding principle that adolescent substance use is not a static condition, but rather a lively process controlled by risk factors (such as peer influence, family conflict, community norms, and individual vulnerabilities) and protective factors (such as strong parental attachment, supportive schools, and positive peer networks). The interconnection between these factors determines how an adolescent will fare on the risk continuum and whether they will advance into more harmful substance use patterns or move back toward non-use.

This conceptual framework is pertinent to this study because it corresponds clearly with the research objectives of examining both the risk factors that predispose adolescents to substance use and the protective factors that help prevent or reduce such behavior. By placing adolescents along the continuum, the model gives a more detailed way to assess different levels of substance use risk and calls to attention specific strategies that will aid in creating intervention and prevention.

Figure X: *Adapted Adolescent Substance Use Risk Continuum Model (ASURCM). The model below illustrates the stages of adolescent substance use ranging from no use to substance use disorder. Risk factors contribute to progression along the continuum, while protective factors buffer against risks and encourage movement toward lower levels of use.*

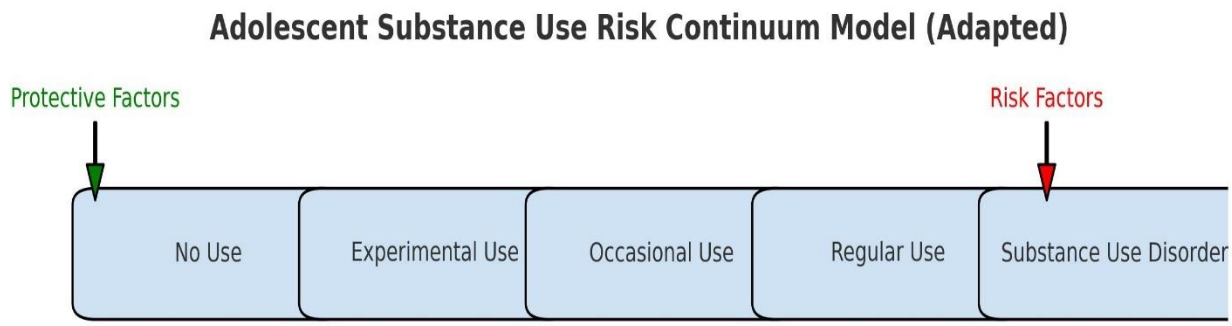

Figure 1 Adolescent Substance Use Continuum Level

As shown in Figure 1, adolescents are put along this continuum of substance use, from low risk through to a potential development of substance disorder. Exposure to cumulative risk factors—such as peer pressure, high use of substance within the community, easy access and poor emotional state pushes an individual forward along this continuum. Contrary to protective factors—such as strong parental/caregiver engagement, knowledge of side effects of substance use, support from teachers and strong personal goals —serve to buffer this progression, encouraging movement back toward lower-risk states. Miller&Cook (2017) further emphasized that cultural identities cuts through all these domains and should be considered in assessment and intervention planning.

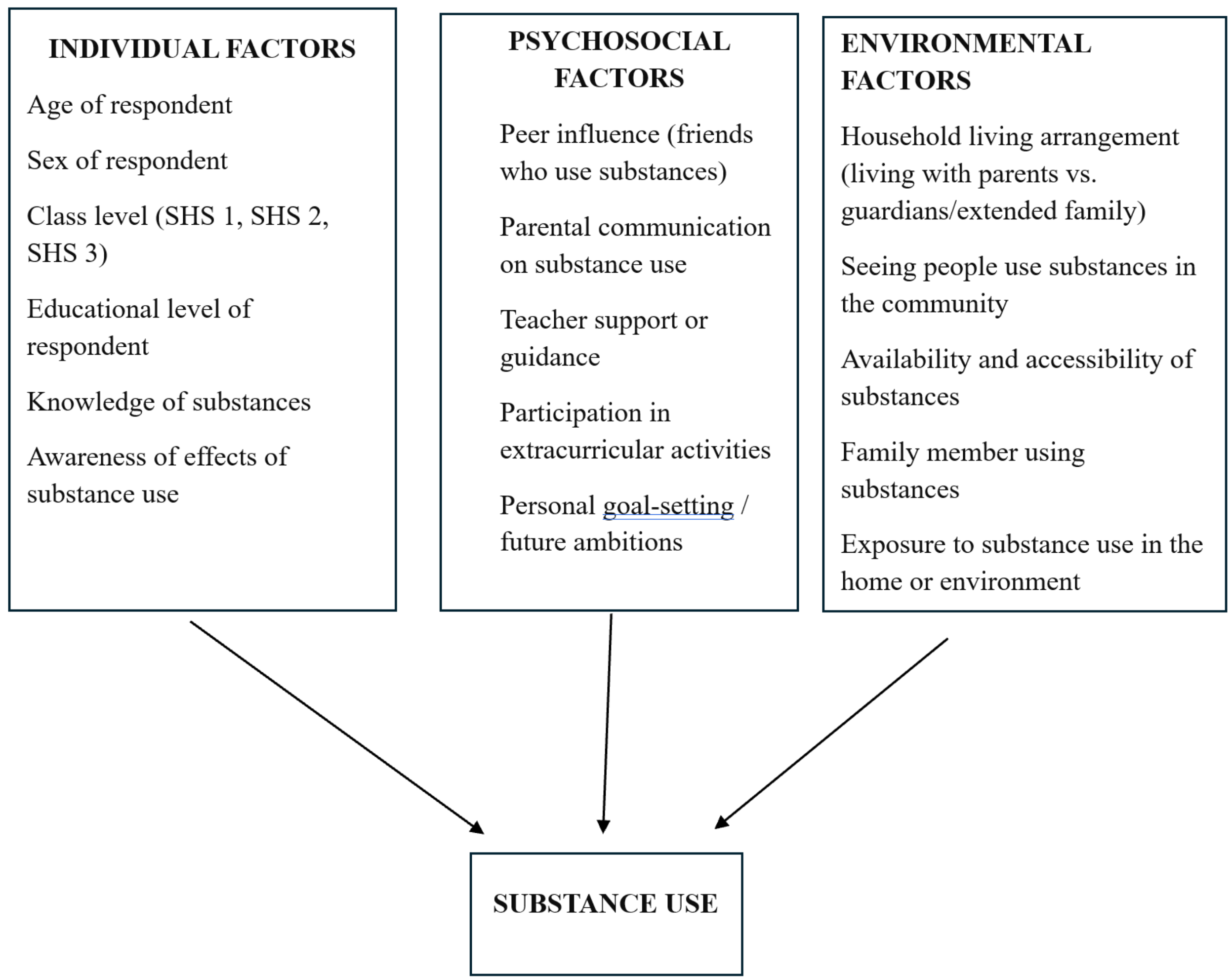

Figure 2 Conceptual Framework

Source: Author's Construct

1.4 Research Questions

1. What is the knowledge level of substances among adolescents in Ningo Prampram municipality?
2. What is the prevalence and the common substances that are used among adolescents in Ningo Prampram municipality?
3. What are the risk factors for substance use among adolescents in Ningo Prampram municipality?

1.5 Research Objectives

1.5.1 General Objective

The study aimed to examine substance use and its associated factors among adolescents in Ningo Prampram municipal and recommend public health interventive strategies.

1.5.2 Specific Objectives

1. To examine the knowledge of substance use among adolescents in Ningo Prampram municipality
2. To examine the prevalence of substance use among adolescents in Ningo Prampram municipality
3. To determine the risk factors associated with substance use among adolescents in Ningo Prampram.

1.6 Profile of Study Area

The Ningo Prampram district was Created on 28 June 2012 by Legislative Instrument LI 2132, carved from the former Dangme West District it was elevated to municipal status in November 2024 due to it land size and rapid urbanization. The municipality has an area size of approximately 622.2 km² with Prampram being it capital. The municipality is Bordered by Shai-Osudoku (north), Ada West/East (east), Kpone-Katamanso (west), and 37 km Gulf of Guinea coastline to the south. It has six sub municipals which are; Prampram sub, old Ningo sub, Nigbenya-Dawa sub, Lekpongnor sub, afienya sub and Dawhenya sub with Dawhenya sub being the largest sub municipal by size and population.

According to the 2021 Population and Housing Census, the estimated total population of the Ningo Prampram municipality is 204,673 total (101,871 males; 102,802 females); urban population

161,090 (78.7%), rural 43,583 (21.3%). The Age structure can be further put into: Youth approximately 70,823 (0–14 yrs), 127,484 (15–64 yrs), and 6,366 (65+). The ethnicity of the people is Predominantly Ga-Dangme, with Akan, Ewe, Guan, Mole-Dagbani, Gurma, Mandé, and others represented .86% Christian (Pentecostal, Protestant, Catholic), 4% Muslim, 2% traditionalists; ~6.5% non-religious (GSS, 2021).

According to the NDPC (2020), approximately 90% arable land is available for farming. Major crops cultivated include; cassava, maize, rice, mango, banana, tomatoes, okra, peppers. Livestock in savannah grasslands (approximately 25% land area) coastal communities predominantly rely on fishing for sustenance. There are about 46–51 basic schools, Public and private primary/junior high schools serving by the Education Directorate. The district hosts three senior high schools, plus two cadet institutions and the Afienya Youth Training Centre.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

The main purpose of this section of the research is to show what is already known about this research topic, and also put the research in a wider academic perspective as well as put into summary, past studies on the same topic, their findings and theories that were used. It also identifies the aspect of the research topic that has not been studies into details, helps avoid repetition of work, and provide a clear understanding of the field of study that can be critically compared to past works

2.2 Introduction to Substance Use in Adolescents

Adolescent substance use has emerged as a major public health concern globally. It refers to the consumption of psychoactive drugs such as alcohol, tobacco, marijuana, shisha, and other illicit or prescription drugs during adolescence stage, which is characterized by risk-taking and experimentation. It is a known fact that, early initiation of substance use increases the chances of addiction, poor academic outcomes, and mental health problems. (WHO, 2021)

In the Sub-Saharan African region, studies have shown increasing trends in substance use among adolescents, specifically alcohol, tobacco, and cannabis. This is mostly driven by curiosity, peer pressure, and easy accessibility (Nawi et al., 2021).

In Ghana and other low- and middle-income countries, most studies indicates that alcohol is the most commonly used substance among adolescents, followed by marijuana and tobacco. A study by Rodríguez-Ruiz et al. (2023) showed that protective factors such as strong family support and positive peer influence reduce the likelihood of substance initiation, whereas weak parental monitoring and community-level risk factors increase vulnerability. Understanding these dynamics within specific sociocultural contexts, such as Ningo-Prampram Municipality, is necessary which aids in designing targeted prevention and intervention strategies.

2.3 Prevalence of Adolescent Substance Use

The prevalence of substance use among adolescents globally differs by region and type of substance. According to the United Nations Office on Drugs and Crime (UNODC, 2023), approximately one in every five young people has experimented with at least one psychoactive substance before the age of 18. Alcohol remains the most commonly used substance among adolescents, followed by tobacco and cannabis. In the higher-income countries, the trend has moved from traditional substances to much modern forms such as e-cigarettes and vaping products, while in many developing countries, accessibility to alcohol, marijuana, and prescription drugs are responsible for this increase.

Various studies have documented the prevalence of adolescent substance use. Kugbey (2023), through a secondary analysis of the Global School-based Student Health Survey (2012–2017) across eight Sub-Saharan African (SSA) countries, found increasing rates of substance use, with alcohol being the most commonly abused substance. Similarly, Ebrahim, Adams and Demant (2023) reported that alcohol remains the most widely used substance among young people in SSA, with prevalence rates ranging between 20% and 50%.

Özeylem, de la Torre-Luque and Essau (2021), examining factors related to adolescent substance use across six low- and middle-income countries, also highlighted high rates of alcohol, tobacco, and other drug use. Their findings showed particularly high prevalence in Thailand, Laos, and the Philippines.

In South Africa, Mmethi et al. (2024) reported that nearly half of adolescents in rural Mpumalanga had used substances within the past year. Alcohol was the most prevalent (74%), followed by cigarettes (12%) and cannabis (11%).

Within the Ghanaian context, Kyei-Gyamfi et al. (2024) identified a 12.3% prevalence of substance use among adolescents aged 10–17, with alcohol and cigarettes being the most common. This aligns with Appati et al. (2021), who, through a cross-sectional survey of adolescents in secondary education, also found substantial reports of alcohol, cannabis, and tobacco use.

Further, Mohammed et al. (2024) observed a high prevalence of adolescent substance use in Ghana's northern region. Their findings are consistent with Amadu et al. (2024), who reported widespread use of substances such as shisha, tramadol, alcohol, cannabis, marijuana (wee), and glue inhalation among young people in the same region.

All in all, these studies reveal that alcohol is consistently the most widely used substance among adolescents across SSA, though prevalence levels vary by region and study design. While national surveys in Ghana report relatively moderate rates (around 12%), localized studies, particularly in the northern region and rural South Africa, suggest much higher levels of use, often involving multiple substances. These findings highlight both the widespread nature of alcohol use and the growing concern about the diversification of substances, such as tramadol, shisha, and inhalants, in specific contexts.

2.4 Risk Factors Associated with Adolescent Substance Use

Several studies have examined the risk factors associated with adolescent substance use across different settings, and a number of common themes emerge. Kugbey (2023) found that older male adolescents (15–18 years) were particularly vulnerable, especially those experiencing anxiety, bullying, truancy, or cigarette smoking. These findings align with Kyei-Gyamfi et al. (2023), who similarly identified male gender, older age, and engagement in work as increasing risk. Together, these studies point to both demographic (age, sex) and behavioral (school absenteeism, cigarette use) vulnerabilities.

At a broader level, Ebrahim, Adams and Demant (2023) reported that individual-level factors such as curiosity, peer pressure, and mental health challenges, as well as family and social influences like weak parental monitoring and poor family cohesion, consistently predicted substance use. This resonates with the Ghanaian findings of Appati et al. (2021), where peer influence, weak supervision, and household substance use also emerged as strong determinants.

Mmethi et al. (2024) add nuance by showing how context matters. Among rural South African adolescents, substance use was often motivated by curiosity, social influence, and stress relief, with risk heightened by community availability, household size, and participation in clubs or sports. This overlaps with Mohammed et al. (2024), who highlighted peer influence and technology use (social media, smartphones) as key drivers in northern Ghana. Both studies suggest that while peer networks are consistently central, the settings in which they operate, be it sports teams, online spaces, or local communities also shapes how risk is expressed.

The role of family and household dynamics is further reinforced by Igunma, Ohaeri and Adubi (2022) and Bunu, Isyaku and Umar (2023), who emphasized poor parental supervision, family conflict, and parental or sibling substance use as strong predictors. They also pointed to psychological vulnerabilities (stress, impulsivity, low self-esteem, depression) as key facilitators, findings echoed by Nawi et al. (2021), who framed risks ecologically across individual, family, peer, and community levels.

Community and societal influences also emerge across contexts. For instance, Bunu et al. (2023) and Nawi et al. (2021) stressed that easy availability of substances, weak policy enforcement, poverty, and cultural permissiveness create enabling environments for adolescent drug use. These findings complement Rodríguez-Ruiz et al. (2023), who, while focusing on school and socioeconomic status, found that dislike of school and poor academic performance increased risk, while unexpectedly, higher family SES was also associated with substance use—challenging the notion that economic advantage is automatically protective.

Amadu et al. (2024) further reinforce these multi-level dynamics, showing that negative peer influence and poor parental supervision were the strongest drivers of substance use in northern Ghana, consistent with the peer- and family-related vulnerabilities reported across other African and global studies.

To summarize, these studies highlight the interconnectedness of individual vulnerabilities (age, sex, psychological factors), family dynamics (weak supervision, parental substance use), and broader social and community contexts (peer networks, school stress, availability of substances, cultural norms). While peer influence and weak parental supervision emerge as the most consistent risk factors across settings, contextual variations such as technology use in Ghana, extracurricular settings in South Africa, or high SES in other contexts, demonstrate that adolescent substance use is shaped by a complex interplay of both universal and environmental-specific drive

2.5 Protective Factors Against Adolescent Substance Use

Just as multiple risks converge to heighten adolescent vulnerability, several protective factors have been identified across studies, often operating at individual, family, school, and community levels. Kugbey (2023) demonstrated that higher levels of parental knowledge, supervision, and respect for adolescent privacy significantly reduced the likelihood of substance use. This finding complements Kyei-Gyamfi et al. (2023), who found that younger adolescents (10–13 years) and those residing in Ghana's middle and northern ecological belts were less likely to engage in substance use, suggesting that both parental involvement and demographic context can serve as buffers.

School engagement and achievement also emerge as key protective factors. Rodríguez-Ruiz et al. (2023), in a study conducted in Spain, reported that positive school engagement and academic success reduced the risk of substance use, highlighting the role of educational environments in shaping adolescent behavior. This resonates with Nawi et al. (2021), who found that academic engagement, coupled with strong religious and moral values, promoted resilience against substance use among Malaysian adolescents.

At the family and community level, Nawi et al. (2021) also emphasized the importance of supportive parenting, open communication, and strong family bonding. Beyond the household, a positive school climate, participation in extracurricular activities, and the presence of supportive mentors were highlighted as additional protective factors. These findings align closely with Kugbey (2023), underscoring that when families and schools provide both structure and emotional support, the risk of substance use is greatly diminished.

At the peer and social level, Mohammed et al. (2024) observed that adolescents surrounded by non–substance-using peers were less likely to engage in drug use, a finding consistent with Amadu et al. (2024), who noted that association with prosocial peer groups protected against negative peer influence. In broader ecological terms, Nawi et al. (2021) emphasized that access to safe recreational facilities and strong community structures offered protective alternatives, while Bunu, Isyaku and Umar (2023) also underscored the importance of community-based prevention programmes in reducing exposure.

Collectively, these studies show that protective factors are multi-layered and interdependent. Strong parental involvement, positive family communication, and respect for adolescents' autonomy combine with school engagement, academic success, and supportive community structures to lower the likelihood of substance use. While risk factors often cluster to increase vulnerability, protective factors act in synergy to buffer adolescents, demonstrating the importance of holistic interventions that strengthen resilience at the family, school, and community levels.

2.6 Effects of Adolescent Substance Use on Quality of Life

Adolescent substance use has profound implications for both physical and mental health, as well as for educational and social outcomes. Ebrahim, Adams and Demant (2023) reported that substance use was strongly associated with poor educational attainment, risky sexual behaviors, delinquency, and heightened risks of addiction and mental health challenges. These findings are consistent with Appati et al. (2021), who similarly identified risky sexual behaviors, truancy, and poor academic performance as key consequences among Ghanaian adolescents. Likewise, Bunu, Isyaku and Umar (2023) observed that adolescent drug use was linked to declining academic performance, engagement in criminal activities, risky sexual practices, and chronic health problems

Mmethi et al. (2024) extended this evidence on consequences of adolescent substance use by highlighting immediate health impacts, which included hallucinations, sleep disturbances, body weakness, and dry mouth. Their study also pointed to longer-term consequences such as addiction symptoms, psychological distress, and increased vulnerability to violence or conflict. Appati et al.

(2021), also outlined health implication of substance use in adolescent which included anxiety and depression especially in females.

According to the World Health Organization (2020), substance use impairs judgment and coordination, thereby increasing risks of accidents, injuries, and overdoses, while also promoting the spread of infectious diseases such as HIV/AIDS, hepatitis, and other STIs through unsafe practices. Complementing this, Kyei-Gyamfi (2024) emphasizes that early initiation into alcohol, tobacco, and cannabis is strongly associated with long-term health outcomes, including cardiovascular disease, liver damage, and chronic respiratory illnesses. these findings shows that substance use during adolescence not only produces immediate health risks but also predisposes individuals to chronic conditions in adulthood.

The mental and psychological health implications of adolescent substance use are profound. Nawi et al. (2021) highlight that substance use is frequently comorbid with internalizing disorders, exposing adolescents to heightened risks of depression, anxiety, and suicidal behaviors such as self-harm and attempted suicide. Complementing this, Volkow and Boyle (2018) demonstrate that cannabis and stimulant use can precipitate psychotic episodes in vulnerable adolescents while also disrupting brain maturation in areas responsible for memory, learning, and impulse control. Together, these findings bring out how substance use not only exacerbates immediate psychological distress but also compromises long-term neurodevelopment, resulting in enduring cognitive and behavioral problems.

Overall, the evidence shows that adolescent substance use undermines educational achievement, disrupts healthy psychosocial development, and contributes to both short- and long-term health challenges. Across contexts, the recurring patterns of poor academic performance, risky sexual behavior, mental health difficulties, and addiction risk emphasizes the wide-ranging and interconnected nature of these consequences.

2.4 Research Gaps

While several studies have documented adolescent substance use globally and even nationally, there is no municipality-specific data on the prevalence of substance use among adolescents in Ningo-Prampram. In addition, limited research has explored how protective factors interact with risk factors and less knowledge about the underlying motivations substance use among adolescent within this social context.

Few studies also apply the Risk Continuum Model, particularly in rural-urban fringe settings like Ningo Prampram municipality. These gaps highlighted the need for this present study in Ningo-Prampram.

CHAPTER THREE

3.0 METHODOLOGY

3.1 Study Design

This study advanced on with a cross-sectional study design using a quantitative approach, it examined substance use and it associated factor among adolescents in the Ningo Prampram municipality. A cross-sectional study is a form of observational research that examines data collected from a population sample at a single point in time. It allows for a one-time evaluation of health-related issues, with results that can be clearly presented using mathematical and statistical methods. A quantitative approach was used because it measured the prevalence and patterns of adolescents substance use and also identified risk and protective factors associated with substance use among adolescents in the municipality.

3.2 Study Site

The study was conducted in the two senior high schools found within the Ningo-Prampram Municipality. These schools were used due to their diverse student populations and representation of both general and technical secondary education. The selected schools were; the Prampram Senior High School which is a public co-educational institution situated in Prampram sub. The school offers a range of academic programs including General Arts, Business, and Science and has an approximate population of 1207 students and Ningo Senior High Technical School, located in Old Ningo sub, it is a technical institution that provides both general and technical education and has an approximate population of 1563.

3.3 Study Population

The study population for this research was adolescents living in the Ningo Prampram municipality between the ages of 15 and 19. The selection of this age group was because, adolescents in this age group formed part of the critical developmental phase of the adolescent and they are susceptible to risk taking behavior and more inclined to experiments with traditional and non-traditional substances. Typically, adolescents within this age range are enrolled in senior high schools and vocational or technical institutions. They are also at a stage where external influences such as peer pressure, family environment, social media, and community norms at this stage starts to influence their attitudes and behaviors toward substance use. This specific population allowed the research to assess vulnerability and risk factors associated with adolescents substance use as well as give useful data that will guide school-base and community interventions targeted at substance use in this age group. For the purpose of this study the two senior high schools of which two are public and 1 is private in the Ningo Prampram municipality were used.

3.4 Inclusion and Exclusion Criteria

Adolescents who were between the ages of 15-19 at the time of the study and resided within the geographical boundaries of the Ningo Prampram municipality, were provided informed consent and assent forms and were included in the study. Those that were excluded from the study were comprised of adolescents who were younger than 15 and older than 19 at the time of collecting data, adolescents who did not reside in the said municipality and adolescents who were not willing to participate in the study were excluded from the study.

3.5 Sample Technique and Size

Participants for the study were recruited from two senior high schools in the Ningo-Prampram Municipality, namely Ningo Secondary School and Prampram Senior High School. At Ningo Secondary School, the student population for SHS 1 and 2 at the time of the data collection was estimated at approximately 700. Students from SHS 1 and SHS 2 were assembled in a common location, and a random selection method was applied. Each student was assigned a number, and random numbers were generated to select participants until the required sample was achieved. In total, 63 students were selected from SHS 1 and SHS 2, representing approximately 9% of the subgroup population. For SHS 3, most students were unavailable during the data collection period; however, the technical class was accessible, and 30 students from that class were included. Thus, selection at Ningo combined random sampling for SHS 1 and 2 with availability sampling for SHS 3, yielding a total of 93 students.

At Prampram Senior High School, only SHS 1 and SHS 2 students were available at the time of data collection. Approximately 500 students were assembled in the school hall, and a systematic sampling technique was employed. Students were asked to count off, and with a sampling interval of $k = 6$, every 6th student was selected, beginning from a random starting point between 1 and 6. This procedure yielded a sample of 90 students.

The combination of random and systematic sampling ensured a fair representation of participants where possible, although the reliance on availability sampling for the SHS 3 technical class at Ningo is acknowledged as a limitation. The final sample was made up of 183 students across the two schools.

3.6 Sample Calculation

The section of the population under study was a sample that is drawn to make interpretations or assumptions of the general population. Calculation of the sample size was also based on previous study on prevalence of substance use among adolescents. Previous studies had indicated a 12.3% prevalence in adolescent substance use in Ghana (Kyei-Gyamfi, S et al, 2024).

Below is the calculation of the sample size using the Cochrane formular;

$$n = \frac{Z^2 \times pq}{e^2}$$

Where:

- Z= 1.96 (for 95% confidence interval)
- P=estimated prevalence of adolescent substance use (used here as 12.3% based on Kyei-Gyamfi, S et al, 2024).
- e= 0.05 (margin of error)

$$n = \frac{(1.96)^2 \times (0.123 \times 0.877)}{(0.05)^2} \cong 165.96$$

To account for a 10% non-response rate: 166 x 0.1 = 16.6 + 166 = 183.6

Therefore, a total sample size of 184 students were targeted for the study.

3.7 Data Collection Method and Instrument

A structured questionnaire was adapted from the WHO Global School-based Student Health Survey (GSHS) and relevant literature on adolescent substance use (WHO & CDC, 2012; Johnston et al., 2018) to suit the local context of the Ningo-Prampram Municipality (Appendix I). The adaptation involved several modifications. Firstly, language simplification and wording changes were made to ensure clarity and comprehension among adolescents. Secondly, the list of substances was expanded to include locally relevant substances such as tramadol, shisha, and locally brewed alcohol, with an additional option provided for participants to specify other substances not listed. Thirdly, the socio-demographic section was modified to reflect the local school context by including SHS levels (1, 2, and 3) and religious affiliation as variables. These adjustments were made to improve contextual relevance and ensure the instrument captured the realities of adolescents in the study area.

3.8 Pre-Testing

Pretesting of the questionnaire was done at the kpone senior high school, which is a school with very similar characteristics as schools in the Ningo Prampram municipality. Pre-testing results will not be added to the main study. This helped assess students understanding of the questionnaires no adjustments were made.

3.9 Data Handling

Data handling in this study followed ethical approach which guaranteed integrity, accuracy, and confidentiality of the information collected from students. Questionnaires that had been completed were reviewed for completeness and stored safely. Data cleaning and management was the sole responsibility of the principal researcher.

3.10 Data Analysis

Data collected through structured questionnaires was entered, cleaned and analyzed using STATA version 18. Data analysis for this study focused on both socio-demographic and behavioral variables. Independent variables included age, sex, class level (SHS 1–3), and household living arrangement (parents, single parent, or guardians/extended family). Being cognizance of alcohol, cigarettes, marijuana, shisha, among other locally relevant substances was also evaluated. Substance use outcomes were defined as lifetime use (ever used at least once) and current use (use within the past 30 days), with added information collected on type of substance, age of initiation, and reasons for use.

Potential risk factors examined were peer influence, easy availability of substance, and environmental exposure (seeing people use substances at home or in the community), while protective factors such as parental communication, extracurricular involvement, teacher support, and personal goal-setting were also examined. Bivariate analysis using chi-square tests was conducted to link associations between independent variables and substance use. Significant variables were then entered into logistic regression models to determine predictors, with results presented as adjusted odds ratios (AOR) and 95% confidence intervals.

3.12 Dissemination of Results

I intend to disseminate results of this study by sending reports to the Ghana education service and Ghana health service division of family health. Results will also be published in peer reviewed journals, shared at adolescent health conferences and international organizations focused in adolescent health.

3.13 Ethical Consideration

Ethical clearance was obtained from the Ensign Global University ethical board firstly. Permission was also obtained from the Ningo Prampram municipal education directorate as well as from the leadership of the selected senior high schools before data was collected. Written informed consent was obtained from the participants who were 18 years and above and assent forms used for students less than 18 years before data was collected.

3.14 Limitations of the Study

Considering that information on substance use often rely on adolescents' self-reports, there was a probable risk of underreporting due to stigma, fear of disclosure, or social desirability bias. The study used a cross-sectional approach, which only established associations, and not causality, between risk/protective factors and substance use. Another key limitation had to do with the sampling procedure. It was reliance on availability sampling for SHS 3 students at Ningo Secondary School, where only the technical class was accessible at the time of data collection. This approach may not fully represent the experiences and substance use patterns of the wider SHS 3 population, thereby limiting the generalizability of findings for that subgroup. In addition, differences in sampling techniques across schools (random, systematic, and availability sampling) may have introduced variability in participant selection, potentially affecting the comparability of the two study sites. Also, findings from this study may not be generalizable beyond Ningo-Prampram Municipality, as the pattern of substance use and its influencing factors can vary across other regions of Ghana or Sub-Saharan Africa.

3.15 Assumptions

Every research follows underlying assumptions that support the validity and interpretation of its findings. This study assumes that participants provided honest and accurate responses regarding their substance use and that adolescents clearly understood and consistently interpreted the questionnaire items. It is also assumed that the sample is representative of the wider adolescent population in Ningo-Prampram Municipality, and that the reported behaviors and associated factors reflect stable trends rather than temporary variations. Furthermore, the measures used are considered culturally relevant to the study context, and the research process itself did not unduly interfere with students responses.

CHAPTER FOUR

4.0 RESULTS

4.1 Demographic Characteristics

A total of 186 respondents were interviewed for the study. The sample is predominantly female (64.7%) and made up mostly of mid-to-late adolescents: 17–18 years form the largest group (55.4%), followed by 15–16 years (26.1%) and those aged 19+ (17.9%). Just over half of students are in SHS 1 (51.1%), with smaller proportions in SHS 2 (27.7%) and SHS 3 (21.2%). Most respondents identify as Christian (90.2%), with a small Muslim minority (9.8%).

Concerning who participants lived with, result showed 55.4% live with both parents and 31.0% with one parent, while 12.5% live with other guardians; living alone or with a partner is rare (less than 1% each). A majority report that at least one parent/guardian is employed (58.2%), and 47.8% reported unemployment. Households are generally large: 45.7% live in households of seven or more people and 44.0% in households of 4–6, with only 10.3% in smaller (1–3) households.

Table 4.1 Demographic Characteristics

Variables	Frequency (n)	Percentage (%)
Gender		
Female	119	64.67
Male	65	35.33
Age group		
15–17	99	53.8
18–19	84	46.2
Total	**184**	**100.00**
Class		
SHS 1	94	51.09

SHS 2	51	27.72
SHS 3	39	21.20
Religion		
Christianity	166	90.22
Islam	18	9.78
Living arrangement		
Both parents	102	55.43
One parent	57	30.98
Guardian/Family	23	12.50
Alone/Partner	2	1.09
Parents' employment status		
Yes	107	58.15
No	77	41.85
Household size (grouped)		
7+	84	45.65
4–6	81	44.02
1–3	19	10.33

4.2 Knowledge of Substances Among Adolescents in Ningo Prampram Municipality

Awareness of psychoactive substances was generally high among adolescents in Ningo Prampram Municipality, with 94.0% having heard of at least one substance. Alcohol (95.1%) and shisha (90.2%) were the most recognized, followed by cigarettes and marijuana (85.3%), tramadol (84.8%), cocaine (83.2%), and glue/solvents (75.8%). Awareness of codeine was relatively low (60.2%). Overall, knowledge levels were high; 72.3% of respondents demonstrated high knowledge, while 27.7% fell within the low-knowledge category. Friends (29.9%) and schools (27.2%) were the dominant first sources of information, whereas family (4.9%) rarely served this role.

Table 4.2 Knowledge of Substances Among Adolescents in Ningo Prampram Municipality

Type of substance	Aware n (%)	Not aware n (%)
Knowledge of Substances	**173(94.02)**	**11(5.98)**
Alcohol	175 (95.11)	9 (4.89)
Cigarettes	157 (85.33)	27 (14.67)
Shisha	166 (90.22)	18 (9.78)
Marijuana (Weed)	157 (85.33)	27 (14.67)
Tramadol	156 (84.78)	28 (15.22)
Cocaine	153 (83.15)	31 (16.85)
Codeine	112 (60.22)	74 (39.78)
Glue / Solvents	141 (75.81)	45 (24.19)
Knowledge level		
High	133	72.28
Low	51	27.72

The findings indicate that the majority of adolescents (around 30%) first learned about substances from friends, followed closely by schools (about 28%), while the internet and social media (approximately 20%) and TV/radio (16%) served as secondary information channels. Only a small fraction (about 6%) reported learning about substances from their families.

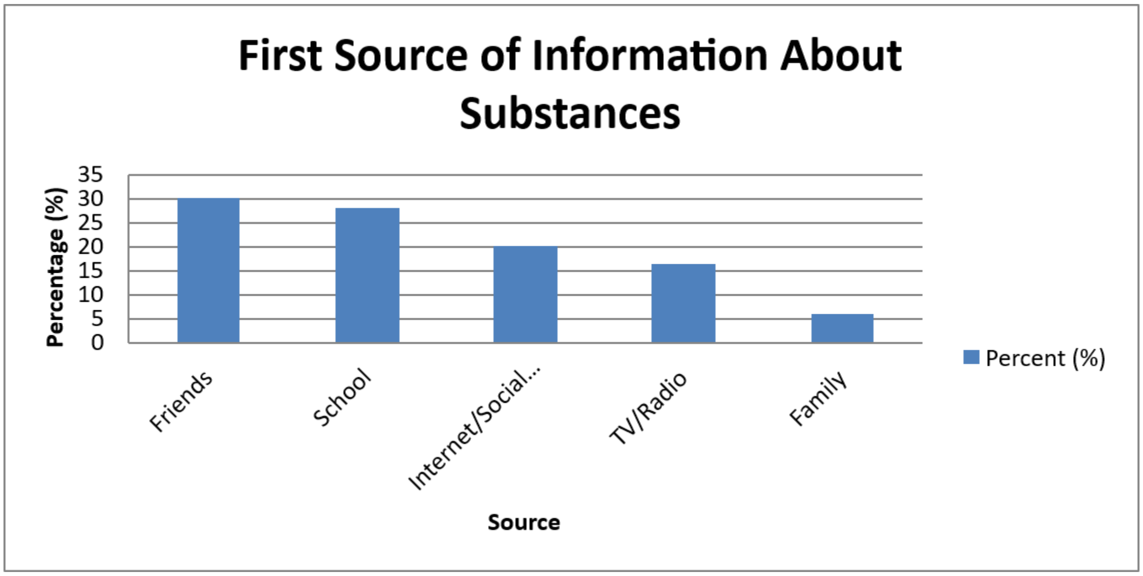

Figure 3 First Source of Information About Substances

Knowledge variables were scored and combined to create an overall knowledge score. Participants who scored greater than the mean were classified as having high knowledge, while those who scored below the mean had low knowledge. The results indicate that approximately 71% of adolescents demonstrated high knowledge about substance use, while about 29% exhibited low knowledge levels.

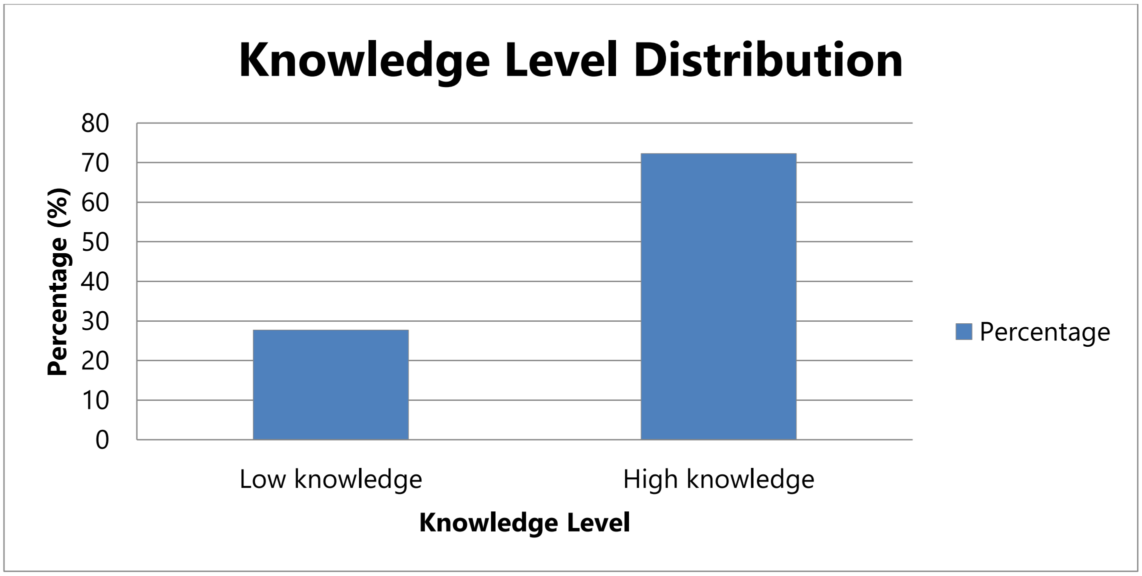

Figure 4 Overall Knowledge of Substances

4.3 Prevalence of Substance Use Among Adolescents in Ningo Prampram Municipality

Overall, 38.6 % of students had ever used at least one substance, with alcohol being the most prevalent (34.2 %). Use of othersubstances was considerably lower: shisha 11.4 %, cigarettes 4.4 %, marijuana 3.3 %, tramadol 2.7 %, and cocaine 1.1 %. Only 10.9 % of students reported use within the past 30 days, driven largely by alcohol consumption (15%). Among those who had ever used any substance, experimentation typically began between ages 10 and 16. The most common reasons cited were stress relief and fun or experimentation (35 %), followed by curiosity and peer influence (21 %). Family encouragement and perceived performance enhancement were less frequent motives (15.5 %).

Table 4.3 Substance Use Experience

Substance	Ever Use		Used in the last 30 days	
	Yes n(%)	**No n(%)**	Yes	No
Any Substance	**71(38.59)**	**113(61.41)**	20 (28.17)	51 (71.83)
Alcohol	63 (34.24)	121 (65.76)	15 (23.81)	48 (76.19)
Cigarettes	8 (4.35)	176 (95.65)	1 (12.50)	7 (87.50)
Shisha	21 (11.41)	163 (88.59)	3 (14.29)	18 (85.71)
Marijuana (Weed)	6 (3.26)	178 (96.74)	1 (16.67)	5 (83.33)
Tramadol	5 (2.72)	179 (97.28)	0 (0.00)	5 (100.00)
Cocaine	2 (1.09)	182 (98.91)	0 (0.00)	2 (100.00)

Variables	**Frequency (n)**	**Percentage (%)**
Age at First Use (Years)		
10–12	15	21.13
13–14	15	21.13
15–16	27	38.03
17–18	12	16.90
19	2	2.82
Reasons for Use		
Curiosity	15	21.13
Peer pressure	15	21.13
Stress relief	25	35.21
Fun / Experimentation	25	35.21

Family influence	11	15.49
Improve performance	11	15.49

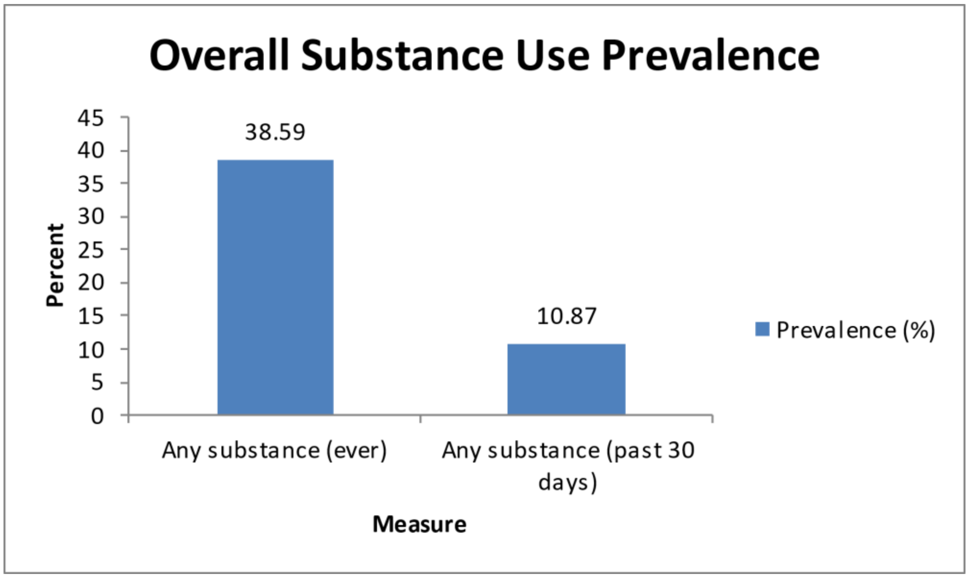

Table 4 Overall Prevalence of Substance Use

The study revealed that the lifetime prevalence of any substance use was 38.59%, while past-30-day use was 10.87%. The 27.72-percentage-point gap indicates that experimentation is more common than current use; approximately 28% of lifetime users reported use in the last month, while about 72% had not used recently.

4.4 Risk Factors of Substance Use

The study revealed relatively low perceived peer influence but high environmental exposure and access. Over half of respondents (57.1 %) disagreed that most of their friends used substances, while 42.9 % agreed. Similarly, 72.3 % disagreed that they felt peer pressure to try substances.

In contrast, environmental exposure was high: 70.7 % reported seeing people in their homes or communities using substances. Perceived availability was also substantial, with 57.1 % agreeing that substances were easy to obtain in their area.

Regarding emotional well-being, most students did not report frequent stress or depression in the past six months; 66.9 % disagreed with the statement "I have often felt stressed or depressed," compared with 33.1 % who agreed.

Table 4.5 Risk Factors of Substance Use

Item	Disagree n (%)	Agree n (%)	Standard Deviation (Agree, binary)
Most of my friends use one or more substances	105 (57.07)	79 (42.93)	0.4958
I feel pressure from my friends to try substances	133 (72.28)	51 (27.72)	0.4444
I see people in my home or community using substances	54 (29.35)	130 (70.65)	0.4570
Substances are easy to get in my area	79 (42.93)	105 (57.07)	0.4965
I have often felt stressed or depressed in the last 6 months	123 (66.85)	61 (33.15)	0.4717

4.5 Risk Factors Associated with Substance Use

The bivariate analysis identified three factors significantly associated with substance use among adolescents: sex, living arrangement, and environmental exposure.

Substance use was more common among males (49.2%) than females (32.8%), showing a significant gender gap (p=0.028). Living arrangement also played a key role (p=0.026); students living with guardians or extended family had the highest use rate (65.2%), followed by those living with both parents (37.3%) and one parent (29.8%). Exposure to substance use in one's surroundings was another strong predictor (p=0.009), with 44.6% of those who often saw people using substances reporting personal use, compared with 24.1% among those who did not. Other factors such as age, class, religion, parents' employment, household size, and psychosocial variables were not statistically significant.

Perceived peer influences, including friends' use (p=0.167) and peer pressure (p=0.818), showed no meaningful association. Likewise, perceived ease of access (p=0.093) and emotional distress (p=0.265) did not significantly predict substance use.

Table 4.5 Risk Factors Associated with ever use of a substance

Variable	Category	No n (%)	Yes n (%)	p-value
Age group	15–17	35 (72.9)	13 (27.1)	
	18–19	77 (59.8)	58 (40.2)	0.125
Sex	Female	80 (67.2)	39 (32.8)	
	Male	33 (50.8)	32 (49.2)	0.028*
Class	SHS 1	54 (57.4)	40 (42.6)	
	SHS 2	29 (56.9)	22 (43.1)	
	SHS 3	30 (76.9)	9 (23.1)	0.081
Religion	Christianity	99 (59.6)	67 (40.4)	
	Islam	14 (77.8)	4 (22.2)	0.133
Living arrangement	Alone	1 (100.0)	0 (0.0)	

	Both parents	64 (62.7)	38 (37.3)	
	Guardian/Family	8 (34.8)	15 (65.2)	
	One parent	40 (70.2)	17 (29.8)	
	Partner	0 (0.0)	1 (100.0)	0.026*
Parents' employment	No	44 (56.4)	24 (43.6)	
	Yes	69 (64.5)	38 (35.5)	0.766
Household size	1–3	12 (63.2)	7 (36.8)	
	4–6	47 (58.0)	34 (42.0)	
	7+	54 (64.3)	30 (35.7)	0.701
Friends use	Agree	44 (55.7)	35 (44.3)	
	Disagree	69 (65.7)	36 (34.3)	0.167
Peer pressure	Agree	32 (62.7)	19 (37.3)	
	Disagree	81 (60.9)	52 (39.1)	0.818
See use	Agree	72 (55.4)	58 (44.6)	
	Disagree	41 (75.9)	13 (24.1)	0.009*
Easy to get	Agree	59 (56.2)	46 (43.8)	
	Disagree	54 (68.4)	25 (31.6)	0.093

Stressed/depressed	Agree	34 (55.7)	27 (44.3)	
	Disagree	79 (64.2)	44 (35.8)	0.265

4.6 Logistic Regression of Risk Factors Associated with Substance Use

The multivariable model showed that environmental exposure and household structure were the strongest predictors of any substance use. Students who reported seeing people use substances at home or in their community had more than twice the odds of reporting use themselves (AOR=2.31, 95% CI: 1.01–5.31, p=0.048). Those living with a guardian/extended family rather than both parents also had higher odds (AOR=2.98, 95% CI: 1.02–8.68, p=0.046). By contrast, being in SHS 3 had lower odds compared to SHS 1 (AOR=0.19, 95% CI: 0.06–0.59, p=0.004), while SHS 2 did not differ significantly. Other factors including sex, religion, household size, parents' employment, perceived friends' use and peer pressure, perceived ease of access, and recent stress/depression were not independently associated with use after adjustment (all p>0.05).

Table 4.6 Logistic Regression of Risk Factors Associated with Substance Use

Variable	**AOR**	**CI (95%)**	**p**
Age group (Ref: 15–17)			
18-19	0.95	0.43 – 2.12	0.897
Sex (Ref: Female)			
Male	1.49	0.71 – 3.14	0.295
Class (Ref: SHS 1)			

SHS 2	0.49	0.21 – 1.18	0.112
SHS 3	0.19*	0.06 – 0.59	0.004
Religion (Ref: Christianity)			
Islam	0.35	0.10 – 1.29	0.115
Living arrangement (Ref: Both parents)			
Alone	0.00	0.00 – ∞	1.000
Guardian/Family	2.98*	1.02 – 8.68	0.046
One parent	0.68	0.29 – 1.59	0.376
Partner	4,041,419,590.62	0.00 – ∞	1.000
Household size (Ref: 1–3)			
4–6	1.86	0.52 – 6.69	0.340
7+	0.77	0.21 – 2.77	0.689
Parents' employment (Ref: Yes)			
No	1.32	0.59 – 2.95	0.500

Friends use (Ref: Disagree)			
Agree	1.03	0.47 – 2.25	0.945
Peer pressure (Ref: Disagree)			
Agree	0.81	0.35 – 1.90	0.626
See use (Ref: Disagree)			
Agree	2.31*	1.01 – 5.31	0.048
Easy to get (Ref: Disagree)			
Agree	1.38	0.65 – 2.92	0.406
Stressed/depressed (Ref: Disagree)			
Agree	1.45	0.65 – 3.24	0.370

CHAPTER FIVE

5.0 DISCUSSION

5.1 Introduction

This chapter presents the discussion of the major findings of the study on substance use and its associated factors among adolescents in the Ningo-Prampram Municipality, Greater Accra Region. The discussion integrates results obtained from both descriptive and inferential analyses with findings from previous literature to highlight similarities, differences, and implications. The chapter also identifies the public health implications of these findings and their relevance to adolescent health promotion, education, and policy design in Ghana.

5.2 Summary of Key Findings

Objective One: Knowledge of Substance Use among Adolescents

The findings revealed a remarkably high level of awareness of psychoactive substances among adolescents in Ningo-Prampram Municipality, with 94% of respondents indicating familiarity with at least one substance. Overall, 72.3% demonstrated a high level of knowledge of substance use. Alcohol (95.1%) and shisha (90.2%) emerged as the most recognized substances, followed closely by cigarettes and marijuana (85.3% each), tramadol (84.8%), and cocaine (83.2%). This widespread awareness reflects the increasing social exposure of Ghanaian adolescents to substance-related discussions within peer and media spaces. Friends (29.9%) and schools (27.2%) were the most common sources of information, followed by the media (22.8%), whereas only 4.9% of respondents reported parents or family as their source of knowledge. This pattern suggests that while awareness is extensive, much of it is peer- and institution-driven, underscoring the limited role of family-based communication in shaping adolescent understanding of substance use.

Objective Two: Prevalence of Substance Use among Adolescents

The study established a lifetime prevalence of 38.6% and a current use (past 30 days) prevalence of 10.9% among adolescents in the municipality. Alcohol (34.2%) was the most frequently used substance, followed by shisha (11.4%), cigarettes (4.4%), marijuana (3.3%), tramadol (2.7%), and cocaine (1.1%). Most adolescents reported initiating substance use between the ages of 10 and 16 years, indicating early experimentation. The principal motivations for use were stress relief, fun, or experimentation (35%), curiosity or peer pressure (21%), and family influence or performance enhancement (15.5%). The wide gap between lifetime and current use (38.6% versus 10.9%) highlights that experimentation is more prevalent than habitual or dependent use. This pattern mirrors global adolescent substance use trends, where early exposure often stems from curiosity and peer dynamics rather than sustained addiction.

Objective Three: Risk Factors Associated with Substance Use among Adolescents

The analysis revealed that substance use was significantly associated with sex, living arrangement, and environmental exposure. Males (49.2%) were more likely to engage in substance use than females (32.8%) ($p = 0.028$). Adolescents living with guardians or extended family (65.2%) reported higher substance use compared to those living with both parents (37.3%) ($p = 0.026$), suggesting that parental presence may serve as a protective factor. Furthermore, 70.7% of respondents indicated that they had witnessed substance use within their homes or communities, which more than doubled the likelihood of personal use (AOR = 2.31; 95% CI: 1.01–5.31; $p = 0.048$). Other variables, including age, religion, parents' employment, household size, friends' use, peer pressure, perceived ease of access, and stress or depression, were not statistically significant after adjustment ($p > 0.05$). These findings underscore that gender, family structure, and environmental exposure are the most critical determinants influencing adolescent substance use in the study area.

5.3 Awareness and Knowledge of Psychoactive Substances Among Adolescents

The high level of awareness of psychoactive substances among adolescents in Ningo-Prampram (94%) reflects the growing visibility of substance use in contemporary Ghanaian youth culture. This pattern resonates with evidence from several regional and international studies showing that exposure to substances often begins with awareness long before use. In Ghana, Mohammed et al. (2024) observed that most school-going adolescents were already familiar with alcohol, cannabis, and tramadol even before encountering them directly, suggesting that social exposure, peer networks, and local norms strongly shape awareness.

This widespread familiarity is not unique to Ghana. Ball et al. (2022) found comparable patterns in New Zealand, where alcohol and vaping products dominated adolescent discourse, indicating a global shift toward socially accepted but risky forms of substance use. In both contexts, the perception of alcohol and shisha as “mild” or “fashionable” substances may explain their dominance in awareness levels in Ningo-Prampram, where alcohol (95.1%) and shisha (90.2%) were the most recognized. As Volkow and Boyle (2018) argue, adolescent susceptibility to peer approval and marketing often reinforces curiosity and experimentation with these seemingly harmless substances.

While this high awareness may suggest that prevention messages are circulating effectively, the uneven depth of understanding among respondents shows that information does not always translate into comprehension. In this study, approximately 72.3% of adolescents demonstrated high knowledge, while 27.7% fell within the low-knowledge category. Nawi et al. (2021) similarly observed that awareness alone does not predict responsible behavior, especially where adolescents are exposed to conflicting or incomplete information. In the Ghanaian context, such inconsistencies may be driven by varying sources of knowledge and the absence of structured family dialogue about substance use.

The finding that adolescents relied primarily on friends (29.9%) and schools (27.2%) as their first sources of information, with minimal input from family (4.9%), underscores the dominance of peer and institutional learning over parental communication. This mirrors patterns reported by Appati et al. (2025) and Rodríguez-Ruiz et al. (2023), who both identified peers and schoolmates as key informants, sometimes providing accurate prevention messages, but often introducing distorted or glamorized narratives about substance use. Such peer-mediated information networks can either strengthen protective attitudes or encourage experimentation, depending on the prevailing group norms.

The limited contribution of family in adolescent substance education has been widely documented. Özeylem et al. (2021) noted that in many low- and middle-income countries, parents are hesitant to discuss drug-related topics due to cultural taboos, discomfort, or the belief that such discussions could promote curiosity. This communication gap compels adolescents to seek information elsewhere, which may inadvertently normalize substance use. Boer et al. (2024) further highlighted the role of digital platforms in shaping adolescents' perceptions, noting that the entertainment-driven portrayal of drugs on social media can trivialize the risks and encourage imitation.

The recognition that knowledge quality varies significantly across adolescents suggests that while school-based campaigns are reaching many students, their long-term impact may be limited by weak family reinforcement and peer misinformation. Bunu et al. (2023) found that adolescents who lacked parental supervision or spent more unsupervised time with peers were more prone to receive and internalize inaccurate information about substances. This reinforces Nawi et al.'s (2021) conclusion that substance-use prevention requires integrated reinforcement across multiple contexts like school, home, and community, if awareness is to evolve into behavioral protection.

In summary, adolescents in Ningo-Prampram exhibit commendably high awareness (94%) and relatively strong knowledge levels (72.3%), but their information sources remain largely informal and fragmented. The reliance on peers (29.9%) and limited family involvement (4.9%) highlights the need for a multi-channel prevention strategy that integrates peer-led education, school-based life-skills training, and structured parental engagement. Reinforcing accurate knowledge through collaborative education between teachers, parents, and health educators will be essential in transforming awareness into informed, protective behavior toward substance use.

5.4 Prevalence of Substance Use Among Adolescents in Ningo Prampram Municipality

The lifetime prevalence of substance use among adolescents in Ningo-Prampram (38.6%) underscores a concerning level of experimentation within this age group. Although current use within the past 30 days (10.9%) was considerably lower, the wide gap between lifetime and recent use (27.7 percentage points) suggests that experimentation is more frequent than habitual use. This indicates that many adolescents may try substances out of curiosity or social influence but do not necessarily develop persistent patterns of use. Such a pattern is typical of early exposure phases reported in adolescent behavioral research, where experimentation often precedes established use (Volkow and Boyle, 2018).

The dominance of alcohol (34.2%) among substances used mirrors national and international trends, reinforcing its role as the most socially accessible and culturally tolerated substance among youth. Globally, Ball et al. (2022) observed parallel findings in New Zealand, where alcohol remained the most prevalent adolescent substance despite declining use of cigarettes and cannabis, suggesting that social normalization rather than legal status drives accessibility. In Ghana, Mohammed et al. (2024) similarly found that alcohol was the leading substance among secondary school students, attributing this to cultural acceptance, ease of access, and weak enforcement of age restrictions. Appati et al. (2025) also reported that adolescents frequently encounter alcohol at social gatherings and family events, often without adult supervision. In the Ghanaian context, this pattern is further reinforced by the way alcohol is deeply woven into cultural and social life. Alcohol is traditionally served at almost every social and communal event, including festivals, weddings, funerals, naming ceremonies, and family gatherings, where its consumption is regarded as a sign of hospitality, honour, and celebration rather than deviance (Adu-Mensah, Arthur & Ofori, 2022). This widespread social acceptance blurs the boundary between adult and adolescent drinking, as young people are often exposed to alcohol within family and community settings from an early age (Addolorato & Obot, 2021). Such repeated exposure gradually normalises alcohol use and creates the perception that drinking is an integral part of social identity and belonging. The World Health Organization (2018) also notes that across many African societies, alcohol holds ritual and symbolic importance, making it both culturally accessible and socially tolerated. Consequently, in the Ningo-Prampram Municipality, adolescent alcohol use reflects not only availability but also a cultural permissiveness that embeds alcohol in everyday life, making behavioral regulation and enforcement alone insufficient without cultural and community engagement.

Adu Gyamfi (2019) reported that it is symbolic to served locally brewed alcoholic beverages in showing hospitality, cultural identity as well as a source of social bonding in the Ghanaian society.

The culturally accepted view of alcohol consumption minimizes it perceived risk and a contributing factor it its early initiation.

The relatively lower prevalence of shisha (11.4%), cigarettes (4.4%), marijuana (3.3%), tramadol (2.7%), and cocaine (1.1%) reflect both the hierarchical availability of substances and the influence of socioeconomic and community-level controls. The emergence of shisha as the second most used substance aligns with a rising trend across Africa and Asia, where its perceived "harmlessness" compared to cigarettes has made it popular among young people. Özeylem et al. (2021) found similar shifts in low- and middle-income countries, noting that adolescents were more likely to experiment with newer, socially acceptable substances such as shisha or e-cigarettes rather than traditional drugs like marijuana or cocaine.

Age of initiation between 10 and 16 years in this study corresponds with critical developmental stages where adolescents experience strong identity formation pressures. This period coincides with increased autonomy and exposure to social influences. According to Nawi et al. (2021), early initiation often occurs in contexts where peer acceptance and environmental cues outweigh parental or institutional control. The prominence of stress relief and fun or experimentation (35%) as primary motives further supports the idea that adolescents use substances as coping tools or social facilitators. Rodríguez-Ruiz et al. (2023) also found that curiosity, recreation, and emotional regulation were the most frequently cited reasons for adolescent substance use, while structural factors like poverty or family dysfunction acted as enabling conditions.

The finding that peer influence (21%) and curiosity were significant motivators aligns closely with earlier Ghanaian research. Amadu et al. (2024) reported that adolescents often begin using substances through peer networks, where imitation and pressure outweigh perceived risk. Similarly, Bunu et al. (2023) identified social conformity and the desire for belonging as key psychosocial determinants of adolescent substance experimentation. In the Ningo-Prampram context, this may be reinforced by urban exposure and limited structured recreation, making peer networks and informal gatherings strong social anchors for adolescents.

Interestingly, family encouragement and perceived performance enhancement (15.5%) were also mentioned as reasons for use, echoing findings by Appati et al. (2025) that some adolescents are introduced to alcohol or stimulants within the household, often under the misconception that they enhance stamina or reduce stress. This intergenerational exposure highlights the family as both a protective and risk factor. Where supervision is weak or family members use substances openly, adolescents may internalize permissive attitudes, as noted by Özeylem et al. (2021) and Nawi et al. (2021).

The distinction between lifetime and current use where nearly three-quarters (72%) of those who have ever used have not used recently suggests that experimentation may not always evolve into dependence. Volkow and Boyle (2018) emphasize that while adolescence is a critical window for initiation, not all exposure leads to addiction; protective factors such as school involvement, religious participation, and family attachment often buffer continued use. However, this does not negate the risk, as early experimentation increases the likelihood of later dependency if social and emotional vulnerabilities persist (Boer et al., 2024).

The findings reveal that adolescent substance use in Ningo-Prampram is largely driven by social opportunity, experimentation, and emotional relief, consistent with both national and global patterns. The relatively low levels of current use offer a preventive window for intervention particularly through programs that strengthen resilience, promote adaptive coping, and challenge peer norms around substance use. Reinforcing parent–child communication, community recreation spaces, and school-based life-skills education could help reduce curiosity-driven experimentation and prevent transition to habitual use.

5.5 Risk Factors Associated with Substance Use Among Adolescents in Ningo Prampram

The findings indicate that environmental exposure and household structure were the most influential determinants of substance use among adolescents in Ningo-Prampram. In contrast, peer-related and psychosocial variables were relatively less significant. A majority of respondents reported seeing people use substances in their homes or communities (70.7%), and this exposure more than doubled the odds of personal substance use (AOR = 2.31; 95% CI: 1.01–5.31; $p = 0.048$). This relationship illustrates the powerful modelling effect of the environment, where adolescents learn and internalize behaviors observed around them. The result aligns with Appati et al. (2025) and Mohammed et al. (2024), both of whom identified community visibility and accessibility of substances as strong enablers of adolescent use in Ghana. Nawi et al. (2021) similarly concluded that the perception of availability and environmental normalization are among the most consistent predictors of youth substance use across settings.

The significant influence of the living arrangement variable further demonstrates how household context shapes behavioral exposure. Adolescents living with guardians or extended family (65.2%) had nearly three times higher odds of use compared with those living with both parents (AOR = 2.98; 95% CI: 1.02–8.68; $p = 0.046$). This may reflect reduced parental supervision, inconsistent discipline, and weakened emotional bonding—all of which are well-documented correlates of adolescent risk behavior. Rodríguez-Ruiz et al. (2023) emphasized that family cohesion and monitoring constitute primary protective factors against adolescent substance initiation, while absence of such support increases vulnerability. Likewise, Özeylem et al. (2021) found that youth from single-parent or guardian households in low-income countries were more likely to engage in early experimentation, citing permissive norms and limited communication as underlying causes.

The gender differential observed though not independently significant after adjustment, reflects the cultural and social gendered patterns documented across Sub-Saharan Africa. Amadu et al. (2024) observed that male adolescents were more frequently exposed to peer networks and public spaces where alcohol and shisha use are normalized. In contrast, female adolescents face stronger social sanctions against such behavior. Appati et al. (2025) similarly highlighted masculinity norms and peer validation as subtle motivators for male experimentation. These findings are also supported by Ball et al. (2022), who reported that adolescent males in New Zealand consistently demonstrated higher use rates across all substance categories due to gendered expectations around risk-taking and sociability.

Interestingly, peer influence and peer pressure were not statistically significant predictors of substance use in this context ($p = 0.167$ and $p = 0.818$, respectively), despite nearly 42.9% acknowledging that some of their friends used substances. This finding departs from several studies where peer influence emerged as a dominant factor, such as Bunu et al. (2023) and Nawi et al. (2021), who identified peer modelling as a consistent driver of youth substance initiation. The weaker effect in Ningo-Prampram may be explained by the predominance of environmental visibility, where adolescents are influenced more by what they see in the community than by direct peer persuasion. It may also indicate that preventive education within schools has somewhat mitigated the impact of peer pressure, even though it has not fully addressed broader social exposure.

The data also show that perceived accessibility (57.1%) and emotional distress (33.1%) were not independently associated with substance use ($p > 0.05$). This contrasts with Volkow and Boyle

(2018), who argued that emotional dysregulation and stress are key risk amplifiers during adolescence. The lack of association here might reflect underreporting of mental distress due to social desirability or stigma, rather than true absence of emotional influence.

Academic level emerged as a protective factor, with students in SHS 3 significantly less likely to use substances than those in SHS 1 (AOR = 0.19; 95% CI: 0.06–0.59; $p = 0.004$). This suggests that maturity and accumulated exposure to school-based health education contribute to preventive awareness. Appati et al. (2025) observed a similar pattern, where older adolescents in higher grades exhibited stronger resistance to peer and environmental pressures, likely due to increased cognitive control and clearer life aspirations. Rodríguez-Ruiz et al. (2023) similarly emphasized that school engagement functions as a long-term protective buffer against risky behavior.

The Ningo-Prampram evidence points to the community context and household supervision as dominant forces. As Nawi et al. (2021) and Özeylem et al. (2021) argue, substance use prevention must therefore extend beyond individual-level interventions to encompass family-centered and environmental strategies. Strengthening parental presence, enforcing community by-laws against open substance use, and providing supervised youth recreation spaces may reduce the environmental modelling currently fueling experimentation.

In conclusion, adolescents in Ningo-Prampram appear to be shaped more by what they observe than by what they are told. Environmental exposure and household structure exert the strongest influence, while peer dynamics and emotional stress are comparatively weaker predictors. This underscores the need for multi-layered prevention strategies that combine community enforcement, parental involvement, and sustained school-based education to curtail the normalization of substance use within adolescent social environments.

CHAPTER SIX

6.0 CONCLUSION AND RECOMMENDATIONS

6.1 Introduction

This chapter presents the general conclusions and recommendations obtained from the findings of the study on substance use and its associated factors among adolescents in the Ningo-Prampram Municipality. The study examined adolescents' knowledge of substance use, the prevalence and commonly used substances, and the risk factors influencing substance use within the community.

6.2 Conclusion

This study examined substance use and its associated factors among adolescents in the Ningo-Prampram Municipality. The findings revealed that awareness of psychoactive substances was high (94%), with alcohol and shisha being the most recognized substances. The lifetime prevalence of substance use among adolescents was 38.6%, while current use stood at 10.9%, indicating that experimentation is more common than habitual use. Alcohol was the predominant substance used, reflecting its cultural acceptance and accessibility. The main motives for use; stress relief, curiosity, and peer influence, suggest that both emotional and social factors contribute to initiation.

Environmental exposure and household structure emerged as the strongest predictors of adolescent substance use. Adolescents who frequently saw people using substances in their homes or communities had more than double the odds of using substances themselves (AOR = 2.31), while those living with guardians or extended family were nearly three times more likely to use (AOR = 2.98). These findings collectively highlight that adolescent substance use in Ningo-Prampram is shaped more by environmental and familial context than by individual curiosity or peer influence. While awareness levels are encouraging, preventive knowledge is fragmented and primarily peer-driven. A comprehensive response must therefore combine school-based education, family engagement, and community enforcement to address the socio-environmental roots of adolescent experimentation and use.

6.2 Recommendations

Based on the findings of this study, the following recommendations are suggested:

1. Senior high schools should use educational posters illustrating the harmful effects of alcohol on the body systems and this should be displayed at strategic locations on the school compounds to reinforce awareness. Also, schools should collaborate with health professionals to organize periodic health talks and interactive sessions on alcohol use and its effects on students' physical and mental well-being, as well as academic performance.
2. At the school level, authorities should implement strict measures to limit the availability and use of alcohol within and around school premises. The Ghana Education Service (GES) should enforce clear policies prohibiting the sale, promotion, or consumption of alcohol during school events, excursions, or celebrations, and collaborate with local assemblies to restrict alcohol vendors from operating near school compounds. In addition, schools should strengthen supervision during social and extracurricular activities to discourage the introduction of alcoholic beverages by students or visitors.
3. The Ghana Education Service, in collaboration with the GHS Health Promotion Division, should integrate structured and continuous substance-use education into the school curriculum. This should include life-skills training, peer-led awareness clubs, and teacher capacity-building workshops to help adolescents resist experimentation and develop critical thinking about peer and media influences.
4. The GHS and Department of Social Welfare should spearhead parental education programs focused on open dialogue, supervision, and early warning signs of substance use. Parents

and guardians must be encouraged to discuss substance-related issues without fear or stigma.

5. The Municipal Assembly and local law enforcement should intensify monitoring and enforcement of by-laws that restrict the sale and public use of alcohol and other substances near schools and youth centers
6. To address boredom and curiosity-driven experimentation, the Municipal Assembly and Ministry of Youth and Sports should invest in youth development and recreation programmes such as sports clubs, creative arts, and mentorship initiatives. Providing safe alternatives to idleness will reduce exposure to risky environments.

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APPENDICES

APPENDIX I: INFORMED CONSENT

INFORMED CONSENT

Title of Study: Substance Use and Its Associated Effects Among Adolescents in Ningo Prampram Municipality in the Greater Accra Region, Ghana

Principal Investigator:

Full Name:

Institutional Affiliation:

Contact Information (Phone/Email):

Introduction

Hello sir/madam, my name is Emelia adwoa Wurah, a student at ensign global university, Kpong. I am conducting a research study aimed at examining the patterns, causes, risk and protective factors of substance use among adolescents in Ningo Prampram Municipality. This forms part of my academic work and it is meant to help design effective public health strategies to tackle the problem of substance use among adolescents.

Before you decide whether or not to participate, it is important for you to understand why the research is being conducted and what it will involve. Please read the following information carefully and feel free to ask any questions.

Purpose of the Study

This study seeks to explore the use of substances (such as alcohol, tobacco, cannabis, and non-traditional substances such as shisha and ecstasies) among adolescents, including the risk and protective factors. The findings may inform policies and interventions aimed at reducing substance use and improving adolescent health in the municipality.

Participant Involvement

If you agree to participate; You will be asked to complete a questionnaire lasting approximately 30–45 minutes, the questions will relate to your knowledge, attitudes, behaviors, and experiences with substance use and no medical tests or physical examinations will be involved.

Voluntary Participation

Your participation is completely voluntary. You are at liberty to refuse to answer any question or withdraw from the study at any time without any penalty or loss of benefits.

Risks and Benefits

Risks: Some questions may make you feel uncomfortable or sensitive.

Benefits: There are no direct benefits to you. However, your participation will contribute valuable insights for public health planning in the municipality.

Confidentiality

Your responses will be kept strictly confidential and used only for academic and research purposes. You will not be identified by name in any report or publication. All data will be stored securely and destroyed after the study ends.

Parental/Guardian Consent (if participant is under 18)

This study involves individuals under the age of 18. Consent must be provided by a parent or legal guardian, in addition to the adolescent's assent.

Consent Statement

☐ I have read and understood the information provided above.

☐ I have had the opportunity to ask questions and they have been answered satisfactorily.

☐ I voluntarily agree to participate in the study.

Participant Name: ___________________________

Signature: ___________________________

Date: ___________________

APPENDIX II: QUESTIONNAIRE

Instructions:
Please answer the following questions. Your responses are confidential and will be used for academic purposes only and do not write your name.

SECTION A: Socio-Demographic Information

1. Age: ______ years

2. Gender: ☐ Male ☐ Female

3. Class Level: ☐ SHS 1 ☐ SHS 2 ☐ SHS 3

4. Religion: ☐ Christianity ☐ Islam ☐ Traditional ☐ Other: ___________

5. Who do you live with? ☐ Both parents ☐ One parent ☐ Guardian ☐ Alone ☐ Others: ___________

6. Number of people living in your household: ________

7. Are your parents or guardians employed? ☐ Yes ☐ No ☐ I don't know

SECTION B: Knowledge of Substances

8. Have you heard of the following substances? Tick all that apply: ☐ Alcohol ☐ Cigarettes ☐ Shisha ☐ Marijuana (Weed) ☐ Tramadol ☐ Cocaine ☐ Codeine ☐ Glue/Solvents ☐ Others: ___________

9. Where did you first hear about these substances? ☐ Friends ☐ Family ☐ TV/Radio ☐ Internet/social media ☐ School ☐ Others: ___________

SECTION C: Substance Use Experience

10. Have you ever used any of the following substances? Tick all that apply: ☐ Alcohol ☐ Cigarettes ☐ Shisha ☐ Marijuana ☐ Tramadol ☐ Codeine ☐ None

11. At what age did you first use any substance? _______ years

12. Have you used any substance in the past 30 days? ☐ Yes ☐ No If yes, which one(s)? ___________________

13. Why did you try or use the substance? (Tick all that apply): ☐ Curiosity ☐ Peer pressure ☐ Stress relief ☐ Fun/Experimentation ☐ Influence from family ☐ To improve performance ☐ Other: ___________

SECTION D: Risk Factors Associated with Substance Use

On a scale of 1 to 4, indicate how true each statement is for you:
(1 = Strongly Disagree 2 = Disagree 3 = Agree 4 = Strongly Agree)

No.	Statement	1	2	3	4
14	Most of my friends use one or more substances.				
15	I feel pressure from my friends to try substances.				
16	I see people in my home or community using substances.				
17	Substances are easy to get in my area.				
18	I have often felt stressed or depressed in the last 6 months.				

SECTION E: Protective Factors Associated with Substance Use

Rate how true these statements are for you:
(1 = Strongly Disagree 2 = Disagree 3 = Agree 4 = Strongly Agree)

No.	Statement	1	2	3	4
19	I can easily talk to my parents/guardians about my problems.				
20	I participate in extracurricular or religious activities.				
21	I feel supported by my teachers.				

22	I know the negative effects of substance use.				
23	I have personal goals that are important to me.				

APPENDIX III: ASSENT FORM

ASSENT FORM FOR STUDENTS FOR STUDENTS PARTICIPATION

Title of Study

Substance Use and Its Associated Effects Among Adolescents in Ningo Prampram Municipality in the Greater Accra Region, Ghana.

Why am I being asked to take part in this research?

You are being asked to be part of a study that wants to examine substance use like alcohol, cigarettes, and other substances, and how it affects their health, behavior, and school life.

What will happen if I say yes?

You will be asked some questions about your knowledge, experience, and opinions on substance use.

It will take about 30 to 45 minutes.

You don't have to write your name on the answers unless you want to.

No one will be angry or punish you for your answers.

Do I have to take part?

No. You don't have to join the study if you don't want to. You can say no now or stop at any time. It's your choice.

Will anyone know what I say?

Your answers will be private. Your parents, teachers, or friends will not know what you said. We will not write your name in the report.

Is it safe?

Yes. Nothing we ask will hurt you. If any question makes you feel upset, you can skip it or stop the interview. We will also help you talk to someone if you feel stressed.

Who can I talk to if I have questions?

If you have questions, you can ask the researcher or talk to your parent/guardian or teacher.

Do you agree to take part in this study?

☐ Yes, I want to be part of the study.

☐ No, I don't want to be part of the study.

Student's Name: ____

Signature: ___________________________ Date: ___________

Name of Researcher: ___________________________

Signature: ___________________________ Date: ___________

Contact details/email; ____

APPENDIX IV: ETHICAL CLEARANCE

ENSIGN GLOBAL
UNIVERSITY

OUR REF: ENSIGN/IRB/EL/SN-318/03
YOUR REF:

August 4, 2025

INSTITUTIONAL REVIEW BOARD SECRETARIAT

Emelia Adwoa Wurah
Ensign Global University
Kpong.

Dear Emelia,

ETHICAL CLEARANCE TO UNDERTAKE POSTGRADUATE RESEARCH

At the General Research Proposals Review Meeting of the *INSTITUTIONAL REVIEW BOARD (IRB)* of Ensign Global University held on Friday, August 1, 2025, your research proposal entitled **"Substance Use and its Associated Factors Among Adolescents in Ningo Prampram Municipality of the Greater Accra Region of Ghana"** was considered.

You have been granted Ethical Clearance to collect data for the said research under academic supervision within the IRB's specified frameworks and guidelines.

We wish you all the best.

Sincerely,

Dr. (Mrs.) Rebecca Acquaah-Arhin
IRB Chairperson

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