ADDIS ABABA UNIVERSITY

COLLEGE OF EDUCATION AND BEHAVIORAL STUDIES

DEPARTMENT OF PSYCHOLOGY

PREVALENCE, CONTRIBUTING FACTORS, AND PSYCHOLOGICAL CONSEQUENCES OF PSYCHOACTIVE SUBSTANCE USE AMONG HIGH SCHOOL STUDENTS IN KOLFE KERANIYO SUB-CITY, ADDIS ABABA, ETHIOPIA

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JUNE, 2024

ADDIS ABABA ETHIOPIA

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APPROVAL PAGE

Prevalence, Contributing Factors, and Psychological Consequences of Psychoactive Substance Use Among High School Students in Kolfe Keraniyo Sub-City, Addis Ababa, Ethiopia

By: Yemisrach Lakew

Approved by the Board of Examiners

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External Examiner name	**Signature**	**Date**

DECLARATION

I, Yemisrach Lakew hereby declare that the thesis entitled; "Prevalence, Contributing Factors, and Psychological Consequences of Psychoactive Substance Use Among High School Students in Addis Ababa, Ethiopia" had fully accepted by me. I have accomplished the study under the supervision of Addis Ababa University, School of Psychology, Ethiopia. I also declare that this thesis had not submitted for the award of any Degree, Diploma, Associateship or Fellowship, or any other colleges or Universities.

Name of Investigator: _____

Signature: _____

Name of institution: Addis Ababa University

Date of submission: _____

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ABSTRACT

Psychoactive substances are composites or chemicals that cause health and social problems (containing addiction). Substance use by youths causes a massive burden on individuals, families, and communities. The objective of this research is to assess the prevalence, factor, and psychological consequences of psychoactive substance use among students in the Kolfe Keraniyo sub-city, Addis Ababa, Ethiopia. An Institution-based cross-sectional study conducted from May 1, 2023- May 30, 2023, among 394 students who attended at Kolfe Keraniyo sub-city using multi-stage sampling techniques. Data entered into the Epi-data version 3.1 and data analyzed using the statistical package for social science (SPSS) version 26. The SPSS analysis employed both descriptive (mean, standard deviation, and proportion) and Inferential statistics such as chi-square test of association assess the association between psychoactive substance usage across various independent variables of the study. The p-values of 0.05 or lower taken to declare the presence of association between two variables. This study conducted with 394 respondents, with a response rate of 98.71*%. Based on the analysis, this study revealed that the prevalence of psychoactive substance user among high school students were 117 (30.5%). Of this 25.5%, 22.1%, 24.0%, 3.10%, and 3.4% were used alcoholic drink, cigarette, kchat cannabis, and other psychoactive substances in their lifetime respectively. Similarly, about* 78 (66.67%) male and 39 (33.33%) female students use substance *in their lifetime. Living conditions of students (p = 0.000), student's family conditions (p = 0.000), family members using substance (p = 0.000), and friends using substance (p = 0.000) were statistically associated with substance use in high school students. Health experts, non-governmental organizations, educational institutions, and religious leaders should work together to educate high-school students about the risks and consequences of psychoactive substances to reduce frequency of psychoactive substance use among students.*

Keywords: *Psychoactive Substance, High school, Student, Kolfe keraniyo sub-city*

CHAPTER ONE: INTRODUCTION

1.1. Background of the Study

Psychoactive substances defined as chemicals that results health and social problems, including addiction (McLellan, 2017). The term “psychostimulant” characterized as a psychotropic substance that capable to stimulate the central nervous system (Radulescu et al., 2020). A psychoactive substance acts primarily on the central nervous system where it changes brain function. That cause in short-term changes in insight, consciousness, attitude, and behavior (WHO, 2004). Users of psychoactive substances experienced psychotic indicators, which contribute to physical and psychological problems and have a variety of destructive consequences on overall health results (Whiteford et al., 2013). According to the World Health Organization (Stangor et al., 2019), substance use encompasses the consumption of various substances such as cigarettes, alcohol, prescription drugs, illegal drugs, khat, cocaine, tobacco, marijuana, heroin, and cannabis.

Substance use is a significant global issue affecting millions of people across various regions. According to the UNODC World Drug Report 2023, around 296 million people worldwide used drugs in 2021, marking a 23% increase over the past decade (UNODC,2023). According to the Global Addiction report (Hall & Poirier, 2017), nearly 1 in 20 individuals aged 15 years were reported using common drinking of alcohol, tobacco, and illicit drugs. Generally, substance use is widespread among young people in the world. Adolescence age is the opening of the significant period for initiation, with the age between 18 and 25 being the crucial age for substance use (Schifano et al., 2019).

Substance use is a rising problematic both in developed and in developing countries (Kaur et al., 2019). In Africa, there are significant evidence that reveal the widespread use and abuse of psychoactive substances among youths have increased (Gudaji & Habib, 2016; James, 2014). Similarly, in Ethiopia, substance usage by adolescents was a rising burden like many other African nations. Some evidence that that obtained from Ethiopian universities and High Schools showed that high prevalence of substance users (Kassa & Deyno, 2014; Mossie et al., 2015; Tadesse, 2014).

Globally, approximately two billion people consume alcohol, contributing to 4% of the global disease burden (WHO, 2007). A systematic review reported that the prevalence of alcohol consumption in Eastern Africa is 52% (Francis et al., 2014). In Ethiopia, the most commonly used substances among youth are cigarettes, khat, and alcohol (Seid et al., 2021). A study conducted in central Ethiopia found that about 16.3% of individuals were substance users, with 8.3% consuming alcohol, 6.4% smoking cigarettes, and 5.9% using khat (Seid et al., 2021). In Ethiopia, approximately 45% of women and 53% of men have consumed alcohol at some point in their lives. Among students at high school and higher educational levels, alcohol is the most commonly used substance (Alebachew et al., 2014). Cigarette smoking is also on the rise in developing countries, including Ethiopia. Currently, about 50% of men and 9% of women in developing nations smoke cigarettes, compared to 35% of men and 22% of women in developed nations (Mackay & Eriksen, 2002). Additionally, chewing khat is prevalent in various regions of Ethiopia: 53.2% in Harari, 44.9% in Dire Dawa, 26.4% in Oromia, 26.0% in Somalia, and 1.1% in Tigray (Haile & Lakew, 2015).

Substance use by individuals results in problem of persons, relatives, and societies. Psychoactive substance use is a main community health problem facing the world today among youth and adolescent ages (Hagell, 2013; Tekesa, 2020). The use of these substances causes various side effects, such as appetite reduction, change of vision, increase in heart rate, visual hallucinations, bad dream, and quick attacks of anxiety, bad performance in daily activities, and severe contraction of the jaw, learning disorder, lack of attention, forgetfulness, convulsion, and sudden death (Solowij et al., 1992). At this time, appropriately 10% of deaths cases in the world are affected by smoking and psychoactive substance use, which may be increased to 16% in 2030 (Kalant, 2001). Moreover, the long-term effects of substance use might be sudden problems handle by early stages like accidents, fights, unwanted sexual activity, and overdose (Bojanić et al., 2021; Tesema et al., 2020).

Additionally, the use of psychoactive substance affects the academic performance of students. Some of the problems faced by substance use were drop out of students from school, adding and rising rate of unemployment (Henkel, 2011; Terwase & Asuzu, 2014). Young individuals are the most susceptible to the effects of substance use and increased risk of long-term consequences,

like emotional health illnesses, underachievement in school, and substance addiction (Saban et al., 2014).

The most significant factors causing trends toward psychoactive substances use were the lack of psychological support, mental and social problems, and a history of drug abuse in parents; the combination of parents, social, and emotional problems of the students (Vakili et al., 2018). Furthermore, the other contributing factors like peer pressure, family problems, easy accessibility of drugs, and getting respite from stress are some of the causative factors to start psychoactive substances (Loffredo et al., 2015). Therefore, this study examined the contributing factors and consequences of the use of psychoactive substance use on high school students in the Kolfe Keraniyo sub-city, Addis Ababa, Ethiopia.

1.2. Statement of the Problem

Substance use is the main public health problems in universal settings and it is very common problem during adolescence period primary to emotional health difficulties (Agegnehu, 2015). It is increasing at an alarming rate, increasing crimes, and hindering production, affecting serious pressures to every nation, destroying social and moral values, decrease relationships with others, and blocking the overall progress of societies (Siste et al., 2019). The latest research trend shows that substances use radically increased mostly in developing nations (Deressa & Azazh, 2011; Odejide, 2006). Similarly, the use of cigarettes, alcohol, tobacco, Khat, and other substances creates one of the most significant risk-taking behaviors among adolescents adults in secondary schools and colleges with resulting physical and psychological health problems (Deressa & Azazh, 2011; Oshodi et al., 2010). Although international concern and education about psychoactive substances showed that, many youths have inadequate awareness of their adverse consequences. Despite the fact, the community influence of substance use among adolescences is paramount internationally, there is slight evidences found from community-based studies about the prevalence and related risk contributing factors of substance use in this age group particularly in Ethiopia (Admasu et al., 2023).

Studies by Deribe (2019), Eticha & Kidane (2014), Gebreslassie et al. (2013), Kassa et al. (2014), Tadesse et al. (2016), and Tesfaye et al. (2014) have explored the prevalence of

substance use among high school students. Mekuria M. (2018) specifically examined the extent of substance abuse among students at Ambo High School in Ethiopia. Additionally, research by Derese et al. (2014), Deressa & Azazh (2011), Gebremariam et al. (2018), and Tadesse (2014) has concentrated on substance abuse in higher education institutions such as universities and colleges.

Nevertheless, there is a notable lack of comprehensive data on substance use among high school students in Ethiopia, particularly regarding khat chewing, alcohol consumption, and cigarette smoking (Guliani et al., 2019; Yitayih & van Os, 2021). Furthermore, there is a dearth of studies addressing the prevalence, contributing factors, and psychological consequences of psychoactive substance use among high school students. Even though there are studies that have looked into the psychological consequences of substance abuse, the context and population they cover are often limited to higher education institutions or specific substances. There is a significant gap in the literature when it comes to understanding how these psychological consequences manifest among high school students, who may be at a critical developmental stage and face different social and environmental influences. This study is therefore aimed to fill this gap by providing comprehensive data on the prevalence, contributing factors, and psychological consequences of psychoactive substance use specifically among high school students. This can help in designing targeted interventions and policies to address and mitigate the impact of substance use in this vulnerable population. Moreover, there is a limitation of studies on the prevalence, contributing factors, and psychological consequences of psychoactive substance use among high school students.

Therefore, this study explores the prevalence, contributing factors, and psychological consequences of psychoactive substance use among high school students, Addis Ababa, Kolfe Keraniyo Sub-city, and recommended practical measures in order to reduce this hazard. Therefore, this study answered the following research questions:

1. What are the prevalence of psychoactive substances use by high school students of the Kolfe Keraniyo sub-city in Addis Ababa, Ethiopia?
2. What are the factors of psychoactive substance usage among high school students of the Kolfe Keraniyo sub-city in Addis Ababa, Ethiopia?

3. What are the psychological consequences of psychoactive substances use among high school students in the Kolfe Keranyio sub-city, Addis Ababa, Ethiopia?
4. What is the association between psychoactive substance uses across various independent variables of the study?

1.3. Objectives of the study

1.3.1. General Objective

- ✓ The main objective of the study was to assess the prevalence, contributing factors, and psychological consequences of psychoactive substance use among high school student at Kolfe Keraniyo Sub-city, Addis Ababa, Ethiopia, 2023

1.3.2. Specific objective

- ✓ To examine the prevalence of psychoactive substance, use by high school students, Kolfe Keraniyo sub-city, Addis Ababa, Ethiopia.
- ✓ To identify the factors of psychoactive substances usage by high school students of the Kolfe Keraniyo sub-city, Addis Ababa, Ethiopia.
- ✓ To assess psychological consequences of psychoactive substances, use among high school students of the Kolfe Keraniyo sub-city, Addis Ababa, Ethiopia.
- ✓ To measure the strength of relationship between psychoactive substance, use with independent variables of this study.

1.4. Significance of the Study

Governmental and academic organizations will greatly benefit from this study since it addresses a current issue that encourages and highlights the issues related with substance use. Results of this study should also point to workable remedies for the psychological effects and underlying reasons to substance use among urban high school students. The study could also assist Kolfe Keraniyo Sub City education, youth, and health offices adopt corrective actions to address challenges. Hence, the findings of this study will highlight on the extent of the problem.

- It will support teachers, school administrators, parents, and other concerned bodies to approach the problem with suitable intervention.

- It will be able to increase the body of knowledge in the area of substance use problems.
- It is useful for counseling and providing health education on the effects of substance use.
- It would also serve as a guide for non-government actors to allocate fair resources and techniques that support the government in designing policies and strategies that facilitate a school environment free of substances.
- Moreover, this study will serve as a springboard for future researchers.

1.5. Delimitation of the Study

The study limited to the Kolfe Keraniyo sub-city, one of 11 sub-cities in Addis Ababa. The study focused solely on regular public and private high schools in the Kolfe Keraniyo sub-city to examine the contributing factors and psychological consequences of psychoactive substances usage. Despite the study's focus on a particular sub-city, it could provide insights into all Addis Ababa sub-cities. Finally, the study delineated the prevalence, contributing factors and psychological consequences of psychoactive substances use by students.

1.6. Limitation of the Study

The limitations of the study is the method of data collection i.e. self-report through a face-to-face interview subjected to under-reporting biases that arise from personal concerns about social stigmatization. Furthermore, to set the kids free express consent obtained, and objective of the study thoroughly explained. Furthermore, the study is cross-sectional; it makes it difficult to make a causal association between the dependent and independent variables.

1.7. Operational Definition

Psychoactive Substance: In this study, psychoactive substances are substances that include alcoholic substances, khat, tobacco products, cigarette, and other illegal narcotics.

Substance Use: Substance usage at least once from such substances (alcohol, khat, cigarettes, and other illicit drugs).

High school students: students that attend a high school from grade 9 to 12.

Availability of Substance: is the substances actuality simply available for in business activities and social linkages around and in educational organizations.

Psychological consequence: outcome resulting from substance use such as self-harming behavior, sleeping and eating difficulties, desperation and inactivity in daily work.

High psychological consequence: assessed using a Likert scale with four questions, higher than the mean score of the outcome found to be unfavorable.

CHAPTER TWO: REVIEW OF LITERATURE

2.1. Prevalence of Substance Use

Substance abuse refers to the harmful or hazardous use of psychoactive substances, including alcohol and illicit drugs. It involves the repeated and excessive consumption of substances to the extent that it leads to significant distress or impairment in various areas of life. Substance abuse poses a significant global health challenge, affecting millions worldwide. According to the World Health Organization (WHO), approximately 275 million people aged 15-64 years used drugs at least once in 2020. (WHO,2020).

A study conducted in the United States with 2134 middle and high school students found that 20.2% reported recent alcohol use, and 10.1% reported drinking alcohol regularly (Vidourek & King, 2018). Another survey conducted among high school students in Arizona revealed prevalence rates of 10.3% for ever-smoking tobacco and 5.4% for current tobacco use (Primack et al., 2009). In Brazil, a survey of 2410 adolescent students reported a prevalence of 17.1% for substance use (Tavares et al., 2004). According to various studies across different regions: In São Paulo, a cross-sectional survey involving 2,287 elementary and secondary school students found that 41% of boys and 37% of girls engaged in harmful drinking (Dida et al., 2014). A study in Fukuoka, Japan, examined 214 students and reported prevalence rates of 35.1% for ever smoking, 30% for smoking before entering high school, and 10% for current smoking (Washio et al., 2003). In East Timor-Leste, a study found that 40.3% of 1,790 youths were current cigarette smokers. In Malaysia, a study involving 40 secondary school students reported an overall smoking prevalence of 14.6%, with males significantly higher at 27.1% compared to females at 2.4% (Lim et al., 2017).

Recent studies across Sub-Saharan Africa highlight significant prevalence rates of substance use among youth. A systematic review of 27 reports indicated an overall prevalence of 41.6% for substance use, with specific figures of 32.8% for alcohol, 23.5% for tobacco, 22.0% for khat, and 15.9% for cannabis (Abate et al., 2021). In Nigeria's Lagos state, a study involving 262 high school students found a prevalence of 19.5% for cigarette smoking and a striking 77.2% for lifetime alcohol use (Gidado et al., 2015).

In Ethiopia, studies highlight widespread substance use among youth across various regions. Gobeje et al. (2019) found that 4.4% of youth reported tobacco use, with 45.6% consuming alcohol more than six times monthly, predominantly among urban teenagers and adolescents. Dida et al. (2014) reported a total substance use prevalence of 34.8% among high school students in Bale Zone, with 24% using alcohol and 17.1% using khat. Similarly, Mossie et al. (2016) found in Jimma town that 33.9% used khat, 10.2% smoked cigarettes, 34.4% consumed alcohol, and 3.7% used shisha. Germany et al. (2007) studied khat chewing among teenagers in Asendabo town, reporting a lifetime prevalence of 34%. Agegnehu (2015) conducted research in Woreta Town, northern Ethiopia, revealing that 66% of males and 34% of females had used psychoactive substances. Another study by Agegnehu (2015) in Bonga town focused on government institution students, finding that 15.4% had chewed khat at least once in their lifetime, with 11.4% being current users within the last three months.

These findings highlight critical concerns about substance use among Ethiopian youth, emphasizing the need for targeted interventions and robust public health policies. High prevalence rates of alcohol, khat, and tobacco underscore potential health risks and underline the importance of addressing these issues to promote healthier behaviors and mitigate associated harms. Efforts should focus on education, prevention, and support initiatives tailored to the specific needs of youth in different regions of Ethiopia.

2.2. Contributing factors of psychoactive Substance use

The onset of psychoactive substance use during adolescence poses a significant concern due to its link with substance addiction and related challenges in adulthood (Atherton et al., 2016). Factors contributing to this issue include social influences such as bullying and discrimination, cultural factors like ethnic identity, spirituality, and community ties, public influences including peer pressure and school environment, family dynamics such as financial stability, parental wellbeing, and life stressors, as well as individual factors (Burnette & Figley, 2016).

Several studies highlight the diverse influences contributing to youth substance use globally, encompassing familial dynamics, socioeconomic factors, peer relationships, and the accessibility of substances in educational and community settings. For instance, research from a Swiss

university reveals that students experiencing academic stress are particularly susceptible to substance addiction (Maier et al., 2013). Similarly, a population-based study in South Africa links emotional distress with recent drug use among adolescents and young adults (Peltzer & Phaswana-Mafuya, 2018). Another study conducted in Argentina explores the impact of peer associations, indicating a higher likelihood of alcohol and tobacco use among teenagers whose close friends engage in such behaviors (Hamdulay & Mash, 2011). Moreover, empirical evidence from South Africa underscores the significant role of peer pressure and familial influences in predicting substance use among youth (Brook et al., 2006). These findings collectively underscore the complex interplay of social, psychological, and environmental factors shaping substance use behaviors among young people across different cultural contexts.

A cross-sectional study in Shashemene town revealed that students living alone were more prone to using psychoactive substances compared to those living with their families. Similarly, individuals with their own monthly income were more likely to engage in substance use than those without (Geleta et al., 2022).

Research on alcohol and substance abuse among Ethiopian university students, employing a mixed-methods approach, highlighted the widespread availability of substances like beer, Areke, khat, and shisha in close proximity to campuses, easily accessible to a large portion of the student population (Gebremichael, 2016). Similarly, another mixed-methods study focusing on undergraduate students across Ethiopian universities found that cigarettes, khat, and alcohol were readily accessible to 71.40%, 68.60%, and 55.10% of students, respectively (Asgedom, 2017). Asgedom's qualitative inquiry further supported these findings, noting that psychoactive substances are affordably priced, making them accessible to all students (Asgedom, 2017).

Another study found a strong association between having smoker friends and smoking behavior, even after accounting for gender, parental smoking status, age, and attitudes towards the risks of smoking (Rudatsikira et al., 2007). Psychosocial factors such as peer pressure and media portrayal of substance use by celebrities have been identified as significant contributors to substance abuse (Gopiram & Kishore, 2014). Focus group discussions consistently highlighted peer pressure as the predominant influence driving substance abuse among high school students (Rukundo et al., 2017).

Various studies have indicated that substance use, regardless of reasons such as relaxation, entertainment, or social interaction, has detrimental impacts on social health and economic well-being (Alemu et al., 2018). Scholars have also emphasized that mental dependence on substances can manifest as a persistent craving driven by a need for stimulation or as a means to alleviate anxiety or depression (Rassool, 2009).

2.3. Effects of Substances Use

Psychoactive substance abuse by young peoples increased risk transmission of sexually spread infectious diseases (CDC 2021), juvenile delinquency (NIDA, 2019), vehicular mortalities, and other harms related with physical and spiritual well-being (Brown, 2013). Substance abuse is alarming cause of many health, community, and economic difficulties affecting the population wellbeing (Ripanda et al., 2022).

Similarly, the other study accompanied revealed that alcoholic beverages cause illness, injury, and preventable death in Ghana (Barnett et al., 2021). It also quantified that the use of khat, alcohol, and tobacco can be harmful for decreased academic performance of students, sexual transmitted disease and highly affected by HIV/AIDS among high school and college students (Mohammed, 2014).

2.4. Conceptual Framework

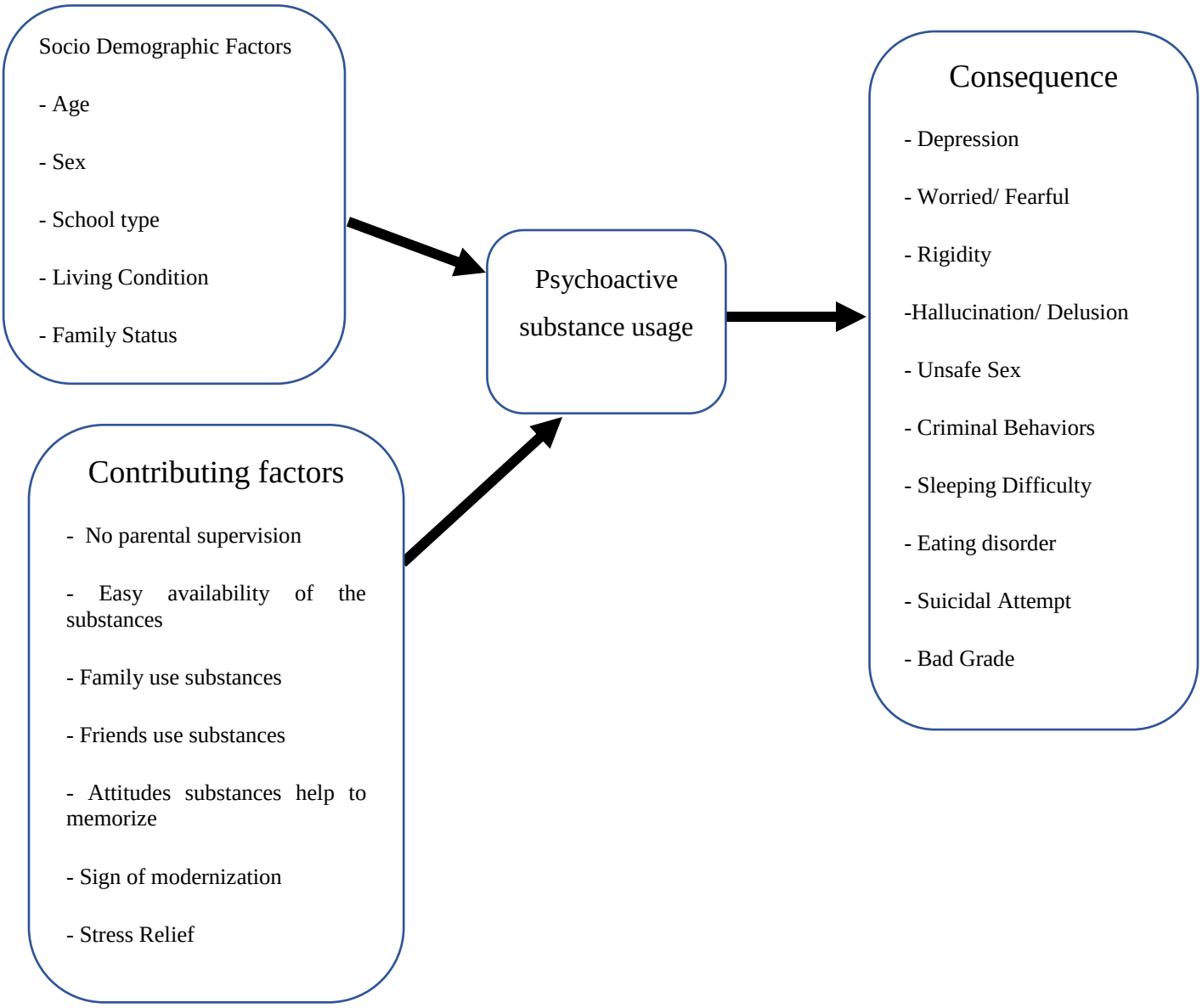


Figure 1: Conceptual framework of the study adapted from different literatures

CHAPTER THREE: RESEARCH METHODOLOGY

3. Research Methodology

3.1. Study Design

The quantitative research approach was utilized to determine both the factors influencing and the psychological impacts of psychoactive substance use among high school students in Kolfe Keraniyo Sub-city. This approach was selected to gain a thorough understanding of substance use behaviors and their underlying reasons, capturing statistical patterns and enabling the analysis to identify significant association.

3.2. Study Area and Population

3.2.1. Study area

The study conducted at the Kolfe Keraniyo Sub city of Addis Ababa, Ethiopia. The land area is 6348.09 hectares. Kolfe Keraniyo is located in the central city of Addis Ababa, between the routes going to the towns of Jimma and Ambo. The sub-city of Gulelle and Addis Ketema bound it to the north, to the east by the district of Lideta sub-city, the sub-city of Nifas Silk Lafto bounded in the south, and Oromia state of government bounded to the west.

This sub-city is one of the largest sub-city in Addis Ababa in terms of size and population. The sub-city has 27 high schools (20 private and 7 public). The private school have 6429 high school students, while the government school has 17, 456 high school students, for 23,885 students. The study chose two government schools and two private schools as a target population, which are Alpha Keranyo School, Beteseb Academy, Ayer Tena secondary School, and Keranio Medhanealem secondary School.

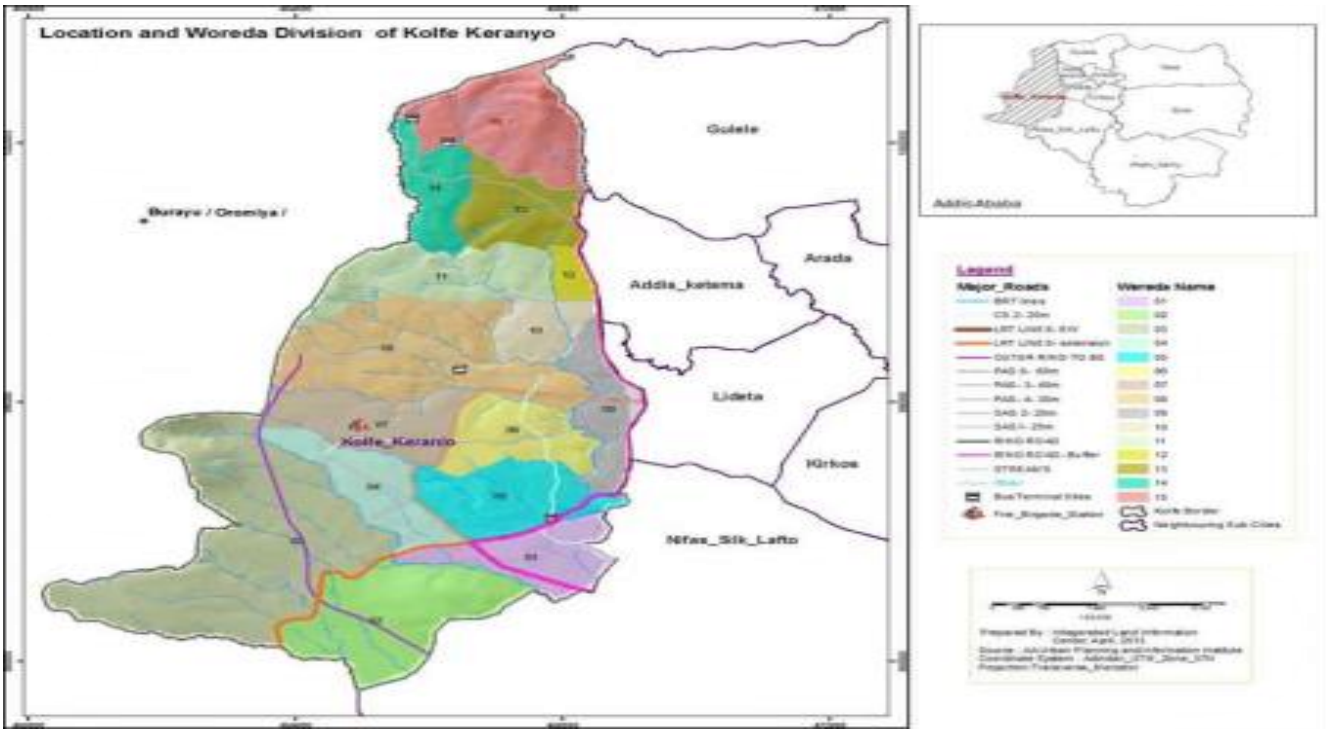


Figure 2: Map of the study area

3.3. Population of the Study

Target population: The target population of this study was all high school students who attend a class in the sub-city of Kolfe keraniyo in Addis Ababa, Ethiopia.

Study population: The population of the study also all high school students in the selected high schools at Kolfe Keraniyo sub-city who met the inclusion criteria of the study.

3.4. Sample and Sampling Technique

3.4.1. Sample Size Determination

The sample size calculated by using the population size formula. From the previous study, this study used a 5% margin of error with a 95% confidence interval (Yemane et al., 2010). The total population of the study is 23885 students. The sample size was determined by applying the formula as follows:

$$N= \frac{N}{1+N(e2)} = \frac{23885}{1+23885(0.05)^2}$$

$$n = 394$$

3.4.2. Sampling Technique

This study employed simple random sampling with a proportional allocation method. Kolfe Keranyio Sub-city has 27 high schools. A stratified sampling approach, using a proportional-to-size allocation formula, was utilized to determine the number of students selected from each school. Subsequently, the samples from each school were chosen through a simple random sampling method.

$$\frac{ni * nf}{N}$$

Where ni= number of high school students in each thematic area

nf= final sample size determinate for the study

N= the total number of high school students

Table 1:

The proportion of sample size from each thematic area

Thematic areas (strata)	**Number of high school students in each thematic area**	**The final sample of the study**
Keranio Medhanealem	2720	190
Ayer Tena	2269	159
Beteseb Academy	364	25
Alpha keranyo	279	20
Total	5632	394

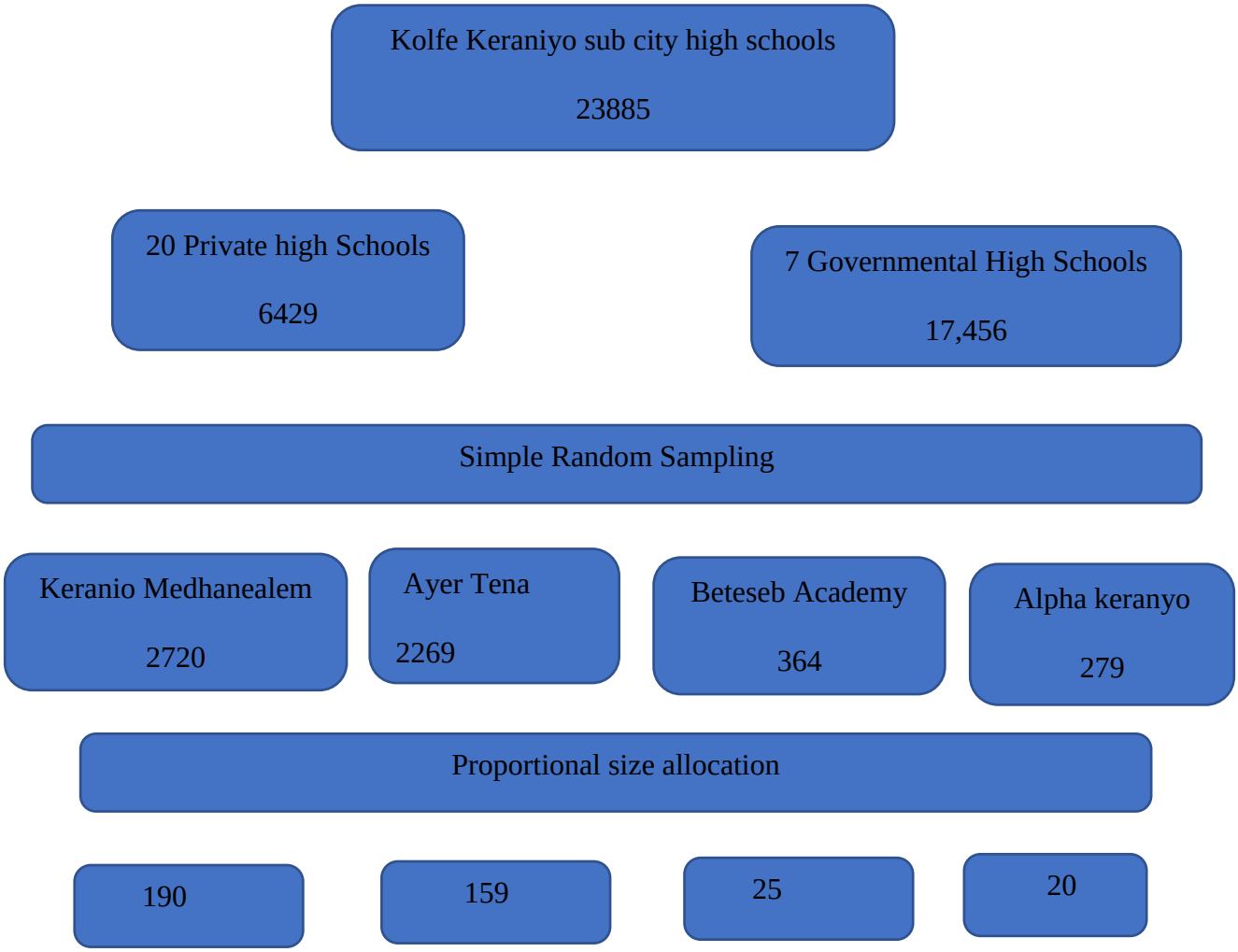


Figure 3: Sampling Technique of the study with Proportional Allocation

3.5. Instruments of Data Collection

Field investigators through face-to-face interview completed the surveys with respondents. Field investigators or data collectors trained in the topics of the study and on how to ask questions and fill out the questionnaire. A structured questionnaire also used for collecting data from the respondents. Standardized questionnaires were adapted to collect data concerning the contributing factors and psychological consequences of psychoactive substance. Initially, questionnaire prepared in English language. It also translated into the Amharic language and back translated to English to ensure consistency. Finally, the data had collected using the

Amharic version. Additionally, the questionnaire had arranged into five sections; the first section contains questions regarding to socio-demographic characteristics of the participants, the second section contains questions related to substance use among students, the third section assesses the prevalence of psychoactive substance use, the fourth section is used to assess the contributing factors of substance use in high school students and the fifth section contains questions regarding the consequence of psychoactive substance use in high school students.

3.6. Inclusion and Exclusion criteria

3.6.1. Inclusion Criteria

All high school students from grades 9 to 12.

Students who are available at the time of data collection processes.

3.6.2. Exclusion Criteria

Those who are not willing to participate

3.7. Data Collection Procedures

Two days before actual data collection as well as pilot testing, and orientation was given to data collectors about methods of data gathering and informed on each question included in the data collection processes. Up on data collection participants informed about the objectives of the study and its confidentiality. After training had given to data collectors (3 BSC data collectors) to ensure the validity and reliability of the data collection tool, a pre-test was done on 5% of the total sample size one week at Ayer Tena school before the actual data collection and the questionnaire was checked for its clarity, understandably and simplicity. The researcher was responsible for monitoring the data collection process. The filled questionnaire checked for its inclusiveness to declare the quality of data and the investigator was accountable for supportive observation on the spot and reviewing all filled questionnaires daily.

3.7. Variables of the Study

3.7.1. Dependent Variable

The outcome variable for this study is psychoactive substance use

3.7.2. Independent Variables

Socio-demographic factors: age, gender, school type, living condition of the student, family status

Contributing factors for Substance use: parental substance use, friends' substance use, easy accessibility of substances, no parental supervision, helps to memorize, the sign of modernization, high media advertisement, stress relief

Consequences of Substance usage

Depression, fearfulness, rigidity, hallucination, criminal attempt, unsafe sex, sleep disturbance, bad grade, eating disorder, suicidal attempt

3.8. Methods of Data Analysis

The collected data cleaned and checked for completeness and consistency and analyzed using Statistical Package for Social Science (SPSS) version 26. First, descriptive analysis such as graphs, frequency, percentage, and proportion had done for categorical variables as well as the mean and standard deviation for quantitative variables. The chi-square test of association also used to assess the association of psychoactive substance usage across various independent variables of the study. The association between variables also determined using the Person chi-square test of association. Finally, P-values of 0.05 or lower had taken to declare the presence of association of the variable.

3.9. Ethical Consideration

The ethical approval of the study obtained from the School of Psychology Ethical Clearance Committee, College of Education and Behavioral Studies, Addis Ababa University. A letter of approval obtained from the Kolfe Keraniyo sub-city education office and submitted to each of the selected four high schools. The object of the study had explained to the study participants, written consent taken before the data collection, and confidentiality of the information had

ensured. The Ethical Clearance Committee of the School of Psychology, Addis Ababa University, approved the consent procedure. Measures were taken to ensure no harm to the respondents by providing a safe and respectful environment during data collection. Additionally, participants were given the option to withdraw at any time without any consequences, and all collected data was anonymized to protect their privacy.

CHAPTER FOUR: DATA PRESENTATION, ANALYSIS AND INTERPRETATION

This chapter delves into the comprehensive findings of the study, focusing on psychoactive substance use among high school students in Kolfe Keraniyo Sub-city. It presents a detailed analysis and interpretation of the collected data, aiming to illuminate the various socio-demographic characteristics and factors influencing substance use patterns among the students.

The analysis begins with a thorough exploration of the prevalence of substance use and its descriptions among high school students. It goes further to investigate the association of substance use with demographic variables, providing valuable insights into how factors and socioeconomic background correlate with substance use behaviors. Additionally, this chapter examines the contributing factors that influence substance use among high school students.

4.1. Socio-Demographic Characteristics of Students

Table 2:

Descriptive Statistics of Psychoactive Substance Use Among High School Students

School type	Questionnaires issued	Questionnaires Returned	Percentage of questionnaires returned
Keranio Medhanealem	190	185	97.36
Ayer Tena	159	156	98.11
Beteseb Academy	25	24	96
Alpha keranyo	20	19	95
Total	394	384	97.46

The study included 394 participants, achieving a high response rate of 97.46%. Bringing the total sample size to 384. Among the participants, there were more males (256, 66.7%) than females (128, 33.3%). Additionally, a majority of students (61.2%, n=235) were below 18 years old. The

remaining participants were aged between 18-20 years (30.5%, n=117) and over 20 years (8.3%, n=32). (Table 2).

There were 185 (48.69%), 156 (40.62%), 24 (6.25%), and 20 (4.94 %) students from Keranio Medhanealem, Ayertena, Beteseb Academy, and Alpha Keranyo, respectively, among the four high schools that were chosen for this study (Table 2).

Of the total, sample size 317 students (83.2%) whose parents are still together. By contrast, the circumstances of the families of 28 (7.3%), 18 (4.7%), and 18 (4.7%) students were one or both parents dead, divorced, and no response respectively. Similarly, the majority of students 339 (88.3%) lived with their families. In contrast, 33 (8.6%), 7 (1.8%), and 5 (1.3%) students lived with different relatives, with friends, and alone respectively (Table 2)

Table 3:

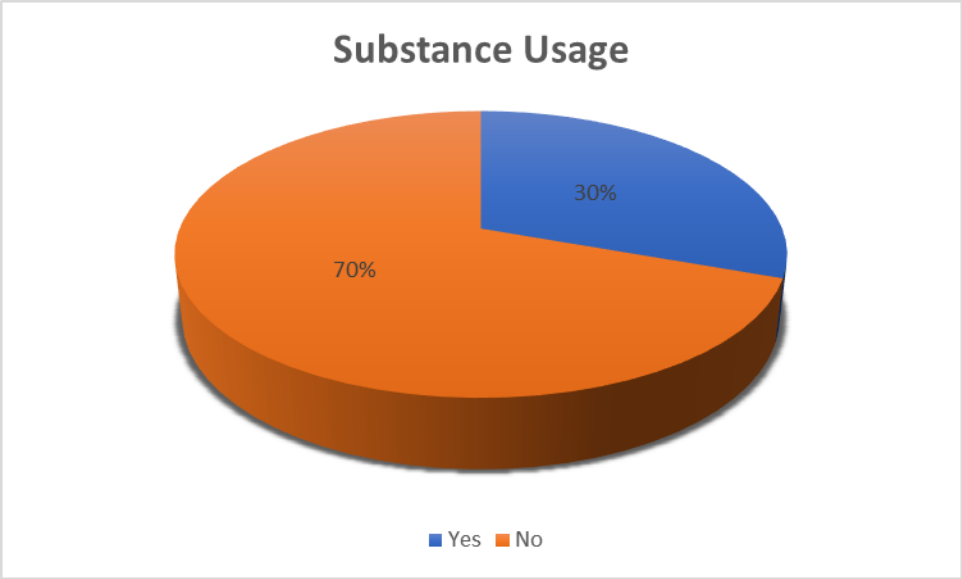
Frequency and percentage of socio-demographic characteristics of students

Variables	categories	Frequency	Percentage
Sex	Male	256	66.7%
	Female	128	33.3%
Age	Below 18 year	235	61.2%
	18 -20 years	117	30.5%
	above 20 years	32	8.3%
School type	Alpha Keranio	19	4.94%
	Beteseb Academy	24	6.25%
	Ayer tena	156	40.62%
	Keranio Medhanealem	185	48.69%
Family living	Living together	317	83.2%
condition	Divorced	18	4.7%
	One/both died	28	7.3%
	No answer	18	4.7%
Student living	With family	339	88.3%
condition	With relatives	33	8.6%

With friends	7	1.8%
Alone	5	1.3%

4.2. Prevalence of Substance use among high school students

About 117 students (30.5%) out of the 384 students in the sample were used substances. However, 267 (69.5%) of the remaining high school students have never used substances (Figure 3). Of the 117 students that used psychoactive substances, 98 (25.5%) utilized alcohol, 92 (24%) used khat, 85 (22.1%) smoked cigarettes, 12 (3.1%) used cannabis, 10 (2.6%) used cocaine and 3.4% used hashish or tobacco (Figure 4).



Source: own survey, 2023

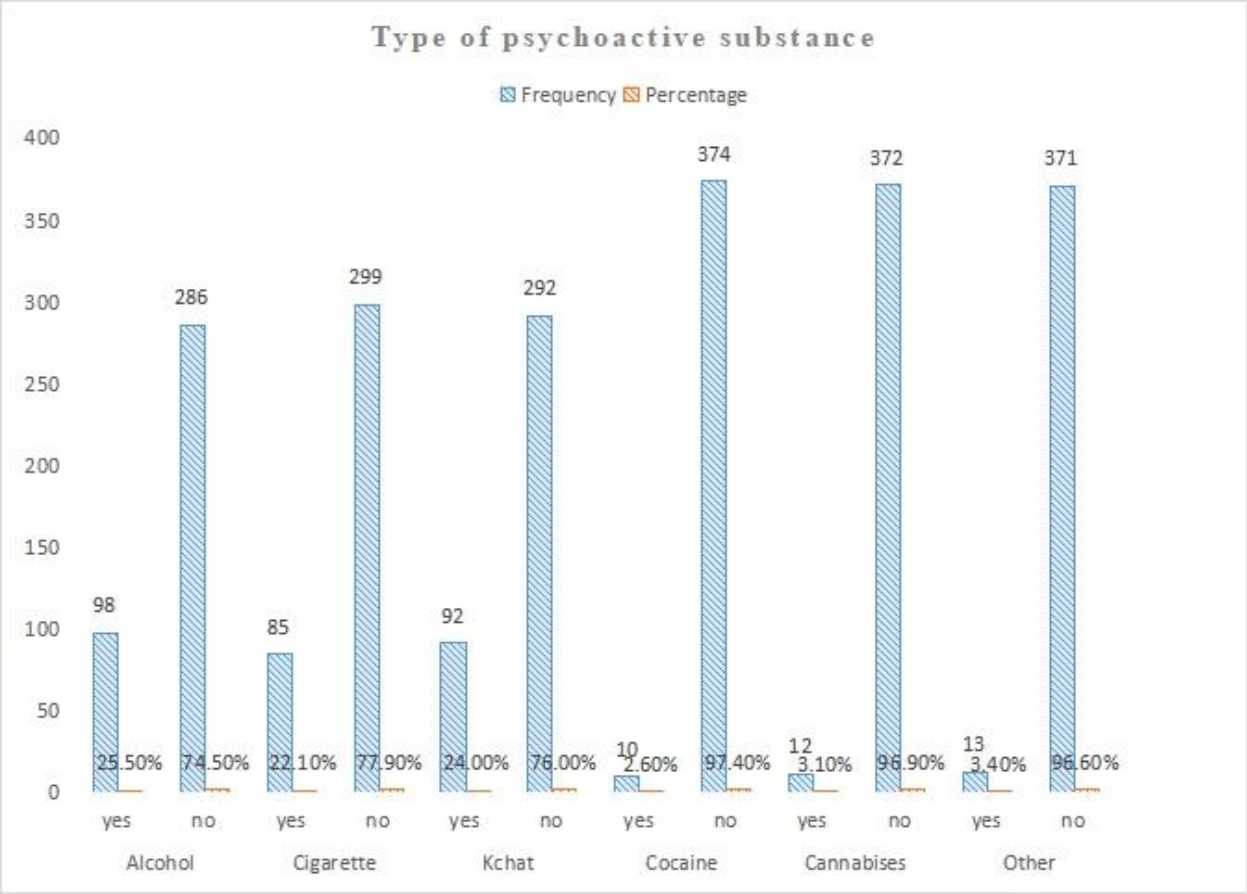
Figure 4: Prevalence of psychoactive substance usage by high school students

Of the respondents, 286 (74.5%) did not use any alcoholic beverages, while 98 (25.5%) of the students consumed alcohol (Figure 5). Of the students in this group of alcoholics, 38 (38.8%), 32 (32.6%), and 28 (28.6%) have drank alcohol infrequently, occasionally, and regularly, respectively (Table 4).

Concerning cigarette use, 299 (77.9%) students did not smoke, whereas 85 (22.1%) students smoked cigarette among high school students (Figure 4). Of these cigarette smokers students 35 (41.2%), 23 (27.1%), and 27 (31.7%) smoke cigarettes rarely, sometimes, and frequently respectively (Table 4).

In terms of students' Khat usage, 92 (24.0%) use Khat, while 292 (76.0%) of students did not use Khat (Figure 5). From this Khat chewer, 39 (42.4%), 32 (34.8%), and 21 (22.8%) students used Khat rarely, sometimes, and frequently respectively in decreasing order (Table 4). Similarly, 374 (97.4%) of students did not use Cocaine, while the remaining 10 (2.60%) students used Cocaine (Figure 5). From 10 Cocaine users of students, 6 (54.5%), 3(27.3%), and 2 (18.2%) of students use Cocaine rarely, sometimes, and frequently respectively (Table 4).

In addition to this, from the total respondents, 372 (96.9%) of students did not use cannabis, but 12 (3.10%) of students also used cannabis (Figure 5). From this cannabis users 6 (50%), 4 (33.3%), and 2 (16.7%) of students use cannabis for rarely, sometimes, and frequently respectively (Table 4). Finally, 13 (3.4%) of students used other psychoactive substances (Figure 5). From this 5 (38.3%), 4 (30.8%), and 4 (30.8%) were used for frequently, sometimes, and rarely respectively (Table 4).



Other: Tabaco, hashish

Figure 5: Prevalence of the most frequently used substance by high school students

Table 4:

The prevalence of psychoactive substance usage by high school students

Substances		**Count**	**Percentage from all substance user**	**Percentage from total**
Alcohol	Rarely	38	38.8	9.9
	Sometimes	32	32.6	8.3
	Frequently	28	28.6	7.3
Cigarette	Rarely	35	41.2	9.1
	Sometimes	23	27.1	6.0
	Frequently	27	31.7	7.0
Khat	Rarely	39	42.4	10.2
	Sometimes	32	34.8	8.3

	Frequently	21	22.8	5.5
Cocaine	Rarely	6	54.5	1.6
	Sometimes	3	27.3	.8
	Frequently	2	18.2	.5
Cannabis	Rarely	6	50.0	1.6
	Sometimes	4	33.3	1.0
	Frequently	2	16.7	.5
Other	Rarely	4	30.8	1.0
	Sometimes	4	30.8	1.0
	Frequently	5	38.4	1.3

Other: Tabaco, hashish

4.2.1. Description about Substance use on high school students

The majority 29 (28.8%) of respondents used the substance at home when they needed it. The other 19 (16.2%), 15 (12.8%), 15 (12.8%), and 8 (6.8%) students used psychoactive substances at home twice or more per week, once or more per day, twice or more per day, and weekly, respectively. Similarly, 12 (10.2%) of students use substances at school. The other, 41 (35.0%), 15 (12.8%), 8 (6.8%), 5 (4.3%), and 3 (2.7%) students took substances at school when needed, once a day, weekly, twice and above a day, and twice and above a week respectively. (Table 5).

In response to the question of who they use substances with, 41 (35%) of students use substances with their friends followed by the majority of substance users, 57 (48.7%), who use substances alone. The remaining 18 (15.3%) students use substances with their families. Similarly, the majority of substance users 55(47.0%) took substances in shopping centers, followed by 29 (24.8%), 20 (17.1%), and 12 (10.2%) at home, friends' houses, and school, respectively (Table 5).

Out of the respondents, 67 (43.5%) reported that their families used psychoactive substances, while the remaining 217 (56.5%) indicated that their families did not. Similarly, 125 (32.6%) of the respondents had friends who used psychoactive substances, whereas 259 (67.4%) stated that their friends did not use such substances. (Table 5).

Table 5:

Description about Substance use on high school students

Variables	categories	Frequency	Percentage
Do you use substances at home	Twice and above a day	15	12.8
	Once a day	15	12.8
	Twice and above a week	19	16.2
	Weekly	8	6.8
	As needed	60	51.3
Do you use substances at school	Twice and above a day	5	4.3
	Once a day	15	12.8
	Twice and above a week	3	2.7
	Weekly	8	6.8
	As needed	41	35.0
	no use in school	45	38.5
With whom you use substances	Alone	57	48.7
	Friends	41	35.0
	Family members	18	15.3
Place most frequently used substances	Home	29	24.8
	School	12	10.2
	Shopping centers	55	47.0
	In a friend's house	20	17.1
Does your family use substances	Yes	167	43.5
	No	217	56.5
Do your friends use substances	Yes	125	32.6
	No	259	67.4

Source: own survey, 2023

4.2.2. Association of Substance Use with Demographic Variables

Table 6 below demonstrates a statistically significant association between high school students' use of psychoactive substances and their living circumstances ($p = 0.000$), family status ($p = 0.000$), friends' substance usage ($p = 0.000$), and family member substance usage ($p = 0.000$). However, there was no statistically significant correlation found between substance use and age ($p = 0.233$), gender ($p = 0.991$), or school type ($p = 0.170$) among students.

Table 6*:*

Statistical Association of Substance use with demographic variables of the study

Category		**Substance use**		**Person chi-square**
		Yes	No	
Sex	Male	78 (30.5%)	178 (69.5%)	0.011 (p = 0.991)
	Female	39 (30.5%)	89 (69.5%)	
Age	Below 18	70 (29.8%)	165 (70.2%)	3.00 (p = 0.233)
	18 -20 years	33 (28.2%)	84 (71.8%)	
	above 20 years	14 (43.8%)	18 (56.3%)	
Schools	Alpha Keranyo	17 (37.8%)	28 (62.2%)	5.02 (p = 0.170)
	Beteseb Academy	20 (34.5%)	38 (65.5%)	
	Ayer tena	43 (33.6%)	85 (66.4%)	
	Keranio Medhanealem	37 (24.2%)	116 (75.8%)	
Living conditions of students	With family	90 (26.5%)	249 (73.5%)	25.38 (p = 0.000)
	With relatives	21 (63.6%)	12 (36.4%)	
	With friends	4 (57.1%)	3 (42.9%)	
	Alone	2 (40.0%)	3 (60.0%)	
Students families conditions	Living together	84 (26.5%)	233 (73.5%)	22.77 (p = 0.000)
	Divorced	5 (27.8%)	13 (72.2%)	
	One/both died	18 (64.3%)	10 (35.7%)	
	No answer	10 (55.6%)	8 (44.4%)	
Family members use substance	Yes	74 (44.3%)	93 (55.7%)	26.73 (p = 0.000)
	No	43 (19.8%)	174 (80.2%)	
Friends substance use	Yes	77 (61.6%)	48 (38.4%)	84.78 (p = 0.000)
	No	40 (15.4%)	219 (84.6%)	

Source: own survey, 2023

4.3. Contributing factors of Substance Use by High School Students

The study pursued to determine the contributing factors of substance use by high school students. The result of the study showed that a significant number of students strongly believe that the absence of parental supervision encourages early substance experimentation (134), with an average rating of 2.24. Similarly, a substantial proportion expressed a strong inclination towards trying substances due to personal curiosity (155), averaging 2.07. The ease of access to substances in their environment was also cited as a key factor influencing substance use (154), with an average score of 2.05. Conversely, family influence on substance use initiation received a lower average rating (1.66), indicating less impact compared to other factors. Using substances to aid study by enhancing memory and comprehension (141) was another noted reason, with an average score of 1.73. Peer influence was also significant (150), with an average rating of 1.86. The local prevalence of substance use (137) was identified as a contributing factor, averaging 2.28, as was stress (149), which scored an average of 1.95.

In terms of attitudes towards substance use, a notable number of students disagreed strongly with the notion that substance use reflects modernity (112), averaging 2.60. Similarly, using substances for leisure (112) and due to ignorance (133) were less endorsed, with averages of 2.60 and 2.33 respectively. Conversely, students strongly disagreed that high media substance advertising contributes significantly to substance use (116), with an average rating of 3.41.

Overall, these findings highlight a complex interplay of factors influencing substance use among high school students, ranging from personal curiosity and peer influence to environmental accessibility and stress levels, while also indicating varied attitudes towards the societal perceptions and reasons behind substance use. (Table 6).

The study's findings indicate that the most common contributing factors of substance use among high school students were a lack of parental supervision, a greater need to experiment with the effects of a substance, so they begin it with their initiation, the easy availability of the substance in our surroundings makes me use a substance, my family uses the substance, and as a result, I initiated the use of a substance, using a substance for study facilitates memory and helps to understand.

Table 7:

Results of the contributing factors of substance usage by high school students

Items of contributing factors of substance use	Strongly Agree (SA)	Agree (A)	Neutral (N)	Disagree (DA)	Strongly Disagree (SD)	Mean	Std. Dev
There is no parental supervision here so it gives a chance to begin using substances	134	125	55	33	35	2.24	1.27
I have a higher need to experiment with the effect of a substance so I begin with my initiation	155	130	45	26	28	2.07	1.20
Availability of the substance in our surroundings makes me use a substance	154	129	50	28	23	2.05	1.17
My family uses the substance and because of this I initiated to use of a substance	147	120	46	39	17	1.66	1.09
Using a substance for study facilitates memory and helps to understand the reading material	141	136	38	40	29	1.73	0.98
My friends encouraged me to use a substances	150	91	56	48	39	1.86	1.25
The attitude that using substances is a sign of modernity	102	112	52	73	45	2.60	1.36

The area where substances are highly experienced gives me a chance to use the substance	137	112	57	45	33	2.28	1.29
Advertisements of substances on different media	49	82	32	105	116	3.41	1.43
Substances are important for passing leisure time	102	112	52	73	45	2.60	1.36
Substances are important when there is ignorance	100	133	88	52	11	2.33	1.09
Stress contributes to the use of substances	149	125	44	39	27	1.95	1.10

Source: own survey, 2023

4.4. The Consequences of Psychoactive Substance Usage on High School Students

The study aimed to explore the consequences of substance use among high school students. Results indicated that a majority of students acknowledged experiencing feelings of desperation and reduced productivity in daily activities (46), with an average score of 2.09. Many also reported being highly worried or fearful about daily responsibilities such as family, schoolwork, and relationships (37), averaging 2.14.

Concerns about the emotional impact on family members, including anger, frustration, and guilt (40), scored an average of 2.22. Economic hardships within families due to substance use were also recognized (31), with an average rating of 2.81. Changes in academic performance after substance use (33) were noted, averaging 2.22, alongside difficulties in sleeping (37) and eating disorders (33), with averages of 2.44 and 2.84, respectively.

In contrast, students expressed neutrality regarding rigid and unhealthy patterns of thinking, functioning, and behavior in daily life (47), averaging 2.92, as well as hallucinations or delusions (43), with an average score of 2.72.

However, the majority of students strongly disagreed that substance use led to abuse, violence, family breakup, or child removal (43), with an average score of 3.44. They also disagreed strongly about engaging in criminal behavior (56) (average 3.96), practicing unsafe sex and risking HIV/AIDS transmission (55) (average 4.01), experiencing housing instability (38) (average 3.26), engaging in self-harming behavior (62) (average 4.25), experiencing traumatic life events (60) (average 4.09), and physical weakness (41) (average 3.66).

Overall, these findings highlight a nuanced understanding among students regarding the various impacts of substance use, ranging from immediate effects on daily functioning to broader societal and health consequences. (Table 7).

The predominant consequences of substance use among high school students included feelings of desperation and reduced productivity in daily activities, heightened worry or fear about responsibilities like family, schoolwork, and relationships, potential emotional distress among family members, economic challenges within families, changes in academic performance following substance use, sleep disturbances, and the development of eating disorders.

Table 8:

The consequences of psychoactive substance usage on high school students

Items of Consequences substance use	SA	A	N	DA	SD	Mean	Std. Dev
Are there any feelings of desperation and inactivity in your daily work	40	46	16	5	8	2.09	1.14
Is there highly worried or fearful over time about daily activities such as families, schoolwork, relationships with others	16	37	24	21	17	2.14	1.38
Is there a rigid and unhealthy, pattern of thinking, functioning, and behaving in your daily activities	9	30	47	19	10	2.92	1.04
There any hallucinations, delusions, disorganized speech, behavior, or negative thinking in your life	21	25	43	17	9	2.72	1.16
Family members may feel anger, frustration, fear, worry, depression, shame, guilt, or embarrassment	38	40	20	8	9	2.22	1.21

There is abuse or violence, family breakup or divorce, or removal of children from home.	13	23	22	14	43	3.44	1.45
Families may lead to economic crises (problems)	22	31	28	15	19	2.81	1.34
Have you done criminal behavior in your lifetime	7	12	16	24	56	3.96	1.27
Have you practiced unsafe sex and transmission of HIV/AIDS	2	9	30	19	55	4.01	1.10
Is there any housing instability due to substance use	14	29	16	35	38	3.26	1.47
Is there any change in your grade after taking substances	20	33	9	8	12	2.22	1.21
There are sleeping difficulties	33	37	18	15	12	2.44	1.31
Do you have any eating disorders	23	33	18	21	20	2.84	1.40
Do you practice self-harming behavior	2	7	13	31	62	4.25	1.00
Do you have a traumatic life event	3	11	19	22	60	4.09	1.14
Is there any physical weakness	10	16	18	30	41	3.66	1.32

Source: own survey, 2023

CHAPTER FIVE: DISCUSSION

The study examine psychoactive substances usage among high school students in the Kolfe Keraniyo sub-city, Addis Ababa, Ethiopia, as well as their contributes factors and psychological effects.

The study found that 30.5% of students in Addis Ababa's Kolfe Keraniyo sub-city reported using psychoactive substances. This prevalence aligns with similar studies by Mekonen et al. (2017) in Wolayta (28.6%) and Osman et al. (2016) in Sudan (31%). Notably, it exceeds the 26.5% prevalence reported among High school students in Addis Ababa by Seid et al. (2021). This difference may due to the growing influence of globalization of the modern world. However, compared to other studies, this study's prevalence was lower.

According to this survey, 25.5% of students reported consuming alcohol. Among them, 38.8%, 32.6%, and 28.6% used alcohol infrequently, occasionally, and regularly, respectively. This study's findings are consistent with a survey conducted in Woldia, Ethiopia, where alcohol use among students was reported at 27.9% (Adere et al., 2017). Similar rates were found in Northern Ethiopia, with a prevalence of 28.7% (Gebreslassie et al., 2013). Furthermore, the present study's results regarding alcohol use align somewhat with previous research at Woldia High School in North Wollo (23.5%) (Gobeje et al., 2019) and Bale High School (23.6%) (Dida et al., 2014).

However, this was less than the findings in Kenya (52%) (Atwoli et al., 2011), and Axum Town, North Ethiopia (32.8%) (Gebreslassie et al., 2013). The reason for this discrepancy could be from substance use or cultural variations in the acceptance of alcohol consumption in the areas under investigation. In addition, the recent implementation of limits on alcohol-related media and television commercials may also be a factor to decrease the prevalence of alcoholic usage by students.

This study revealed that around 22.1% of students smoking cigarettes. Of these students, 35 (41.2%), 23 (27.1%), and 27 (31.7%) consume cigarettes occasionally, regularly, and seldom, respectively. The results nearly match the prior studies that funding showed that, about 23% and 27.6% of students used substances in Woreta, Ethiopia and Iraq high schools respectively

(Birhanu et al., 2014, Mahmood et al., 2019). In comparison to studies conducted in Addis Ababa (9.6%) (Seid et al., 2021); urban and rural Ethiopian secondary schools (9%) (Getachew et al., 2019), Wereta town high school students (6.8%) (Birhanu et al., 2014), and Axum Town, North Ethiopia 9.3% (Gebreslassie et al., 2013). Furthermore, compared to studies done among students in rural area of Zambia, Harare, Zimbabwe, and college students in Eldoret, Western Kenya showed a higher prevalence of cigarette smoking (27%, 28.8%, and 42.8%, respectively) (Atwoli et al., 2011; Bandason & Rusakaniko, 2010; Rapeah et al., 2008; Siziya et al., 2007).

This result showed that 76.0% of students used Khat, of this 39 (42.4%), 32 (34.8%), and 21 (22.8%) students used it frequently, occasionally, and regularly respectively. This study agrees with the study (Gobeje et al., 2019) in Woldia town (23.5%). These results also roughly corresponded with research conducted among Jimma University staff members, high school and college students in the Jazan, Saudi Arabia, and Jimma town showed that about 21%, 30.8%, and 30.6% of students chewing Khat respectively (Ageely, 2009; Gelaw & Haile-Amlak, 2004; Kebede, 2002).

However, the ever and current khat chewing reported was greater than studies in Ataye secondary school 15.4% (Lakew et al., 2014), Bale 17.1% (Dida et al., 2014), Woreta (13.8%) (Alhyas et al., 2015). Moreover, the prevalence of khat chewing in this study was lower than studies done in Axum University about 29% of students had chewed khat (Gebreslassie et al., 2013). This difference might be because chewing khat in other parts of Ethiopia has been set in the culture and social tolerability, religion, and availability of khat in farmlands aggravate khat chewing by students.

A similar study conducted in Somalia funded that the lifetime predominance of khat chewing was 81.6% of men and 43.3% of women, which is higher than the results of this study. This difference could be due to Somalia was composed of peoples reportedly under severe stress and in a context of social disruption which may potentially increase substance use (Odenwald et al., 2005).

Based on the study's findings, 2.60% of students reported using cocaine. Among these students, 60% used cocaine infrequently, 20% used it occasionally, and 20% used it regularly.

Additionally, the study found that approximately 3.10% of students smoked cannabis. Among these cannabis users, 50% used it infrequently, 33.3% occasionally, and 16.7% regularly. The study also revealed that about 3.4% of students used other psychotropic substances, such as hashish or tobacco. Of these users, 38.3% used these substances frequently, 30.8% occasionally, and 30.8% seldom. These findings are consistent with similar studies conducted in secondary schools in Southern Iran (5.2%) (Heydari et al., 2015), Sudan (4.9%) (Osman et al., 2016), Nigeria (3%) (Ogunsola & Fatusi, 2016), and Addis Ababa, Ayertena, Ethiopia (5.9%). (Seid et al., 2021).

Based on the study, students who had friends who used psychoactive substances were more likely to use substances than those who did not have such friends. This conclusion is consistent with other research, as young people tend to select their friends based on shared traits (Bobo et al., 2018; Cosci et al., 2013; Dereje et al., 2014; Reda et al., 2012).

Additionally, a study on students in northern Italy revealed a substantial correlation between smoking cigarettes and having professors who smoke (Cosci et al., 2013). This could be due to the nation's lax substance-use policies and exposure to such habits through the media.

The study found that respondents whose families used psychoactive substances were more likely to use substances themselves. This result implies a significant likelihood that children will consume substances if any family members are users. This finding is consistent with earlier studies (Yismaw & Kebede, 2015; Dada et al., 2016; Shrestha et al., 2022).

The study demonstrated a substantial correlation between alcohol consumption and the perceived benefits of substance usage. According to the study, psychoactive substance had a significant correlation with psychological factors. This result is consistent with earlier research from Gonder University, which found that students experiencing emotional distress are more likely to use substances than those who do not (Mulugeta, 2013). The strong correlation between substance use and psychological issues is the basis for this outcome. This finding is similarly supported by a study conducted in Jimma Town, which found that those who chewed khat had a tenfold higher chance of developing depression than those who did not (Mossie et al., 2016).

The result demonstrated that psychoactive substances makes students less academically successful, and other studies found that, less academically performed students were more likely to use substances than students who well academically performed. These findings are consistent with findings regarding cigarette and alcohol use by youths in the United States and Australia (Beyers et al., 2004).

The study concluded the consequences of psychoactive substance use over a lifetime. It was found that substance use leads to various negative outcomes, including accidents, fights, unwanted sexual activity, overdose, depression, anxiety, dropping out of school, low academic performance, mental illnesses, emotional problems, criminal behavior, family breakdown, deteriorating health, reduced productivity, destroyed relationships, erosion of social and moral values, and overall societal progress impediment. These findings align with previous studies indicating that substance use among adolescents and young people can range from experimentation to severe substance use problems. Youths who use psychoactive substances may experience immediate issues such as overdosing, fights, accidents, and unwanted sexual activity, as well as long-term consequences (Bojanić et al., 2021; Tesema et al., 2020). Additionally, substance use negatively affects academic achievement, with some adolescents eventually dropping out of school, contributing to the growing unemployment rate (Henkel, 2011; Terwase & Asuzu, 2014).

CHAPTER SIX: SUMMARY, CONCLUSION AND RECOMMENDATION

6.1. Summary

A study conducted in Kolfe Keraniyo sub-city, Addis Ababa, Ethiopia, explored the prevalence and correlates of psychoactive substance use among high school students. The study found that 30.5% of students reported using psychoactive substances, with alcohol, khat, and cigarettes being the most commonly used. Lower prevalence rates were observed for substances such as cocaine, cannabis, tobacco, and hashish. Key findings include: Among substance users 61.2% were below 18 years old, and the majority 78 (66.7%) were male. Significant correlations were found with living conditions of students, family living condition, and friends' substance use. Reasons cited for substance use included stress, availability substances, higher need to experiment with the effect of a substance, friends who started using substances and family members who used substances, to help with memory and study. Commonly reported outcomes associated with substance use included feelings of hopelessness, decreased productivity, risky sexual behaviors, anxiety, economic crises, economic difficulties, poor academic performance, and disrupted sleep or eating patterns.

6.2 Conclusion

This study examines the prevalence, contributing factor and psychological consequences of psychoactive substances in the kolfe keraniyo sub-city, Addis Ababa high school students. The findings underscore the urgent need for further research to explore aggravating variables associated with substance use. Factors such as peer influence, family condition and living condition of students were identified as significant contributors to substance use among students. Understanding these variables more deeply could aid in developing targeted interventions that address the root factors of substance use and promote healthier alternatives.

Moreover, integrating educational programs and community initiatives is crucial to mitigating the adverse effects of substance use on both individuals and society. By fostering a supportive environment and providing comprehensive education on the risks and consequences of substance use, communities can empower youth to make informed decisions and resist pressures to engage in harmful behaviors.

In conclusion, this study highlights the complexity of substance use among adolescents in urban Ethiopia and emphasizes the importance of proactive measures to address this pressing public health issue. By expanding research efforts and implementing evidence-based interventions, we can work towards creating a safer and healthier environment for youth, promoting their well-being and contributing to societal progress.

6.2. Recommendation

Based on the results of the study, the researcher states the following recommendation for concerned body:

To the Government and the Ethiopian Ministry of Education

- Governments shall to improve policies or control mechanism about psychoactive substances use. It is essential to announce high taxation system on substances to reduce the accessibility of substances.
- The Ethiopian Ministry of Education needs to include issues related to substance use in the curriculum for students.

To Kolfe Keraniyo sub-city and Schools

- The sub-city should enforce or control retail shops not to sell substances to students.
- Use various social media to make students and their families aware of the psychoactive substance use. A massive community-based awareness programmer should also be prepared.
- Communities, legal representatives, and police makers should be involved the putting into practice of rules and regulations on substance use and guide families' to follow their children.

To school counselors

- School counselors should focus on students coping skills, stress management techniques, and decision making strategies. Programs such as social-emotional learning can build resilience and reduce susceptibility to peer pressure.
- School counselors should actively involve parents by organizing workshops and providing resources aimed at helping them identify signs of substance use and equipping them with the knowledge to support their children in making healthy choices. By fostering collaborative partnerships between parents and school community, counselors can enhance efforts to promote student well-being and prevent substance use.

To Healthcare professionals and future researchers

- Public health specialists and health behavior experts shall to focus on providing health education for students, in collaboration with NGOs, religious leaders, and educational institutes, to prevent the high prevalence of substance use by providing detailed education on the impact of substance on the health, social life and economy of a country.

- Future Researchers recommended studying substance use prevention and coping methods.

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APPENDIX

Annex 1: Participant Information Consent Sheet

Dear respondents,

I am Yemisrach Lakew graduate student at Addis Ababa University in Department of Psychology. This questionnaire designed to collect data on prevalence, contributing factors and psychological consequences of psychoactive substances high school students in Addis Ababa the case of the Kolfe Keraniyo sub-city. The data you provide me preserved confidentiality; therefore, you had not required to indicate your names anywhere on this questionnaire.

I kindly request again, you fill the questionnaire accordingly.

Finally, I would like to say, your responses highly appreciated.

Annex 2: Questionnaire

Questionnaire

	Section A: Socio-demographic Questions		
1.1.	Sex	A) male B) female	
1.2.	Age	A) Below 18 years B) 18-20 years C) Above 20 years	
1.3.	School type	A) Keranio medhanealem B) Ayer Tena C) Beteseb Academy D) Alpha Keranyo	
1.4.	Living Conditions	A) With family B) With relatives C) With friends D) Alone	

1.5.	Conditions of family	A) Living together B) Divorced C) One/both died D) No answer	
	Section 2: Questions related to substance use among high school students		
2.1	Have you ever used any substances in your life?	A) Yes B) No	
2.2.	How frequently do you use substances at home?	A) Twice and above a day B) Once a day C) Twice and above a week D) Weekly E) As needed F) Not used at all	
2.3.	How frequently do you use substances at school?	A) Twice and above a day B) Once a day C) Twice and above a week D) Weekly E) As needed F) Not used at all	
2.4.	Do your family members use substances?	a) Yes b) no	
2.5.	Do your friends use substances?	A) yes B) no	
2.6.	With whom do you use the substances?	a) Alone b) Friends c) Family members	
2.7.	Place of frequently used substances?	a) Home b) School c) Shopping center d) In a friend's house	

	Section 3: Prevalence of substances use related questions among high school Students		
3.1.	How frequently do you use Alcohol?	A) Never B) Rarely C) Sometimes D) Frequently	
3.2.	How frequently do you use Cigarettes?	A) Never B) Rarely C) Sometimes D) Frequently	
3.3.	How frequently do you use khat?	A) Never B) Rarely C) Sometimes D) Frequently	
3.4.	How frequently do you use Cocaine?	A) Never B) Rarely C) Sometimes D) Frequently	
3.5.	How frequently do you use Cannabis?	A) Never B) Rarely C) Sometimes D) Frequently	
3.6.	If there, Other type of substance used? Please specify it.		

Section 4: Contributing factors for substance use related questions among high school student

1= strongly agree, 2 = agree, 3 = neutral, 4 = disagree, and 5 = strongly disagree

No	Items	Response category				
		SA	A	N	D	SD
1	There is no parental supervision here so it gives a chance to begin using substances					
2	I have a higher need to experiment with the effect of a substance so					

	I begin with my initiation					
3	Easily availability of the substance in our surroundings makes me use a substance					
4	My family uses the substance and because of this I initiated to use of a substance					
5	I believe that using a substance for study facilitates memory and helps to understand the reading material					
6	My friends encouraged me to use a substances					
7	I have an attitude that using substances is a sign of modernity					
8	Because I come from an area where substances are highly experienced this gives me a chance to use the substances					
11	High advertisements of substances on different media					
13	I believe that using substances is important for passing leisure time					
14	Using substances is important when there is ignorance					
15	Stress leads to the use of substances					

Section 5: Consequences of substances use related questions among High School Students

1= strongly agree, 2 = agree, 3 = neutral, 4 = disagree, and 5 = strongly disagree

NO	**Consequences of substance use**	SA	A	N	D	SD
1	Are there any feelings of desperation and inactivity in your daily work?					
2	Are you highly worried or fearful over time about daily activities such as families, schoolwork, relationships with others, etc?					
3	Are there any rigid and unhealthy, the pattern of thinking, functioning, and behaving in your daily activities					
4	Are there any hallucinations, delusions, disorganized speech, behaviour, or negative thinking in your life?					
5	Family members may feel anger, frustration, fear, worry, depression, shame, guilt, or embarrassment.					

6	Family may result in abuse or violence, family breakup or divorce, or removal of children from home.					
7	Families may lead to economic crises (problems).					
8	Have you done criminal behaviour in your lifetime?					
9	Have you practiced unsafe sex and transmission of HIV/AIDS?					
10	Is there any housing instability due to substance use?					
11	Is there any change in your grade after taking substances?					
12	There is sleeping difficulties?					
13	Do you have any eating disorders?					
14	Do you practice self-harming behaviour?					
15	Do you have a traumatic life event?					
16	Is there any physical weakness?					

Section 6: Open-ended questions for students

1. What are the most used substances you know?

_____

2. How did you begin to use the substance (s)?

_____

_____

3. What factors facilitate students' use of Substances?

_____

4. Mention how you feel after using the substances._____

_____

5. Have you ever thought to stop abusing substances(s)?

_____

_____

6. Do you risk encountering consequences due to substance use?

_____

_____

Section 7: Open-ended Questionnaire for Counselors and Teachers

1. How do you see the prevalence of substance use in your school? _____
   _____
2. Are there some factors in your community that lead to or enhance the taking of substances by students in your school? If yes explain_____
   _____
   _____
3. What factors facilitate students' use of Substances?_____
   _____
4. What are the most common consequences that occur based on substance use in your school?
   _____
   _____
5. What are the recommendations you give to minimize substance abuse in school?
   _____
   _____

Annex 2: Amharic verion Questioner

ውድ የዚህ ጥናት ምላሽ ሰጪዎች

እኔ የምስራች ላቀው በአዲስ አበባ ዩኒቨርሲቲ የሳይኮሎጂ ትምህርት ክፍል ተመራቂ ተማሪ ነኝ። ይህ መጠይቅ በአዲስ አበባ በኮልፌ ቀራኒዮ ክፍለ ከተማ ጉዳይ በመሰናዶ ተማሪዎች ላይ የስነ አእምሮ የሚያነቃቁ ዕፆችን መጠቀም መንስኤ እና ስነ ልቦናዊ ችግሮች መረጃ ለመሰብሰብ የተዘጋጀ ነው። ይህ ጥናት በተማሪዎች መካከል የስነ-ልቦናን የሚያነቃቁ ዕፆች መንስኤዎችን እና የስነ-ልቦና ውጤቶችን ለመገምገም ይሞክራል። ያቀረቡት መረጃ በምስጢር ይያዛል፣ ስለዚህ፣ በዚህ መጠይቅ ላይ ስሞቻችሁን በማንኛውም ቦታ መጠቆም አይጠበቅብዎትም። የቀረበው መረጃ ለዚህ ጥናት ዓላማ ብቻ ጥቅም ላይ ይውላል::

<u>መመሪያ</u>

- ✓ ስምዎትን መጻፍ አያስፈልግም
- ✓ ለእያንዳንዱ ጥያቄ መመሪያውን በሚገባ ያንብቡ
- ✓ የሚሰጡት መልስ ሁለ ሚስጥራዊነቱ የተጠበ ቀና ከላይ ለተጠየቀ አላማ ብቻ የሚውል ይሆናል፡:
- ✓ ለእያንዳንዱ ጥያቄ ትክክለኛ መልስ ከጉኑ በሚገኘው ሣጥን ውስጥ (P) ምልክት ያድርጉ።

	ክፍል 1፡ የ ስነ ሕዝብ ሚ ጃ ተዛ ማጅ ጥያ ቄዎች		
1.1.	ጸ ታ	ወን ድ ሴት	
1.2.	እድሜ	18 18-20 ከ 20 ዓመት በላይ	
1.3.	የትምህርት ቤት ስም	ኮልፌ ቀራንዮ አየር ጤና ቤተሰብ አካዳሚ አልፋ ቀራንዮ	
1.4.	ከማን ጋር ነው የምኖረው/ሪው	ከቤተሰቤ ጋር ከዘመድ ጋር ከጎድኛ ጋር ብቻየን	
1.5.	የቤተሰብ ሁኔታ	አብረው ይኖራሉ ተፋተዋል በህይወት የሉም (1/2) መረጃ መስጠት አልፈልግም	
	ክፍል 2፡ በሁለተኛ ደረጃ ተማሪዎች መካከል አነቃቂ ዕፆችን አጠቃቀም ጋር የተያያዙ ጥያቄዎች		
2.1	በህይወት ዘመንዎ የስነ አእምሮ የሚያነቃቁ ዕፆችን ተጠቅመው ያውቃሉ?	አዎ አይ	
2.2.	አእምሮ የሚያነቃቁ ዕፆችን ለምን ያህል ጊዜ በቤት ውስጥ ይጠቀማሉ?	ሁለት እ ና ከዛ በላይ በቀን በቀን አንድ ጊዜ ሁለት እ ና ከዛ በላይ በሳምንት በየሳምንቱ ስፈልግ	
2.3.	አእምሮ የሚያነቃቁ ዕፆችን ለምን ያህል ጊዜ	ሁለት እ ና ከ ዛ በላይ በቀን በቀን አንድ ጊዜ	

	በትምህርት ቤት ውስጥ ይጠቁማሉ?	ሁለት እና ከዛ በላይ በሳምንት በየሳምንቱ ስፈልግ አልጠቀምም	
2.4.	ከአንተ/አንቺ ቤተሰብ ውስጥ አነቃቂ ዕፆችን የ ሚጠቀም አለ?	አዎ የለም	
2.5.	ከአንተ/አንቺ ጎደኛ ውስጥ አነቃቂ ዕፆችን የ ሚጠቀም አለ?	አ ዎ የለም	
2.6.	አነቃቂ ዕፆችን የምትጠቀመው/ሚው ከማን ጋር ነው?	ብቻዬን ከጓደኛ ጋር ከቤተሰብ ጋር	
2.7.	ብዙ ጊዜ አነቃቂ ዕፆችን የምትጠቀመው የት ነው?	ቤት ት/ቤት ሱቅ ጎድገኛ ቤት	
	ክፍል 3፡ የአነቃቂ ዕፆችን አጠቃቀም በከፍተኛ ሁለተኛ ደረጃ ተማሪዎች መካከል ተዛማጅ ጥያቄዎች		
3.1.	አልኮል መጠጥ	በፍጹም አልፎ አልፎ ብዙ ጊዜ ሁል ጊዜ	
3.2.	ሲጋራ	በ ፍ ው ም አልፎ አልፎ ብዙ ጊዜ ሁል ጊዜ	
3.3.	ጫት	በፍ ው ም አልፎ አልፎ ብዙ ጊዜ ሁል ጊዜ	
3.4.	ኮኬይን	በፍ ው ም አልፎ አልፎ ብዙ ጊዜ	

		ሁል ጊዜ	
3.5.	ካናቢስ	በፍፁም አልፎ አልፎ ብዙ ጊዜ ሁል ጊዜ	
3.6.	ሌላ ካለ? እባክዎን ይግለጹ		

ክፍል 4፡ አነቃቂ ዕፆችን ለመጠቀም መንስኤ ሊሆኑ የሚችሉ ምክኒያቶች በሁለተኛ ደረጃ ተማሪዎች መካከል የሚዳስሱ ጥያቄዎች፡፡

1= በጣም እስማማለሁ፣ 2 = እስማማለሁ፣ 3 = ገለልተኛ፣ 4 = አልስማማም፣ እና 5 = በጣም አልስማማም

ተቁ	ዝርዝር	መልስ				
		1	2	3	4	5
1	በቤተሰብ ውስጥ ምንም የወላጅ ቁጥጥር ስለሌለ አነቃቂ ዕፆችን ለመጠቀም ተገድጃለሁ					
2	አእምሮ የሚያነቃቁ ዕፆችን ውጤት የመሞከር ከፍተኛ ፍላጎት ስላለኝ መጠቀም ጀመርኩ					
3	ዕፆቹ በአካባቢያችን በቀላሉ መገኘቱ የሚያነቃቁ ዕፆችን እንድጠቀም ያደርገኛል					
4	ቤተሰቤ ውስጥ የሚያነቃቁ ዕፆችን ይጠቀማሉ እና በዚህ ምክንያት ዕፆችን መጠቀም ጀመርኩ።					
5	ለጥናት የሚያነቃቁ ዕፆችን መጠቀም የማስታወስ ችሎታን እንደሚጨምር ስለማምን መጠቀመ ጅምርኩ					

6	ጓደኞቼ የሚያነቃቁ ዕፆችን ስለሚጠቀሙ እንድወስድ ገፋፍተውኛል					
7	የሚያነቃቁ ዕፆችን መጠቀም የዘመናዊነት ምልክት ነው የሚል አመለካከት ስለአለኝ					
8	እኔ የመጣሁት የሚያነቃቁ ዕፆችን ከፍተኛ መጠን የመጠቀም ልምድ ካላባቸው አካባቢ ስለሆነ ዕፆችንእንድጠቀም ሁኛለሁ					
11	በተለያዩ ሚዲያዎች ላይ በሚያነቃቁ ዕፆች ለይ ከፍተኛ ማስታወቂያዎች መብዛት እንድጠቀም አድርጎኛል?					
13	የመዝናኛ ጊዜን ለማሳለፍ አነቃቂ ዕፆችን መጠቀም አስፈላጊ እንደሆነ አምናለሁ?					
14	መገለል በሚኖርበት ጊዜ የሚያነቃቁ ዕፆችን መጠቀም አስፈላጊ ነው ብየ አምናለሁ?					
15	ጭንቀት አነቃቂ ዕፆችን ለመጠቀም ይገፋፋል?					

<u>ክፍል 5፡</u> አነቃቂ **ዕፆች**ን **<u>መጠቀም በሁለተኛ ደረጃ ተማሪዎች መካከል የሚያስከትለው ተዛማጅ ችግርችን የሚዳስሱ ጥያቄዎች</u>**

1= በጣም እስማማለሁ፣ 2 = እስማማለሁ፣ 3 = ገለልተኛ፣ 4 = አልስማማም፣ እና 5 = በጣም አልስማማም

ተቁ	ዝርዝር	መልስ				
		1	2	3	4	5
1	በዕለት ተዕለት ሥራዎ ውስጥ የተስፋ መቁረጥ እና የእንቅስቃሴ-አልባነት ስሜቶች አሉ?					
2	እንደ ቤተሰብ፣ የትምህርት ቤት ስራ፣ ከሌሎች ጋር ስላለው ግንኙነት፣ ወዘተ ባሉ የእለት ተእለት እንቅስቃሴዎች ላይ በጣም					

	ተጨንቀሃል/ሻል ወይም ትፈራለህ/ሽ?					
3	በዕለት ተዕለት እንቅስቃሴዎ ውስጥ ምንም ግትር እና ጤናማ ያልሆነ፣ የአስተሳሰብ፣ የመሥራት እና የባህሪ ዘይቤዎች አሉ					
4	በህይወቶ ውስጥ ቅዠቶች፣ ያልተደራጀ ንግግር እና ባህሪ ወይም አሉታዊ አስተሳሰብ አለ?					
5	የቤተሰብ አባላት ቁጣ፣ ብስጭት፣ ፍርሃት፣ ጭንቀት፣ ድብርት፣ እፍረት እና የጥፋተኝነት ስሜት ወይም እፍረት ተሰምቶቸው ያውቃል					
6	የቤተሰብ ጥቃትን ወይም ብጥብጥን፣ የቤተሰብ መፋታትን ወይም ፍቺን ወይም ልጆችን ከቤት ማስወጣትን አስከትሎ ያውቃል					
7	ዕፆችን በመጠቀም ምክንያት በቤተሰቦችህ/ሽ ውስጥ ኢኮኖሚያዊ ችግር ገጥሞህ/ሽ ያውቃል?					
8	ዕፆችን በመጠቀም ምክንያት ወንጀል ሠርተው ያውቃሉ?					
9	ደህንነቱ ያልተጠበቀ የግብረ ሥጋ ግንኙነት እና የኤችአይቪ/ኤድስ ስርጭትን ገጥሞህ/ሽ ያውቃል?					
10	ዕፆችን በመጠቀም ምክንያት የቤት አለመረጋጋት ገጥሞህ/ሽ ያውቃል?					
11	አነቃቂ ዕፆችን በመጠቀም ምክንያት በት/ት ውጤትህ/ሽ ላይ ለውጥ አለ?					
12	አነቃቂ ዕፆችን በመጠቀም ምክንያት የእንቅልፍ ችግር ወይም ብዙ እንቅልፍ /እንቅልፍ ማጣት ገጥሞህ/ሽ ያውቃል?					
13	አነቃቂ ዕፆችን በመጠቀም ምክንያት የአመጋገብ ችግር ወይም					

	የምግብ ፍላጎት መቀነስ ችግር ገጥሞህ/ሽ ያውቃል?					
14	አነቃቂ ዕፆችን በመጠቀም ምክንያት ራስን ለመጉዳት አስበህ/ሽ ታውቃለህ/ሽ					
15	አነቃቂ ዕፆችን በመጠቀም ምክንያት አደጋ ወይም አሰቃቂ ሁኔታ ገጥሞት ያውቃል?					
16	አነቃቂ ዕፆችን በመጠቀም ምክንያት አካላዊ ድካም አለዎት?					

ክፍል 6፡ ለተማሪዎች ክፍት የሆኑ ጥያቄዎች

1. እርሶ የሚያውቁትን በብዛት ጥቅም ላይ የዋለ አነቃቂ ዕፅ ይጥቀሱ?_____

2. አነቃቂ ዕፆችን እንዴት መጠቀም ጀመሩ?

_____

_____

3. አነቃቂ ዕፆችን ለመጠቀሞ ምክንያት የሆነህ ነገር ምንድን ነው ?

_____

4. አነቃቂ ዕፆችን ከተጠቀሙ በኋላ ምን እንደሚሰማዎት ይጥቀሱ?

_____

5. አነቃቂ ዕፆችን መጠቀም ለማቆም አስበው ታውቃለህ/ሽ? _____

_____

6. አነቃቂ ዕፆችን በመጠቀሞ ምክንያት ምን ችግሮች ሊያጋጥሙ ይችላሉ?

_____

ክፍል 7፡ ለአማካሪዎች እና አስተማሪዎች ስለአነቃቂ ዕፆች የሚያትቱ መጠይቆች

1. በትምህርት ቤትዎ ውስጥ የ አ ነ ቃቄ ዕፆች አጠቃቀም ስርጭትን እንዴት ያዩታል?_____
_____

2. በትምህርት ቤትዎ ውስጥ ተማሪዎች አነቃቄ ዕፆችን እንዲወስዱ የሚያደርጓቸው እ ና የ ሚያ በ ረ ታታቸው ነገሮች በማህበረሰብዎ ውስጥ አሉ? አዎ ከሆነ ያብራሩ?
_____
_____

3. ተ ሚ ዎች አ ነ ቃቂ ዕ ፆ ች የ ሚከ ሰ ጣ ቸውምክ ን ያ ቶች ምን ድን ና ቸው?

4.በትምህር ቤትዎ ውስጥ አነቃቄ ዕፆችን አጠቃቀምን መሠረት በማድረግ የሚመጡ ችግሮች ምንድ ናቸው?_____
_____

5. ትምህርት ቤት ውስጥ አነቃቄ ዕፆችን አላግባብ መጠቀምን ለመቀነስ የምትሰጧቸው ምክሮች ምንድ ናቸው?_____
_____