

**RELATIONSHIP BETWEEN MISUSE OF PRESCRIPTION DRUGS RISK
AWARENESS AND PSYCHOSOCIAL WELLNESS OF STUDENTS IN
GOVERNMENT-FUNDED HIGH SCHOOLS IN NAIROBI COUNTY,
KENYA**

**BY
CECILIA MBURU**

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UNIVERSITY**

2023

DECLARATION AND APPROVAL

The subject of this dissertation is wholly unique with no prior submissions to other universities for the granting of degrees.

.....

Sign

Date

Cecilia Mburu

DE04/4006/2013

APPROVAL

I have given my permission as the University Examiner to turn in this doctoral dissertation for review.

.....

Sign

Date

Dr. Newton Mukolwe

School of Education

Maasai Mara University

.....

Sign

Date

Dr. Maina Anne

School of Education

Maasai Mara University

DEDICATION

First, I dedicate this thesis to my partner David who has been supportive and bearing, he has been a pillar of strength and full of encouragement, my children Lydia, Angela and Allan because of their understanding, patience, and encouraging me during the research time .Lastly, to my parents Mr. and Mrs. Mburu who planted the seed of education in my life.

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ABSTRACT

Escalating misuse regarding medications prescribed by a doctor globally, including in Kenya's secondary schools, raises concerns about adolescents' psychosocial well-being. This study aimed to explore the link between prescription drug misuse risk awareness and students' psychosocial wellness in Nairobi County's government-funded high schools. It delved into several objectives: assessing the impact of awareness on addictive, physical dependence, toxicity, morbidity, and behavioral risks on psychosocial wellness. The research was grounded in conceptions of situated rationality and social action theories, adopting a correlational design. Information was gathered through questionnaires, interviews, and document analysis. The study employed proportionate stratified sampling to allocate samples among students, teachers, school heads, along with MOE officers. Information was obtained using the various categories of respondents for triangulation purposes. Simple random sampling was then used to select participants within each category. The sample size for each category in the study was determined using Neyman's at a 10% level of precision. The sample included 255 respondents: 96 educators, 42 heads of schools, and 17 of the Ministry of Education officers. A pilot study involving 10% of the intended sample size, including 10 school-teachers, 10 learners, and 2 MOE officers from Nairobi County, assessed and validated research instruments. Insights from the pilot study enhanced instrument clarity, addressed ambiguities, and improved data collection procedures for the main study. Cronbach's alpha reliability tests demonstrated high internal consistency (0.77 to 0.91) for the research items. Response rates were satisfactory: 100% for students, 80.2% for teachers, 81% for principals, and 64.7% for MOE officials. Descriptive analysis, aided SPSS software, highlighted quantitative data through frequencies, percentages, and means. Inferential analysis involved Pearson correlation and multiple regression at 0.05 level of significance. Qualitative data underwent thematic and content analysis. Results unveiled prevalent prescription drug misuse among students, endangering not just their well-being but also the nation's future. Strong correlations were found between risk awareness factors and psychosocial wellness. Specifically, awareness of addictive risk ($r=0.428$, $p<0.05$), physical dependence risk ($r=0.528$, $p<0.05$), toxicity risk ($r=0.544$, $p<0.05$), morbidity risk ($r=0.468$, $p<0.05$), and behavioral risk ($r=0.473$, $p<0.05$) significantly influenced students' well-being. This research thus revealed a strong correlation between awareness of various prescription drug risks and students' psychosocial well-being. Several, recommendations emerged from the findings. Firstly, boosting students' knowledge about addiction risks was advised through educational campaigns. Secondly, the Ministry of Education was urged to craft a comprehensive policy focusing on awareness among students, educators, and parents. Addressing physical dependence risks necessitated school and community sensitization. Regulatory authorities were prompted to enhance drug risk labeling. The importance of responsible use concerning morbidity risk was underscored. Collaboration between schools and government agencies to raise awareness of behavioral risks through counseling interventions and enforcement of disciplinary policies was the final recommendation. Addressing prescription drug misuse is pivotal not only for the individual students but also for the holistic health and future of the nation.

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LIST OF ACRONYMS/ABBREVIATIONS

ADHD:	Attention Deficit Hyperactivity Disorder
GOK:	Government of Kenya
KNBS:	Kenya National Bureau of Statistics
MOE:	Ministry of Education
NACADA:	National Authority for the Campaign Against Alcohol and Drug Abuse
NCS:	National Comorbidity Survey
NDACP:	National Drug Abuse Control Policy
NDMP:	National Drug Master Plan
NDMP:	National Drug Master Plan
NMUPD:	Nonmedical use of prescription drugs
NMUPO:	Nonmedical Use of Prescription Opioids
NPDU:	Nonmedical Prescription Drug Use
PDU:	Prescription Drug Use
POM	Prescription Opioid Misuse
REM:	Rapid Eye Movement
SPSS:	Statistical Package for Social Sciences
TSC:	Teacher's Service Commission
UAE:	United Arab Emirates
USA:	United States of America
YMSM:	Young Men who Have Sex with Men

CHAPTER ONE

INTRODUCTION

1.1 Introduction

This section provides an overview of the research project's origins. Furthermore, it encompasses the investigation's problem alongside the study's aims and investigation findings. Additionally, this section offers an overview of the topic or subject under discussion on importance and extent of the research. Finally, this chapter presents the constraints and implications regarding the research, as well as the operative explanations for words.

1.2 Background of the Study

Apparently there has been a significant rise in the prevalence of medical drugs misuse on a global scale during the past few decades. The potential consequences of this might have an impact on the psychological well-being of individuals. As noted by Eiroa-Orosa (2020), psychologically wellness relates to the capability for achieving a state of equilibrium, which can be influenced by both adversities and positive life experiences. The concept of behavioral wellness refers to the state of an individual's mental health and overall well-being. It encompasses several aspects including maintaining positive interpersonal connections, self-control, independence, a feeling of direction, and individual development (Ryff, 2014).

The phenomenon of prescription drug abuse refers to the utilization of medicine for objectives other than those specifically prescribed by a medical professional. Unfortunately, the task of monitoring and addressing such instances of misconduct poses significant challenges. This phenomenon arises from the observation that even

though authorities allocate significant sums to combat the illegal possession and misuse of illicit substances such as the use of marijuana, heroin, and cocaine, prescription medications remain legally obtainable and readily accessible without a doctor's approval (Rolles & Slade, 2022).

Addiction to medications prescribed by a doctors is quite common since they are so easily accessible. McLellan (2017) claims that opioid medications and stimulants, in particular, are the most often abused substances in the United States. Conn and Marks (2015) state that a major health problem among American youths is the NMUPD (nonmedical use of prescription drugs). Notable trends emerge from a longitudinal study of teenage prescription opioid usage in the United States from 1976 to 2015. The statistics show that the percentage of teenagers who have ever used prescription opioids for purposes other than medical treatment increased from 2% in 1976 to a peak of 9.5% in 2002, before declining to 4.8% in 2015. In addition, the study found that the medical use of opioid prescriptions increased dramatically during the course of the investigation.

According to previous studies, a sizable percentage of Canadians use medications prescribed by a doctor for purposes other than medical ones. Canada, say Currie and Cameron (2012), has the highest rate of high-potency prescription painkiller intake per capita in the world. Medications prescribed by a doctor are the third most often abused substance among teenagers in developed countries, behind alcohol and cannabis. Abuse is typically more common among those who have fewer friends and acquaintances. However, it is critical to recognize that the possible negative

repercussions resulting from more recent social ties may balance the protective benefits received from early-life attachments (Yang & Yang, 2017).

Prescription drug use (PDU) among adolescents might be anticipated based on a wide range of variables. An exhaustive review of the literature indicates several risk and protective factors that are strongly associated with NMUPD among adolescents (Nargiso et al., 2015). One of these causes of increased drug abuse is the widespread availability of drugs in the area. The normalization of drug use at home and in the peer group, has also played a role in the epidemic of substance abuse in social interactions. Therefore, raising awareness of the dangers of NMUPD among adolescents may have a considerable and beneficial effect on their attitudes and behavior with respect to the use of these substances and, by extension, their mental health.

There is a wide spectrum of risks to students' mental health associated with the incorrect use of medications prescribed by a doctor among student populations. Addiction to prescription medicines may have serious effects for a person's overall health and well-being, so it's important to be aware of the risks associated with their use. Similarly, students gain insight into the potential consequences of long-term drug use and the challenges they would have in trying to overcome dependence if they become aware of the possibility of physical dependence (Das et al., 2016).

Due to the serious and even fatal effects that might emerge from the incorrect use of prescription drugs, toxicity risk assessment is an essential concern. Inappropriate drug usage, such as exceeding recommended doses or combining drugs without medical

supervision, can have harmful effects on the health. In light of the potential negative effects on their health over time, including the increased mortality risk associated with prescription drug addiction, it is crucial that students have a firm grasp on this issue (Wu & Farmer, 2022).

Moreover, beyond the physical health implications, the behavioral dangers associated to the usage of prescription medicines can have a significant impact on students' psychological well-being. Inappropriate use of these medicines has the potential to negatively impact children's cognitive and attentional skills, which may have a ripple effect on their academic performance. As a result of behavioral changes, increased conflict, or a loss of trust, interpersonal connections with both family and friends may become strained. The potential for negative outcomes for students increases when they partake in high-risk behaviors like driving under the influence or using illegal means to get prescription drugs. Therefore, it is critical to take a holistic strategy in dealing with these behavioral risks in order to ensure students' academic and personal success (Rovi, et al., 2015).

However, there is a wide range in the frequency of prescription drug abuse among your people due to differences in the amount of awareness of the possible risks connected to the use of prescription pharmaceuticals. Monnat and Rigg (2016), for instance , found that 6.8% of rural-dwelling adolescents, 6.0% of small-metropolitan-dwelling adolescents, and 5.3% of large –metropolitan-dwelling adolescents engaged in prescription opioid misuse in the prior year. When compared to their urban counterparts, adolescents in rural areas are 35% more likely to have engaged in

prescription opioid misuse (POM) in the past year, while adolescents in small urban areas are 21% more likely to have done so (Monnat & Rigg,2016).

In a study, researchers in Rhode Island set out to determine whether or not 9th graders' perceptions of the harmful effects of drug abuse corresponded with their actual levels of NMUPO (non-medical prescription opioid use). This trend often led to the eventual use of heroin and, in some cases, overdose and death from opioids (Jeffrey et al., 2019). So, it's reasonable to assume that people's familiarity with the risks is proportional to the number of PDUs they've accrued.

Shehnaz et al. (2013) investigated the medical literacy, self-medication habits, and perspectives of adolescent expats in the UAE. The study's secondary objective was to determine the informational resources these teenagers used to self-medicate. The majority of adolescents self-medicated, according to the findings. These people likely learned about the negative effects of toxicity from their parents and pharmacists, which might have an effect on their psychological and social development. This conclusion suggests that the adolescents studied here relied on their social surroundings, and more especially, society, for information about drug usage.

In the Moroccan context, El Kazdough et al. (2018) identify various widespread dangers linked to adolescent drug abuse. A variety of influences, including those from one's own family and friends, from peers, from societal standards, and from the availability of drugs, all contribute to this danger. As a result, it's clear that people's awareness of the risks of addiction may have an effect on whether or not they're

willing to abuse prescription drugs. The purpose of this research is to test how true these conclusions are for the country of Kenya.

Governments throughout the world deploy a broad variety of programs designed to reduce the abuse of prescription drugs. As Swendsen et al. (2019) explain, the United States has taken legislative action to reduce the risks associated with PDU. Furthermore, it was instrumental in the rollout of awareness campaigns meant to curb PDU abuse. School-based drug prevention programs have been effective in reducing teenage drug use, according to research by Botvin et al. (2020). As a result, it is clear that drug prevention programs may have tangible results when combined with other forms of control, such as social resistance and the acquisition of fundamental life skills.

When applied to the situation in South Africa, it has become clear that drug policies seldom provide the desired results. Since drug misuse is a problem on a worldwide scale, governments throughout the world are increasingly working together to find solutions. Therefore, it becomes more impractical to restrict pharmaceutical usage among the general population in an effective manner. Difficulties in drug control have arisen as a result of the implementation of drug regulations, most notably the 2013–2017 National Drug Master Plan (NDMP). It's also common practice to lump together instances of drug abuse with everyday use. This makes it easier to institute punitive policy actions.

Because of the widespread PDU abuse, the government has enacted a number of regulations aimed at reducing it. The National Authority for the Campaign Against

Alcohol and Drug Misuse (NACADA) in Kenya surveyed drug and alcohol abuse rates and consequences throughout the country in 2016. The numbers point to a rising tide of drug abuse for pleasure. Most substance abuse was alcohol (23.4%), then khat/miraa (17.0%), then prescription medications (16.1%), then cigarettes (14.5%), then bhang/marijuana (7.5%), then inhalants (2.3%), then heroin (1.2%), and finally cocaine (1.1%). The most often abused pharmaceuticals included opiates like morphine, codeine, pethidine, as well as tranquilizers and hypnotics.

Adolescents in Kenya are not immune to the problem of PDU. NACADA (2019) reports that there has been a worrying increase in drug use among secondary school kids despite the government's extensive measures targeted at limiting the uncontrolled sale of prescription pharmaceuticals. Prescription drug abuse ranked second among students in Kenya, at 6.8% of all reported cases of substance abuse, behind only alcohol at 9.3%, according to a national research by NACADA. Notably, the rate of drug abuse (relating to the drugs in question) was 5.2%, higher than the rate of tobacco usage (including cigarettes and other tobacco products). Students often started using drugs for the first time between the ages of 13 and 15. However, the survey does not show any correlation between respondents' knowledge of the dangers of drug addiction and their level of mental health distress.

PDU in the youth population and young adults is a major problem in Nairobi County, the focus of the current investigation. When compared to Mombasa, the county with the second largest city, its PDY rate is higher here (Kahuthia-Gathu et al., 2013). Analgesics, tranquilizers, hypnotics, and psychostimulants are among the most often abused drugs. Valium, Panadol, Artane, Rohypnol, Cozapam, and Piriton are just few

of the most abused medications prescribed by a doctor in Nairobi. In response, the government regularly introduces new ways to track and control the use of emerging drugs, such as pharmaceuticals. However, the current state of research shows that there has not been a thorough study of interventions aiming to improve risk consciousness in connection to PDU. This highlights the need for research to evaluate the efficacy of different treatments.

According to the current body of literature, various studies have attempted to investigate the phenomena of addiction to prescription medications on a worldwide scale. However, the vast majority of Kenyan studies have not shown a statistically significant link between secondary school students' knowledge of the risks associated with drug use and their mental health. There is a lack of studies that look at how well students understand the environmental risks of PDU. Therefore, based solely on the existing literature, it is impossible to fully appreciate the connection between risk awareness and the mental health of secondary school students in Nairobi County. The major purpose of this research is to examine how much students in government-funded high schools in Nairobi County know about the risks of abusing medications prescribed by a doctor and how this information affects their mental health.

1.3 Problem Statement

Despite the numerous negative repercussions of prescription drug misuse, such as drug dependence, overdoses, and respiratory issues, this behavior remains prevalent. A national survey by NACADA (2022) found medications prescribed by a doctor to be the second most abused substances among Kenyan students, with a 6.8% prevalence rate. This pressing issue is exacerbated by drug initiation occurring

between ages 13 to 15, impacting a critical developmental phase. Nairobi County displayed the highest abuse rates, underlined by Kahuthia-Gathu et al. (2013) and Nyaga et al. (2021). Though studies by Conn and Marks (2015), Das et al. (2016), Wu and Farmer (2022), and Kahuthia-Gathu et al. (2013) touched on prescription drug misuse, a significant gap persists.

Notably, the link between risk awareness and psychosocial well-being concerning prescription drug misuse has not been fully explored, hampering targeted interventions. The NACADA survey, early drug initiation, Nairobi County's concentration, and research gaps underscore the urgent concern of prescription drug misuse among students. This study aimed to fill this void by investigating the relationship between risk awareness and psychosocial well-being, intending to inform effective interventions to enhance students' overall wellness.

1.4 Purpose of the Study

This research aims to better understand how learner's perceptions of the dangers of prescription medication abuse affect their emotional and mental health in Kenya's capital governmental secondary educational systems located in Nairobi County.

1.5 Objectives of the Study

A number of objectives served as the basis for the research. They include;

- i. To examine the link that exist in-between awareness of addictive risk and psychosocial wellness for learners within government sponsored high schools in Nairobi County, Kenya.

- ii. To explore the relationship between awareness of physical dependence risk of prescription drugs misuse and psychosocial wellness of students in government-funded high schools in Nairobi County, Kenya
- iii. To assess the relationship between awareness of toxicity risk of prescription drugs misuse and psychosocial wellness of students in government-funded high schools in Nairobi County, Kenya.
- iv. To examine the relationship between awareness of morbidity risk of prescription drugs misuse and psychosocial wellness of students in government-funded high schools in Nairobi County, Kenya
- v. To determine the relationship between awareness of behavioural risk of prescription drugs misuse and psychosocial wellness of students in government- funded high schools in Nairobi County, Kenya

1.6 Research Hypotheses

The study sets out to test the following research hypotheses:

HO₁: There is no statistically significant relationship between awareness of addictive risk of prescription drugs misuse and psychosocial wellness of students in government- funded high schools in Nairobi County, Kenya

HO₂: There is no statistically significant relationship between awareness of physical dependence risk of prescription drugs misuse and psychosocial wellness of students in government –funded high schools in Nairobi County, Kenya

HO₃: There is no statistically significant relationship between awareness of toxicity risk of prescription drugs misuse and psychosocial wellness of students in government-funded high schools in Nairobi County, Kenya

HO₄: There is no statistically significant relationship between awareness of morbidity risk of prescription drugs misuse and psychosocial wellness of students in government-funded high schools in Nairobi County, Kenya

HO₅: There is no statistically significant relationship between awareness of behavioural risk of prescription drugs misuse and psychosocial wellness of students in government-funded high schools in Nairobi County, Kenya

1.7 Significance of the Study

It is pertinent to ensure that medications prescribed by a doctor are not abused. This emanates from the fact that awareness of the toxicity, physical dependence, addictive and morbidity risk, as well as the resultant abuse of these drugs, could challenge the psychosocial wellness as well as the academic performance of anybody misusing drugs. It could also challenge their ability to remain in school. This study could enable the ministry of education (MOE) officials, school administrators, and other education stakeholders such as Non-Governmental Organizations to put in place measures aimed at averting the adverse reactions to the use of medications prescribed by a doctor among adolescents in schools or otherwise. The findings would also provide in-depth empirical evidence that could guide health officials to formulate policies aimed at curbing the abuse of prescription drugs.

The findings of this study may also help parents, teachers, and students understand the dangers connected to prescribed drugs addiction. This could help them put in place measures aimed at checking the abuse of these drugs as well as safeguard the psychosocial wellness of their children. Development actors such as non-

governmental organizations could find the results of this research to aid in designing and implementing advocacy programmes on drug abuse and psychosocial wellness.

The results of this investigation could potentially add to the corpus of information already in existence. This is important since the direct relationship between teenage pupils' psychological wellbeing and understanding of the hazards connected with misuse of prescribed medicines in Kenya has been scantily studied. The findings may thus guide related studies with the areas for further research identified prompting other researchers to undertake follow-up studies.

1.8 Scope of the Study

The research emphasises the connection amongst student psychological health and risk perception for prescription medication usage in publicly-funded high schools in Nairobi County, Kenya. It was undertaken in government-funded high schools in the county. Data was collected from students, teachers, school administrators, and MOE officials (county government, Teacher's Service Commission (TSC), and the national government). Illegal drug misuse is more prevalent in Nairobi than everywhere else in the nation (Kahuthia-Gathu et al., 2013; NACADA, 2019). This underlines the choice of the county.

1.9 Limitations of the Study

The study encountered several limitations that need to be acknowledged. Methodologically, the study's cross-sectional correlational design restricted causal inferences, merely capturing a snapshot of the variables without probing their dynamic interplay over time. Furthermore, contextual limitations arise from potential

cultural nuances and socio-economic disparities that might impact the generalizability of findings beyond Nairobi County. Geographically, focusing solely on Nairobi County could undermine the representation of broader regional or national trends, affecting the study's external validity.

Logistically, data collection intricacies, such as potential self-report bias or logistical constraints within school settings, could influence the accuracy of responses. Acknowledging these limitations fosters a comprehensive understanding of the study's scope and applicability, enhancing the interpretation of its outcomes and guiding future research endeavors in similar contexts.

1.10 Assumptions of the Study

While researching, several key assumptions were used to guide its design and implementation. Firstly, it was assumed that the study participants possessed a sufficient understanding of the issues related to prescription drug abuse in Kenya. This assumption was crucial for obtaining meaningful and relevant data.

Secondly, it was assumed that the participants would willingly and honestly participate in the study, providing accurate materials relevant to the study questions. The success of the study depended on the cooperation and willingness of the participants to share their experiences and perspectives on prescription drug abuse. Additionally, the study assumed that characteristics increasing the incidence of medicinal substance misuse would remain relatively stable during the study period. This assumption allowed the researchers to gather data based on the assumption that

the abuse levels would not undergo significant fluctuations during the data collection phase.

Furthermore, the study assumed that the information obtained from the participants would sufficiently illuminate the subject under investigation. The researchers relied on the belief that the data collected would be comprehensive and provide valuable insights into the link between drug prescriptions abuse and risk awareness and the psychosocial well-being of students.

Lastly, the study was given that the responses possessed a thorough comprehension of the names and identities of the medications prescribed by a doctor being investigated. This assumption was crucial for accurate data collection and analysis, as it relied on participants' ability to identify and report on specific prescription drugs.

1.11 Operational Definition of Terms

This section presents the operational definition of the key terms used in the study.

Misuse of medical drugs: In this study, this refers to the inappropriate utilization of prescription medications for non-medical purposes, encompassing actions like taking higher doses than prescribed, using medications not prescribed to the individual, or using them to achieve altered mental states.

Adolescents: This denotes individuals below the age of 19 years who are enrolled in secondary schools, encompassing the crucial phase of adolescence characterised by substantial changes in the body, mind, and emotions.

Awareness of addictive risk: Signifies the extent to which adolescents comprehend the potential consequences of misusing prescription drugs, including the development

of tolerance leading to escalated dosage, increased risk of simultaneous drug use, and the onset of cravings after stopping.

Awareness of behavioral risk: Entails adolescents' understanding the likelihood of engaging in detrimental behaviors that can impair interpersonal relationships due due to drug prescriptions abuse, potentially causing disruptions in social interactions and communication.

Awareness of morbidity risk: Within this study's context, this term denotes the recognition of the potential fatal outcomes linked to the direct or indirect effects of prescription drug misuse, encompassing the risk of severe health complications or death.

Awareness of physical dependence risk: Encompasses adolescents' acknowledgment of the possibility of experiencing withdrawal symptoms if one fails to adhere to the prescribed drug regimen at the designated intervals, potentially leading to physical discomfort and distress.

Awareness of toxicity risk: Refers to the collective awareness among young people attending secondary education institutions in the toxic effects associated with the abuse of prescription drugs, including adverse outcomes such as nervous system disorders, cardiac complications, gastrointestinal ailments, and respiratory issues.

Illegal Drugs: This signifies substances that are prohibited by law and are recurrently used or misused, often resulting in legal consequences and potential harm to the individual's health and well-being.

National drug policy: Pertains to governmental regulations and guidelines formulated to control the misuse of drugs, particularly in the context of prescription and dispensation, with the aim of safeguarding public health and well-being.

Prescription Drug: Denotes pharmaceutical substances that are meant for specific medical purposes and are prescribed by licensed healthcare professionals, but are being utilized outside of the prescribed parameters.

Psychosocial wellness: Represents a comprehensive construct that encompasses well-being across emotional, psychological, social, and communal facets of an adolescent's life, highlighting the interconnectedness between mental and social health within the context of adolescents in secondary schools.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter examines the existing body of research in connection to the variables under investigation in the study. Specifically, this study encompasses a comprehensive examination of the prevalence of unauthorized utilization of prescription medications throughout society, along with an assessment of the general awareness of the potential hazards of addiction, psychological vulnerability, and toxicity associated with the misuse of such substances. This study also investigates the association between awareness of risk and addiction to prescription medicine, while also exploring potential mediating effects of other traits on this relationship. This chapter also delves into an empirical framework that provides guidance for the investigation.

2.2 Awareness of Addictive Risks of Medications prescribed by a doctor and Students' Psychosocial Wellness

In their study, Nargiso et al. (2015) undertook an extensive examination of the existing body of literature spanning from 2006 to 2012. The objective of their research was to investigate the multitude of variables that contribute to the phenomenon of nonmedical recourse to prescription medications (NMUPD) across many settings. The results of the research suggest that there is a correlation between non-medical use of medications prescribed by a doctor (NMUPD) among adolescents and various dangers, as well as a deficiency in preventive variables. The heightened prevalence of misuse was mostly influenced by the convenient availability of prescription medicines among the local population. Furthermore, the impact of

parents and peer pressures, along with the endorsement of drug use within interpersonal relationships, emerged as significant contributors in the etiology of pharmaceutical drug usage among teenage populations. Nevertheless, the research conducted in this study primarily focused on doing a comprehensive literature analysis that included a wide range of sources, without specifically highlighting the unique circumstances and conditions within the Kenyan environment. Hence, while the aforementioned research yielded significant insights into the determinants of Non-Medical Use of Medications prescribed by a doctor (NMUPD), its direct applicability to the ongoing investigation in the Kenyan region of Nairobi may be limited.

The study conducted by Monnat and Rigg (2016) aimed to analyse variations in the misuse of prescription opioids (POM) across different geographical locations in the United States, namely rural, small urban, and urban regions. The researchers also sought to identify the many risk variables at the individual, societal, and community levels that contribute to these disparities. The present research used data from the NSDUH for the years 2011 and 2012. The primary objective was to estimate binary logistic regression analysis and formal mediation models in order to evaluate the prevalence of prescription opioid misuse (POM) among a sample of 32,036 teenagers aged 12 to 17 years. The results suggest that teenagers residing in rural and small-urban areas are more likely to experience problematic online media use (POM) compared to their urban counterparts. The elements that contributed to this phenomenon were criminal behaviour, the perceived danger associated with drug use, and an increased use for emergency medical services. These variables are mitigated by reduced levels of peer substance use, limited availability of drugs, and heightened religious convictions. Nevertheless, it is crucial to acknowledge that the

aforementioned investigation was limited to the specified context in United States of America, which restricts the extent to which the findings can be extrapolated to the Kenyan context, including Nairobi County.

Jeffrey *et al.* (2019) studied “*Rx for addiction and medication safety: An evaluation of teen education for opioid misuse prevention.*” This study sought to measure the changes in knowledge, confidence, and perceptions of opioid use among 9th graders. The findings show that students who participated in a comprehensive curriculum on substance use exhibited enhanced this study aims to investigate the level of skills and confidence pertaining to the usage of opioids, as well as the ability to respond to overdose incidents and access services for recovery. Given this backdrop, the present study aims to address a research void by investigating the relevance of the results from the previous investigation to the unique setting of Kenya that began which did not serve as the major focal point of Jeffrey *et al.* (2019). While the previous study concentrated on ninth-grade students in Rhode Island, the present research aims to investigate whether similar trends and outcomes can be observed among Kenyan students. This shift in geographical context is crucial as it acknowledges the potential cultural, social, and educational differences that might influence the effectiveness of opioid misuse prevention strategies in Kenya.

El Kazdough *et al.* (2018) studied “*Adolescents, parents and teachers’ perceptions of risk and protective factors of substance use in Moroccan adolescents: a qualitative study.*” The background of this study is that there exist few studies on the factors influencing substance abuse among adolescents in Morocco, a gap this study aimed at filling. Data in this study was collected using another quality examination

investigation using focus groups as a method talks Interviews were conducted in accordance with the socio-ecological model to assess the perspectives of children, parents, and teachers about drug use, associated dangers, and preventative strategies. The collected data were subjected to thematic analysis, as outlined by El Kazdouh et al. (2018). The present study's results indicate that there are prevalent hazards and protective variables linked to substance use among teenagers. These aspects consist of the alleged benefits of consuming drugs, knowledge and beliefs, familial and peer influence, societal norms, and the ease of drug accessibility. The results of this research indicate a need for the implementation of preventative strategies aimed at mitigating drug usage among teenagers in Morocco. While the primary emphasis of this research does not centre on Kenya, particularly Nairobi County, its results indicate a correlation between the level of societal knowledge of addiction hazards and the prevalence of prescription medication consumption, a case that exists within Nairobi County.

According to the study published by NACADA in 2019, it is said that despite the government's implementation of several initiatives aimed at regulating the uncontrolled distribution of prescription pharmaceuticals, there has been a concerning increase in substance usage among secondary school pupils. According to the results obtained from a nationwide study, NACADA has reported that prescription medications ranked as the second most often misused substances in Kenya, accounting for 6.8% of the population, following closely behind alcohol which stood at 9.3%. The misuse of prescription medications exceeded that of cigarettes, which was reported at a rate of 5.2%. According to a nationwide study conducted by NACADA, it was determined that prescription medicines were the second most often

misused substances among students in Kenya, with a prevalence rate of 6.8%. This finding followed the primary substance of abuse, alcohol, which had a prevalence rate of 9.3%. However, it should be noted that the poll does not establish a correlation between knowledge of the potential risks connected with the consumption of these medications. This situation results in empirical deficiencies that can alone be resolved by the implementation of research, such as the present one.

The study conducted by Millar et al. (2017) examined the influence of comorbidities, depression, and drug use disorders on the quality of life of older individuals who are affected by HIV/AIDS. The present research investigated the relationships between physical health, psychological health, drug use, and general quality of life within the framework of the psychosocial model. Data was collected from a sample of 114 older adults living with HIV who have a history of substance abuse. Linear regression methods were employed to analyse the data and determine whether there is a correlation between comorbid health conditions, depression, quality of life, problems caused by substance use, and demographic characteristics. The results obtained in both multivariate and bivariate analyses indicate that a considerable number of comorbid conditions had a substantial adverse impact on the quality of life. This suggests that there is a need for clinical and supportive interventions aimed at addressing the needs of OALWH, particularly in relation to mental health and drug use. It is important to specifically target the co-occurring problems that often accompany HIV therapy and have a detrimental impact on overall well-being. While the scope of this research does not specifically target the student population of Nairobi County, it does provide evidence indicating a notable recognition of the

detrimental impact of drug addiction on the psychological well-being across various age cohorts.

The primary objective of Abelman's (2017) study was to conduct a comprehensive literature review on the topic of mitigating risks associated with students' use of study drugs. The study aimed to enhance understanding of the motivations behind such drug use and to propose strategies based on harm reduction theory that educational institutions can implement to enhance the overall well-being of students who engage in drug abuse. The impacts of drugs on pupils include heightened adverse consequences on both academic performance and health conditions. This research addresses the limited number of existing studies by examining drug use reasons, analysing the impacts, evaluating measures to restrict drug use, and encouraging outcomes related to harm reduction. The used methodologies include theoretical frameworks, qualitative and quantitative analyses derived from systematic reviews, cohort studies, and epidemiological investigations pertaining to specific pharmaceutical agents under examination. The targeted demographic for this study consisted of postsecondary students in North America, namely within the age range of 18 to 25. The findings of this research indicate the presence of misunderstandings about the impact of these substances on both physical well-being and educational achievements. The results, although not specifically targeting the student population in Nairobi County, indicate a limited understanding about the detrimental impact of drug use on the mental well-being and educational achievements of students.

The research done by Santibáñez et al. (2020) examined the relationship between school well-being and drug use among adolescents in Spain. The data collecting

process included cluster sampling, whereby a sample of N=6007 male and female teenagers aged 12 to 22 years attending secondary school was selected. The findings of the study revealed a positive correlation between assertiveness and drug intake, but educational and academic well-being, self-esteem, and academic self-concept were shown to be negatively connected with drug consumption rates. Significantly, a noteworthy association was seen between academic self-concept, well-being, and consumption, indicating a substantial connection between the recognition of addiction hazards and an individual's academic self-concept. Although this study offers significant insights within its own context, there exists a research void concerning our present study sample including students in Nairobi County. It posited that students around the globe encounter comparable consequences in relation to the misuse of prescription drugs. Nevertheless, it is crucial to critically evaluate the transferability of the results obtained from the Spanish research to the specific context of Kenya, particularly within the boundaries of Nairobi County, taking into account possible variations in culture, society, and environment. Therefore, more investigation was required in order to ascertain the degree to which the findings of the Santibáñez et al. research may be extrapolated to our particular study cohort.

The research done by McCabe et al. (2020) titled "Medical Use and Misuse of Prescription Opioids in US 12th-Grade Youth: School-Level Correlates" offers significant contributions to our understanding of the occurrence and factors associated with prescription opioid misuse among 12th-grade children in the United States. While the research primarily examines a distinct geographic setting, its findings may nonetheless contribute to our comprehension of the inappropriate utilization of prescription opioids among student populations. The study used data from the

Monitoring the Future survey performed from 2002 to 2017, which included a substantial sample of 228,507 pupils from 1,079 schools. The findings of the research reveal a concerning prevalence of prescription opioid usage, notably seen at educational institutions with a greater representation of male and white students, as well as those exhibiting higher rates of marijuana consumption. This discovery highlights the correlation between the abuse of prescription opioids and the usage of marijuana among student populations. Significantly, the study underscores the considerable level of knowledge among students about the abuse of opioids, with a notable number of participants acknowledging their usage of opioids for the purpose of experiencing pleasure or as a means of coping with the many difficulties encountered within their educational setting. Although the research primarily focuses on a certain demographic and geographical area, it is apparent that there are notable similarities between their results and the aims of the present study. This research highlights the need of addressing the issue of prescription opioid usage among students, which is consistent with the objectives of the present inquiry. Moreover, it underscores the need of assessing the level of risk awareness pertaining to the abuse of medications prescribed by a doctor within the specific context of Nairobi County, Kenya, and developing focused preventative strategies that are customised to the local environment.

In their research titled "Effects of Drug Abuse on the Academic Performance of Students/Adolescents," Manish et al. (2020) examined the impact of drug abuse on the academic performance of students and adolescents. This research seeks to investigate the influence of substance misuse on academic achievement and elucidates many aspects that lead to substance abuse among student populations. The present

research posits that drug abuse encompasses the deliberate utilization of chemical substances for non-medical objectives, leading to adverse effects such as emotional, physical, social damage, or mental distress. Based on the findings of the research, several determinants contribute to the inclination of pupils to engage in substance misuse. These determinants include the nature of their parent-child interactions, the influence exerted by peers, instances of parental or guardian neglect, and a dearth of awareness pertaining to the adverse consequences associated with drug consumption. The empirical evidence suggests that chronic substance abuse may result in depressive symptoms and neuro-vegetative consequences, including diminished appetite, cognitive dysfunction, and disturbances in sleep-wake cycles. The data collecting process for this research included the distribution of a questionnaire survey consisting of 60 questions to a sample of 44 students selected from the student population in Malaysia. The data that was gathered was subjected to statistical analysis techniques. The investigation revealed that many reasons, including limited understanding of the consequences of substance usage, financial challenges, and familial concerns, contribute to the occurrence of drug addiction, eventually leading to a deterioration in academic achievement. The study's results underscore the pressing need for intervention and education in order to lessen the impact of drug misuse among student populations. Through the implementation of initiatives aimed at increasing knowledge and understanding, the intention is to mitigate the adverse effects of substance misuse on scholastic achievement. This research serves as a great resource for comprehending the correlation between drug misuse and academic performance, offering insights that might influence interventions aimed at addressing drug abuse concerns among students in many circumstances.

A research done by Iyeke and Onoharigho (2016) was titled '*Knowledge of Hazards of Self-Medication among Secondary School Students in Ethiopia East Local Government Area of Delta State*'. The objective of their study was to evaluate the level of awareness among secondary school pupils about the potential hazards linked to self-medication. The research used a sample size of 300 students, which was picked randomly from a larger population of 9,500 students. The selection process employed a non-replacement approach and was conducted across 10 government-funded high schools. The process of data collecting was carried out by administering questionnaires to participants. The reliability of the collected data was determined by using the test-retest approach, which included measuring the consistency of responses across time. Additionally, the internal consistency of the data was examined using Cronbach's alpha, a statistical measure often used to assess the reliability of a scale or instrument. The process of data analysis included the use of descriptive statistics, which encompassed the calculation of frequency percentages, means, and standard deviations. The statistical tests used for further investigation were the Student's t-test and one-way ANOVA. The results of the survey indicated that a significant proportion (75%) of students exhibited an understanding of self-medication, whilst a minority (25%) shown a lack of knowledge in this area. Furthermore, the research conducted in this study identified discrepancies in individuals' awareness on the risks associated with self-medication, which were shown to be influenced by factors such as age and religious affiliations.

The research conducted by Iyeke and Onoharigho focused on secondary school students within the Ethiopia East Local Government Area of Delta State. Despite this specific emphasis, the outcomes of the study have potential significance in terms of

enhancing our understanding of the extent of students' awareness of drug addiction through self-medication. Through a comprehensive analysis of their study, the researcher obtained valuable insights into the prevailing level of knowledge among students. Additionally, they conducted a thorough investigation into the correlation between risk awareness and the psychological well-being of students within the specific context of prescription medication usage in Nairobi County, Kenya.

Mutiso et al. (2022) conducted a research study titled *“Prevalence and perception of substance abuse and associated economic indicators and mental health disorders in a large cohort of Kenyan students: towards an integrated public health approach and clinical management.”* The objective of their research was to ascertain the frequency of alcohol and drug consumption among pupils throughout Kenya, investigate the perception of addiction to substances, analyse the socio-demographic factors linked to substance abuse, evaluate the effects on financial indicators and mental wellness disorders, and suggest appropriate interventions based on the results. The research used a cross-sectional methodology and included a participant pool consisting of 9,742 pupils. A range of methodologies were used to record economic indicators, socio-demographic attributes, attitudes pertaining to drug and alcohol consumption, and the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM IV). The data was analysed using descriptive statistics, including measures such as means, standard deviations, and frequencies. The use of logistic regression models was employed in order to ascertain the correlation between drug addiction and other socio-demographic and economic aspects. The researchers used chi-square tests to evaluate the influence of alcohol intake on socio-economic factors. The findings of the research revealed varied perspectives pertaining to a broad spectrum of substances

that are often abused, with alcohol constituting the most widespread, followed by the misuse of prescription medicines and inhalants. Furthermore, it was observed that all the pharmaceutical substances under investigation had a substantial influence on both financial trends and mental health conditions. The study conducted by Mutiso et al. makes a valuable contribution to the existing body of research by examining several interrelated connections and factors that are associated with alcohol and drug addiction among a heterogeneous group of students. In addition, the study conducted by the authors contributes to the existing corpus of worldwide knowledge by offering significant insights on the prevalence of drug usage among students in Kenya. The findings derived from their research will contribute to the knowledge and comprehension of the correlation between awareness of the danger of prescription medication usage and psychological well-being among students attending government-funded high schools in Nairobi County, Kenya.

The study conducted by Kamenderi et al. (2020) addresses a significant concern pertaining to the illicit use of prescription medications in the context of Kenya. The researchers investigated this rising phenomenon and emphasized the growing accessibility of drugs throughout the nation, resulting in the abuse of prescription pharmaceuticals for non-medical reasons. The results of their research, which used a cross-sectional methodology across eight areas in Kenya, revealed the prevalent non-medical utilization of certain categories of medications such as antipsychotics, anticholinergics, antidepressants, antihistamines, and anaesthetics. The findings presented herein provide persuasive substantiation of the illicit utilization of prescription medications in Kenya, hence corroborating the aims of our own investigation. The statement underscores the pressing need for the implementation of

regulated prescription practices and the adoption of policies aimed at reducing demand in order to effectively tackle this issue. The establishment of collaborative efforts among law enforcement agencies, government departments, and healthcare practitioners is of utmost importance in order to formulate comprehensive strategies aimed at effectively managing the issue of prescription medication abuse. The objective of this present research was to expand upon the existing results and enhance the comprehension of the association between the knowledge of risks associated with prescription medication usage and the psychological well-being of students attending public-funded high schools in Nairobi County, Kenya.

2.3 Awareness of Physical Dependence Risks and Students' Psychosocial Wellness

The issue of physical dependence on and misuse of prescribed medicines continues to be a significant global public health concern. According to Ritchie and Roser (2019), it is widely believed that the abuse of medications prescribed by a doctor is responsible for a significant number of fatalities. In addition to its lethal consequences, substance usage engenders substantial morbidity, while drug addiction imposes a considerable economic burden on society. Existing research suggests that the reduction of risk factors and enhancement of safeguarding factors can help prevent adverse medical outcomes, including those resulting from prescription medicine dependency and abuse. The present study aims to examine the accuracy of these conclusions in the context of Kenya.

Swendsen et al. (2019) conducted a study titled *"Mental disorders as risk factors for substance use, abuse, and dependence: results from the 10-year follow-up of the*

National Comorbidity," It investigated the initiation, abuse, and development of reliance on drugs, alcohol, and nicotine among persons with mental conditions. This research used data from the National Comorbidity Survey (NCS), which interviewed 5001 people who participated in a baseline survey about their mental and substance use health between 1990 and 1992 in the United States. This study's findings show that mental health problems carry substantial risks, one of which is the development of a chemical dependency. The results of this investigation offer valuable insights into the formulation of policies aimed at the prevention and treatment of drug addiction problems. A comprehensive analysis is necessary to ascertain the significance of previous research in relation to the current study, underscoring the importance of investigations such as the present one.

In order to mitigate the occurrence of prescription medication dependency and abuse, it is vital to possess a comprehensive comprehension of the attributes that render an individual susceptible to such risks, while simultaneously directing attention towards changeable characteristics that may be altered to reduce those risks. Numerous scholarly investigations have endeavored to ascertain possible hazards linked to the utilization of prescription medications. In their comprehensive analysis, Hawkins et al. (2002) conducted a thorough examination of the existing body of research pertaining to the underlying factors contributing to drug addiction among adolescents. A wide range of hazards to individuals and the collective community were discussed. One of the social risk variables identified in the study was to the existence of legal and normative frameworks that promote ethical conduct. In contrast to initial expectations, there was no observed association between higher rates of drug use among teenagers and lower socioeconomic status. Instead, this heightened risk was

found to be limited to instances of acute poverty accompanied by early behavioral challenges. Several personality features have been identified as being associated with an elevated risk of drug dependency. These include low levels of harm avoidance, inadequate impulse control, parental substance usage, elevated levels of family conflict, and a lack of or inconsistent punishment. Prior research neglected to examine Kenya or any other African nation. The study's relevance is constrained to Kenya, necessitating further investigation, such as the ongoing research we are undertaking.

According to Bovin and Griffin (2007), there are a few must-haves for preventative programs to work. Comprehensive training in personal and social skills to bolster resistance, the use of interactive methods to disseminate information, cultural sensitivity that includes language and audiovisual content familiar to the target age group, and the need to address a wide range of risks and protective factors are all essential. Preventative programs that are effective and widely disseminated may share similar features among families, schools, communities, and medical professionals. Bovin and Griffin's study does not cover all the topics we will be discussing here under one umbrella. This leads to empirical gaps that can be bridged only by more study, such as the current one.

Psychological health professionals have long seen a link between high self-esteem and successful social integration. Furthermore, empirical studies have discovered associations between adolescent drug use and high levels of self-esteem. Fuentes et al.'s (2020) study aims to analyze self-esteem and other indicators of personal adjustment as protective or risk variables for drug use. A total of 644 Spanish adolescents (ages 12 to 17) participated in the research. The study looked at the

relationship between drug use and adolescent happiness and health. The findings show a significant inverse relationship between drug abuse and positive outcomes in social and intellectual domains. However, drug use improved one's sense of social worth. We performed partial correlation analyses and covariance analyses on these variables after controlling for age and gender. As a result, these ties withered away over time. A significant association was found between drug use and self-esteem, a psychological component that may be used to measure the dependence hazards associated with drug use, however the study did not specifically examine young people in Nairobi County.

In "The Influence of Physical Activity, Diet, Weight Status, and Substance Abuse on Students' Self-Perceived Health," Moral-Garcia et al. (2020) sought to answer the questions whether there a relationship, and how strong it is regarding adolescents' perceptions of their own health, physical activity, diet, weight status and substance abuse. A total of 516 students, aged 12 to 16, participated in this study that used questionnaires to investigate demographics related to health, diet compliance, physical activity, and cigarette and alcohol use. The findings show a positive relationship between students' health and their efforts to reduce smoking, increase exercise, and improve their nutrition. This suggests that students' quality of life decreases as a result of their excessive use of tobacco products. While this study did not set out to specifically examine the student population of Nairobi County's educational institutions, it did indicate that drug use increases the likelihood of physical dependence, which in turn presents as poor health.

After the COVID 19 pandemic, several schools began offering classes online as an alternative to traditional classroom settings. It's difficult to ignore the profound effects that these alterations would have on the students' way of life. Lechner et al. (2020) examined the high prevalence of reported alcohol use among students in Northeast Ohio in their study "Changes in alcohol use as a function of emotional turmoil and interpersonal support subsequent COVID-19 related University closings." Alcohol usage has increased among students, according to a survey of data from 1,958 students. This backwards-and-forwards analysis found that students with depressive and anxious symptoms were more likely to drink heavily than those without such symptoms. There was a correlation between having more friends and drinking less. These factors are crucial to the number of students in Nairobi County because they show a connection between the students' mental health and physical dependency risks, such as mood disorders like despair and anxiety. Based on the findings of this study, universities and other stakeholders should give preventative measures to students in an effort to reduce risk variables and increase preventive factors in the hope of reducing or eliminating alcohol and other drug use.

Borders et al. (2009) conducted a study to investigate whether or not untreated stimulant users showed a correlation between the seriousness of their drug use and their physical health-related components of their quality of life over time. The data used herein originated from a multi-state longitudinal study of people who used methamphetamine or cocaine. Following up with participants every six months for two years, the overall follow-up participation rate was 79%. We utilized a random coefficient regression analysis to examine the data and search for any long-term correlations between the independent variables and the SF-8 PCS (Short Form-8

Health Survey, Physical Component Summary) score. The results showed that participants' SF-8 PCS scores only marginally improved over the course of the experiment, which does not bode well for the potential negative long-term effects of drug abuse. The correlation between a low SF-8 PCS and increased psychiatric severity suggests that treating mental health issues can also benefit one's physical well-being. This study falls short of its intended purpose of dissecting the relationship between dependence hazards and students' mental health.

A study by McKetin et al. (2019) sought to evaluate the health-related quality of life among individuals who use methamphetamine, as well as examine the relationship between patterns of use and the resulting decline in quality of life. The research study entitled "Health-related quality of life among individuals who engage in methamphetamine use" using a cross-sectional survey methodology to gather data from individuals who use methamphetamine. The evaluation of the Quality of Life - 4D was conducted in order to assess utility ratings. The Severity of Dependence Scale was used to determine a score of 4+ for methamphetamine. In addition, this study assessed the frequency of Methamphetamine use, demographic characteristics, mental symptoms, and the presence of a diagnosis of schizophrenia. The conducted data analysis yielded findings that suggest a correlation between methamphetamine dependency and a decrease in overall quality of life. Several more variables that influence the quality of life encompass depression, gender (specifically being female), schizophrenia, self-neglect, and inadequate education. The findings of this study suggest that those who use methamphetamine had worse levels of quality of life and mental well-being when compared to the broader community. This study provides more support for previous research indicating that the misuse of prescription

pharmaceuticals has negative consequences for those who engage in such behavior. This finding is particularly relevant to the specific demographic under investigation, namely students residing in Nairobi County.

2.4 Awareness of Toxicity Risk and Students' Psychosocial Wellness

Chang and Compton studied "*Opioid Misuse/Abuse and Quality Persistent Pain Management in Older Adults.*" The USA has not only had alarming rates of heroin abuse and addiction but also overdose from opioid drug prescription and abuse. Prescribing clinicians who mean well have also contributed to the rising number of opioid deaths and an increasing number of addiction admissions (Chang & Compton, 2016). Despite the number of opioid addicts being greater in youths between the ages of 18-25, older age groups of 50-64 have the fastest growth rate. The country is expected to reap public health benefits once the set guidelines are geared towards improving persistent pain and curbing opioid drug misuse. Since the former study was focused on USA, contextual differences may limit the applicability of the study findings to the citizens of the African nation of Kenya. This highlights the need of doing research similar to the present one.

The study conducted by Lubman et al. (2008) examined the neurobiological implications of inhalant abuse in teenagers. The primary objective of this investigation was to examine the neurological consequences associated with the habitual utilization of inhaled compounds during the period of adolescence, resulting in neurological and cognitive deficits during this critical time of formation. The results indicate that consistent utilization of volatile chemicals, such as toluene, yields comparable outcomes to those observed with other substances often abused.

Moreover, these substances exert an influence on neurons involved in mental and emotional functioning and development of the brain among individuals in the pediatric and teenage age groups. While the study highlights the significance of toxicity hazards, its direct relevance to Kenya or Nairobi County is not established. The aforementioned study is rather outdated, hence perhaps lacking in its representation of contemporary situations.

Shehnaz, et al., (2013) studied “*Drug knowledge of expatriate adolescents in the United Arab Emirates and their attitudes towards self-medication.*” This study focused on adolescent expatriates’ knowledge of medicine, practice, and attitude of self-medication and their information sources in the United Arab Emirates (UAE). A cross-sectional survey with a sample size of 324 was conducted using questionnaires. The findings of this study show that a majority of students take part and have knowledge of self-medication and that this information came from parents and pharmacists. This shows that the social ecology of students was an important source of information on substance use. It is thus pertinent to find out the effect of awareness of toxicity risks on the abuse of prescription drugs. This emanates from the fact that most documented studies on this conceptualized relationship among teenagers in Kenya.

Iyeke and Dafe (2016) conducted a descriptive survey titled “*Knowledge of hazards of self-medication among secondary school students in a study done in Ethiopie East Local Government Area of Delta State, Nigeria.*” The study aimed to assess the knowledge of secondary school students regarding the hazards of self-medication. A total of 9,500 students were included in the study, and a sample of 300 students was

selected for data collection using questionnaires. The collected data was analyzed using descriptive statistics such as frequencies, percentages, means, and standard deviation. Additionally, statistical tests including Student's t-test and one-way ANOVA were utilized for further analysis. The findings indicated that age and religious affiliations, which reflect societal influences, significantly influenced the students' knowledge of the hazards of self-medication. These factors also played a role in determining the level of substance use among the study population. Building upon the findings of Iyeke and Dafe (2016), the present study aimed to investigate the validity of these findings in the context of Kenya. By exploring the knowledge of hazards associated with self-medication among secondary school students in Nairobi County, this present study sought to contribute to the existing body of knowledge and understand the influence of societal factors on substance use behaviors.

A study titled *'Factors Associated with the Psychological Well-Being and Distress of University Students'* by Brechting et al. (2009) sought to examine demographic, individual and behavioral factors associated with university students' psychological health, which was informed by the serious nature and associated problems of psychiatric illnesses. The study population was predominantly Caucasian university students and a sample of 353 was selected. Data collected was done using self-report questionnaires, whose variables were tested for validity and reliability. Multiple regression analyses were also carried out to identify the existence of relationships among the variables by use of cross-sectional design. The findings after the data was analyzed show that favorable health states such as less distress and good psychological well-being had an association with optimism, health values and religiosity, and at the same time negative health states were associated with multiple

sexual partners. These results show that multiple protective and risk factors have a contribution to the psychological well-being of students in universities. The study, though done on the Caucasian population, can be applicable in the context of Nairobi students to gauge the toxicity risks associated with prescription drug abuse.

Grant et al. (2019) conducted a study titled "*E-cigarette use (vaping) is associated with illicit drug use, mental health problems, and impulsivity in university students*" focused on university students. The primary aim of this investigation was to investigate the correlation between vaping, namely the utilization of e-cigarettes, and its potential linkage with illicit substance abuse, psychological disorders, and impulsive behavior. The research utilized a confidential internet questionnaire that was distributed to a sample group consisting of 9,449 individuals enrolled in universities. The objective of the survey was to assess a range of parameters, such as the use of e-cigarettes, consumption of alcohol and drugs, presence of mental health concerns, and the manifestation of obsessive or impulsive behavior, throughout the span of one year. The findings of the study indicated that there was a positive correlation between the use of e-cigarettes among students and their propensity to partake in other substance abuse, along with the manifestation of mental health conditions, gambling behavior, anxiety, diminished self-regard, and impulsive tendencies. The results of this study indicate a noteworthy correlation between the utilization of e-cigarettes and a range of adverse psychological consequences among those enrolled in higher education institutions. The implications of the findings suggest that the reported effects associated with e-cigarette usage may have relevance in comparison to traditional tobacco smoking as well. Hence, it is imperative to take into account the possible hazards of toxicity linked to the use of e-cigarettes, as it has

the capacity to influence the mental well-being of pupils. This study is in line with the existing research conducted in Nairobi County, in as it presents empirical information about the association between substance use, namely e-cigarette usage, and its effects on psychological well-being. The present study provides additional evidence for the idea that prescription medication usage might have deleterious effects on the psychological well-being of students, by combining its results with those from Grant et al. (2019).

The study done by Tham et al. (2021) focused on the topic of 'Prescription Opioid Misuse along with Sports-Related Concussion among High School Students in the United States'. The present investigation was motivated by the high incidence of concussions seen among adolescents who engage in substance usage. The study conducted by Tham et al. (2021) sought to explore the association between a recent sports-related concussion and the misuse of prescription opioids among high school learners throughout the United States. This investigation was motivated by the growing concern surrounding the misuse of prescription opioids among adolescents. A nationally representative sample of 7314 kids was selected, and secondary data analysis was conducted using the 2019 Youth Risk Behavior Survey. The study utilized a cross-sectional methodology to assess the prevalence of concussions among physically active students over a one-year period, while also examining their history of misusing opioid prescriptions within the prior month. The results of the study indicate that there is a positive correlation between physical activity and opioid addiction among students, and a corresponding increase in the likelihood of sustaining concussions. The study's applicability to Kenya's Nairobi County may be constrained by the distinct circumstances and populations under investigation, necessitating

recognition of this limitation. Nevertheless, the findings of this study provide a valuable contribution to the current body of literature, highlighting the necessity for more research into the correlation between concussions resulting from athletic activities and the abuse of prescription opioids in various geographical contexts. Through a critical evaluation and integration of the data from this study, it is possible to expand the comprehension of the potential toxicity hazards linked to the abuse of medications prescribed by a doctor among students residing in Nairobi County.

In their study titled "Alcohol and Utilization of Substance Among First-Year Students at the University of Nairobi," Musyoka et al. (2020) did an investigation. The study is motivated by the widespread impact of alcohol and drug misuse on individuals, families, and society worldwide, making it a significant public health issue. The objective of this study is to ascertain the incidence and patterns of alcohol use among newly enrolled university students. A total of 406 students participated in the study, during which interviews were conducted utilizing the Assessment of Smoking and Substance Involvement Test (ASSIST) and the Alcohol Use Disorder Identification Tool (AUDIT). The study employed bivariate logistic regression analysis to investigate the relationships between drug usage and socio-demographic factors among students. The researchers did a multivariate logistic regression model in order to investigate the factors that predict lifetime and present alcohol and drug use (Musyoka et al., 2020). The findings indicate a significant incidence of substance misuse involving alcohol, marijuana, tobacco, and poly-substance use, resulting in potential hazards including elevated blood pressure, mental disorders, and physiological addiction. In general, this study offers pertinent information that is in line with the aims of the present research. The results indicate a necessity for more

research on the determinants of substance misuse among students, emphasizing the importance of comprehending the particular context and trends of drug consumption within the student population of Nairobi County. Through a rigorous analysis and synthesis of the available scholarly works, the present investigation sought to make a scholarly contribution by filling potential lacunae, enhancing the comprehension of substance improper utilization among student populations, and providing insights for the formulation of efficacious early detection and intervention approaches.

2.5 Awareness of Morbidity Risk and Students' Psychosocial Wellness

Due to the intrinsic capacity for morbidity and addiction, the inadvertent dispensation of a prescription presents a significant peril to an individual. The number of deaths caused by opioid overdoses had a significant increase of around 400 percent, surpassing the total number of deaths resulting from heroin, cocaine, and other stimulants (Calcaterra, et al., 2013). According to Hwang et al., (2018), those who engage in prescription drug misuse tend to be of a younger age and have a lower likelihood of being married compared to those who do not exhibit this issue. Additionally, it is noteworthy that prescription drug use disorders frequently coincide with other substance use disorders and mental problems at significantly elevated levels. The prevalence of prescription medication usage among teenagers seems to be higher in rural locations compared to urban areas, despite the absence of statistical data (Havens, Young, & Havens, 2011). The previous study may not explicitly demonstrate the association between the risk of illness and the psychological well-being of students in African nations, including Kenya. This highlights the relevance of doing research similar to the present one.

In a research done by McLellan (2017), the primary objective was to examine the extent to which prescription drug abuse occurs among teenagers. The study highlighted the importance of this developmental stage as a critical moment during which the onset of misuse behaviors is particularly likely to occur. The study notably emphasized the misuse of stimulant and opioid prescriptions, which were identified as the prevailing prescription pharmaceuticals subject to abuse in the United States. The survey findings are disconcerting as they indicate a troubling trend, with over 13 percent of 12th graders reporting lifetime consumption of prescription opioids. Furthermore, the research revealed that the incidence of prescription stimulant misuse was comparable to that of medically sanctioned usage, while the abuse of benzodiazepines was equally pervasive among teenagers. The research findings indicate that the occurrence of prescription medication addiction in teenagers is similar to that observed in adults, however there are slight variations based on gender. Additionally, the research emphasized that there was a greater occurrence of prescription medication addiction among college students, as seen by a substantial 23 percent reporting a lifetime incidence of usage. It is essential to acknowledge that the preceding investigations mostly concentrated on high school and college students in different geographical areas, so constraining the applicability of their results to the Kenyan setting. This highlights the necessity for more research, such as the current investigation, to tackle the existing knowledge gaps and augment comprehension of prescription medication usage among teenagers in Kenya.

Cheatle (2015) undertook a comprehensive evaluation of the existing research pertaining to the subject of prescription opioid addiction, morbidity, and death. The objective of this study was to investigate the effectiveness of extended opioid therapy

in individuals suffering from chronic pain, as well as to analyze the occurrence of prescription opioid misuse, abuse, and addiction. The results of the literature evaluation reveal that the efficacy of long-term opioid treatment for chronic pain remains uncertain, with intermediate-level evidence indicating a potential risk of damage that is depending on the dosage. Nonetheless, the absence of universally accepted and established definitions for key categories like misuse, abuse, and addiction has posed a significant obstacle in accurately assessing the extent to which prescription opioid abuse and opioid use disorders are prevalent. Estimates exhibit significant variability, encompassing a broad spectrum from 1% to 40%. In recent years, there has been a concerted push in the field of chronic pain research to create more precise approaches for evaluating these disorders among the affected population. The study also underscores the notable prevalence of opioid-related fatalities caused by overdose and identifies certain risk variables linked to patients and medicines. The aforementioned risk factors may serve as a foundation for formulating measures aimed at mitigating the dangers connected with the utilization of opioids. Nonetheless, the lack of consistency in the criteria employed in various research studies has impeded the accurate assessment of the actual occurrence rates of misuse, abuse, and addiction among the chronic pain population. The author underscores the necessity for more high-quality research that utilizes defined definitions within this domain. Additionally, it is imperative to prioritize the mitigation of fatalities resulting from opioid-related overdoses. The primary objective of the present study is to fill the existing empirical voids by investigating the misuse of prescription medications and its ramifications on the psychological well-being of students residing in Nairobi County, Kenya. This research endeavor seeks to enhance comprehension of this matter within a distinct community.

In their study, Li et al. (2014) investigated the effects of prescription drug monitoring programs (PDMPs) on the rate of drug overdose death in China. The objective of the research was to evaluate the impact of the introduction of Prescription Drug Monitoring Programs (PDMPs) on rates of drug overdose death. The study's results indicated that the introduction of Prescription Drug Monitoring Programs (PDMPs) was correlated with an 11% rise in drug overdose mortality. In contrast to initial projections, the adoption of Prescription Drug Monitoring Programs (PDMPs) did not provide a decline in drug overdose fatality rates over the course of time. The results of this study indicate that there are multifaceted elements involved in the correlation between Prescription Drug Monitoring Programs (PDMPs) and the mortality rate caused by drug overdoses. Additionally, it is evident that further enhancements are required in the PDMPs to augment their efficacy. Nevertheless, it is imperative to acknowledge that the research conducted by Li et al. (2014) does not explicitly examine the correlation between substance abuse and fatality rates within an African environment, nor does it exclusively focus on Nairobi County. Hence, although the results offer valuable perspectives on the influence of PDMPs on mortality rates related to drug overdoses, they may not directly address the specific research inquiries of the present study, which centers on the misuse of medications prescribed by a doctor and its consequences on the psychosocial well-being of students residing in Nairobi County, Kenya.

The study conducted by Guo et al. (2016) aimed to investigate the longitudinal associations between nonmedical use of medications prescribed by a doctor (NMUPD), suicidal behavior among adolescents, and depression. This research was motivated by previous cross-sectional studies that have established a connection

between NMUPD and suicide (Guo et al., 2016). This study attempted to offer insights on whether baseline NMUPD had a link with suicide thoughts and attempts when depressive symptoms were treated and if higher risks were as a result of depression. This study employed a randomly selected sample size of 3273 students from Guangzhou schools where surveys were carried out and subsequent data analysis was done. The results of this study indicate that there is a significant association between many factors, such as baseline depressive symptoms, alcohol-related difficulties, suicidal ideation and thoughts, misuse of opioids and sedatives, and non-medical use of medications prescribed by a doctor (NMUPD), and the occurrence of suicidal ideation throughout the follow-up period. Although this study does not originate from Nairobi, its findings indicate that non-medical use of medications prescribed by a doctor (NMUPD) is associated with an increased risk of suicidal ideation, mirroring the situation in Nairobi. Consequently, it is imperative to implement mitigation strategies, such as establishing an effective monitoring system.

The study done by Lakhan and Kirchgessner (2012) examined the utilization of prescription stimulants in persons both with and without attention deficit hyperactivity disorder (ADHD). The primary objective of this study was to investigate the improper use of stimulant substances, examine their potential cognitive consequences, and analyze the negative outcomes linked to their consumption. The study's results indicate that prescribed stimulants have proven to be advantageous for individuals diagnosed with ADHD, as they effectively enhance their ability to concentrate and maintain attention. However, there has been a notable rise in the misuse of these medications among individuals without ADHD, particularly among students who may possess limited awareness regarding the potential risks and hold misconceptions

regarding their appropriate usage. The research emphasized that the overuse of stimulants might result in a range of negative consequences, such as psychosis, myocardial infarction, cardiomyopathy, and fatality. The research proposes a range of measures to tackle this problem, encompassing the undertaking of safety studies, dissemination of knowledge on the hazards associated with the abuse of stimulants, and the adoption of therapeutic strategies that have a lasting impact. Nevertheless, it is crucial to acknowledge that the generalizability of these findings to secondary school pupils in Nairobi may be constrained due to the fact that the study was carried out in different geographical locations. This emphasizes the necessity of conducting local research in order to gain a comprehensive understanding of the distinct variables and issues associated with the abuse of stimulants among secondary school students in Nairobi County.

The objective of the study done by Sordo et al. (2017) was to assess and evaluate the risks of cause-specific death and overdose mortality among persons diagnosed with opioid dependency, both during and after receiving opioid substitution therapy. The researchers performed a comprehensive review and meta-analysis, utilizing data from several sources including Embase, Medline, PsycINFO, and LILACS. The study encompassed prospective and retrospective cohort studies that documented mortality rates resulting from all causes of overdose among patients diagnosed with opioid dependency. The follow-up periods considered both instances where individuals were undergoing opioid substitution treatment utilizing buprenorphine and methadone, as well as periods when they were not. The data obtained from the chosen studies were synthesized by multivariate random effects meta-analysis. The sample size consisted of 122,885 patients treated with methadone and 15,831 patients treated with

buprenorphine. The duration of the follow-up periods varied between 1.1 and 4.5 years. The findings of the investigation revealed noteworthy rates of death, specifically attributed to overdose, during the commencement of treatment with both methadone and buprenorphine. Although the study at hand does not directly center around the particular area of interest, its findings shed light on the significant hazards to health linked with the overdose of prescription drugs. The findings have the potential to provide useful insights for influencing strategies aimed at mitigating this issue and preventing deaths associated to overdose within the community being examined. Nevertheless, it is crucial to take into account the precise circumstances surrounding the population of Nairobi County and the various elements that can potentially contribute to the abuse and overdose of medications prescribed by a doctor within that particular setting.

In their study titled "Effects of medication-assisted treatment on mortality among opioids users," Bao et al. (2019) did a systematic review and meta-analysis to investigate the influence of medication-assisted treatment (MAT) on mortality rates in persons with opioid use disorder (OUD). The objective of the study was to evaluate the impact of several parameters of medication-assisted therapy (MAT) on mortality rates. These factors encompassed treatment status, drug type, treatment duration, and dosage. The meta-analysis comprised a collection of 30 cohort studies, with a cumulative sample size of 370,611 people and a total follow-up duration of 1,378,815 person-years. The study employed random effects models to combine the crude mortality rates (CMRs) and relative risks (RRs) for both all-cause mortality and overdose mortality. Subgroup analyses and meta-regression were conducted to investigate potential factors contributing to the observed heterogeneity. The results of

the meta-analysis revealed that patients diagnosed with Opioid Use Disorder (OUD) who did not get Medication-Assisted Treatment (MAT) had significantly elevated mortality risks in comparison to those who underwent MAT. The primary cause of the elevated mortality rate seen in the untreated group can be traced to fatalities resulting from drug overdoses. The findings of this study underscore the significance of medication-assisted treatment (MAT) as a substantial intervention in mitigating death rates among patients diagnosed with opioid use disorder (OUD). While the study did not specifically focus on the Nairobi environment, its results about the correlation between opiate usage and death rates may have relevance to the local circumstances. The findings have the potential to provide valuable insights to a range of stakeholders, including healthcare professionals, government entities like NACADA (National Authority for the Campaign against Alcohol and Drug Abuse), and educational institutions. These stakeholders can utilize the results to formulate and implement intervention strategies that are both efficient and impactful in mitigating the prevalence of opioid abuse and its consequential mortality risks within Nairobi County.

The study conducted by Milloy et al. (2010) titled "Elevated overdose mortality rates among First Nations individuals in a Canadian setting: a population-based analysis" sought to assess the impact of illicit drug overdose mortality in the Canadian province of British Columbia. The study specifically aimed to identify the factors contributing to overdose mortality rates within different subgroups, with a particular focus on First Nations individuals. The data was obtained from coroner case records, specifically focusing on individuals who died from illegal drug overdose between the years 2001 and 2005. Milloy et al. (2010) conducted a research in which they assessed age-

adjusted mortality rates, standardized mortality rates (SMR), and years of potential life lost (YPLL). The research's results indicated that a considerable proportion of persons (n=909) experienced mortality due to drug overdose throughout the designated study duration, with 104 of these fatalities occurring among individuals from the First Nations community. The study employed multivariate logistic regression analysis to examine the relationship between overdose deaths and other factors among the First Nations community. The findings revealed that overdose deaths were more prevalent among women and were significantly connected with both injectable drug use and open drug use. While the primary emphasis of this study does not center on the young demographic in Nairobi County, its results shed light on the increased rates of mortality due to overdose and premature deaths. These findings may have potential relevance to the youth population in Nairobi County. The study highlights the necessity for more investigation in order to establish overdose prevention methods that are grounded in empirical data. This purpose is in line with the ongoing research being done. It is crucial to acknowledge that the contextual elements and drivers that impact overdose mortality may vary between the Canadian environment and Nairobi County. Hence, it is advisable to show prudence while generalizing the results of this study to the young population of Nairobi County. The research conducted by Milloy et al. (2010) offers significant contributions to the understanding of overdose mortality and emphasizes the importance of conducting thorough investigations and implementing evidence-based treatments to effectively address this public health issue among vulnerable groups, such as the youth.

The study conducted by Mehta et al. (2021) examined the mortality rates of individuals who engage in drug injection. Specifically, the study focused on a

prospective cohort in Baltimore, MD, USA, and spanned a period of three decades. The underlying context of this research lies in the effects experienced by people who inject drugs (PWID) due to the emergence of combination antiretroviral therapy (cART) for addressing HIV/AIDS, the prescription opioid crisis, and the heightened utilization of potent synthetic opioids (Mehta et al., 2021). The objective of this study was to assess the aforementioned dynamics and their influence on mortality among people who inject drugs (PWID). The prospective cohort research was designed using data obtained from the AIDS Linked to the Intravenous Experience (ALIVE) project. A total of 5506 individuals were identified, with a median age of 37 years. The mortality data was obtained through the utilization of the National Death Index-plus (NDI-Plus) and subsequently classified into distinct sub-categories, namely HIV/infectious disease fatalities, overdose and violence (drug)-related deaths, and chronic illness deaths. The Fine-Gray Method was employed to estimate the sub-distribution hazards of cause-specific mortality resulting from competing risks. The study's results indicated that within the selected sample of 5,506 people who inject drugs (PWID) obtained from a broader population of 84,226 individuals, an estimated 43.9% had passed away by the year 2018. The factors contributing to mortality encompassed problems associated with HIV/ID, complications connected to drug use, and chronic illnesses. The study further emphasized the escalation in HIV and infectious disease transmission among those who inject drugs, attributable to high-risk behaviors such as participating in sexual intercourse without using protection and sharing needles. The research primarily examined the adult demographic in Baltimore, United States. However, the results have significance in terms of comprehending the impact of drug injection on the adolescents residing in Nairobi County. The study's findings about the elevated death rates and the associated causes

can provide valuable insights for addressing the issue of drug usage and its resultant outcomes. Nevertheless, it is crucial to take into account the contextual disparities between the research group in Baltimore and the youngsters residing in Nairobi County when extrapolating these results. There is a need for more research that especially focuses on the young population residing in Nairobi County. This study would aim to get a deeper understanding of the distinct issues faced by this demographic and to design interventions that are more successful in addressing these challenges.

The objective of a study conducted by Kimber et al. (2019) was to examine the mortality rates, causes of death, and potential years of life lost in a cohort of individuals who engage in drug injection, commonly referred to as people who inject drugs (PWID). This particular cohort was characterized by a high prevalence of Hepatitis C Virus (HCV) infection. A cohort of 215 people who inject drugs (PWID) was selected from the HCV-cohort dataset, which was connected to the National Death Index records from 1999 to 2010. This sample was utilized to calculate crude death rates and standardized mortality ratios. The study's findings unveiled a notable death rate within the group of people who inject drugs (PWID), hence emphasizing the gravity of the matter. The study specifically emphasized the preventable nature of fatalities resulting from unintentional overdose, underscoring the significance of establishing interventions and methods to effectively tackle this matter. Nevertheless, it is crucial to acknowledge that this research does not explicitly investigate the correlation between students' knowledge of the potential health concerns connected with prescription medication usage and their overall psychological and social well-being. Hence, the current study has limited application. Furthermore, it should be

noted that the findings of the previous study may not have direct applicability to the present study, as the current research specifically examines students' level of knowledge of the potential health hazards connected with prescription medication usage, as well as their overall psychological well-being. Hence, additional investigation focused on the correlation between these variables within the student demographic was deemed imperative in order to augment the findings of the present study.

2.6 Awareness of Behavioural Risk and Students' Psychosocial Wellness

Mallah, et al., (2022) used information from the Swiss cohort research on substance use risk factors (C-SURF) to examine NMUPD among young adult men. Sleeping pills, tranquillizers, opioid analgesics, psych stimulants, and antidepressants were the primary focus of the study's examination of NMUPD. The researchers examined many sources of stress in their study, including one-time traumatic events, ongoing social and environmental pressures, and the cumulative effects of childhood and adolescent family conflicts. In order to determine which factors are associated with NMUPD, the researchers used a backward log-binomial regression analysis. Calculated risk ratios (RR) demonstrated statistically significant associations between NMUPD and selected factors. Increased exposure to potentially distressing events is associated with increased recreational opioid usage. Non-medical use of sleeping pills is also associated with family problems, and non-medical use of tranquillizers is associated with peer group issues. Few statistically significant correlations were found between variables that explored family dynamics in childhood. While there was a statistically significant correlation between sexual assault and non-medical use of sleeping pills, no such correlation was found between physical assault and non-

medical use of sleeping pills. Evidence has connected the non-medical use of prescription medications (NMUPD) across many pharmaceutical classes to non-family-related physical and sexual assaults. The results of this study show a clear correlation between NMUPD and recent social and environmental pressures as well as particular traumatic events. When compared to long-term stresses related to family dynamics in childhood and adolescence, this correlation appears to be stronger. Compared to assaults performed by known relatives, the link between NMUPD and random acts of physical and sexual violence is stronger when it comes to strangers. Among young adult males in a Swiss cohort, NMUPD is a serious problem, and our study contributes much by identifying the factors that contribute to this problem. While this study does not focus just on Nairobi County or the population under study, it does highlight the importance of considering several stressors and traumatic events in order to fully grasp NMUPD. The aforementioned research findings have the potential to contribute significantly to the development of prevention measures and therapies for NMUPD among young people.

‘Nonmedical prescription drug use among individuals in their late twenties: the importance of social bonding trajectories’ is a study by Yang and Yang (2017) that sheds light on the correlation between weak social bonding and nonmedical prescription drug usage. To investigate the relationships between social networks and substance abuse, the researchers used panel surveys from the United States' National Longitudinal Study of Adolescent to Adult Health. This study's longitudinal data allows for an examination of how drug usage and social interactions change over time. Including various social ties—religious, civic, family, educational, and marital—completes our understanding of the role of social connections in substance

abuse. The results of the study suggest that people who have close ties with others are less prone to abuse medications prescribed by a doctor for recreational purposes. However, recent social attachments, and bad ones in general, were found to be significant risk factors for drug abuse in adulthood. This highlights the need of considering both historical and current social relationships when trying to understand drug usage patterns. Limiting itself to American adults may limit extrapolation to other populations and cultural contexts, such as Nairobi County, which is a potential limitation of the study. It's important to proceed with caution when extrapolating results from one setting to another since the social and cultural factors influencing drug usage patterns may differ between countries. Furthermore, the study does not go further into the underlying mechanisms or any confounding variables, instead focusing only on the relationship between social bonds and drug use. There is a pressing need for more research into the interplay between social ties and drug use, as well as into other potentially influential factors. Overall, the findings of Yang and Yang (2017) add to the body of research about the connection between individuals' social networks and the misuse of medications prescribed by a doctor for nonmedical purposes. The results are helpful, but further research is needed to fully grasp the topic, especially in culturally diverse settings like Nairobi County.

Johnson et al.'s (2013) "Prescription Drug Abuse and Risky Behaviours among Young Injection Drug Users" sheds some insight on the link between prescription drug abuse and risky behaviour among young injectors. Researchers in Los Angeles and New York City looked at a sample of young people who inject drugs and determined how often they engaged in risky sexual or injection practices. The study's combination of both quantitative and qualitative data is a strength, since it allows for a

more complete understanding of the risky behaviours exhibited by this group. According to the findings, several of the participants engaged in dangerous sexual and injection behaviours while misusing prescription drugs. The study highlights the need to incorporate high-risk behaviour interventions into broader sexually transmitted disease prevention education programmes. The study also provides important information on which drugs were commonly misused with risky behaviours. Injectable drug usage was associated with opioid addiction, whereas sexually risky behaviour was associated with the misuse of prescription opioids, tranquillizers, and stimulants. The development of targeted medicines and preventative interventions can benefit from a better understanding of the chemicals involved in these behaviours. It is important to note that the research focused exclusively on a subset of young people who use injectable medications in certain regions of the United States. There may be regional differences in the prevalence and impact of drug usage in areas like Nairobi County, Kenya. Because of this, it is crucial to use caution when applying the results to different populations and settings. The availability of clean needles, as well as individuals' perspectives on hepatitis C and risk reduction via partner selection, are just a few examples of how this study sheds light on the factors that contribute to high-risk behaviours. Prescription drug addiction poses serious risks, yet these criteria can help inform the development of harm reduction measures and therapies. Johnson et al.'s (2013) findings provide a deeper understanding of the correlation between prescription drug abuse and risky behaviour among young IV drug users. These results highlight the importance of targeting specific geographic areas with educational initiatives. The unique dangers of prescription drug addiction in different settings, such as Nairobi County, need more investigation.

Routledge (2017) did research to determine if and how drug misuse affected the mental health of South African teenagers living in metropolitan areas. The major goals of the study were to determine the extent and kind of drug usage within the target population and to examine the possible links between substance use and participants' mental health. Initial phases were critical for laying the groundwork for the study components that would be essential to later understanding of risk behaviour. The major focus was on learning more about happiness as a psychological construct. Thirteen different schools in the Tswane region provided the data for this study, which included 1,918 students aged 12 to 19. There were 802 male students and 1,005 female students enrolled. In order to gather information, we gave out questionnaires about life skills, which included the Psychological Well-Being Scale, the Life Satisfaction Questionnaire, and other questions about potentially harmful activities like substance misuse. Using factor analysis, we looked at the components of the Psychological Well-Being Scale and found that it was a valid and reliable instrument for gauging well-being in the sample. The findings point to a favourable association between age and gender and substance usage, underlining the disproportionate risk of substance abuse among male adolescents. Researchers have shown that cultural norms have a major impact on drug consumption. The results of the multivariate analysis of variance point to a correlation between drug usage and indicators of psychological health and life happiness. Note, however, that this does not prove a causal link between the two (Routledge, 2017). Using Engel's Biopsychosocial Model and Bronfenbrenner's Ecological Model, this study explored the nuanced connection between mental health and substance abuse. The risks associated with substance abuse are well-documented in this study, as is the connection between those risks and

students' mental and social health. The Kenyan context, and especially the Nairobi County student population, gives this case special relevance.

"Prevalence and Correlates of Sex under the Influence among People Who Use Drugs in Cambodia" is the title of a research by Saing et al. (2022), which surveyed 1147 PWUD from 12 provinces in Cambodia. In order to identify the factors that are associated with engaging in sexual behaviour while under the influence of drugs, the researchers conducted a multivariate logistic regression analysis. According to the findings, over 40% of participants admitted to participating in sexual behaviour while under the influence of drugs within the past three months. After accounting for confounding factors, the study found many predictors of engaging in sexual behaviour while under the influence of drugs. High levels of psychological discomfort are associated with living in an urban location, having 10 or more PWUD in one's social network, using methamphetamine, having several sexual partners, engaging in transactional sex, and consuming drugs for extended periods of time. Results from this study show that both male and female PWUD in Cambodia are very likely to have sex when under the influence of drugs. These results highlight the necessity for comprehensive HIV and harm-reduction programmes that address the interconnected risks of drug use and sexual behaviour among this key population. It is important to note that the participants in this study are PWUD in Cambodia, therefore the situation may be different from that of other countries. This calls for care when extrapolating the results to other demographics, such as the students of Nairobi County. In any case, the study provides valuable insights into the connection between drug use and sexual risk behaviours, emphasising the importance of creating new approaches to address these overlapping dangers and encourage safer sexual practices within this population.

McLafferty et al. (2017) drew on information from the WHO World Mental Health Surveys International College Student Project and the Ulster University Student Wellbeing study to produce their study, "Mental health, behavioural problems, and treatment seeking among students commencing university in Northern Ireland." A total of 739 Northern Irish schoolchildren are the focus of this research. The study's findings show a correlation between specific demographic characteristics and an increased risk of having mental health and behavioural disorders. These characteristics include female gender, age above 21, non-heterosexual orientation, and socioeconomic background. Over half of the students in the research reported having some form of mental disease at some point in their lives, and the study also found substantial rates of baseline prevalence of mental disorders, 12-month mental health and substance issues, ADHD, and suicidality. There is also a high rate of comorbidity between these diseases. A significant number of students in the research sought out treatment for emotional troubles, showing that they were aware of the risks associated with drug addiction and the importance of seeking help. The results of this study are relevant in the Kenyan context since substance abuse is a serious problem among Kenyan college students, with potentially devastating effects on their mental health. Findings from this study can help politicians and educational institutions better meet the demands of today's youth in terms of both physical and mental health. It highlights the need to create preventative measures and support networks to deal with issues of mental health among college students. This research contributes to the development of sound preventative and protective strategies for students' physical and mental health by bringing together crucial data. However, while applying these findings to the Kenyan student population, it is important to keep in mind their unique cultural and environmental characteristics.

Research by Jones et al. (2019), titled "Prescription Opioid Misuse and Use of Alcohol and Other Substances among High School Students - Youth Risk Behaviour Survey, United States," uses information gathered from the CDC's Youth Risk Behaviour Survey between the years 2009 and 2019. The study uses logistic regression and Joinpoint analyses to look at how common drug use is among American high school students as well as how damaging habits like binge drinking and opioid misuse may be. The statistics imply that there is a correlation between different types of substance use, since teenagers who abuse prescription opioids are also more prone to use marijuana and other substances. Furthermore, there is a correlation between prescription opioid usage and risky actions. The findings of this study emphasise the need of implementing preventative policies, programs, and practices that target the risk factors for adolescent drug use and improve the protective variables already in place. It also highlights the need of ongoing efforts to address the opioid crisis. Significant school students in the United States were the primary focus of the study, but the findings may be applied to kids in Nairobi County or anywhere else in the world where there is a significant prevalence of drug use. The study's findings, particularly the correlation between prescription opioid use and other forms of substance misuse, provide important light on the prevalence and interaction of these problems among young people. The results add to the existing body of information and help direct future studies and interventions to reduce drug abuse among students in Nairobi County.

The study by Pontes and Pontes (2021), titled "Sex differences in the relationship between prescription opioid misuse and gun and other weapon-carrying behaviours," examined the link between prescription opioid abuse and gun or weapon carrying,

paying special attention to sex differences. The findings build on previous studies that shown a high link between teen prescription opioid use and gun ownership. The study looked at the marginal predictions about gun and weapon carrying based on data from the 2017 Youth Risk Behaviour Survey. Prescription opioid use and sexual orientation were the primary foci of this statistical examination. The results show a clear connection between prescription opioid use and firearm or other weapon carrying behaviour. The research showed that these acts were more common among male students. Prescription opioid misuse, according to the study, may be a role in access to firearms and other lethal means, which in turn contributes to increased rates of violence and suicide. The findings highlight the need of addressing the behavioural risks associated with prescription opioid addiction in student populations. The study also highlights the need of studies using STROBE standards to ensure accurate documentation of addictive interactions and risk factors linked with gun and weapon carrying. The study didn't focus specifically on the Nairobi area, but its findings might help instructors and students there better understand the risks of opiate misuse. Taking into consideration potential differences depending on gender, this study adds important information to the existing body of literature by shedding light on the link between prescription opioid misuse and gun or weapon carrying practices. This emphasises the need of resolving these behavioural issues for the sake of creating a more secure and pleasant atmosphere for students.

The purpose of Schepis and Krishnan-Sarin's (2018) study, "Characterizing adolescent prescription misusers: a population-based study," was to investigate the factors that increase the likelihood that teenagers may abuse prescription pain relievers, euphoriants, stimulants, and hypnotics. The researchers also wanted to see

whether there was any correlation between certain personality traits and prescription medication usage and dependence. The study used information gathered from a representative sample of 18,678 high school students who participated in screenings and interviews for the 2015 National Survey on Drug Use and Health. Population-based weights were utilized in the data analysis, and regression analyses were conducted to identify risk variables for prescription drug misuse. The study found that 3.2 percent of adolescents reported suffering drug use disorder symptoms and 8.2 percent admitted to misusing medications at least once. Subpar academic performance, depressed symptoms, and an increased inclination to engage in hazardous behaviours were found to be significant predictors of prescription drug addiction in a multivariate study. Furthermore, there was a link between prescription medication abuse and the use of alcohol, inhalants, or cocaine during the previous year. This study's findings are relevant to the field of inquiry into the behavioural risks associated with prescription drug abuse. The aforementioned study provides helpful insight into the factors that increase the likelihood that teenagers may abuse prescription drugs, highlighting the need of taking preventative and treatment measures at an early age. It's possible that the study's findings will shed light on how healthcare providers and policymakers can better spot and address adolescent pharmaceutical addiction. Overall, this research improves our understanding of adolescent prescription drug addiction by illuminating key risk factors and features associated with abuse symptoms and dependence. The findings of this study may shed light on how to best mitigate the behavioural risks associated with prescription medication addiction in young people.

Masese's (2020) study sought to understand the factors that have led to the rise in drug abuse among Kenyan college students. The purpose of the research was to address the rising drug usage rates among this demographic. Research and reports from the National Authority for the Campaign against Alcohol and Drug misuse highlighted the significant prevalence of drug misuse despite governmental intervention efforts, which motivated the current study. This research reviewed the available literature extensively to learn more about the complex factors that lead to drug addiction among students and young people. The aforementioned variables include one's socioeconomic situation, as well as their exposure to stress, stimulation, social pressure, curiosity, genetics, parenting, trauma, and the macroenvironment. According to the results, these elements have a crucial role in driving people to substance usage. The effects of drug misuse on college students were also examined. Negative effects on students' health and safety, increased risk of traffic accidents and the spread of infectious diseases like hepatitis B and C, risky sexual behaviour, unwanted pregnancies, and trouble in the classroom are just some of the consequences. This research highlights the need of educating college students about the risks associated with drug usage. This statement emphasises the importance of conducting further study to fully comprehend the complexities of this issue and to develop targeted remedies. The current study aims to fill a knowledge gap and add to our understanding of the behavioural hazards associated with drug usage among students in Nairobi County. Masese's (2020) study makes important advances to our knowledge of the causes and effects of drug abuse among Kenyan college students. This emphasises the urgency of addressing the issue and calls for comprehensive research and intervention strategies to mitigate the negative effects of drug abuse on students' health and academic performance.

2.7 Summary of the Literature Review

The primary goal of this study's literature review was to conduct a critical analysis of the existing body of research and pinpoint gaps in our understanding of the relationship between students' awareness of the risks associated with drug use and that drug's impact on their mental health. In the studies under examination, awareness of the risks of addiction appeared as an important factor. The prevalence of prescription drug use and its connection to psychological and social effects has been the subject of several studies. However, there is a lack of information regarding how exactly raising students' awareness of addiction risks affects their health.

The literature review also analysed how well people understand the risks of physical dependence. There is less study on how much of an impact students' understanding of the dangers of substance abuse has on their mental health, despite evidence linking incorrect use of some substances to the onset of physical dependence.

The review also shed light on how little research there has been into how toxicity worries affect students' mental health. Although there is a wealth of data on the negative health effects of substance use, less is known about how much of an impact students' awareness and understanding of those repercussions have on their own well-being.

The data also highlighted gaps in our understanding of how student awareness of health concerns relates to their emotional well-being. In the end, a fundamental conceptual framework emerged: the identification of behavioural risks, such as the propensity to engage in dangerous acts when under the influence of drugs. While a

number of studies have looked at the link between awareness of behavioural risks and unfavourable outcomes, a deeper understanding of the mechanisms at play and the moderating factors at play requires more research.

2.8 Research Gaps

Most of the research looked at examined the prevalence of knowledge about the dangers of medications prescribed by a doctor and its link to abuse in different areas of the world, especially the developed ones. In addition, instead of doing original research, most of the studies simply reviewed the relevant literature. Therefore, it is difficult to make concrete suggestions for combating prescription medication addiction in Nairobi County based simply on the current research.

Furthermore, there is a clear deficiency in the body of research that discusses the strategies used to reduce drug abuse among young people in Kenya. Prescription drug misuse among teenagers in Kenya is a serious problem, but the extant literature on the country's background does not give a comprehensive grasp of the existing policies and activities. As a result, there is an urgent need for scientific investigation that thoroughly examines the causes of prescription drug addiction among young people in Kenya and finds solutions to the problem.

This study sought to fill this knowledge vacuum by collecting primary data on teenagers' perceptions of the dangers of medications prescribed by a doctor and their usage of these substances in Nairobi County using questionnaires, in-depth interviews, and focus groups. Policymakers, healthcare providers, and other

stakeholders in the fight against teenage prescription drug addiction in Nairobi County can benefit from this research taking into account the local context in Kenya.

2.9 Theoretical Framework of the Study

Both the Situated Rationality and the Social Action Theories provide theoretical underpinnings for the research. These theories provide a comprehensive framework for assessing the link between psychosocial wellness of students which was the dependent variable and the independent variables under investigation. Knowledge of addictive hazards, knowledge of physical dependency risks, knowledge of toxicological risks, knowledge of illness risks, and knowledge of behavioural risks are all independent factors that may be considered here. The purpose of this research was to use the Situated Rationality and Social Action Theories to analyse the complex relationships between these factors. In doing so, it hopes to contribute significantly to our understanding of the factors that influence students' mental health.

2.9.1 Situated Rationality Theory

The Situated Rationality Theory provides the overarching theoretical foundation for this investigation. The idea, which has its roots in the work of academics like Parsons and Atkinson (1992) and Bloor (1995), posits that people's views and actions on risk depend heavily on the circumstances in which they arise. This theoretical perspective takes into account both cognitive and behavioural facets, acknowledging that contextual circumstances significantly affect individuals' risk-related reasoning and decision-making.

The primary purpose of this research is to investigate whether or not there is a correlation between students' levels of addiction awareness, physical dependence awareness, toxicity awareness, morbidity awareness, and behavioural risk-taking. According to the Situated Rationality Theory (Edgerton & Roberts, 2014), people's risk-taking habits are influenced not only by their own unique characteristics, but also by the cultural norms and expectations that have developed around them. The idea indicates that students' perceptions of the immediate hazards connected with risky behaviours like prescription medication addiction significantly affect whether or not they engage in those behaviours. Students may be less likely to abuse medications prescribed by a doctor if they are informed of the dangers and consequences associated with doing so. On the other hand, if students don't fully understand these dangers, they may continue to take drugs without ever seeking help.

To further develop this theory, we draw on the work of other academics, including Whitesell et al.,(2013) and Das et al. (2016). These viewpoints highlight the influence of environmental circumstances on an individual's risk perception, highlighting the social and contextual character of risk perception. The study emphasises the significance of boosting health and well-being beyond addressing risk factors and adopts the salutogenic paradigm favoured by Bhattacharya et al. (2014) to do so.

This research follows the guidelines of the Situated Rationality Theory in an effort to understand the complex relationships between students' psychological health, their perceptions of risk, and their actions around prescription medication addiction. The theory has impacted every stage of the study process, from planning to analysis to

interpretation of results, providing a fuller picture of the dynamic between psychosocial factors and risk perception in the setting of drug abuse.

2.9.2 Social Action Theory

The Social Action Theory, initially articulated by Douglas (1986), recognizes the significance of individual decision making while simultaneously emphasizing the role of contextual conditions in moulding behaviours related with risk-taking. This theory highlights how the concept of risk may change depending on the specific set of circumstances. Recognizing that influence from others, such as friends and cultural norms, may weaken one's resistance to harmful behaviour is an important step towards empowering people to make healthier choices. When considering how adolescents make choices in regards to drug usage, this concept becomes extremely important.

An option is to apply the Social Action Theory (SAT) to the study of drug abusers' risk-taking behaviour in urban settings. As proposed by Das et al. (2016), this theory functions as a holistic systems model that takes into account a wide range of elements, including social-motivational, cognitive, and biological processes in the environment. Due of the complexity of public health problems, the SAT framework was developed. This research extends beyond the realm of individual psychology theories by investigating the role of contextual and self-regulatory factors in the maintenance of healthful lifestyles (Johnson, 2008). The aforementioned theory has been useful in the study of drug addiction and other forms of substance abuse (Gore-Felton et al., 2005).

The social settings and conventions inside one's social networks have a significant impact on one's views and relationships. Morrison-Smith and Ruiz (2020) found that when people in a group ignore obvious dangers, it's generally because their peers approve of their behaviour. As a result, the complexities of these social interactions significantly affect how people evaluate threats to their safety.

As Tadayon and Bijandi (2012) explain, social action theories highlight the significance of external social pressures on human choices. In this opinion, drug abuse prevention initiatives whose only goal is to encourage individuals to "make healthy choices" are unlikely to be effective. The complex effect of interactions between individuals, which are inherently affected by the relationship between power and influence (Steinmann et al., 2018), is often overlooked by behavioural theories, which instead place an emphasis on individual reason as a technique to avoid dangerous behaviour.

In the context of the current study's theoretical foundation, it is worth noting that the general public's perception of the risks associated with drug use may have a significant effect on teenage social dynamics. Teens may be more likely to develop tolerance and misuse of medications prescribed by a doctor if parents and educators fail to adequately address the risks associated with such dependence. On the other side, a more aware population may be more motivated to take preventative action.

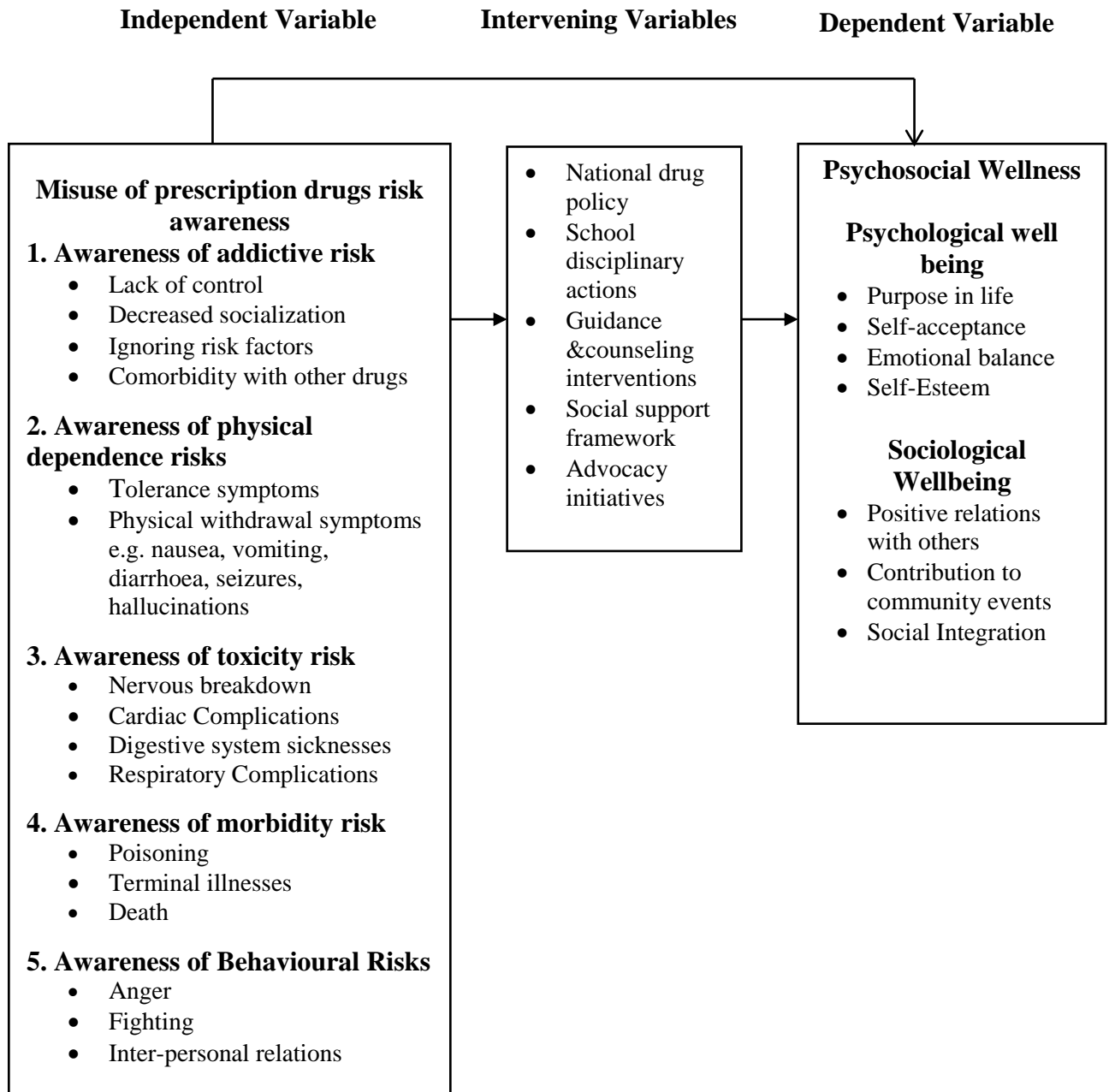
2.10 Conceptual Framework

The conceptual framework serves as a comprehensive amalgamation of existing scholarly literature, providing the researcher with a structured basis for elucidating a

particular phenomenon (Adom et al., 2018). Figure 1 illustrates the conceptual relationship among the variables under investigation.

Figure 1

Model showing the Relationship between Misuse of Prescription Drugs Risk Awareness and Psychosocial Wellness of Students



Source: Author (2023)

Source: Researcher Conceptualization 2022

The theoretical underpinnings of the study, including the Situated Rationality Theory and Social Action Theory, provided a foundation for understanding the complex relationships between variables. These theories helped guide the research design, data analysis, and interpretation of findings, offering insights into how awareness levels, influenced by the social environment, may impact behavior and psychosocial outcomes.

The intervening variables included the following: national drug policy, school disciplinary actions, guidance & counselling interventions, social support framework, and advocacy initiatives. The control of intervening variables in this study was primarily achieved through rigorous sampling techniques that aimed to reduce sampling errors and minimize the influence of potential confounding factors. Randomization, a key method of controlling intervening variables, was employed to assign participants to different groups or conditions in a manner that reduces bias and ensures an equal likelihood of selection, thus enhancing the study's internal validity.

The validity and reliability of the measurement tools used in the study were critical to the study's accuracy and consistency. To ensure validity, the measurement instruments, such as surveys or questionnaires, were carefully designed to accurately capture the intended constructs, in this case, awareness of risks and psychosocial wellness. Content validity was achieved through expert reviews and consultations, ensuring that the items in the instruments aligned with the theoretical constructs being studied.

Reliability, on the other hand, refers to the consistency of measurement. The measurement tools were administered to a pilot sample before the actual study to assess their reliability. Techniques such as Cronbach's alpha were used to measure internal consistency, ensuring that the items within each construct reliably measured the same underlying concept.

Additionally, the study aimed to achieve a prescribed level of significance, typically set at 0.05. This significance level indicates the threshold beyond which the observed results are deemed statistically significant and not likely due to chance. By adhering to this significance level, the study aimed to ensure that any observed relationships or effects were robust and not likely to occur by random variation alone.

By implementing these strategies to control intervening variables, ensuring validity and reliability of measurement tools, and adhering to a specific significance level, the study aimed to enhance the internal validity, reliability, and overall credibility of its findings.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter provides an overview of the research design, study population, sampling procedures, research instruments, data collection procedures, data analysis procedures, and ethical considerations.

3.2 Research Design

The research strategy utilized in this study was correlational research design. As described by Boru (2018), its objective was to assess the relationship between two variables: the level of knowledge regarding the risk of misusing prescription pharmaceuticals (independent variable) and psychosocial well-being (dependent variable). The suitability of the correlational research design was determined based on multiple factors. The initial step included in this study was to enable the researcher to investigate the correlation between the lack of information regarding the risks associated with inappropriate use of prescribed medications and the overall psychological well-being of individuals. The study sought to comprehend the relationship between changes in a particular factor and changes in another variable by assessing these variables in their inherent condition. Furthermore, the utilization of a correlational design facilitated the examination of the magnitude and orientation of the association between the variables. The study aimed to examine the relationship between many parameters, including awareness of addiction hazards, awareness of the psychological dependence risks, understanding of toxicity risks, information of morbidity hazards, awareness of mental health risks, along with social and psychological wellness, by collecting relevant data. Furthermore, the correlational

design enabled the examination of multiple variables simultaneously, offering a comprehensive understanding of their interconnections. By measuring various dimensions of risk awareness and psychosocial wellness, the study aimed to capture a more nuanced view of the relationship between the variables. Additionally, the correlational research design allowed for the exploration of patterns and trends within the collected data. By analyzing the strength and significance of the correlations, the study could identify any consistent associations between the misuse of medications prescribed by a doctor risk awareness and psychosocial wellness measures.

3.3 Location of Study

This research is centered on Nairobi County, which is one from the 47 administrative units of Kenya. The choice of Nairobi County as the study location is justified due to several reasons. Firstly, Nairobi County is the capital of Kenya and one of the most significant urban areas in the country. As such, it serves as a microcosm of various social, cultural, and economic dynamics that can influence the issue of prescription drug misuse among adolescents.

Secondly, Nairobi County has a large population, with over 4 million individuals residing in the county as per (KNBS, 2019). This population size provides a diverse and representative sample for this study examines the incidence and impact associated with the improper use of prescribed medications among populations of teenagers.

Furthermore, Nairobi County comprises 17 Sub-Counties with 71 government-funded high schools, each with its unique characteristics and socio-environmental factors. By conducting the study in different Sub-Counties, it allows for the exploration of

potential variations in prescription drug misuse rates and related challenges among adolescents in different areas within Nairobi County.

Furthermore, the decision to choose Nairobi County specifically the study site is justified by the recognition of distinct obstacles associated with the misuse of medications prescribed by a doctor among teenagers, as identified by the National Authority for the Campaign Against Alcohol and Drug Abuse (NACADA, 2019). The acknowledgment from a credible authority underscores the importance and pertinence of conducting an inquiry into the matter inside Kenya's Nairobi County.

By conducting the study in Nairobi County, valuable insights can be gained into the factors contributing to prescription drug misuse among adolescents in an urban setting. The findings can inform targeted interventions, policies, and strategies to address the challenges associated with prescription drug misuse in Nairobi County and potentially serve as a model for other urban areas in Kenya and beyond.

3.4 Target Population

The population refers to the specific group under investigation, from whom the researcher can feasibly access in order to pick a representative sample (Mugenda & Mugenda, 2008). The primary focus of this study is directed towards the 71 high schools in Nairobi County that receive government funding. According to the Ministry of Education (MOE) data for Nairobi County in 2020, the total student population in funding from the government high schools amounted to 44,561, while the number of instructors stood at 2,451. The study encompassed the inclusion of the 71 principals from the selected schools. In addition, a total of 20 Ministries of

Education (including both national and county governments) were subjected to targeting. The utilization of several responder categories was employed to facilitate triangulation. This approach is implemented as a method to enhance the credibility of assessment and research results. Triangulation is a commonly employed research approach that involves the utilization of many data sources and methods to comprehensively investigate a certain topic (Carter et al., 2014).

The utilization of triangulation was of utmost importance in this study, given the delicate nature of substance addiction. Respondents frequently exhibited reluctance to openly discuss this topic due to the associated social stigma and potential repercussions (Yang et al., 2017). A study conducted by Leslie (2008) demonstrated the notable tendency of Canadian teens to exhibit reluctance in participating in surveys. This finding subsequently led to the adoption of anonymous questioning techniques as a means of data gathering. On the other hand, the selection of Nairobi County as a target was based on the notable prevalence of prescription drug addiction, as shown in the study conducted by Kahuthia-Gathu et al. (2013). The demographic group under study was displayed in Table 1.

Table 1

Target Population

Category	Population
Students	44,561
Teachers	2,451
Principals	71
MOE officials	20

Source: Nairobi City County Government. (2020)

3.5 Sample Size and Sampling Procedure

This section presents the sample size and the procedure that was employed in this study.

3.5.1 Sample Size

The sample size for each category in the study was determined using a calculation formula based on the population size and the desired level of precision or margin of error (e). The formula used to calculate the sample size is known as the "Neyman's formula" or the "simple random sampling formula."

For the category of students, the population size was 44,561. The sample size (N1) was determined using the formula:

$$N1 = N / (1 + N*(e)^2)$$

Where:

N1 =represents the population size

e = the desired margin of error (assumed at 0.1)

The formula was applied for each category but not the totals.

By plugging in the values, the sample size of 100 students was arrived at as shown in the calculation below.

Calculation for Students Sample:

$$N1 = N / (1 + N*(e)^2),$$

$$N1= 44,561/(1+ (44,561*0.1^2))$$

$$N1= 44,561/(1+ (44,561*0.01))$$

$$N1=99.8$$

$$N1\approx 100$$

Similarly, for the category of teachers, with a population size of 2,451, the sample size (N2) was calculated using the same formula. This resulted in a sample size of 96 teachers.

Calculation for Teachers Sample:

$$N2 = N / (1 + N*(e)^2),$$

$$N2 = 2,451 / (1 + (2,451 * 0.1^2))$$

$$N2 = 2,451 / (1 + (2,451 * 0.01))$$

$$N2 = 96.1$$

$$N2 \approx 96$$

For the category of principals, with a population size of 71, the sample size (N3) was determined using the formula.

Calculation for Principals Sample:

$$N3 = N / (1 + N*(e)^2)$$

$$N3 = 71 / (1 + 71*(e)^2),$$

$$N3 = 71 / (1 + (71 * 0.1^2))$$

$$N3 = 71 / (1 + (71 * 0.01))$$

$$N3 = 41.5$$

$$N3 \approx 42$$

A sample size of 42 principals was thus obtained.

Lastly, for the category of MOE officials, with a population size of 20, the sample size (N4) was calculated using the same formula, leading to a sample size of 17 MOE officials.

Calculation for MOE Officials Sample:

$$N3 = 20 / (1 + 20*(e)^2),$$

$$N3 = 20 / (1 + (20*0.1^2))$$

$$N3 = 20 / (1 + (20*0.01))$$

$$N3 = 16.7$$

$$N3 \approx 17$$

Thus, the total sample size was 255 participants. These included 100 students, 96 teachers, 42 principals and, 17 MOE officials. These sample sizes were deemed sufficient to represent their respective populations and provide meaningful insights for the study as shown in the Table 2.

Table 2

Sample Size and Percentages

Category	Population	Sample	Sampling Formula
Students	44,561	100	$N1 / (1 + N*(e)^2)$
Teachers	2,451	96	$N2 / (1 + N*(e)^2)$
Principals	71	42	$N3 / (1 + N*(e)^2)$
MOE officials	20	17	$N3 / (1 + N*(e)^2)$

Source: Researcher (2020)

3.5.2 Sampling Procedures

Sampling involves selecting a sufficient and representative sample size of individuals or things from a specific research population (Orodho & Kombo, 2002). The present study employed the technique of proportionate stratified and simple random sampling to get data. The researchers employed a proportionate sampling methodology to gather representative samples from four distinct classifications, students, teachers,

principals, and authorities from the Ministry of Education (MOE). Subsequently, the researchers employed a simple random selection technique to select individuals who would participate in the study from each stratum.

3.6 Research Instruments

The study utilized a variety of data gathering devices, including survey responses, interview guides and examination of documents, in order to take advantage of the strengths inherent in each method. Questionnaires were employed as a result of their effectiveness in gathering data. Through the utilization of questionnaires administered to a substantial sample size, the study attained a wider scope of representation and improved the applicability of the results. The utilization of uniform inquiries and response options in data collecting ensured a consistent approach, so reducing potential bias and guaranteeing that all participants were presented with a same set of items for their responses. Furthermore, the utilization of questionnaires provided individuals with the opportunity to maintain anonymity and privacy, so enabling them to provide more truthful and precise responses, especially when collecting data of a sensitive nature. In addition, the organized format of surveys facilitated a direct analysis of data, enabling the generation of statistical reports and the ability to make connections across different variables.

The survey instrument comprised nine distinct components. The initial component of the study was dedicated to the collection of demographic variables pertaining to the participants, thereby furnishing significant contextual information. The subsequent sections, specifically sections two through nine, were devoted to conducting a thorough examination of each of the research variables. The variables encompassed in

this study encompassed the extent of prescription drug abuse, the level of awareness regarding the addictive potential, physical dependence risk, toxicity risk, morbidity risk, and behavioral risk associated with these drugs. Additionally, other factors that may influence prescription drug abuse, referred to as intervening variables, as well as psychosocial wellness were also considered. The survey utilized a combination of closed-ended questions, which provided participants with predetermined response possibilities, and open-ended questions, which allowed participants to freely articulate their opinions and experiences. Furthermore, the researchers incorporated psychometric tests into the study in order to collect measurable data pertaining to particular facets of the variables under investigation.

The interview instructions were customized to correspond with each one of the research hypotheses. A framework was developed for the implementation of comprehensive interviews with a specific group of participants. The guides were designed with a meticulous construction of questions in order to elicit comprehensive responses that are relevant to the investigation's hypotheses. The interviews provided participants with a platform to expand upon their viewpoints, personal encounters, and convictions, thereby contributing valuable qualitative data that supplemented the quantitative results obtained from the surveys.

The inclusion of document analysis in conjunction with both interview and questionnaire data served to enhance the comprehensiveness of the study, enabling a more comprehensive and nuanced understanding of the setting. The researcher gained insight into existing interventions and scholarly discussions surrounding prescription medication usage among adolescents by thoroughly analyzing appropriate materials

such as procedures, reports, and academic articles. This approach enabled the examination of existing activities, scholarly conversations, and the broader context surrounding the topic. The utilization of document analysis served as a fundamental basis for the interpretation of the findings derived from the questionnaires and interviews, so providing supplementary depth and bolstering the comprehensive study.

The study effectively leveraged the benefits of many research instruments to enhance its methodology. Questionnaires helped the quick gathering of data and subsequent quantitative analysis. Interview guides were important in conducting in-depth research and obtaining qualitative insights. Additionally, document analysis played a crucial role in developing a thorough contextual understanding. The utilization of a multidimensional method resulted in an increase in the rigor and depth of the data gathered, hence bolstering the validity and trustworthiness of the research outcomes.

3.7 Data Collection Procedures

The present research used a combination of both primary and secondary sources of information. While the questionnaire was completed by teachers and students, the interviews were specifically conducted with principals and officials from the Ministry of Education (MOE). The collection of secondary data was conducted by sourcing pertinent information from internet and print resources. A total of four investigator assistants received employment, underwent training, and actively participated in the process of data gathering. Prior to the administration of the research instruments, the researchers secured a research permission and letters of authorisation from the appropriate authorities. The researcher thereafter conducted visits to the schools and

offices of the selected Ministry of Education (MOE) personnel, seeking authorization to administer the surveys and conduct interviewing.

Questionnaire was distributed to the 42 schools with 5 students' questionnaires and 5 teachers' questionnaires. These were given to student leaders from the targeted classes most of who were in Form 2, Form 3 and Form 4. The large number of questionnaires was issued out for attrition purposes to take care of non-response. The duration of data collecting spanned a period of six weeks. Special arrangements were established for the telephone conversations, during which survey responses were collected and returned at prearranged times in consultation with the educational institution administrators and the people who represent them.

3.8 Pilot Study

Piloting was conducted to assist in determining the accuracy, clarity, and suitability of the research instrument. The choice of the pilot study sample was influenced by the guideline that suggests a sample size of 10% of the intended study sample is sufficient for piloting study instruments (Kothari, 2004). This entailed a pilot study targeting 10 teachers, 10 students, and 2 MOE officials from Nairobi County. The pilot study participants did not participate in the final study.

The data collected from the pilot study was used to assess and validate the research instruments. The researchers analyzed the pilot study data to evaluate the clarity of the questionnaire items, identify any ambiguities or challenges in understanding the questions, and assess the overall suitability of the instrument for the target population. The feedback from the pilot study participants, including their comments and

suggestions, played a crucial role in refining and improving the research instruments for the main study.

Additionally, the pilot study helped identify any potential issues related to data collection procedures, such as the time required to complete the questionnaire or any logistical challenges. These insights allowed the researchers to make necessary adjustments and refinements to ensure a smooth and efficient data collection process in the main study.

3.8.1 Reliability of the Research Instruments

Reliability tests are carried out to measure the consistency of results from a test. This study used Cronbach's alpha, a reliability coefficient that varies from 0 to 1 to test the reliability of the questionnaires. Research items with Cronbach's alpha values of more than 0.7 are considered to have sufficient internal consistency (Malhotra, 2004). As shown in Table 3, the Cronbach alpha values obtained ranged between 0.77 and 0.91. The tools were thus considered reliable for use in data collection. The Cronbach alpha formula is presented below:

$$\alpha = \frac{n}{n-1} \left(1 - \frac{\sum s^2(X_i)}{s^2(Y)} \right)$$

Where:

n refers to the number of scale items

s² (X_i) refers to the variance associated with item

s² (Y) refers to the variance associated with the observed total scores

Table 3*Reliability Testing*

Variable	No. of Item	Teachers' Responses Cronbach Alpha (α)	Students' Responses Cronbach Alpha (α)
Awareness of Addictive Risk	6	0.88	0.83
Awareness of Physical Dependence Risk	8	0.91	0.79
Awareness of Toxicity Risk	7	0.85	0.82
Awareness of Morbidity Risk	7	0.79	0.80
Awareness of Behavioural Risk	7	0.89	0.85
Psychosocial Wellness	11	0.82	0.77

The two educational authorities were involved in a test project with the interview guidelines. For consistency, the results from the two interviews were contrasted. During triangulation, the coherence of the results from the survey responses and guides to interviews was evaluated by examining how closely they correspond to the additional information.

3.8.2 Validity of the Research Instruments

According to Mugenda and Mugenda (2009), study instruments are considered to possess high levels of validity when they effectively measure the target parameters. The study ensured content validity by incorporating an adequate number of questions for each variable under investigation. The assessment of face validity involved determining the degree of ease with which the respondents provided answers to the

research questions. In this particular scenario, any questions that were unclear or open to interpretation were modified in order to enhance their comprehensibility and facilitate straightforward responses. The perspectives of university supervisors were sought regarding the structures of the research tools, and their guidance was utilized to enhance the tools. The researchers ensured construct validity by operationalizing the study variables and formulating questions to be asked in the investigation tools in accordance with the literature review and the operationalized definition of the variables.

The chapter on study techniques should demonstrate validity and trustworthiness in a concise yet comprehensive manner. The following concepts are appropriate to employ while presenting an exceptional research environment. Reliability pertains to the stability of findings, whereas validity pertains to the accuracy and truthfulness of findings (Mohajan, 2017). According to Singh (2014), the concepts of validity and reliability in qualitative research serve to enhance transparency and mitigate the risk of researcher bias. A comprehensive assessment of the reliability and validity of all secondary data necessitates an examination of the methodologies employed in data collecting (Kabir, 2016). According to Goundar (2012), statistical tools utilized in healthcare research, teaching, and leadership, such as symptomatic scales, survey forms, educational assessments, and viewers evaluations, provide a valuable framework for interpreting results.

The researchers often demonstrate a lack of comprehension of the inherent connection between scale validity and the achievement of good research, as well as neglecting to disclose the reliability of their measures (Kabir, 2016). In order to quantify

phenomena, the process of measuring involves assigning numerical values to observed data. The process involves the development and use of instruments or assessments to measure these factors, along with the procedure of establishing variables (Apuke, 2017). The utilization of an enhanced mechanism will contribute to the increased scientific rigor of research. In order to provide a reliable and valid research study, it is essential to ensure that the variables under investigation are measured with a high degree of precision. According to Mohajan (2017), a significant number of errors are likely to arise during the measurement of scale variables. Consequently, the process of building scales for research purposes is inherently flawed, despite efforts to achieve excellence. Survey inaccuracies can have detrimental effects on the reliability and validity of scores, so compromising the integrity of a research project. Furthermore, these inaccuracies can impede the ability to identify significant results, thereby hindering the overall effectiveness of the study. The primary objective of maintaining accuracy and veracity in research is to ensure the validity and consistency of data, as well as the accuracy of the facts.

3.9 Data Analysis and Presentation

The descriptive analysis of the quantitative data involved the utilization of frequencies, percentages, and means. The data was subjected to inferential analysis using Pearson correlation and multiple regressions analysis. The results were displayed through the utilization of tables and figures. The regression model proposed for implementation in this study is as follows:

Regression Model

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \mu$$

Where:

Y = Psychosocial Wellness

X1 = Awareness of addictive risks

X2 = Awareness of physical dependence risks

X3 = Awareness of toxicity risks

X4 = Awareness of morbidity risks

X5 = Awareness of behavioural risks

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ = regression coefficients

μ = the error term

Table 4 show how the various hypothesis was rested

Table 4*Method of Analysis*

Hypothesis	Measurement	Test	Decision
HO₁: There is no statistically significant relationship between awareness of addictive risk of prescription drugs misuse and psychosocial wellness of students in government- funded high schools in Nairobi County, Kenya	<ul style="list-style-type: none"> • Lack of control • Decreased socialization • Ignoring risk factors • Comorbidity with other drugs 	<ul style="list-style-type: none"> • Correlations Analysis • Regression Analysis 	Reject null hypothesis if $p < 0.05$
HO₂: There is no statistically significant relationship between awareness of physical dependence risk of prescription drugs misuse and psychosocial wellness of students in government – funded high schools in Nairobi County, Kenya	<ul style="list-style-type: none"> • Tolerance symptoms • Physical withdrawal symptoms e.g nausea vomiting, diarrhea, seizures, hallucinations 	<ul style="list-style-type: none"> • Correlations Analysis • Regression Analysis 	Reject null hypothesis if $p < 0.05$
HO₃: There is no statistically significant relationship between awareness of toxicity risk of prescription drugs misuse and psychosocial wellness of students in government-funded high schools in Nairobi County, Kenya	<ul style="list-style-type: none"> • Nervous breakdown • Cardiac Complications • Digestive system sickness • Respiratory Complications 	<ul style="list-style-type: none"> • Correlations Analysis • Regression Analysis 	Reject null hypothesis if $p < 0.05$
HO₄: There is no statistically significant relationship between awareness of morbidity risk of prescription drugs misuse and psychosocial wellness of students in government-funded high schools in Nairobi County, Kenya	<ul style="list-style-type: none"> • Poisoning • Terminal illnesses • Death 	<ul style="list-style-type: none"> • Correlations Analysis • Regression Analysis 	Reject null hypothesis if $p < 0.05$
HO₅: There is no statistically significant relationship between awareness of behavioural risk of prescription drugs misuse and psychosocial wellness of students in government-funded high schools in Nairobi County, Kenya	<p><i>Psychological</i></p> <ul style="list-style-type: none"> • Purpose in life • Self-acceptance • Emotional balance <p><i>Sociological</i></p> <ul style="list-style-type: none"> • Positive relations with others • Contribution to community events 	<ul style="list-style-type: none"> • Correlations Analysis • Regression Analysis 	Reject null hypothesis if $p < 0.05$

Source: Researcher 2022

Data from interviews and secondary data sources were analyzed using thematic and content analysis procedures.

3.10 Logistical and Ethical Consideration

The study placed significant importance on ethical considerations to ensure the protection and well-being of the participants. Multiple measures were implemented to ensure both the psychological and physical safety of each respondent, as well as guarantee their anonymity throughout the research process.

Firstly, voluntary participation was emphasized, meaning that individuals had the freedom to decide whether or not to participate in the study. Participants were not coerced or compelled to take part, and they were made aware that their involvement was entirely voluntary. This approach respected their autonomy and allowed them to make an informed decision based on their own judgment.

To ensure psychological safety, the researchers took great care in explaining the purpose of the study to the participants. They provided clear and comprehensive information about the research objectives, procedures, and potential risks or benefits involved. This transparency helped participants understand what was expected of them and allowed them to make informed decisions regarding their involvement.

Consent was obtained from each respondent before administering the study tools. Participants were provided with consent forms or consent statements that outlined the nature of the study, their rights as participants, and the voluntary nature of their

involvement. By obtaining explicit consent, the researchers ensured that participants were fully aware of their rights and could provide informed consent to participate.

Anonymity was also safeguarded to protect the privacy and confidentiality of the participants. Measures were implemented to ensure that individual responses and personal identifying information remained confidential and could not be linked back to specific participants. This approach provided a level of comfort and reassurance to participants, encouraging them to provide honest and open responses without fear of identification or potential negative consequences.

In terms of legal compliance, the study obtained a research permit from the National Commission for Science, Technology, and Innovation (NACOSTI) and any necessary authorization letters. This ensured that the study was conducted within the framework of the law and met the regulatory requirements set by the relevant authorities. By adhering to these legal obligations, the researchers established a strong legal basis for the study and demonstrated their commitment to ethical research practices.

CHAPTER FOUR

DATA ANALYSIS AND DISCUSSION

4.1 Introduction

The objective of this study was to investigate the correlation between the level of knowledge regarding the risks associated with prescription drug usage and psychological and social health of students attending government funded secondary educational institutions in Nairobi. This chapter presents a comprehensive analysis of the data collected from the questionnaire's replies and interviews, in accordance with the research purposes. The specific research objectives addressed in this study were:

To examine the relationship between awareness of addictive risk and psychosocial wellness of students

- i. To examine the relationship between awareness of addictive risk and psychosocial wellness of students in government –funded high schools in Nairobi:HO1: There is no statistically significant relationship between awareness of addictive risk of prescription drugs misuse and psychosocial wellness of students in government-funded high schools in Nairobi County, Kenya
- ii. To explore the relationship between awareness of physical dependence risk and psychosocial wellness of students in government –funded high schools in Nairobi: HO2: There is no statistically significant relationship between awareness of physical dependence risk of prescription drugs misuse and psychosocial wellness of students in government –funded high schools in Nairobi County, Kenya
- iii. To assess the relationship between awareness of toxicity risk and psychosocial wellness of students in government –funded high schools in Nairobi: HO3: There is no statistically significant relationship between awareness of toxicity risk of

prescription drugs misuse and psychosocial wellness of students in government funded high schools in Nairobi County, Kenya

- iv. To evaluate the relationship between awareness of morbidity risk and psychosocial wellness of students in government –funded high schools in Nairobi: HO4: There is no statistically significant relationship between awareness of morbidity risk of prescription drugs misuse and psychosocial wellness of students in government funded high schools in Nairobi County, Kenya
- v. To determine the relationship between awareness of behavioural risk and psychosocial wellness of students in government –funded high schools in Nairobi:HO5: There is no statistically significant relationship between awareness of behavioural risk of prescription drugs misuse and psychosocial wellness of students in government-funded high schools in Nairobi County, Kenya

4.2 Response Rate

The study conducted a sample of 255 participants. The aforementioned figures encompassed a total of 100 pupils, 96 educators, 42 heads of schools, and 17 officials from the Ministry of Education (MOE). Among the respondents, a total of 100 students, representing 100% of the student population, participated in the survey. Additionally, 77 instructors, accounting for 80.2% of the teaching staff, provided their responses. Furthermore, 34 principals, constituting 81% of the administrative heads, contributed to the survey. Lastly, 11 officials from the Ministry of Education (MOE), representing 64.7% of the total MOE officials, also participated in the study, as outlined in Table 5.

Table 5*Response Rate*

Response	Students		Teachers		Principals		MOE Officials	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Responded	100	100	77	80.2	34	81.0	11	64.7
Non-Respondent	0	0	19	19.8	8	19.0	6	35.3
Total	100	100	96	100	42	100.0	17	100.0

Source: Researcher 2022

4.3 Demographics of the Participants

The results indicate that the different groups of participants in the research project provided satisfactory responses, which were considered suitable for analysis. The findings align with the research conducted by Martínez-Mesa et al. (2014), suggesting that the sufficiency of the sample is contingent upon the suitability of both its size and composition. The assessment of reliability and quality in quantitative research is a crucial aspect, particularly in relation to considerations of validity along with generalizability. This is especially relevant for research that aligns with the positivist framework and upholds realist ontological assumptions.

The study assessed general information about the students and teachers, including factors such as gender, age, living arrangements, student class, and teacher's educational background and tenure at their current schools. The findings indicate that the majority of students (51%) lived with both parents, while 21% lived with their mothers and 13% lived with their fathers. This reveals a decreased in the proportion of students living with both parents since 1968, while the percentage of students

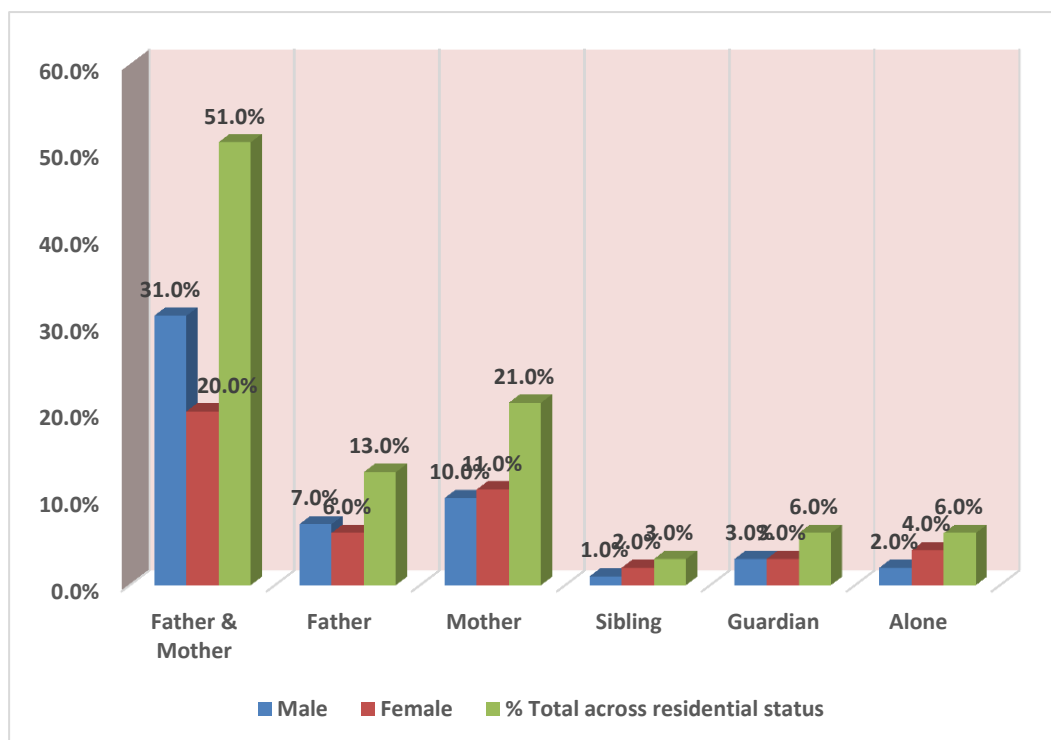
living with just their mothers has doubled (Nargiso et al., 2015). These changes in family living arrangements are attributed to factors such as divorce and non-marital childbearing.

Additionally, a small percentage of students (6.6%) lived with guardians or alone, while only 3.3% lived with siblings. The high percentage of students living with parents is noteworthy, as it suggests a potentially protective factor against prescription drug use, as suggested by Nargiso et al. (2015). Parents play a crucial role in guiding their children and providing them with proper guidance and support.

These findings are visually presented in Figure 2, providing a clear representation of the distribution of students' living arrangements. The prevalence of students living with parents indicates the significant influence parents can have in shaping their children's behaviors and decisions, including the prevention of prescription drug misuse.

Figure 1

Students Gender and Residential Status



Source: Researcher 2022

The presence of parental guidance in the lives of most students was found to have a significant influence on their utilization of prescription drugs. This observation was corroborated by respondents who expressed the belief that parents or guardians play a pivotal role in shaping a student's life and decision-making processes. These individuals argued that there exist various strategies through which parents can mitigate the chance of their children engaging in prescription drug abuse. They emphasized the importance of parental involvement, establishment of standards and regulations, and education on the dangers associated with the misuse of prescription drugs. This viewpoint aligns with the findings of a study conducted by El Kazdouh et

al. (2018), which suggests that parental encouragement can impact students' propensity for substance use. In support of this notion, one of the respondents stated:

I live with my parents because they provide me with care, emotional support, security, and safety, in addition to practical and financial assistance (Respondent A, Nairobi, May 2022)

According to Alemann et al. (2020), parental participation from an early age has a lasting impact on a child's development. According to research, it assists in reducing eventual maladaptive behaviors and their underlying mechanisms (such as substance misuse) (e.g. frustration tolerance). There is some research that suggests parental expectations and participation affect developmental domains other than accomplishment. Bovin and Griffin (2007), for instance, discovered that parent participation was linked to a decrease in delinquent behavior. Furthermore, studies show that inadequate parental participation is linked to a variety of subsequent issues (such as attendance issues and behavior issues), which in turn predict adolescent substance use.

Parental participation can serve as a barrier between certain undesirable social behaviors and adolescents. According to earlier studies, more parental involvement is associated with substance use that is less frequent, begins later in life, and is used less often. Madras (2019) found that while some drugs - like marijuana - were associated with lower usage when parents were involved, others were not. Parental engagement was linked to teenagers' decisions to experiment with substances but not with frequency or age of first use. That is to say, once substance use started, parental support could only do so much to moderate the frequency or age of use.

There is little doubt that parental participation plays a significant role in children's lives (Domina, 2005). Parenting will continue to play a crucial role in the socialization of adolescents as they become older, whether or not young people rely on their parents to guide them through life or whether newlyweds are cautious about making mistakes that could disadvantage children (Hayakawa et al., 2016). Given the importance of parental participation in the socialization of children, research on how parental involvement affects adolescent behaviors, particularly drug use, might shed light on how parental involvement can prevent problem behaviors from having a negative impact on children's wellbeing.

Understanding ways to reduce the possibility of early drug use is crucial for safeguarding adolescents from these long-term detrimental impacts, which could result from early drug use (Das, 2016). How parental participation affects adolescent substance addiction has not been thoroughly investigated in prior studies (Piehler & Winters, 2017). The goal of the current study is to comprehend this relationship better. This study specifically looked at parental engagement in relation to the frequency, age of initiation, and use of illegal substances by adolescents and young adults.

Parenting practices can influence how children and parents interact, which can either shelter children from undesirable behaviors or create an environment that encourages them. This can have a significant impact on how children develop as young people. Early in a child's life, a parent-child interaction develops, making it essential to comprehend The strategies that are likely to have an impact on an individual's life trajectory involve the promotion of behaviors that are beneficial that foster growth

and the discouragement of undesirable behaviors that impede development. research has established a positive correlation between increased parental engagement in school-related endeavors, such as volunteer inside the educational institution, and two key outcomes: an increased grade point average (GPA) throughout the high school years and a greater likelihood of pursuing post-secondary education, according to research by Benner, Boyle, and Sadler (2016).

Additionally, higher parental guidance on students' academic choices was linked to academic success. These findings suggest that parental involvement in their children's educational affairs can have a significant impact on both their high school performance and chance of continuing their education. Increased parental participation has been shown to benefit adolescent life and assist prevent behaviors like substance misuse and dropping out of school that could be harmful to the adolescent's future. According to research by Darling-Hammond et al. (2020), parents who encourage their children to succeed in high school increase the likelihood that they would pursue further education, which in the concept of "turn" has been identified as a significant predictor of both professional success and overall well-being. This phenomenon occurs due to a strong positive correlation between parental awareness and heightened levels of parental solicitation, which refers to the extent to which parents inquire about various aspects of their child's life. This enhanced solicitation, in turn, leads to greater child disclosure and increased parental participation. The influence of parenting techniques on a child's future outcomes is substantial; however, there exists considerable variation in these behaviors across different homes. Consequently, it is imperative to grasp the implications of different parenting ideologies on a child's developmental trajectory and overall welfare.

Drug use among young people is widely acknowledged as a serious health issue with significant socioeconomic effects (El Omari, 2015). Greater parental participation has been linked to good effects on a number of areas of children's life, according to research, but it can also serve as a safeguard against a number of undesirable outcomes, such as substance misuse. More specifically, Criss et al. (2015) found that lower levels of antisocial behavior and substance misuse were associated with parental participation levels that were higher. Although substance use can start at any time during life, earlier use of any substance is associated with a higher risk of chronic ongoing addictions and substance abuse later in life. Therefore, cutting down on substance use earlier in life should help prevent substance abuse in the future.

There are still concerns about the mechanics underlying the parent's particular role, and there is no obvious correlation between parental involvement and adolescent substance use. However, the related issue of teenage alcohol consumption may provide some insight into the function of parental participation. McClelland and Mckinney (2016) hypothesized that greater parental supervision was highly correlated with reduced teen alcohol intake over the course of a given week. Similar findings were made by Hurley, Dietrich, and Rundle-Thiele (2019) who discovered that a strong parent-child bond served as a barrier against young people abusing alcohol. They also stated that children who grew up with parents who showed them more love, care, support, and trust were less likely to become drug addicts themselves. Finally, improved parenting can further influence teenage substance use in addition to having an impact on it.

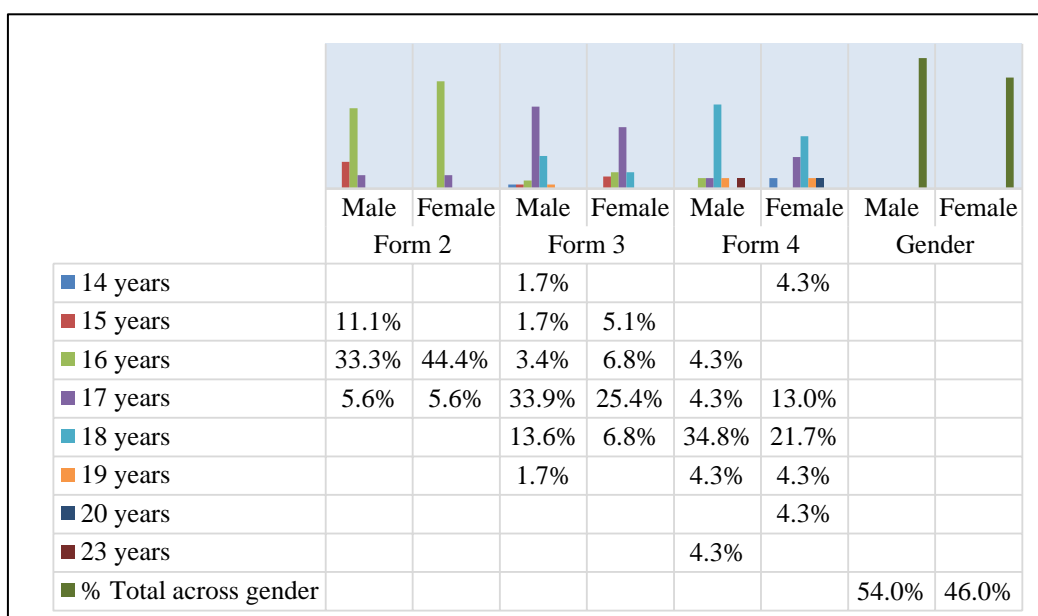
When parental involvement was high, Liebschutz et al. (2015) showed that students who were at risk for unfavorable behavioral outcomes were much more likely to demonstrate resilience (i.e., no early substance use, no hazardous sexual behavior, and a lack of problematic behaviors). Although more research is needed to understand the connection between parental participation and drug use, previous literature has demonstrated how more parental involvement can help prevent teenage alcohol use. By exploring how parental participation influences substance usage and putting a particular emphasis on a range of illicit drugs, the current study seeks to close this gap and advance the field of inquiry.

The pupils were requested to specify their academic course. The results indicate that a majority of the student population consisted of males (54%), whereas girls accounted for 46% of the total. The majority of male individuals were enrolled in either Form 4 or Form 3, accounting for 34.8% and 33.9% of the total population, respectively. The subsequent individuals were predominantly females, with a majority of them belonging to Form (25.4%) and Form 4 (21.7%). The remaining individuals were assigned to the remaining classes. The majority of individuals in the 16-year-old age group were enrolled in Form 2, with females comprising 44.4% of this cohort. The majority of male students were enrolled in either Form 4 (34.8%) or Form 3 (33.9%). The results of this study indicate that a majority of the older students were of the male gender. Both genders were equally represented in the study, and no significant disparities in the demographic parameters of either gender were observed. The results, therefore, provide a clear representation of the perspectives held by students, taking into account their gender, age, and class. These findings align with the research conducted by Tannenbaum, et al, (2016), which emphasizes the significance of

including gender as a pivotal variable in research. This approach entails the examination of how societal norms and power structures influence the opportunities and lifestyles of diverse groups of individuals based on their gender. The results were illustrated in Figure 3.

Figure 2

Students Gender, Age and Class



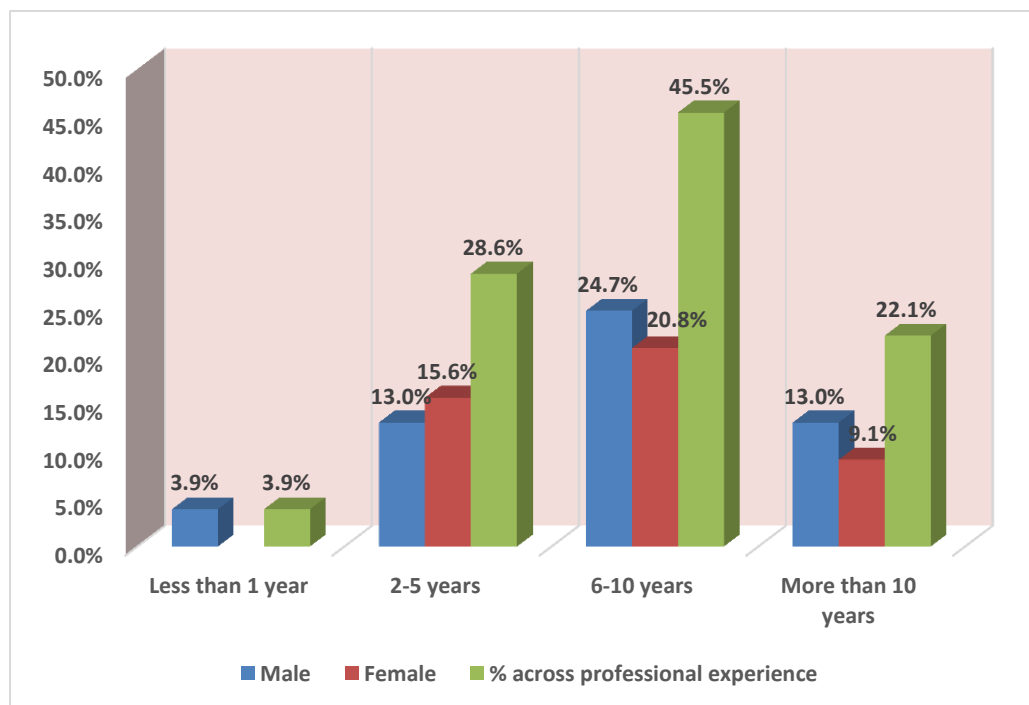
Source: Researcher 2022

A significant proportion of both male and female teachers, specifically 24.7% and 20.8% respectively, had accumulated teaching experience ranging from 6 to 10 years. Subsequently, a cohort of female educators with a teaching experience ranging from 2 to 5 years constituted 15.6% of the sample, while male educators with a teaching experience of either 2 to more years or greater than 10 years accounted for 13% each. A mere 3.9% of men in education have a teaching experience of less than one year, while no female educators fell into this category. The data indicate that a majority of

the teachers possessed a considerable tenure within the educational institutions, hence enabling them to develop a comprehensive understanding of the challenges confronted by their respective schools. The significance of job experience lies in its ability to strengthen one's understanding of a particular subject Kamamia, et al.,(2014). The length of employment with the current employer, according to Cheung, et al., (2010), can be considered as a significant indicator of employment stability, which may have an impact on employee satisfaction. Employees who feel at ease in their position and with their employer are probably less likely to switch jobs.

Figure 3

Teachers Gender and Professional Experience



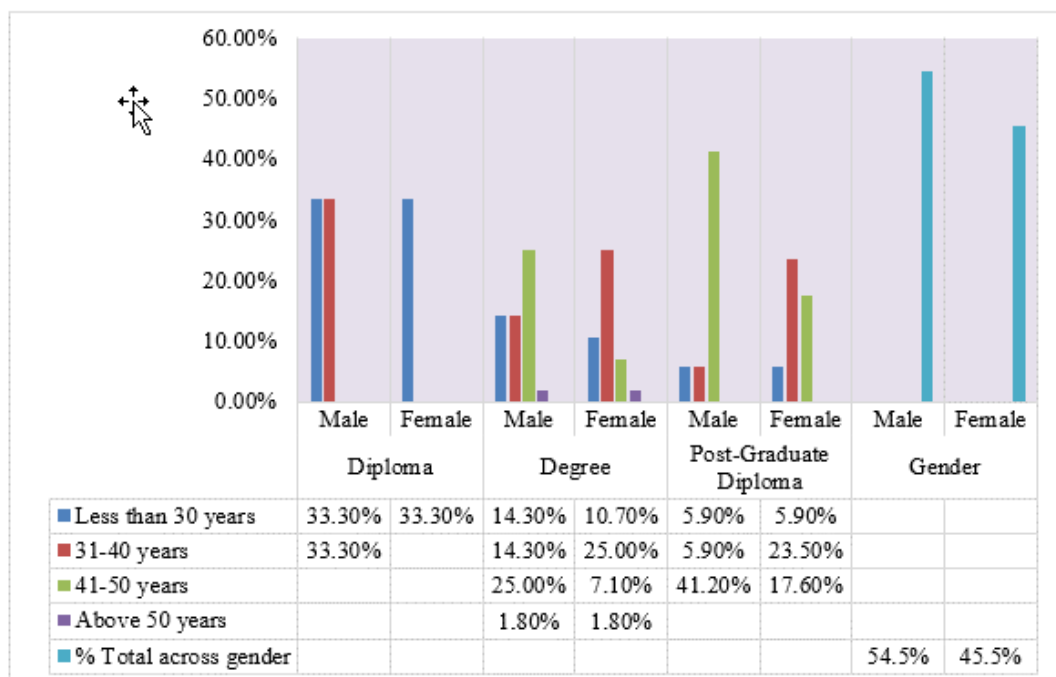
Source: Researcher 2022

The majority of educators consisted of individuals who identified as male and fell within the age range of 41 to 50 years. Furthermore, these teachers possessed post-graduate credentials. The subsequent group consisted of both male and female

instructors who possessed diplomas and were under the age of 30, comprising 33% of the total. Additionally, male teachers with diplomas and ages ranging from 31 to 40 constituted 33.3% of the population. The subsequent significant demographic consisted of male instructors, aged between 41 and 50 years, who possessed degrees, as well as female teachers aged 31 to 40 years, who also held degrees, each accounting for 25% of the total population. The aforementioned findings indicate that the teachers have adequate academic credentials and were capable of providing well-informed insights that aligned with the study's objectives. This finding aligns with the research conducted by Kamamia et al. (2014), which emphasizes the significance of qualifications in determining the worth of investments made on a certain subject. The aforementioned results were displayed in Figure 5.

Figure 4

Teachers Gender, Age and Academic Qualifications



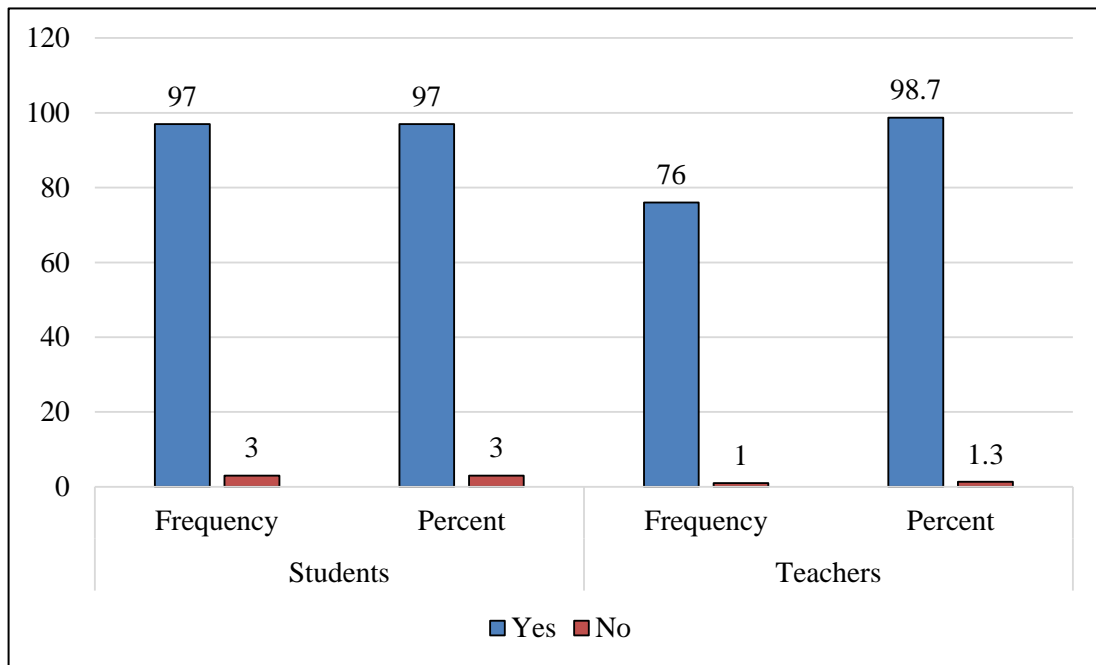
Source: Researcher 2022

4.4 Prescription Drug Use

The teachers and students were asked to point out if “there were instances of prescription drug abuse among students in your school.” The findings were presented in Figure 6.

Figure 5

Prescription Drug Use



Source: Researcher 2022

Figure 6 presents the responses obtained from the participants. Among the students surveyed, a significant majority (97.0%) indicated that they had observed instances of prescription drug abuse, while a minor portion (3.0%) reported not witnessing such behavior. Similarly, among the teachers surveyed, a substantial majority (98.7%) confirmed the presence of prescription drug abuse in their schools, whereas a small minority (1.3%) reported not observing such occurrences.

The data presented in the study highlight the significant occurrence of prescription drug misuse among student populations, specifically in relation to painkillers, stimulants, and medications that treat anxiety. The findings shown here are consistent with the findings reported in a study published by Kamenderi et al. (2021), which likewise emphasizes the prevalence of prescription medicines, including opioid analgesics and stimulant drugs, as the substances most frequently misused. The congruity observed between the current study's results and the research conducted by Kamenderi et al. enhances the validity of the claim that the abuse of prescription drugs, particularly opiates for pain relief and drugs, is a noteworthy issue among student populations.

Herzberg et al. (2016) documented an upward trend in the prescription rates of abusable drugs inside the United States. The aforementioned pharmaceutical substances encompass stimulants, opioids, and benzodiazepines. The observed improvements might likely be attributed to a range of factors, including extended treatment duration, the introduction of novel pharmaceuticals, intensified marketing efforts, and enhanced understanding of the indications and manifestations of different diseases. The increase in prescription rates of these drugs has raised public health concerns due to their misuse potential, as well as the high prevalence rates of non-medical use, abuse, and reliance, especially among young individuals.

Bennett and Holloway (2017) argue that the issue of substance usage and non-medical use of prescription pharmaceuticals among students is a multifaceted, hazardous, and widespread subject matter. Consequently, the escalating prevalence of prescription drug addiction has become a significant source of apprehension within modern

society, necessitating comprehensive and robust measures for regulation and mitigation. The adverse consequences of prescription drug addiction are pervasive across several age groups. However, the implications for the health and well-being of young individuals represent a significant public health concern, exerting a substantial detrimental influence on both society and overall health outcomes, including instances of unintentional fatalities. Individuals who engage in the misuse of prescription medicines encounter significant challenges in their social relationships and may experience difficulties in maintaining attention and cognitive functioning. Moreover, the misuse of prescription medicines has enduring consequences and is associated with a range of hazards, including diminished sleep, quality of life, and overall health, as well as the development of depression, personality disorders, subpar performance, and the imposition of economic and social costs on both families and society.

Nevertheless, the study observed that a considerable number of adolescents hold the perception that prescribed medications are comparatively safer for use, thereby elucidating the elevated prevalence of substance misuse within student populations. Students often turn to prescription medications as a means of alleviating tension and managing the pressures and anxieties they experience. The study conducted by Kamenderi et al. (2021) also discovered the perceived safety of using these medicines for stress alleviation. This phenomenon can be attributed to the fact that students frequently experience boredom, fatigue, stress, especially anxiety, which significantly impede their ability to attain academic goals.

According to Dillard (2019), stressful circumstances may be draining on the body and mind and set off stress responses and coping strategies in an attempt to restore

homeostasis. Everyone speaks about anxiousness, but the majority of those times when people do, they are referring to the intensity that results from a traumatic event that is happening to them or those around them, claims Baqutayan (2015). Students may speak of feeling anxious because of poor test results or an approaching paper deadline, for example. Parents talk about the price of keeping a house up and the difficulty of parenting teenagers. People may thus look for drugs that may help them as a consequence. One of the respondents said:

The cases are high. Stimulants are the most misused drugs. The misused medications prescribed by a doctor are sourced from peers, who include friends, roommates, and classmates (Respondent B, Nairobi County, May 2022).

The study included the inclusion of participants, including both students and instructors, who were administered a diverse range of prescription prescriptions. Subsequently, they were requested to provide their observations about instances of children abusing these medications. Figure 8 presents the results of the investigation, illustrating the varying rates of drug addiction associated with various prescription drugs.

According to the students who reported the most widespread prescription medicine use, Figure 8 illustrates that the weekly consumption rate of sedatives was 26% for women and 31% for males. Tranquilizers shown a subsequent prevalence in misuse, with a monthly incidence of 28% among males and 25% among females. The prevalence of painkiller use was likewise extensive, as shown by 27% of males and 24% of females reporting regular instances of usage on a weekly basis. Furthermore, a notable proportion of the female population (24%) and the male population (25%) disclosed engaging in the misuse of sleep aids on a weekly frequency. The findings

presented in this study reveal a concerning trend characterized by the pervasive prevalence of prescription drug addiction. Specifically, sedatives, tranquilizers, and painkillers emerge as the most often misused pharmaceutical substances. The study findings indicate that a significant proportion of the experimental medications prescribed by a doctor were misused on a weekly basis.

The findings presented align with the previous research conducted by NACADA in 2012, which specifically examined the inappropriate use of sedatives, sleeping pills, morphine, codeine, and other medications that need a prescription. In contemporary society, there is a prevalent issue among students whereby the misuse of prescription opioids has become more common. This problematic behavior encompasses several behaviors such as stockpiling medications, actively pursuing certain pharmaceuticals, visiting multiple healthcare providers and pharmacies, as well as participating in fraudulent activities. According to a research conducted by the United Nations Office on Drugs and Crime (UNODC) in 2011, codeine, a widely used opioid painkiller known for its analgesic, antitussive, and antidiarrheal properties, has become a matter of public health concern owing to its potential for misuse. The substance in question is categorized as a narcotic drug that is subject to international regulation. Additionally, the legal requirements surrounding different formulations of this substance may vary.

As an example, the classification of pure codeine as forbidden is outlined in Schedule II of the Single Convention on Narcotic Drugs, 1961. Although a significant portion of codeine preparations are classified as category III substances and need a prescription, it is worth noting that this particular category does not mandate the

maintenance of restricted registers. The findings of this study underscore the significance of addressing the issue of prescription opioid use and the need of implementing stringent regulations to ensure their appropriate administration and mitigate the risk of misuse.

The global demand for codeine has shown a significant increase of around 27% over the last decade and continues to maintain a substantial level. According to the International Narcotics Control Board (INCB, 2022), global purchasing levels had a significant increase, reaching a record-breaking 269 tonnes in 2019, compared to 164 tonnes in 1992. These findings are based on recently revealed statistical data. Pharmacies now provide both over-the-counter and prescription codeine medications, as supported by Moore, et al, (1998). Combination medications including codeine, paracetamol, ibuprofen, or aspirin may be accessible without a prescription via over-the-counter channels or regulated businesses. Typically, pharmaceutical products containing codeine that are available for purchase without a prescription need supervision by a pharmacist. The regulations pertaining to the distribution of codeine exhibit variation across different countries, with some jurisdictions imposing limitations on its promotion and public exhibition. Estimating the volume of over-the-counter sales for medications containing codeine poses challenges due to trade exemptions and the potential risk of disclosing information that could jeopardize the commercial interests of individuals or public authorities. However, it is widely acknowledged that these sales constitute a significant proportion of pharmacy transactions.

Recent study indicates that there is a need for enhanced pharmacovigilance when it comes to the prescription and over-the-counter use of codeine. With respect to the accessibility of over-the-counter codeine, the deregulation of codeine has fostered a culture of patient or customer consumerism, self-medication, and assertiveness among pharmacists (Albsoul-Younes, et al., 2010). As a result of these circumstances, the determination of the extent of public consumption and the assessment of the detrimental health effects remain hard. The opioid-like analgesic effects of this substance, together with the potential for tolerance to develop during brief periods of excessive or frequent use, contribute to an increased risk of abuse and dependence (Sproule et al., 1999). It is crucial to consider that individuals possess distinct variations in their metabolism of codeine, capacity to ascertain a safe dosage, and susceptibility to developing dependent.

Instances of codeine abuse, misuse, and inappropriate utilization might manifest in diverse ways. This phenomenon encompasses individuals who exceed recommended dosages and therapy durations of codeine, leading to the development of codeine dependence due to a medical condition. Additionally, it includes those who employ codeine as a means to mitigate opioid withdrawal symptoms, individuals who utilize codeine for its euphoric effects, and those who opt for codeine over codeine-based medications to synthesize their own opiates, such as desomorphine.

The existing body of research highlights many concerns about the widespread use, inappropriate use, and addictive potential of codeine. Several instances can be identified where codeine is misused or its use raises concerns. These include the misuse of over-the-counter codeine, particularly in the form of codeine cough syrups,

the administration of codeine to children, the prescription of codeine for pain management, the utilization of codeine during pregnancy, the incorporation of codeine products in the production of illicit drug mixtures such as desomorphine, and the recreational use of codeine. The misuse of codeine cough syrup has been historically linked to the development of psychotic diseases, particularly paranoid psychosis. According to Dobbin and Tobin (2008), extended use has also been linked to feelings of depression and anxiety. According to Manchia, et al., (2013), codeine has the capacity to serve as an iatrogenic element in the pathogenesis of mental disorders. This pertains to a chronic headache caused by prolonged codeine use as a result of substance misuse (Bendtsen et al., 2012). Collectively, these findings underscore the several challenges presented by codeine, including its susceptibility to misuse and psychoactive properties, as well as the adverse consequences associated with prolonged use. The study's findings underscore the need of addressing the several dimensions of codeine misuse and dependency to mitigate the adverse impacts it has on individual and public health.

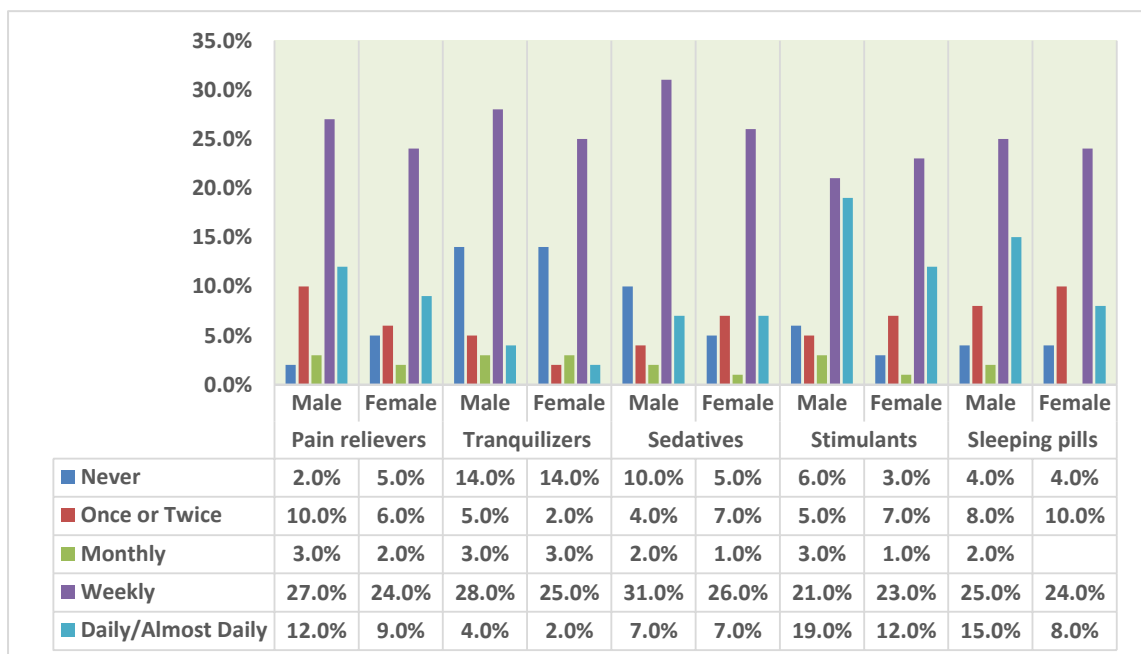
Based on the survey findings, it is evident that Kenya exhibits a significant prevalence of prescription drug using within its secondary school system. The findings presented here align with the research conducted by Compton and Volkow (2016), which posits that the prevalence of prescription drug addiction in the United States has seen a significant increase, reaching a concerning level, particularly for opioids, analgesics, and stimulants.

According to the findings of Currie and Cameron (2012), Canada exhibited the highest per capita use of several high-potency opioids, establishing itself as the

foremost consumer of high-potency prescription medications on a global scale. The increasing use of medications prescribed by a doctor in Canada is a cause for concern, since it often corresponds with a concurrent surge in prescription drug consumption. The misuse of medications prescribed by a doctor may give rise to significant adverse effects, including behavioral changes, engagement in risky sexual conduct, and diminished self-worth among students, so exerting a detrimental influence on their overall well-being. In addition, it has the potential to adversely affect an individual's well-being via the occurrence of organ failure and other related complications.

Figure 6

Categories and Use of Medications prescribed by a doctor as Reported by Students



Source: Researcher 2022

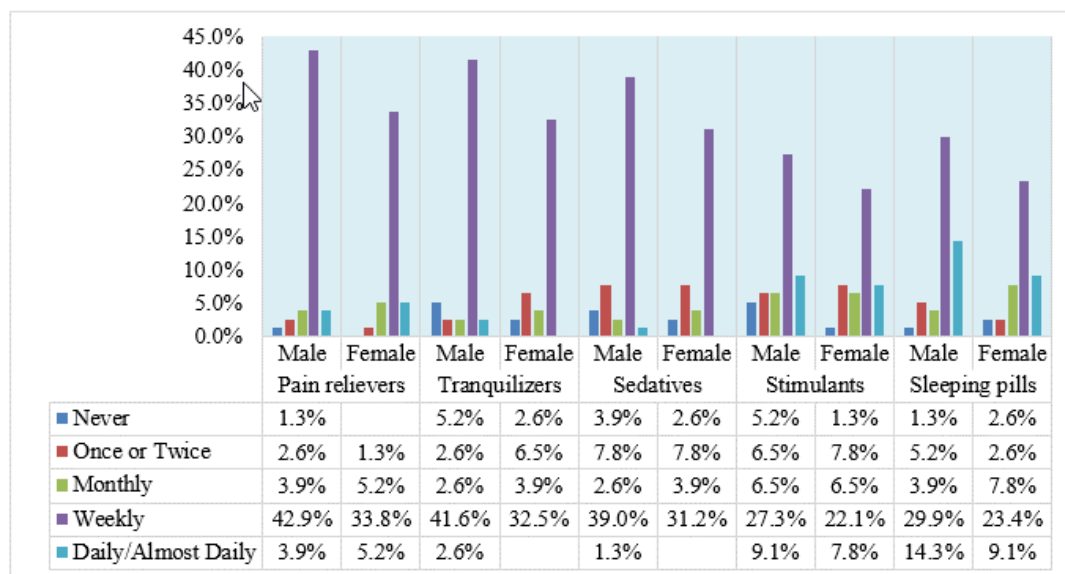
Based on the perspectives of male educators, it was found that opioids (42.9%), tranquilizers (41.6%), and sedatives (39%) were identified as the prescription pharmaceuticals most frequently subjected to excessive usage. Based on the

perspectives of female educators, the medications that were frequently employed to an excessive extent were calming medications (31.2%), tranquilizers (32.5%), and painkillers (33.8%). Both of these instances entailed the regular using of drugs on a weekly basis. The misuse of sleeping drugs emerged as a prevalent issue among educators, with a notable occurrence rate of 29.9% among male teachers and 23.4% among female instructors. The subsequent category examined was stimulants, with a prevalence rate of 22.1% among women teachers and 27.3% among male professors. The findings presented in Figure 8 highlight a substantial prevalence of various types of medications prescribed by a doctor being abused, which resonates with the survey conducted by NACADA (2012). The study by Poulin (2021) also contributes to this discourse, as it investigated prescription stimulant usage among secondary school pupils. Poulin's research revealed a direct correlation between the proportion of students using prescription stimulants in a particular class and the likelihood of them sharing their stimulant medications. Despite some limitations in Poulin's measures, this study offers valuable insights into medical and non-medical prescription stimulant use at the school class level.

Overall, the presented findings underscore the significant level of prescription drug misuse among teachers, with painkillers, tranquillizers, and sedatives emerging as the most frequently abused substances. The prevalence of these abuses aligns with existing research and contributes to the ongoing dialogue surrounding prescription drug abuse.

Figure 7

Categories and Use of Medications prescribed by a doctor as Reported by Teachers



Source: Researcher 2022

The study subsequently requested the professors and students to assess the frequency of prescription drug use in Nairobi County. Consensus was reached about the proficient performance of both educators and learners. In favor of this proposition, one of the respondents expressed their viewpoint:

The level is high. Most students abuse drugs especially medications prescribed by a doctor because either they are stressed or are hurting (Respondent F, Nairobi County, May 2022).

The findings align with prior studies, indicating that prescription medications rank as the third most often misused drug among youngsters in rich countries, behind drinking and smoking. In the majority of circumstances, individuals who had little social connections exhibited higher incidences of maltreatment. Nevertheless, it is important to note that the potential negative outcomes stemming from contemporary

social connections may surpass the protective measures offered by earlier affiliations (Yang & Yang, 2017).

Chibi et al. (2020) assert that the danger is also being experienced across the African continent. The use and diversion of prescription medications have seen a notable surge in the last decade, mostly observed in affluent countries. This escalating trend has played a substantial role in exacerbating the opioid epidemic. The authors believe that the high rates of prescription medicine usage among students may be attributed to the perception among many young individuals that such treatments are comparatively safer. According to Kasundu et al. (2012), the assertion is substantiated by the inclusion of societal, economic, and demographic factors that also have a role in influencing prescription practices. Consequently, a significant proportion of individuals resorted to the use of prescription medications as a means to mitigate stress, worry, and tension.

In the realm of prescription drug misuse, the insights from NIDA (2014) shed light on a concerning trend of escalating usage, both within legitimate medical contexts and beyond, for non-medical purposes (Kolodny et al., 2015). The data reveal a complex landscape where the annual influx of new non-medical users witnessed a decline, yet a significant portion of the population persists in engaging in this behavior (SAMHSA, 2013b). This nuanced scenario underscores the intricate relationship between legitimate medical prescriptions and the potential for misuse.

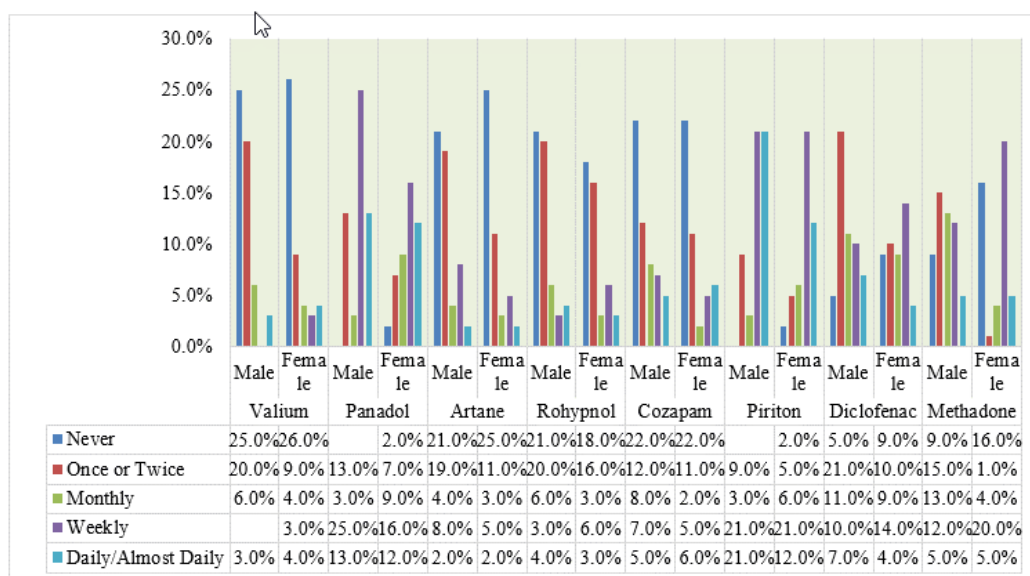
The surge in the utilization of specific prescription medications, as pointed out by Jones (2013b), like oxycodone and hydrocodone, amplifies the urgency of addressing

this issue. The drastic increase in opioid-related overdose deaths, as articulated by Chen et al. (2014), serves as a stark reminder of the grave consequences tied to this phenomenon. However, it is not just overdose mortality that is concerning; the escalating non-medical opioid use has triggered a rise in emergency room visits, revealing a broader spectrum of impacts on public health.

The intertwining of opioid misuse with the availability and allure of heroin, a cheaper alternative on the illicit market, adds another layer of complexity. The fact that a substantial proportion of individuals who develop OUD from prescription opioids eventually turn to heroin underscores the intricate dynamics at play (Muhuri et al., 2013). This progression from prescription opioids to heroin showcases the interrelatedness of these issues and the multi-dimensional impact they have on public health (DEA, 2013). Ultimately, these findings compel us to recognize that the battle against opioid misuse and its far-reaching consequences extends beyond the boundaries of prescription medications, impacting both medical and illicit domains alike (Kolodny et al., 2015).

Figure 8

Names of Medications prescribed by a doctor Used as Reported by Students



Source: Researcher 2022

The evaluators were required to assess the specific names of the pharmaceuticals that were either used or misused. According to student reports, the average frequency of Valium use was once or twice a week, with 26% of men and 26% of females indicating such usage. A survey revealed that 25% of male respondents and 16% of female respondents indicated regular weekly use of Panadol. A significant proportion of male respondents indicated engaging in the misuse of various substances, with the highest reported rates seen for Diclofenac (21%), Rohypnol (20%), Valium (20%), and Artane (19%), often on an occasional basis. Furthermore, it was found that a notable proportion of female students (12%) and male students (21%) indicated regular or near-daily use of the medication known as piriton. Subsequently, female students reported that a weekly methadone use was seen among 20% of their cohort. A comparable proportion of both men and women, namely 21%, indicated a weekly

use of piriton. The findings indicate that a diverse range of medications were often used, with Valium, Panadol, and Piriton emerging as the most commonly utilized.

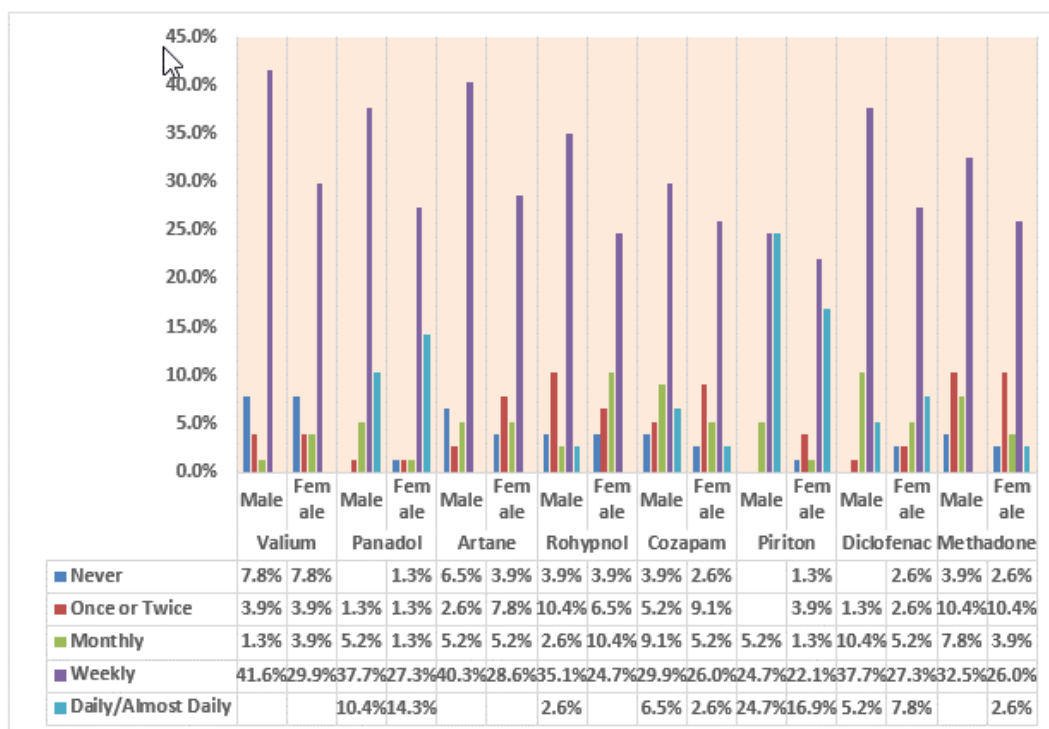
According to male educators, a significant proportion of children encounter instances of abuse on a weekly basis. A selection of pharmaceutical substances that were often reported among the respondents included Valium (41.6%), Artane (40.3%), Panadol (37.7%), Diclofenac (37.7%), Rohypnol (35.1%), and Methadone (32.5%). The misuse of prescription medications, particularly among female instructors, was a prevalent issue seen among students on a weekly basis. Among various medicines, Valium (29.9%), Artane (28.6%), Diclofenac (27.3%), Cozapam (26%), and Methadone (26%) emerged as the substances most often subjected to abuse. The misuse of Piriton was reported to be a weekly or daily occurrence by 24.7% of male professors, and a weekly or frequent/almost daily occurrence by 22.1% and 16.9% of female students.

The findings draw parallels with the study conducted by Kahuthia-Gathu et al. (2013), which identified Valium, Panadol, Artane, Rohypnol, Cozapam, and Piriton as the main drugs abused in the Nairobi context. These converging outcomes underscore the consistent patterns of prescription drug misuse and highlight the need for targeted interventions to address the widespread abuse of these substances.

The study's outcomes provide valuable insights for understanding the prevalent usage patterns of specific medications prescribed by a doctor among students, thereby enabling the formulation of informed strategies to combat misuse and promote healthier behaviors within this demographic.

Figure 9

Names of Medications prescribed by a doctor Used as Reported by Teachers



Source: Researcher 2022

When asked to point out the main prescription drugs abused by students in schools through an open-ended question, the respondents listed Valium, Panadol, Artane, Rohypnol, Cozapam, Piriton, Diclofenac and Methadone. This further agrees with the study by Kahuthia-Gathu et al. (2013). To this question, one of the respondents said:

The prescription listed drugs are mainly abused because they are prescribed for pain relief, anxiety or sleep problems and attention-deficit hyperactivity disorder....The most common problems facing students (Respondent G, Nairobi County, May 2022).

The aforementioned comments support the idea that students heavily abused the aforementioned medications. Existing literature states that using medication for causes other than those recommended by the doctor constitutes pharmaceutical drug

misuse. Unfortunately, it is difficult to stop such abuse. This results from the fact the medication are legal and convenient to purchase over-the-counter, despite the fact state agencies spend enormous amounts of money trying to stop the human trafficking and usage of illegal substances like heroin, cocaine, and marijuana (Rolles & Slade, 2022).

The findings showing that the majority of students commonly abused Valium, Panadol, Artane, Rohypnol, Cozapam, Piriton, Diclofenac and Methadone. According to the study listed drugs are mainly abused because they are prescribed for pain relief, anxiety or sleep problems and attention-deficit hyperactivity disorder-most common problems facing students. This study aligns with those of a comparable study that included 26,575 people and found that over half of those surveyed acknowledged the above listed prescription drug misuse (McCabe et al., 2022).

4.5 Awareness of Addictive Risk of Abuse of Medications prescribed by a doctor and Psychosocial Wellness

The first objective of the study was “to examine the relationship between awareness of addictive risk of prescription drugs misuse and psychosocial wellness of students in government-funded high schools in Nairobi County, Kenya.” To this end, the study required the respondents to rate the level of awareness of addictive risk of abuse of medications prescribed by a doctor and psychosocial wellness among students in Nairobi County on a scale of 1 to 5 where “1-Not at all, 2-to a little extent, 3- to a moderate extent, 4-to a great extent, 5-to a very high extent.

The study delved into the perceptions of both students and teachers regarding the consequences of continued consumption of prescription drugs, revealing noteworthy findings that offer insights into their shared perspectives.

Table 6

Continued Consumption of Medications prescribed by a doctor and Unpleasant Side Effects

Descriptive Statistics				
Statement	Mean		Std. Dev.	
	Students	Teachers	Students	Teachers
Continued consumption of prescription drugs makes students experience unpleasant side effects after consumption	4	4	1.00	0.73

N=100 (students); N=77(teachers)

Source: Researcher 2022

As depicted in Table 6, the respondents from both student and teacher groups exhibited a high level of agreement concerning the potential unpleasant side effects associated with continued consumption of prescription drugs. Both groups reported a mean score of 4 on this statement, indicating a substantial consensus among the respondents. The standard deviation values of 1.00 for students and 0.73 for teachers further reflect the coherence of their opinions on this matter. This shared viewpoint suggests that both students and teachers are acutely aware of the likelihood of adverse effects resulting from prolonged prescription drug use.

Furthermore, Table 7 showcases another area of agreement among the respondents. They concurred to a significant extent that sustained prescription drug consumption can lead to tolerance, necessitating the usage of higher volumes to achieve the intended effects. Both students and teachers rated this statement with a mean score of

4. These findings align with the Situated Rationality Theory, which posits that the continuation of substance use may be driven by the challenges associated with building tolerance (Bhattacharya et al., 2014).

The convergence of perceptions between students and teachers in these areas underscores a shared awareness of the potential negative consequences linked to prolonged prescription drug use. This collective recognition emphasizes the importance of educating students about the risks associated with ongoing consumption and the potential for developing tolerance. These results also point to the effectiveness of interventions that target enhancing risk awareness and promoting healthier behavior among students in the context of prescription drug misuse.

Table 7

Continued Consumption of Medications prescribed by a doctor and Tolerance

Descriptive Statistics				
Statement	Mean		Std. Dev.	
	Students	Teachers	Students	Teachers
Continued consumption of prescription drugs can lead to tolerance (need to use high volumes of the drug to get intended feeling) among students	4	4	0.95	0.84

N=100 (students); N=77(teachers)

Source: Researcher 2022

Table 7 provides insight into the opinions of instructors and students about the potential development of tolerance due to continued consumption of prescription drugs. The results reveal a notable agreement between the two groups, with both students and teachers assigning a mean score of 4 to the statement. The standard deviation values of 0.95 for students and 0.84 for teachers suggest a relatively tight consensus in their responses. This shared perception underscores their awareness of

the possibility that prolonged prescription drug use may lead to tolerance, necessitating increased volumes to achieve the desired effects.

Moving on to Table 8, the study explores the shared viewpoints of students and teachers concerning the impact of continued prescription drug consumption on experiencing physical and psychological withdrawal symptoms. The findings indicate a strong level of agreement, with both groups attributing a mean score of 4 to the statement.

The findings of the study align well with the concept of psychosocial wellness. The literature on psychosocial wellness, as cited from Dodge et al. (2012) and Ryff (2014), underscores the importance of achieving a balanced state despite life's challenges and positive life events. It encompasses positive relationships, personal mastery, autonomy, purpose, meaning in life, and personal growth. The study posits that the occurrence of physical and psychological withdrawal symptoms could indeed impact psychological wellness, which aligns with the focus of the research. Furthermore, the concept of well-being, encompassing subjective well-being, positive mental health, and life satisfaction, is highlighted as vital for personal, interpersonal, and societal growth. The study suggests that positive well-being is associated with various positive outcomes, such as workplace productivity, effective learning, creativity, prosocial behaviors, and positive interpersonal relationships.

In summary, these results reflect a convergence of perspectives among students and teachers regarding the potential consequences of continued prescription drug consumption. The shared agreement on the development of tolerance and the

experience of withdrawal symptoms emphasizes the importance of addressing these concerns through education, awareness campaigns, and interventions to promote healthier behaviors and protect psychosocial wellness among students.

Table 8

Medications prescribed by a doctor and Physical and Psychological Withdrawals

Statement	Descriptive Statistics			
	Mean		Std. Dev.	
	Students	Teachers	Students	Teachers
Continued consumption of prescription drugs makes students experience physical and psychological withdrawals.	4	4	1.16	0.80

N=100 (students); N=77(teachers)

Source: Researcher 2022

Both the students and the teachers overwhelmingly concurred that the utilization of prescribed medications could result in a deficiency in academic performance among students and ability to control the use by suffering dependence syndrome (M=4). For some patients, medications on the utilization of interventions targeting habit and feeling of withdrawal has been shown to be efficacious in effectively managing these symptoms. little side effects. Understanding this risk could militate against student likelihood to abuse substances. The results depicted in Table 9 are consistent with the results that were reported in the aforementioned investigation Marsden et al. (2019) that shows that some medicines are associated with dependence. However, they may not be effective for all people and may result in drawbacks that outweigh their advantages. These medications are frequently still prescribed even when patients are not seeing therapeutic benefits due to a variety of factors, such as worries regarding

the potential occurrence of adverse signs of withdrawal or apprehension related to the underlying issue ailment getting worse (Marsden, 2019).

Table 9

Medications prescribed by a doctor and Dependence Syndrome

Descriptive Statistics				
Statement	Mean		Std. Dev.	
	Students	Teachers	Students	Teachers
Consumption of prescription drugs could make students lack the ability to control the use by suffering dependence syndrome	4	4	0.98	0.73

N=100 (students); N=77(teachers)

Source: Researcher 2022

The consensus among both learners and instructors was that the utilization of prescription medications might indeed be deemed significant make students continue using them regardless of the harm experienced (M=4) as shown in Table 10. If the medication is stopped abruptly without tapering, unpleasant physical and psychological withdrawal symptoms may appear, and anxiety of withdrawal combined with these cognitive and behavioral symptoms may result in chronic dependence. Antidepressants, however, have generated debate due to allegations that they are ineffective and even dangerous. Withdrawal symptoms may occur if an antidepressant is abruptly stopped. Antidepressants, particularly paroxetine and venlafaxine, seem to make withdrawal symptoms more likely and potentially more severe than with other types of medications. The aforementioned findings provide support for the research conducted through Marsden et al. (2019) as already cited that underlines the impact of continuous use of substances on addiction irrespective of the harm associated with their use. Antidepressants, opioids (for chronic non-cancer

pain), gabapentinoids, benzodiazepines, and Z-drugs, according to Higgins, et al., (2018), are linked to dependence or withdrawal, but there have not been any national estimates of prescribing prevalence and practices or public health reviews of patients' experiences with these medications.

For some patients, medication for dependence and withdrawal symptoms can offer effective symptom management with little side effects. However, they may not be effective for all people and may result in drawbacks that outweigh their advantages. These medications are frequently kept on prescription even when patients are not benefiting clinically for a variety of reasons, such as worries about the possibility of unpleasant withdrawal symptoms or worry that the underlying ailment will grow worse (Carville, 2022).

Table 10

Continued Use of Medications prescribed by a doctor Regardless of the Harm Experienced

Statement	Descriptive Statistics			
	Mean		Std. Dev.	
	Students	Teachers	Students	Teachers
Consumption of prescription drugs could make students continue using them regardless of the harm experienced	4	4	0.92	0.65

N=100 (students); N=77(teachers)

Source: Researcher 2022

Table 10 presents the descriptive statistics related to the perception of students and teachers concerning the continued use of medications prescribed by a doctor despite

experiencing harm. The results reveal a strong consensus between the two groups, with both students and teachers assigning a mean score of 4 to the statement. The relatively low standard deviation values of 0.92 for students and 0.65 for teachers suggest a high level of agreement and consistency in their responses.

This shared perception indicates that both students and teachers acknowledge the potential for individuals to persist in using medications prescribed by a doctor even when they are experiencing harm. This observation aligns with the broader literature on substance abuse and addiction, which often highlights the challenging nature of breaking the cycle of substance use, even in the face of negative consequences (National Institute on Drug Usage, 2017).

The implications of this perception are significant, as it suggests a need for comprehensive and targeted interventions to address the factors contributing to continued drug use despite adverse outcomes. These interventions could encompass educational initiatives, awareness campaigns, and support systems aimed at promoting healthier behaviors and reducing the risks associated with prescription drug misuse.

NIDU (2017) has identified a range of immediate and prolonged consequences, both positive and negative, resulting from substance misuse within the higher education student population. Various factors contribute to the effects experienced by individuals when using drugs. These factors include the specific drug(s) employed, the method of administration, the dosage administered, the individual's overall health condition, and additional contextual variables. Short-term effects can include

everything from changes in appetite, wakefulness, heart rate, blood pressure, and mood to heart attack, stroke, psychosis, overdose, and even death, according to the institute. Even one use may have these negative impacts on health. Longer-term consequences, however, may include heart or lung disease, cancerous development, psychological illness, and others. Drug dependence can also result from prolonged use.

Additionally, the study agrees with Gateway (2015) who documented the negative impacts of drug consumption on health in their investigations. According to Gateway, there are numerous immediate Moreover, substance use problems have been associated with significant long-term health implications. The variations in drug effects can be attributed to factors such as the specific type of medication, dosage and frequency of administration, as well as the overall health status of the patient. In general, the abuse and dependence on substances can result in substantial adverse consequences. These substances possess the capability to impact nearly all physiological organs within the human body. Further research suggested that the negative impacts of drug abuse might include a compromised immune system, an increase in the likelihood of being sick or getting infected. Additionally, cardiac issues including irregular heartbeats, heart attacks, collapsing veins, blood vessel infections from medicine injections, nausea, and pain in the abdomen.

Table 11*Prescription Drugs, Dependence and Proneness to Drug Comorbidities*

Statement	Descriptive Statistics			
	Mean		Std. Dev.	
	Students	Teachers	Students	Teachers
Consumption of prescription drugs could make one dependent and prone to drug comorbidities (possibility of abusing other substances)	4	4	1.05	0.77

N=100 (students); N=77(teachers)

Source: Researcher 2022

Table 11 provides descriptive statistics pertaining to the perception of students and teachers regarding the association between the consumption of prescription drugs, the development of dependence, and susceptibility to drug comorbidities. Both students and teachers indicated a mean score of 4 for this statement, reflecting a high level of agreement on the idea that using medications prescribed by a doctor could lead to dependence and there is a heightened probability of participating in the misuse of other substances. The relatively low standard deviation values of 1.05 for students and 0.77 for teachers suggest consistent responses and alignment in their perceptions.

The shared perception that prescription drug consumption can potentially lead to dependence and the co-occurrence of substance abuse is noteworthy. This insight resonates with the existing research on substance abuse and addiction, which underscores the interconnected nature of different types of drug use and the potential for the misuse of one substance to increase the vulnerability to the misuse of others.

The implications of this perception highlight the need for comprehensive prevention and intervention strategies that address the multifaceted factors contributing to drug dependence and the development of comorbidities. Education, awareness campaigns, and targeted interventions are crucial to equipping individuals with the knowledge and skills to make informed decisions about prescription drug use and to mitigate the risk of progressing to dependence and engaging in broader patterns of substance abuse.

The foregoing findings were supported by one of the principals and MOE officials who said that the awareness of Addictive risk on abuse of prescription drug among students in Nairobi County was inadequate. The prevention of prescription drug misuse among secondary school children is a complex and multifaceted endeavor that requires a deep understanding of the various factors that contribute to addictive risks and influence the initiation and continuation of drug use. This notion is echoed by the insights of Chang and Compton (2016), who highlight the significance of considering a range of characteristics and influences that shape individuals' susceptibility to prescription drug misuse.

The identified factors encompass a combination of environmental, social, psychological, and biological elements. These elements include drug exposure, socioeconomic background, parenting quality, peer group influence, and inherent vulnerability to drug addiction. Each of these factors can play a pivotal role in shaping a student's decision to engage in prescription drug misuse. This was supported by one of the respondents who said that:

Many students were aware of the addictive risks associated with substance use. Nevertheless, most of them continued abusing such drugs due to factors such as rampant exposure in the community. There was also influence from peers as well as vulnerabilities due to the biological families they came from (Respondent B, Nairobi County, May 2022).

The respondent's perspective further reinforces the role of these factors in influencing students' behavior. Despite being aware of the addictive risks associated with substance use, many students persist in abusing drugs. This highlights the nuanced interplay between awareness and behavior, suggesting that other factors, such as environmental exposure and peer pressure, might overpower the rational understanding of risks.

The reference to "rampant exposure in the community" underscores the importance of the broader societal context in shaping perceptions and behavior. If prescription drug misuse is normalized or widely practiced within the community, students may be more inclined to overlook the potential risks. Moreover, the influence of peers, as indicated by the respondent, highlights the powerful impact of social relationships on behavior. Peer pressure and the desire to fit in can often outweigh an individual's awareness of risks.

The mention of "vulnerabilities due to the biological families they came from" introduces the idea of genetic predisposition and inherent vulnerability to addiction. Research has shown that some individuals might have a genetic makeup that makes them more susceptible to developing addiction when exposed to drugs. This genetic vulnerability, combined with other environmental factors, can contribute to the initiation and persistence of drug misuse.

The principals and MOE officials further said that Some personal factors that have been identified as potential risk factors include low levels of damage avoidance, inadequate control over emotions, parents without a documented history of alcoholism and substance abuse, elevated levels of interpersonal conflict, insufficient or unpredictable discipline among parents, a track record of academic underachievement, and a past characterized by antisocial along with aggressive behavior characteristics that contributed to prescription drug use which are in line with McCauley et al. (2010). This was confirmed by the remarks of one of the respondents:

Being aware of the addictive risk factors can help families, health professionals, schools, and other community workers identify at-risk adolescents and develop prevention and treatment programs to reduce or eliminate risk factors (Respondent H, Nairobi County, May 2022).

The respondent's statement further underscores the significance of understanding and addressing these risk factors. By being aware of the addictive risk factors and their potential impact on adolescents, various stakeholders, including families, health professionals, schools, and community workers, can collaborate to identify at-risk individuals. This identification process can enable the development of targeted prevention and treatment programs that aim to mitigate or eliminate the identified risk factors.

The overuse of medications prescribed by a doctor has been connected to traumatic situations and post-traumatic stress disorder (PTSD). The study discovered that continued prescription drug use was likely to have an impact on the students' psychosocial well-being. The factors that can raise or lower a student's likelihood of starting or continuing to use drugs exacerbated this. They include prescription drug

exposure, parenting quality, peer group impact, and biological/inherent vulnerability to drug addiction.

These findings are supported by the findings of Peteet (2019) who states that psychosocial risks such as childhood abuse, perceived stress, and homophobia/racism were associated with higher rates of prescription drug misuse. Monnat and Rigg, 2016 points out that the risks include engaging in the presence of criminal behavior, the perception of increased risk associated with consumption of drugs, and a higher utilization of medical assistance in emergencies. Most law enforcement authorities acknowledge that many long-term drug users commit crimes to fund their addiction. Police officials calculated that 60% of crimes were motivated by drugs, even if they were not directly related to them. In addition, a research that was previously released said that prostitution and the majority of property crimes (such as theft, break-ins, and fraud) are perpetrated by drug users in order to support their addiction. More over one-third of the people interviewed in Canada for a Forget research from 1990 claimed that they had committed their crimes while under the influence of narcotics. Compare this to the aforementioned research, the available information indicates that post-traumatic stress disorder (PTSD) typically occurs before the onset of drug use disorder. Moreover, there is limited evidence to support the notion that pre-existing dependency on drugs heightens the risk of developing PTSD. Nevertheless, the ongoing utilization of substances has the potential to exacerbate symptoms associated with post-traumatic stress disorder (McCauley, 2010).

The study also noted that the awareness of addictive risk on abuse of prescription drug among students is inadequate. Although many the pupils demonstrated an awareness

of the potential addictive hazards that are linked to substance use, nevertheless, most of them continued abusing such drugs due to factors such as rampant exposure in the community. There was also influence from peers as well as vulnerabilities due to the biological families they came from. According to El Kazdough et al., (2018) being aware of the addictive risk factors can help families, health professionals, schools, and other community workers identify at-risk adolescents and develop prevention and treatment programs to reduce or eliminate risk factors.

Similar to this, it is evident from the article by D'Souza and Mathai (2017) that the incentive to alter the behavior linked to substance addiction is dependent on a number of factors. In particular, the study discovered that intrinsic desire, socioeconomic status, and religion are significant mediating factors in the choice to change. Since the bulk of my clients come from low socioeconomic backgrounds, I can better understand why they struggle with the issue of drug usage thanks to this study. So that I may use the proper intervention strategies in my practice, I will be attentive to grasp the various elements driving motivation to alter behavior.

The first hypothesis of the study was:

HO₁: There is no statistically significant relationship between awareness of addictive risk of prescription drugs misuse and psychosocial wellness of students in government- funded high schools in Nairobi County, Kenya

Pearson correlation was used to test this hypothesis as shown in Table 12.

Table 12

Correlation between Awareness of Addictive Risk and Psychosocial Wellness of Students

		Psychological Wellness Scores
Addictive Risks Scores	Pearson Correlation	.428**
	Sig. (2-tailed)	0.000
	R ²	0.183
	N	100

****.** *Correlation is significant at the 0.01 level (2-tailed).*

Source: Researcher 2022

The results of the Pearson correlation analysis revealed a statistically significant Relationship between awareness of addictive risk and psychosocial wellness among students ($r=0.428$, $p< 0.05$). This finding led to the rejection of the null hypothesis, suggesting that awareness of the addictive risks associated with substance use plays a significant role in influencing psychosocial well-being. These findings are consistent with a study by El Kazdoub et al. (2018), which also demonstrated that a lack of awareness regarding addictive risks could contribute to increased substance use among adolescents. The study highlighted various risk factors that may contribute to drug use among adolescents, including early onset of mental and behavioural health issues, peer pressure, inadequate school support, poverty, lack of parental supervision and support, dysfunctional family dynamics, limited opportunities, social isolation, gender influences, and easy access to drugs.

In contrast, other protective characteristics were discovered, including but not limited to high levels of self-esteem, adherence to religious beliefs, the presence of grit,

resistance to peer pressure, self-regulation abilities, parental supervision, academic competence, the existence of anti-drug regulations, and a strong sense of connectivity to the community. The aforementioned findings underscore the significance of raising knowledge regarding the addictive hazards and taking precautionary measures to deter substance consumption among teenagers. Through the identification and examination of these risk factors, as well as the reinforcement of preventative measures, programs can be designed to counter the possible adverse outcomes linked to taking drugs.

Practitioners assess the risk and mitigation variables associated with drug use disorders in order to inform their selection of optimal therapies. The probability of an individual experiencing an emotional disorder or substance use issue is contingent upon a multitude of circumstances. Implementing effective preventative strategies involves prioritizing the reduction of risk factors and the enhancement of protective variables that are closely associated with the specific issue under consideration (Zhao et al., 2022). Professionals in the field of prevention can utilize the SPF to identify the primary elements that exert the most influence on their specific target population. Each individual possesses inherent biological and psychological characteristics that can render them either vulnerable or resilient to potential behavioral health issues in the future. The manifestation of individuals' biological and psychological characteristics is influenced by the intricate web of social interactions they engage in within their local communities and broader societal contexts.

Each of these circumstances encompasses a diverse range of risk and protective factors. According to Zhao et al. (2022), there is often a positive association among risk variables and a negative correlation between risk variables and protective factors.

Put simply, individuals who possess specific risk factors are less inclined to possess protective characteristics and more prone to encountering other risk factors. Moreover, it is common for risk and protective factors to synergistically interact in order to mitigate or postpone the emergence of behavioral health issues. The likelihood of a disorder impacting the physical or mental health of a young individual is higher when they possess many risk factors, as opposed to those who possess several protective factors.

According to Chuang et al. (2018), there was a notable positive correlation observed between drug addiction and teenage features of high impulsivity. This study also demonstrated that, in comparison to the non-impulsive group, the impulsivity characteristic alone was an independent risk factor that raised the odds of using any drug by two to four times. According to a different longitudinal study by Guttmanova, et al. (2018), marijuana drug consumption is positively correlated with rebellious tendencies. Measures of rebelliousness, according to the authors, are a reliable indicator of a young person's tendency for dangerous action. However, Wilson et al. (2017) discovered that the majority of the impacted respondents had trouble controlling their emotions in a study including 112 young people receiving detoxification therapy for opiate dependence.

Research findings have indicated a positive correlation between teenage drug use and a prior history of maltreatment. Although the available evidence was restricted to females, a study conducted utilizing Path Analysis revealed a significant association between a prior history of assault physically and the consumption of drugs throughout adolescence. Nevertheless, findings from an alternative study focusing on foster care

indicated that various types of mistreatment may be associated with a substantial incidence of cannabis consumption, reaching rates as high as 85.7% across an individual's lifetime and 31.7% within the three months before the study. The study additionally identified significant latent variables, namely chronic physical assault and chronic mental neglect, which collectively contributed to the results of drug misuse.

4.6 Awareness of Physical Dependence Risk of Abuse of Medications prescribed by a doctor and Psychosocial Wellness

The primary objective of the study was to examine the correlation between students' understanding of the cognitive and physiological hazards associated with the misuse of medications prescribed by a doctor and their psychological welfare in Nairobi County, Kenya. The subsequent sections present the outcomes of the cognitive scale statements. Primarily, a significant proportion of participants (M=4) expressed consensus that continued consumption of medications prescribed by a doctor could make students experience increased irritability if they do not use them as shown in Table 13. Defining and describing irritation might provide challenges. Various mental health conditions, including major depressive disorder and generalized anxiety disorder, identify irritability as a symptomatic manifestation. Experts have identified five factors that are known to contribute to the experience of irritation. An individual exhibits irritability and a tendency to snap at others due to their heightened sensitivity towards environmental stimuli. Pedrelli et al. (2013) conducted a study titled "Correlates of irritability in college students with depressive symptoms," which unveiled comparable outcomes pertaining to the use of prescription medications. A comprehensive comprehension of this perilous situation might potentially influence

the extent to which the students engaged in the use of these substances within the context of this study.

Table 13

Awareness of Physical Dependence Risk of Abuse of Medications prescribed by a doctor and Psychosocial Wellness

Descriptive Statistics				
Statement	Mean		Std. Dev.	
	Students	Teachers	Students	Teachers
Continued consumption of prescription drugs could make students experience increased irritability if they do not use them	4	4	1.10	0.79

N=100 (students); N=77(teachers)

Source: Researcher 2022

According to the findings shown in Table 14, all participants reached a consensus to a considerable extent (Mean=4) that long-term use of medications prescribed by a doctor might potentially result in decreased appetite among students who refrain from taking them. The findings of this study highlight the comprehensive knowledge on the possible risks associated with the use of medications prescribed by a doctor among students in Nairobi County. This agrees with Nagaraj (2022) in “Loss of appetite in adult patients: effectiveness and safety of an appetite stimulating medication in an open-label, investigator-initiated study in India” who recorded similar findings. Anorexia, also known as loss of appetite (LOA), is a disorder in which patients do not feel hungry. It can be brought on by a number of factors, including advanced age, acute or chronic medical illnesses, and coexisting drugs. Nutritional deficiencies brought on by LOA can have a significant effect on a patient's health, general wellbeing, and quality of life. The duration of a LOA might be either protracted and

long-lasting or brief and fleeting. Acute LOA is typically transient and brought on by illness or digestive issues, which result in accidental weight loss and decreased appetite from benign viral or bacterial illnesses.

An inability to eat might be either physical or psychological. Due to conditions like infections or digestive problems, it is frequently only temporary, and after a person has recovered, their appetite will return. A protracted medical condition, like the later phases of a severe ailment such as cancer, could result in certain individuals experiencing a diminished desire to eat. This phenomenon is indicative of cachexia, a medical condition. Anorexia, on the other hand, denotes a prolonged absence of appetite. It is essential to distinguish this from anorexia nervosa, an eating disorder related to mental health, as they are not the same (Pilgrim, et al., 2015).

Due to a multitude of factors that vary based on the underlying cause, long-term medical disorders can make a person lose their appetite. An unsettled stomach, feeling under the weather, and a weakened immune system can all contribute to loss of appetite. Along with other digestive problems like constipation or diarrhea, a lack of appetite is a frequent adverse reaction to numerous drugs. When taking drugs, the stomach and digestive tract of a person frequently experience this. Some tumors, such as pancreatic, ovarian, or stomach cancer, can often show symptoms like a diminished desire to eat or an unanticipated reduction in body weight (Nagaraj, 2022).

Table 14

Continued Consumption of Medications prescribed by a doctor and Decreased Appetite

Statement	Descriptive Statistics			
	Mean		Std. Dev.	
	Students	Teachers	Students	Teachers
Continued consumption of prescription drugs can make students experience decreased appetite if they do not use them	4	4	1.40	0.77

N=100 (students); N=77(teachers)

Source: Researcher 2022

The survey participants also concurred that persistent utilization of prescribed medications could potentially lead to students experience sleeplessness if they do not use them (M=4) as shown in Table 15.

The findings show that self-medication for sleep among college students is particularly worrisome in light of its potential contribution to the long-term escalation of alcohol/substance use and its repercussions. While sedative substances like alcohol, marijuana, and/or over-the-counter medicines have the ability to briefly induce sleep, using sleep aids has been found to have a negative impact on objective sleep parameters (McCabe et al., 2022). For instance, drinking alcohol before bed usually causes more awakenings and restlessness in the later hours of the night. Similarly, using over-the-counter sleep aids is linked to lingering drowsiness the next day and can cause rebound insomnia, making it harder to fall asleep on your own without using sleep aids.

These findings agree with the study by McCabe et al. (2022) could lead to this challenge among students. Students most frequently report taking medications prescribed by a doctor to enhance wakefulness during study sessions or bolster concentration (Clegg-Kraynok, et al., 2011). Respondents acknowledged the potential of continued prescription drug consumption. Apart from stimulant usage, there has been limited investigation into the correlation between medications prescribed by a doctor and the sleep quality of college students. In accordance with Clegg-(2010) Kraynok's study, college students are more inclined to engage in non-medical use of psychostimulants (defined as stimulants prescribed for ADHD treatment) than adolescents. Additionally, they report experiencing lower sleep quality and more disruptions in their sleep patterns compared to non-users. Furthermore, college students tend to have shorter durations of sleep and poorer sleep quality in comparison to adolescents (Clegg-Kraynok et al., 2011).

The relationship between sedative, analgesic, and antidepressant usage and sleep quality has not been thoroughly studied in general population, let alone among college students. Sleep aids are a common term for sedatives. According to Chong et al. (2013), more American adults (6.0% and 5.3%, respectively) who get less than 5 hours of sleep or more than 9 hours do so. Adults who suffer sleep difficulties and difficulty sleeping also frequently.

In healthy adults, painkillers can drastically alter the structure of sleep. According to Dimsdale et al. (2007), the combination of methadone and sustained-release morphine sulfate dramatically enhanced stage N2 and decreased deep sleep, resulting in a disruption of overall sleep quality. Teenagers who use painkillers, according to

studies, have more difficulty falling asleep in contrast to individuals who do not use medications prescribed by a doctor (McCabe, et al, 2013), prescription opioid users exhibited significantly lower sleep quality, with 80.6% of them reporting this issue in comparison to healthy controls (Hartwell, et al., 2014). Moreover, those dependent on prescription opioids also endured shorter sleep durations, lengthier periods to fall asleep, and more frequent awakenings.

On the contrary, antidepressants exert an influence on sleep architecture, primarily by diminishing the amount of REM sleep and prolonging the time it takes to enter REM sleep, both in individuals without depression and those who are depressed (Lam, 2005). Certain medications like clomipramine and selective serotonin receptor inhibitors can lead to transient sleep disturbances at the beginning of treatment, while others promote sleep, such as amitriptyline and the more recent serotonin 5-HT₂-receptor antagonists. Nevertheless, some antidepressants can make you sleepy during the day and induce insomnia. In general, effective antidepressant therapy improved sleep within 3 - 4 weeks.

Self-medication for sleep is a crucial component of a negative feedback loop that, over time, exacerbates both alcohol issues and insomnia model of the reciprocal relationships between insomnia and alcoholism from (Brower, 2003). According to this theory, alcohol use rises as a result of insomnia as people try to self-medicate their way to sleep, but alcohol usage also contributes to or exacerbates the condition because alcohol is toxic to the brain systems involved in sleep. The unsettling implication of this concept is that alcohol usage increases in reaction to greater sleeplessness, raising the possibility of alcohol problems getting worse or relapsing in

the future. This methodology, however, was created for alcoholics and has not been tested on a sample of college students.

Table 15

Continued Consumption of Medications prescribed by a doctor and Sleeplessness If Not Used

Statement	Descriptive Statistics			
	Mean		Std. Dev.	
	Students	Teachers	Students	Teachers
Continued consumption of prescription drugs could make students experience sleeplessness if they do not use them	4	4	1.36	0.72

N=100 (students); N=77(teachers)

Source: Researcher 2022

The data displayed in Table 15 demonstrates a strong consensus among both students and teachers, with an average score of 4, that persistent usage of prescription medications can result in insomnia when not taken as prescribed. This suggests that there is an awareness of the potential negative impact of prescription drug misuse on sleep patterns. Students and teachers may perceive that the use of certain prescription drugs, if continued and then discontinued, might disrupt sleep cycles and lead to difficulties in falling asleep or maintaining sleep.

Additionally, the survey participants conveyed a substantial level of concurrence, as evidenced by an average score of 4, regarding the potential for prescription drug use to lead to dependency syndrome, causing students to become feeble and lethargic if they refrain from using these medications. This finding highlights the concern over

the potential development of dependence on prescription drugs, which could lead to physical and psychological symptoms of withdrawal when the drugs are not used. Dependence syndrome can exert a significant influence on a person's overall state of health and their ability to function effectively, and the respondents' agreement on this statement indicates a recognition of this risk.

The results align with earlier research, as exemplified by the investigation conducted by Marsden et al. (2019), which established a connection between specific medications prescribed by a doctor and the emergence of dependency and withdrawal symptoms. The consensus among the survey participants in this study reinforces the significance of addressing prescription drug abuse and its possible ramifications among students. It highlights the necessity for preventative measures, educational initiatives, and interventions aimed at increasing awareness regarding the perils linked to prescription drug misuse, including the potential for dependency development and the occurrence of withdrawal symptoms.

Table 16

Consumption of Medications prescribed by a doctor and Dependence Syndrome

Descriptive Statistics				
Statement	Mean		Std. Dev.	
	Students	Teachers	Students	Teachers
Consumption of prescription drugs could make students suffer dependence syndrome making them weak and inactive if they do not use them	4	4	1.26	0.69

N=100 (students); N=77(teachers)

Source: Researcher 2022

The results presented in Table 17 highlight the differing perceptions between students and teachers regarding the potential impact of prescription drug abuse on the

experience of strange dreams if the drugs are not used. Students agreed to a moderate extent (with a mean score of 3) that abuse of medications prescribed by a doctor could lead to experiencing strange dreams if they do not use them, while teachers agreed to a greater extent (with a mean score of 4) to the same statement.

This divergence in perceptions could be due to various factors, including differing levels of awareness and personal experiences. It's worth noting that the use of prescription drugs, particularly antidepressants, has been shown to affect sleep architecture and the content of dreams. Depressed individuals, for example, often report alterations in dream patterns. Moreover, the misuse or abuse of medications prescribed by a doctor could potentially exacerbate these effects, leading to changes in the quality and content of dreams.

The findings in Table 17 are in line with a study by Nicolas and Ruby (2020) titled "Dreams, Sleep, and Psychotropic Drugs," which discusses how the use of certain drugs, including psychotropic medications, can impact the quality and occurrence of dreams. The agreement among teachers in this study aligns with the existing literature on the relationship between drug use and sleep quality, including the potential influence on dream experiences. The differing perceptions between students and teachers may reflect variations in their exposure to the effects of prescription drug misuse and their individual perspectives on the topic.

Table 17

Abuse of Medications prescribed by a doctor and Experience of Strange Dreams If Not Used

Statement	Descriptive Statistics			
	Mean		Std. Dev.	
	Students	Teachers	Students	Teachers
Abuse of prescription drugs could make students experience strange dreams if they do not use them	3	4	1.69	0.77

N=100 (students); N=77(teachers)

Source: Researcher 2022

As depicted in Table 18, both teachers and students reached a strong consensus, with a mean score of 4, indicating that the use of medications prescribed by a doctor can lead to a depressed mood in students when they abstain from using them. This underscores the influence of prescription drug use on students' emotional well-being as well as their psychosocial wellness by extension. Vallat et al. (2017) in “*Characteristics of the memory sources of dreams: a new version of the content-matching paradigm to take mundane and remote memories into account,*” draws a link between substance use and mood. Upon awakening from sleep, emotional and perceptually intense contents are more frequently reported, according to Scarpelli et al. (2019). More generally, research have shown that the consolidation of emotional memories takes place during the sleep stage, which is crucial in the processing of emotional events. Additionally, it has been shown that experimental sleep deprivation impairs the consolidation of emotional inputs. Negative emotions like worry and terror are more frequently present in dream content than pleasant ones, and they frequently mirror events from the waking world. A substantial body of research revealed that the brain regions linked to emotional processing when awake also

control the neurophysiological foundations of sleep can offer insights into the understanding of certain qualitative aspects of emotions.

Table 18

Medications prescribed by a doctor Make Students Have Depressed Mood If They Do Not Use Them

Descriptive Statistics				
Statement	Mean		Std. Dev.	
	Students	Teachers	Students	Teachers
Prescription drugs make students have depressed mood if they do not use them	4	4	1.22	0.81

N=100 (students); N=77(teachers)

Source: Researcher 2022

The survey participants also reached a consensus, with a mean score of 4, indicating that medications prescribed by a doctor could induce anxiety in students if they refrained from using them. This clearly demonstrates that the use of medications prescribed by a doctor has an impact on the psychosocial well-being of students, leading to anxiety and unease when not taken. These results, as shown in Table 19, align with the findings of the study conducted by Kasundu et al. (2012) that shows prescription medications use could contribute anxiety among students in case of nonuse. Stimulants, antidepressants, and thyroid drugs are just a few examples of the several popular drug classes that might be to blame for the symptoms of anxiety. The majority of people who have anxiety disorders and drug use problems deal with them separately, but having both can be a vicious cycle. One disorder's symptoms can exacerbate those of another, and an anxiety disorder may encourage the use of alcohol

or other drugs as a form of self-medication or as a means of reducing anxiety symptoms.

Table 19

Medications prescribed by a doctor Make Students Experience Anxiety If They Do Not Use Them

Descriptive Statistics				
Statement	Mean		Std. Dev.	
	Students	Teachers	Students	Teachers
Prescription drugs make students experience anxiety if they do not use them	4	4	1.26	0.84

N=100 (students); N=77(teachers)

Source: Researcher 2022

As depicted in Table 20, both teachers and students concurred significantly that the use of medications prescribed by a doctor could result in students experiencing physical withdrawal symptoms like nausea, vomiting, diarrhea, seizures, and hallucinations. This underscores the potential for prescription drug use to lead to severe physical consequences (M=4). These withdraw symptoms goes on to affect the composure of substance users affecting their psychosocial wellness. These finding align with Gupta, et al., (2022) in “Withdrawal Syndromes” which also affirms the occurrence of these symptoms among substance users. Drug and alcohol withdrawal is a widespread medical issue that affects a lot of people worldwide. The duration and intensity of drug or alcohol usage can affect the withdrawal symptoms that arise after cessation. Depending for how long a person has used, the withdrawal response varies greatly. The withdrawal response can happen within 6 to 24 hours after stopping drinking when people have been drinking for at least 1 to 3 months, or even if they

have been drinking heavily for at least 7 to 10 days. Increasing the amount of alcohol consumed rapidly alleviates the withdrawal symptoms.

As many as 5% of these patients run the risk of experiencing withdrawal symptoms when they stop using alcohol on a regular basis. It is unknown how many people are dependent on opioids, sedatives, and stimulants. Although the onset of withdrawal convulsions makes benzodiazepine withdrawal a medical emergency, benzodiazepine intoxication is generally considered to be harmless. Although unpleasant, opiate withdrawal seldom results in death. Cocaine and amphetamine withdrawal causes sleepiness and a state mimicking adrenergic blockade, but fatality is uncommon (Gupta, 2022). Alcohol withdrawal can cause a variety of signs and symptoms, from a mild tremor to a full-blown delirium tremens marked by tachypnea, hyperthermia, and diaphoresis. Alcohol-related hallucinations can occur in about 25% of patients. Patients with alcohol use disorders can experience short seizures as well (Ibarra, 2020).

According to Mangat, et al (2019), hyperventilation, tachycardia, tremor, hypertension, diaphoresis, or hypothermia are a few indications and symptoms of withdrawal. Spider angiomas, flushed skin, Wernicke encephalopathy, poor dental health, facial or skull injuries from falls, and tongue lacerations are some indicators of chronic alcoholism (biting tongue during seizures). Along with ascites, hepatosplenomegaly, and melena, chronic alcohol use disorder also has these additional symptoms. Patients with chronic alcohol use disorder may also experience hair thinning, spider angiomas, and gynecomastia. Many people experiencing alcohol withdrawal also have underlying medical or traumatic disorders that could raise the

risk of morbidity and mortality in these patients. Cirrhosis, the requirement for endotracheal intubation, and the presence of underlying chronic pathology other than liver disease are risk factors linked to increased mortality.

Lumish, Goga, and Brandt (2020) point out that pharmacological taper with buprenorphine, a partial opioid agonist, is necessary for patients with chronic opioid use disorder. The Clinical Opiate Withdrawal Scale should be used to evaluate withdrawal symptoms (COWS). An 11-item scale called COWS is used to measure treatment effectiveness and withdrawal symptoms. A long-acting opioid agonist, such as methadone or buprenorphine, is used to treat opioid withdrawal. The alpha agonist clonidine also has the potential to lessen the severity of symptoms. Insomnia and cramps may be treated with long-acting benzodiazepines.

Table 20

Medications prescribed by a doctor Can Make Students Suffer Physical Withdrawal Symptoms

Descriptive Statistics				
Statement	Mean		Std. Dev.	
	Students	Teachers	Students	Teachers
Prescription drugs can make students suffer physical withdrawal symptoms such as nausea, vomiting, diarrhea, seizures, hallucinations	4	4	1.20	0.64

N=100 (students); N=77(teachers)

Source: Researcher 2022

The results were supported by the principals and officials from the Ministry of Education (MOE), who shared the view that an awareness of the physical dependence risk associated with prescription drug abuse did, in fact, influence the misuse of these

drugs among students. Nevertheless, learners continued to abuse such substances due to lack of strong specific programs aimed at stemming drug use among the students. But even when the schools and parents advised students on the dangers of prescription drug abuse, their efforts did not bear the required fruits since some students did not hear. As a result several risk factors such as continued exposure, for example, tended to build physical reliance and so exacerbated withdrawal symptoms. To this end one of the respondent said:

Creating awareness does not always bear fruit. The characteristics linked with physical dependency are often concentrated around the difficulties of tolerance and physical withdrawal symptoms (Respondent E, Nairobi County, May 2022).

The fact that students knew about physical dependence risks was also verified by a respondent who stated that:

Students knew that abuse of these drugs could lead to physical dependence. Most of them had seen their colleagues get addicted and become unable to do simple tasks due to high levels of dependence. Nevertheless, most of them continued abusing prescription tablets (Respondent K, Nairobi County, May 2022).

The findings underscore the impact of chemical compounds, often known as pharmaceuticals, on both the physiological and psychological aspects of an individual. The particular effects of medicine may exhibit variability across individuals, contingent upon several aspects including the precise kind of drug, dose administered, and manner of consumption used. Even when used in a modest manner or in adherence to a medical professional's guidance, pharmaceutical substances might yield short-term repercussions. For example, following a physician's instructions while consuming a prescription opioid might alleviate pain of varying intensity. However, it is important to note that such medication may also elicit side effects such as sleepiness, shallow respiration, and constipation.

A considerable proportion of students who partake in the usage of medications prescribed by a doctor encounter psychological difficulties, which may have wide-ranging consequences on several aspects of their life, including their academic achievements. Therefore, the results of this research indicate that the misuse of medications prescribed by a doctor has a substantial influence on the academic and personal aspects of a student's life. The aforementioned results align with the viewpoints expressed by Ritchie and Roser (2019), who argue that the issue of physical reliance on and inappropriate use of medications prescribed by a doctor continues to be a significant public health issue on a worldwide scale. The association between prescription medication dependency and abuse has been shown to be accompanied by various dangers (Hawkins et al., 2002). The chronic use of drugs may give rise to alterations in the structure and function of the brain, which may therefore give rise to enduring psychological consequences. Extended drug consumption may lead to deterioration in memory, learning, and attention.

The relationship between prescription drug usage frequency and a student's psychosocial wellness trend is highly negative, meaning that the more frequently a student consumes prescription drugs, the worse their psychosocial wellbeing will be. Other survey participants, such as teachers, expressed similar thoughts about the link between physical dependence risk and psychosocial wellness. The assertions are corroborated by Sauda's (2019) perspective, which posits that knowledge pertaining to physical being is present dependence risk of prescription drug abuse indeed affected the abuse of such drugs among students. This is true in situations where there is lack of strong specific programs aimed at stemming drug use among the students.

As a result, several risk factors such as continued exposure, for example, tended to build physical reliance and so exacerbated withdrawal symptoms.

Depending on the person and the substance they consume, dependence may take several forms. Furthermore, there are two methods in which someone can develop a chemical dependence on a substance. They may develop either a physical or psychological dependence on the medication. All medicines have the potential to cause psychological dependence, but not all substances can cause physical dependence. Jabeen, et al. (2018) claim that physical dependence develops once a person consumes drugs on a regular basis for a while. There are numerous prescription medications and illegal narcotics that can lead to physical dependence. A person's body has acclimated to the medication when they become physically dependent. People will eventually develop a tolerance to the chemical.

When a substance has a central role in a person's thoughts, feelings, and behaviors, psychological dependence develops. It results in people continuing to use the medicine despite knowing its harmful side effects. All substances can make a person psychologically dependent, even if not all drugs can produce physical dependence in users (Sharma & Bal, 2014). The emotional and mental components of substance use disorders are covered by psychological dependency. A person may be experiencing psychological dependence when they feel the desire to consume a substance even when they are aware of its negative effects.

Psychological dependence typically develops when someone has sufficiently strengthened their neural pathways by using the substance to relieve stress or feel

euphoric. The development of a psychological dependence can still have harmful side effects even though a person may not become physically reliant on the substance. It might be far more challenging to recognize when a person develops psychological dependence on a substance (Koob & Volkow, 2016). There might not be a direct correlation between side effects and the behaviors that are occurring immediately away because people might get mentally hooked on things like caffeine, pornography, and video games.

The second hypothesis of the study was as shown below:

HO₂: There is no statistically significant relationship between awareness of physical dependence risk of prescription drugs misuse and psychosocial wellness of students in government –funded high schools in Nairobi County, Kenya

The hypothesis was tested using Pearson correlation as shown in Table 21.

Table 21

Correlation between Awareness of Physical Dependence Risk and Psychosocial Wellness of Students

		Psychological Wellness Scores
Physical Dependence Risks Scores	Pearson Correlation	.528**
	Sig. (2-tailed)	0.000
	R ²	0.279
	N	100

****.** *Correlation is significant at the 0.01 level (2-tailed).*

Source: Researcher 2022

Source: Researcher 2022

According to Pearson correlation analysis, there is a statistically significant relationship between awareness of the risk of physical dependence ($r=0.528$, $P<0.05$) and the psychosocial well-being of students. These results align with the research conducted by Ritchie and Roser (2019), which suggests that a lack of awareness regarding the potential for physical dependence on such drugs can contribute to drug abuse, subsequently impacting the psychosocial well-being of individuals.

4.7 Awareness of Toxicity Risk of Abuse of Medications prescribed by a doctor and Psychosocial Wellness

The study's third objective aimed to *“To assess the relationship between awareness of toxicity risk of medications prescribed by a doctor misuse and psychosocial wellness of students in government-funded high schools in Nairobi County, Kenya.”* To begin, the respondents were presented with Likert-scale statements, and the subsequent sections present the findings derived from their responses.

Initially, the students and teachers opined that medications prescribed by a doctor lead to gastrointestinal systems problems (stomach-aches and other complications) to a moderate ($M=3$) and great extents ($M=4$) respectively as shown in Table 22. This could go to impact the psychosocial well-being of students in the context of stomach related illnesses. These findings agree with Philpott et al. (2014) in “Drug-induced gastrointestinal disorders” who recorded similar findings. Recognizing drug-induced gastrointestinal illnesses might help avoid unneeded testing and treatment because they can resemble ailments like inflammatory bowel disease (IBD) and irritable bowel syndrome (IBS). Medication-induced gastrointestinal (GI) symptoms and endoscopic pathology are frequently seen in patients who abuse prescription drugs, according to

Parfitt and Driman (2007). Some medications' GI side effects are well known, but others, like antipsychotics and antidepressants, which are routinely taken and frequently induce GI problems, may go unappreciated. Medication-induced GI illnesses can closely resemble other GI conditions (such as IBS and IBD), and failing to recognize drug-related symptoms may result in pointless investigations and treatments. Therefore, medications cause symptoms by altering GI physiology (for example, constipation brought on by anticholinergic medication), by inflicting tissue toxicity and damage (for example, ulcers from non-steroidal anti-inflammatory drugs), by changing the intestinal microbiota or by unknown mechanisms, such as with metformin. There are other potential causes of nausea and vomiting besides the GI tract.

Table 22

Medications prescribed by a doctor Lead to Gastrointestinal Systems Problems

Descriptive Statistics							
				Mean		Std. Dev.	
Statement				Students	Teachers	Students	Teachers
Prescription	drugs	lead	to	3	4	1.58	0.70
gastrointestinal	systems	problems	other				
(stomach-aches	and	other	complications)				

N=100 (students); N=77(teachers)

Source: Researcher 2022

As indicated in Table 23, both students and teachers reached a strong consensus (M=4) that the use of medications prescribed by a doctor could result in an elevation of blood pressure. This suggests an increased risk of high blood pressure associated with the misuse of prescription drugs. These findings align with the research

conducted by Hwang, Dave, and Smith (2018) in their study on "the use of prescription medications that potentially interfere with blood pressure control in new-onset hypertension and treatment-resistant hypertension." Nevertheless, acknowledging this risk did not alleviate substance use among students.. Prescription medication can cause blood pressure. Some of them may also conflict with drugs meant to lower blood pressure. Antidepressants function by altering how the body reacts to brain chemicals that affect mood, such as serotonin, norepinephrine, and dopamine. Additionally, some substances might raise blood pressure leading to erratically heart beat as a result of stimulants like methylphenidate (Ritalin, Concerta, and other brands), which can also increase blood pressure.

Table 23

Medications prescribed by a doctor Could Lead to an Increase in Blood Pressure

Statement	Descriptive Statistics			
	Mean		Std. Dev.	
	Students	Teachers	Students	Teachers
Prescription drugs could lead to an increase in blood pressure	4	4	1.07	0.72

N=100 (students); N=77(teachers)

Source: Researcher 2022

Both students and instructors demonstrated a substantial degree of consensus (M=4) with the noteworthy worry of physiological reliance on these substances, characterized by an inability to perform optimally without them. The aforementioned studies highlight the phenomenon whereby persons who have developed a physical dependence on a medicine may need increased dosages in order to attain comparable outcomes, and may encounter withdrawal symptoms when trying to decrease or

suddenly discontinue its use. Moreover, persons afflicted with substance addiction may manifest behaviors characterized by an incessant pursuit of substances and a persistent engagement in their use, even in the face of grave repercussions, therefore underscoring the emergence of a tangible physiological reliance.

The aforementioned results were shown in Table 24 and align with the findings of Ritchie and Roser (2019), who argue that the use of medications prescribed by a doctor may result in dependence and improper usage. Nevertheless, it is crucial to acknowledge that this heightened awareness did not lead to a significant decrease in consumption of prescription medications among student populations. Prescription medications that are often misused have the capacity to activate the brain's reward system, hence potentially fostering physical dependency and addiction. Prolonged substance abuse may result in the body's physiological adaptation known as drug tolerance, which manifests as physical dependency.

Table 24

Consumption of Medications prescribed by a doctor Might Lead to Physiological Dependence on the Drugs

Statement	Descriptive Statistics			
	Mean		Std. Dev.	
	Students	Teachers	Students	Teachers
Consumption of prescription drugs might lead to physiological dependence on the drugs (being unable to work well without taking them)	4	4	0.81	0.56

N=100 (students); N=77(teachers)

Source: Researcher 2022

According to the data presented in Table 25, there was a significant agreement among the participants (mean=4) on the likelihood of prescription drug intake to worsen mental or psychiatric disorders. The present study's results robustly indicate a significant correlation between the inappropriate use of prescription medications and the heightened prevalence of mental as well as psychiatric conditions. The findings shown here are consistent with a research carried out by Das et al. (2016), which emphasizes the significant prevalence of comorbid pharmaceutical drug use disorders with additional chemical dependency and mental illnesses. As a result, there existed a notable degree of awareness about this potential hazard, but its efficacy in dissuading the misuse of prescription medications among students was limited.

According to Santucci (2012), there is a notable association between mental disorders, such as depression and psychotic diseases, and co-occurring drug use disorders and anxiety disorders, including generalized anxiety disorder, panic disorder, and post-traumatic stress disorder. Moreover, it has been shown that persons diagnosed with schizophrenia have a greater prevalence of alcohol and drug use problems in comparison to the wider community.

Table 25

Consumption of Medications prescribed by a doctor Might Aggravate Mental/Psychiatric Illnesses

Statement	Descriptive Statistics			
	Mean		Std. Dev.	
	Students	Teachers	Students	Teachers
Consumption of prescription drugs might aggravate mental/psychiatric illnesses	4	4	0.99	0.60

N=100 (students); N=77(teachers)

Source: Researcher 2022

According to the data provided in Table 26, it was found that the participants expressed consensus on the potential adverse effects of prescription drug intake, namely in relation to respiratory (cardiovascular) issues, heart attacks, and even fatality among students (M=4). The results indicate a significant likelihood of exacerbating mental disease as a consequence of the misuse of prescription medications. The present results draw upon the research conducted by Ritchie and Roser (2019), which demonstrates that the use different prescription medications is associated with a multitude of physical hazards and ailments experienced by individuals. Despite possessing this information, students persisted in the misuse of prescription medicines.

Table 26

Consumption of Medications prescribed by a doctor Might Lead to Cardiovascular Problems

Statement	Descriptive Statistics			
	Mean		Std. Dev.	
	Students	Teachers	Students	Teachers
Consumption of prescription drugs might lead to breathing (Cardiovascular) problems, heart attack, and even death in a student	4	4	1.00	0.64

N=100 (students); N=77(teachers)

Source: Researcher 2022

The participants exhibited a high level of agreement (M=4) on the potential for students to have seizures, hallucinations, and nervousness as a result of using prescription medicines. The aforementioned results were shown in Table 27. The elevated level of consciousness about this potential hazard as shown by the findings

could affect substance use among students. It could militate against the use of these drugs among students. The aforementioned results provide further support to the research conducted by Gupta et al. (2022) who also affirms the occurrence of these symptoms in persons abusing substances.

Table 27

Medications prescribed by a doctor and Seizures, Hallucination, and Agitations in a Student

Descriptive Statistics				
Statement	Mean		Std. Dev.	
	Students	Teachers	Students	Teachers
Consumption of prescription drugs might lead to seizures, hallucination, and agitations in a student	4	4	0.97	0.65
<i>N=100 (students); N=77(teachers)</i>				

Source: Researcher 2022

The results presented in Table 28 reveal a significant consensus between students and instructors regarding the potential for continued prescription drug use to increase the likelihood of developing addiction to other substances of abuse, as indicated by their mean scores of 4. This finding emphasizes the awareness among respondents regarding the potential gateway effect that prescription drug abuse can have on leading individuals toward the use and abuse of other substances.

The agreement between students and teachers on this statement suggests a shared recognition of the interconnectedness between different forms of substance abuse. The perception that prescription drug misuse could heighten the likelihood of developing addiction to other substances underscores the importance of preventive

measures to address this issue. El Kazdouh et al. (2018) also highlight the potential connection between societal recognition of the dangers associated with addiction and the inclination to improperly use prescription-based medications.

This result aligns with existing research that indicates a link the connection between the misappropriation of prescription medications and the heightened likelihood of subsequent substance misuse. Grasping this correlation is pivotal for formulating efficacious prevention and intervention approaches to address the broader issue of substance abuse among students. It's encouraging to see respondents' acknowledgment of this risk, as it opens the door to targeted education and awareness campaigns aimed at reducing the likelihood of addiction to other substances stemming from prescription drug misuse.

Table 28

Continued Consumption of Medications prescribed by a doctor and Risk of Addiction to Other Substances

Statement	Descriptive Statistics			
	Mean		Std. Dev.	
	Students	Teachers	Students	Teachers
Continued consumption of prescription drugs increases the risk of addiction to other substances of abuse	4	4	0.89	0.61

N=100 (students); N=77(teachers)

Source: Researcher 2022

The results emphasized in the research underline a notable degree of consciousness shared by both students and instructors concerning the possible hazards linked to the

improper use of prescription medications. This increased awareness could exert a substantial influence on molding behaviors and attitudes related to the utilization of these substances, a viewpoint supported by the insights of Chang and Compton (2016).

The statements made by principals and Ministry of Education officials further emphasize the tangible risks that students are exposed to when engaging in the misuse of prescription drugs. Their acknowledgment of instances where students experienced toxicity due to continuous drug use adds a real-world dimension to the findings. Such firsthand experiences underscore the critical need for interventions and preventive measures to address prescription drug misuse among students. In this light, one of the respondents said:

Indeed prescription drug misuse can have serious medical consequences. Increases in prescription drug misuse are reflected in increased emergency room visits, overdose deaths associated with medications prescribed by a doctor and treatment admissions for prescription drug use disorders, the most severe form of which is an addiction (Respondent K, Nairobi County, May 2022).

The statement given by the respondent adeptly conveys the seriousness of the consequences associated with prescription drug misuse. Mentioning the increase in emergency department visits, deaths due to overdoses, and admissions for the treatment of prescription drug use disorders serves to emphasize the gravity of the problem. These medical consequences align with broader public health concerns connected to the improper use of prescription medications, highlighting the urgency of addressing this issue within the educational and social context.

Based on the gravity of toxicity, dangers linked to the misuse of prescription medications, respondents underlined the needs for concerted efforts at societal levels to address the menace. Indeed, Some NGOs and NACADA partnered with schools to create awareness. To this end, one of the respondents pointed out that:

Excessive prescription drug use leads to chronic heart conditions, impaired breathing, and ulcers in the digestive system. It can also interrupt hormone regulation and damage your reproductive system. In response to this, there is need for organizations to mount a serious campaign in schools to advise students on the dangers of abuse of medications prescribed by a doctor (Respondent B, Nairobi County, May 2022).

The research documented instances of prescription medication misuse and significant toxicity, including overdoses, which align with the findings of Monnat and Rigg's (2016) study. The results suggest that the use of prescription medications can lead to elevated blood pressure, physical dependence on these substances, exacerbation of mental and psychiatric disorders, increased susceptibility to addiction to other substances, cardiovascular complications, myocardial infarction, and fatalities among students. Additionally, students may experience seizures, hallucinations, and agitation, as noted by Ritchie and Roser (2019). This response underscores the potential dangers faced by students who misuse prescription pharmaceuticals, including cases where prolonged use of these drugs resulted in harmful effects. Clearly, the abuse of medications prescribed by a doctor can have significant medical consequences. The escalation in prescription drug abuse is evident through the increase in emergency department visits, overdose deaths linked to prescription drugs, and hospitalizations for the treatment of prescription drug use disorders, with the most severe outcome being addiction. This approach is supported by Zedler et al. (2014), who argue that there is a substantial risk of severe opioid-related toxicity and

overdose, even at relatively low prescribed maximum dosages. This risk is particularly pronounced in patients who are already vulnerable due to demographic factors, underlying comorbid conditions, and concurrent use of depressant medications or substances.

The assertions made by Ritchie and Roser (2019) provide backing for the findings, highlighting that physical dependence on and misuse of medications prescribed by a doctor represent a significant global public health concern. It is widely believed that prescription drug abuse contributes to a significant number of fatalities. In addition to resulting in mortality, substance use leads to significant morbidity, while drug addiction imposes a substantial economic burden on society. Mitigating adverse health outcomes, including those stemming from dependence on and abuse of prescription medications, may be achieved by reducing risk factors and enhancing protective factors. According to Tariq et al. (2022), implementing student risk screening and targeted educational interventions may prove to be an effective strategy in reducing the occurrence of severe adverse effects associated with prescription medication use.

Furthermore, the research noted that raising awareness did not consistently yield positive results. Bovin and Griffin (2007) argue that the effectiveness of preventive programs depends on several crucial characteristics. Some of these factors include addressing multiple risk and protective factors, providing age-appropriate information for the target age group, including content to help young individuals identify and resist pressures to engage in drug use, offering comprehensive personal and social skills training to enhance resistance, delivering information through interactive

methods, and ensuring cultural sensitivity by using language and audiovisual content that is relevant to the target age group. All of these attributes should be incorporated into effective prevention initiatives, which can then be disseminated through families, schools, communities, or healthcare institutions.

The third research hypothesis was as shown below:

HO₃: There is no statistically significant relationship between awareness of toxicity risk of prescription drugs misuse and psychosocial wellness of students in government-funded high schools in Nairobi County, Kenya

Pearson correlation was used to test this hypothesis as shown in Table 29.

Table 29

Correlation between Awareness of Toxicity Risk and Psychosocial Wellness of Students

		Psychological Wellness Scores
Toxicity Risk Scores	Pearson Correlation	.544**
	Sig. (2-tailed)	0.000
	R ²	0.30
	N	100

***.* Correlation is significant at the 0.01 level (2-tailed).

Source: Researcher 2022

Based on the findings of Pearson correlation analysis, a statistically significant association ($r=0.544$, $P<0.05$) has been observed between the level of knowledge about the danger of toxicity and the psychological well-being of students. Consequently, the null hypothesis was deemed invalid. This discovery is consistent with the study done by Lubman et al. (2008), which examined drug addiction and the

potential hazards of toxicity, including impacts on the nervous system. The findings of the research suggest that the regular use of volatile compounds, such as toluene, may have an effect on neurotransmitter systems and have implications for the cognitive, emotional, and brain development of individuals in the pediatric and teenage age groups.

4.8 Awareness of Morbidity Risk of Abuse of Medications prescribed by a doctor and Psychosocial Wellness

The primary purpose of the fourth objective of this research was to examine the correlation between the level of knowledge of the potential health risks connected with the improper use of prescription pharmaceuticals and the psychological well-being of students attending government-funded high schools in Nairobi County, Kenya. The chapter begins by providing an overview of the findings derived from the administration of psychometric scale statements, open-ended questions, and interviews.

To start the discussion, it was observed that the participants had a noteworthy level of agreement ($M=4$) on the probable correlation between the use of prescription medications and the occurrence of abrupt cardiac events and mortalities. The aforementioned observations were documented and shown in Table 30. The increased awareness of this potential danger has the potential to impact the actions of persons who engage in the use of these drugs. The findings presented are consistent with the study conducted by Ritchie and Roser (2019), which demonstrates that the use of prescription medications may lead to a range of adverse physical health consequences,

including instances of mortality among those who take them. This could go on to discourage the use of these substances among students.

Table 30

Consumption of Medications prescribed by a doctor Could Lead to Sudden Heart Attack and Death

Statement	Descriptive Statistics			
	Mean		Std. Dev.	
	Students	Teachers	Students	Teachers
Consumption of prescription drugs could lead to sudden heart attack and death	4	4	1.21	0.78

N=100 (students); N=77(teachers)

Source: Researcher 2022

The survey participants demonstrated a high level of agreement, as seen by a mean score of 4, suggesting that prolonged use of prescription medications may lead to significant organ dysfunction and ultimately fatal diseases, as depicted in Table 31. This implies that students had a comprehensive understanding of this potential hazard, perhaps acting as a catalyst for them to cease their improper use of these pharmaceutical substances. The findings presented in this study align with the research done by Prommer (2020), which also underscores the vulnerability seen among those who engage in drug use. The increased degree of awareness around this potential hazard may certainly have an impact on the abuse of prescription substances among student populations.

Table 31

Continued Consumption of Medications prescribed by a doctor Can Lead to Massive Organ Failure and Terminal Illnesses

Descriptive Statistics				
Statement	Mean		Std. Dev.	
	Students	Teachers	Students	Teachers
Continued consumption of prescription drugs can lead to massive organ failure and terminal illnesses	4	4	1.00	0.67

N=100 (students); N=77(teachers)

Source: Researcher 2022

The findings shown in Table 31 demonstrate a significant agreement among both students and instructors, as seen by the mean scores of 4, considering the probable consequences of persistent prescription medication use, such as serious organ failure and fatal diseases. The substantial degree of consensus highlights the acknowledgment of the significant health hazards linked to the improper use of prescription medications.

Table 32 provides supplementary information about the perspectives of participants regarding the impacts of ongoing use of prescription medications. The widely accepted agreement that the use of such substances may lead to feelings of lightheadedness and increase the susceptibility of persons to vehicular accidents and other potentially fatal dangers has considerable significance. The acknowledged danger is seen as a possible result of drug use, with potentially severe ramifications not only for the persons implicated but also for the well-being of others in their vicinity.

The level of awareness shown by the participants has a pivotal role in influencing their actions and decision-making processes with regards to the use of prescription medications. The results of this study indicate that the presence of this knowledge has the potential to function as a preventive measure, dissuading students from participating in hazardous activities such as operating a vehicle while under the influence of prescription medications. The results presented in this study align with the findings reported by Gjerde et al. (2011), who demonstrated a correlation between drug usage, feelings of dizziness, occurrences of accidents, and instances of deaths.

Collectively, these findings emphasize the importance of educating learners about the potential hazards linked to prescription drug use, particularly the risks of severe health consequences, accidents, and fatalities. By understanding these risks, individuals may be more inclined to make informed and responsible decisions regarding their use of prescription drugs, thereby contributing to their own safety and the safety of the broader community.

Table 32

Continued Consumption of Medications prescribed by a doctor Could Make One Dizzy

Statement	Descriptive Statistics			
	Mean		Std. Dev.	
	Students	Teachers	Students	Teachers
Continued consumption of prescription drugs could make one dizzy vulnerable to road accidents and other life-threatening hazards	4	4	1.00	0.68

N=100 (students); N=77(teachers)

Source: Researcher 2022

Table 33 is a comprehensive depiction of the perspectives held by the survey participants about the possible consequences of prescription medication usage. The high degree of agreement seen among learners as well as teachers, as shown by their average scores of 4, provides compelling evidence of a consensus on the potential consequences of prescription drug misuse. Specifically, there is a shared belief that such abuse might lead to drug intolerance, which in turn may result in fatalities even when confronted with mild diseases. The recognition of the potential for drug intolerance serves to emphasize the gravity of the hazards linked to the inappropriate use of prescribed pharmaceuticals.

The acknowledgment of this danger is an essential aspect to contemplate, as it emphasizes the possible life-threatening ramifications that might emerge from the improper use of prescription medications. According to Alomar's (2014) proposal, several variables that impact the emergence of adverse medication responses and intolerances may significantly affect an individual's well-being. In the present research, the participants' recognition of the possible danger of drug intolerance leading to fatal outcomes as a result of small ailments indicates their understanding of the significant and extensive ramifications associated with the inappropriate use of prescription medications.

This heightened awareness of such risks could play a significant role in influencing students' behaviors and attitudes towards prescription drug use. Individuals who are well-informed about the potential for adverse reactions and serious health consequences may be more cautious and hesitant to misuse medications prescribed by a doctor for the student population.

Table 33

Abuse of Medications prescribed by a doctor Could Lead to Drug Intolerance Leading to Death from Simple Illnesses

Statement	Descriptive Statistics			
	Mean		Std. Dev.	
	Students	Teachers	Students	Teachers
Abuse of prescription drugs could lead to drug intolerance leading to death from simple illnesses	4	4	1.12	0.76

N=100 (students); N=77(teachers)

Source: Researcher 2022

Table 34 provides a comprehensive overview of the perspectives held by the participants on the possible risks associated with the improper use of prescription medications. The high level of consensus observed among pupils and instructors, as indicated by their average scores of 4, suggests a notable agreement regarding the potential consequences of misusing prescription drugs. Specifically, it is believed that such misuse may lead to feelings of dizziness, thereby increasing individuals' vulnerability to criminal attacks or encounters with nocturnal wildlife.

The recognition of this risk factor highlights a broader range of potential consequences stemming from prescription drug misuse. Beyond the immediate health risks, the respondents acknowledge the potential for impairment and vulnerability that can arise from the use of medications prescribed by a doctor inappropriately. This particular risk, involving vulnerability to attacks at night, underscores the multifaceted dangers that can result from impaired cognitive and physical functioning due to drug misuse.

The awareness of such risks, as demonstrated by the respondents' high agreement, can have a significant impact on shaping individuals' attitudes and behaviors towards prescription drug use. When individuals understand the potential negative outcomes, including personal safety concerns, they may be more inclined to avoid misuse and prioritize responsible drug use practices. This aligns with the overarching goal of preventing prescription drug misuse and fostering a culture of informed decision-making.

The connection drawn to Gjerde et al.'s (2011) findings, which the dangers of losing consciousness due to alcohol intoxication have been linked to catastrophes. further emphasizes the importance of being cognizant of one's state of consciousness and its implications on personal safety. By drawing parallels to the potential dangers of impaired awareness and vulnerability, the study's respondents indicate a heightened sense of awareness about the potential risks and negative consequences of prescription drug misuse.

Table 34

Abuse of Medications prescribed by a doctor Could Make One Faint and Vulnerable to Attacks by Bandits/Wild Animals at Night

Descriptive Statistics				
Statement	Mean		Std. Dev.	
	Students	Teachers	Students	Teachers
Abuse of prescription drugs could make one faint and vulnerable to attacks by bandits/wild animals at night	4	4	1.22	0.84

N=100 (students); N=77(teachers)

Source: Researcher 2022

Table 35 presents a clear consensus among the respondents, both students and teachers, as reflected in the mean scores of 4, signifying their strong agreement that the phenomenon of a prescribed drug misuse could potentially lead to the development of suicidal tendencies. This finding underscores a significant and concerning the recognition of the potential mental well-being hazards linked to the abuse of prescribed drugs.

The recognition of the link between prescription drug misuse and suicidal tendencies is crucial in understanding the complex interplay between substance abuse and mental health. The high level of agreement in the study's results suggests that individuals, especially students, are cognizant of the potential negative impact that prescription drug misuse can have on their mental well-being. This awareness could potentially serve as a deterrent, discouraging individuals from engaging in risky behaviors that could lead to adverse mental health outcomes.

The correspondence of these findings with the research conducted by Guo et al. (2016), which establishes a link between nonmedical use of prescription drugs, suicidal ideation and attempts, as well as depression, further solidifies the gravity of the issue. The parallel drawn to previous research strengthens the credibility of the current study's findings and supports the argument that prescription drug misuse is not only a physical health concern but also a mental health risk.

It is evident that respondents' recognition of the potential for prescription drug misuse to contribute to the development of suicidal tendencies has implications for intervention and prevention efforts. By understanding the perceived association

between drug misuse and mental health outcomes, educators, policymakers, and health professionals can tailor their strategies to address both physical and psychological aspects of substance abuse.

Table 35

Medications prescribed by a doctor Could Make One Develop Suicidal Tendencies

Descriptive Statistics				
Statement	Mean		Std. Dev.	
	Students	Teachers	Students	Teachers
Prescription drugs could make one develop suicidal tendencies	4	4	1.14	0.77

N=100 (students); N=77(teachers)

Source: Researcher 2022

The principals and officials from the Ministry of Education (MOE) also highlighted the elevated levels of awareness regarding the morbidity risks associated with prescription drugs. One of them remarked:

Prescription drug usage, unfortunately, can change a person's brain structure and function, leading to long-term psychological impacts like sadness, anxiety, and panic disorders. An unintentional prescription offers a major risk to an individual because of the inherent risk of morbidity and addiction (Respondent E, Nairobi County, May 2022).

The respondent's emphasis on the potential impact of medications prescribed by a doctor on the structural and functional aspects of the brain may have significant implications for long-term psychological outcomes, including the development of conditions such as sorrow, anxiety, and panic disorders, underscores the gravity of the situation.

This insight from an authoritative figure in the education sector aligns with the study's findings, suggesting that there is a clear recognition among educators and officials of

the potential adverse outcomes linked to prescription drug misuse. The acknowledgment of the risks of morbidity further solidifies there is a pressing need for the implementation of comprehensive instructional and preventative strategies in order to effectively combat the issue of prescription medication usage between student populations.

The reference to an "unintentional prescription" underscores the fact that even prescribed medications, when used improperly or without proper medical guidance, can carry significant risks. This emphasizes the importance of ethical behavior, medical practices, proper patient education, and the need for individuals to be vigilant about their own health and the medications they are taking.

The findings of the study conducted by Jeffrey et al. (2019) are consistent with the data presented, indicating an increase in opioid-related overdose fatalities. Therefore, emphasis on the inherent risks of morbidity and addiction associated with prescription drug misuse is crucial for raising awareness among students, educators, parents, and the community at large. Such insights from knowledgeable sources within the educational context can potentially contribute to more informed decision-making and a more cautious approach to prescription drug use.

The participants emphasized the necessity of consistently highlighting the seriousness of pharmaceutical medication use among adolescents. This viewpoint was supported by a statement made by a number of the Ministry of Education (MOE) officials.

The rate of prescription-related overdose deaths is significant and a variety of patient- and medication-related risk factors have been identified, which could serve as a foundation for risk reduction methods among students (Respondent G, Nairobi County, May 2022).

Compton and Volkow (2006) have noted that the unfortunate abuse of prescription medicines has the potential to have lasting psychological repercussions, including alterations in brain structure and function, as well as the emergence of persistent emotions of melancholy, anxiety, and the development of panic disorders. The inadvertent abuse of prescription medications presents a substantial danger to people, since it carries the inherent risk of morbidity and addiction. This issue has been recognized by Calcaterra et al. (2013) and Hwang et al. (2018), among other researchers.

There are several biophysical methods through which drug use might potentially elevate the likelihood of death from non-drug-related causes, including circulatory, respiratory, digestive illnesses, and external causes that are not specifically categorized as drug-related. The use of drugs may have a direct impact on the functioning of the circulatory system. Walker, et al (2017) assert that several medications also exert influence on the respiratory system. For example, opioids, being classified as central nervous system depressants, have the ability to reduce neuronal activity within the brain and spinal cord. This might possibly impede respiratory function by causing a deceleration in the rate of breathing. The chronic use of opioids has the potential to exacerbate pre-existing respiratory ailments such as emphysema, bronchitis, and asthma, hence increasing the likelihood of developing pulmonary edema.

Upon further examination, it becomes evident that the incidence of overdose fatalities associated with prescription medications is of considerable magnitude. Additionally, a range of risk factors pertaining to both patients and the medications themselves have

been found in relation to this issue. These criteria might potentially serve as a foundation for the implementation of risk reduction programs among students. The assertion made by Calcaterra et al. (2013) provides evidence that there has been a substantial increase in opioid-related overdose fatalities, with a rise of nearly 400 percent. This surge has resulted in a higher number of deaths compared to the combined fatalities caused by heroin, cocaine, and other stimulant substances. Regrettably, Huang et al. (2006) observe that the demographic of the victims skews towards a younger population, while Havens, Young, & Havens (2011) underscore the expansion of this problem into rural regions.

The fourth research hypothesis was tested using Pearson correlation, as shown in Table 36.

HO₄: There is no statistically significant relationship between awareness of morbidity risk of prescription drugs misuse and psychosocial wellness of students in government-funded high schools in Nairobi County, Kenya

Table 36

Correlation between Awareness of Morbidity Risk and Psychosocial Wellness of Students

		Psychological Wellness Scores
Morbidity Risks Scores	Pearson Correlation	.468**
	Sig. (2-tailed)	0.000
	R ²	0.22
	N	100

***. Correlation is significant at the 0.01 level (2-tailed).*

Source: Researcher 2022

The Pearson correlation coefficient indicates that there is a statistically significant association between knowledge of morbidity risk ($r=0.468$, $p<0.05$) and psychological health in the student population. The null hypothesis was subsequently rejected. Therefore, it is apparent that the level of understanding about the potential health concerns associated with prescription pharmaceuticals influenced individuals' inclination to use these medications. The present results are consistent with the research conducted by Calcaterra et al. (2013), which demonstrates that drug addiction may result in fatality and other severe health risks. Regardless of these potential hazards, individuals persisted in engaging in abusive behavior.

4.9 Awareness of Behavioural Risk of Abuse of Medications prescribed by a doctor and Psychosocial Wellness

The primary aim of this research was to investigate the correlation between individuals' knowledge of behavioral risk factors and their psychological well-being. The data was gathered via the use of neuropsychological scale announcements, questions with no answers, and interviews. This section provides an overview of the results that were gathered. Initially, it is worth noting that a substantial consensus was reached among the students and instructors ($M=4$) on the potential consequences of prescription drug usage, particularly in terms of heightened levels of hostility or irritability, as shown in Table 37.

Table 37

Awareness of Behavioural Risk of Abuse of Medications prescribed by a doctor and Psychosocial Wellness

Descriptive Statistics				
Statement	Mean		Std. Dev.	
	Students	Teachers	Students	Teachers
Students who abuse prescription drugs could suffer from increased aggression or irritability	4	4	0.99	0.66

N=100 (students); N=77(teachers)

Source: Researcher 2022

Both the learners and instructors exhibited a high level of agreement (M=4) on the potential of prescription medicines to induce contentious behavior that may escalate into physical altercations. Awareness of this potential danger has the potential to influence the patterns of drug use throughout student populations. This knowledge could also militate against the propensity of students to abuse substances. The present results provide support for the research conducted by McCauley et al. (2010), which acknowledges the correlation between drug use and the development of adverse behavioral inclinations. These findings were presented in Table 38.

Table 38

Medications prescribed by a doctor Could Lead to Quarrelsome Behaviour and Fights

Descriptive Statistics				
Statement	Mean		Std. Dev.	
	Students	Teachers	Students	Teachers
Prescription drugs could lead to quarrelsome behaviour that could lead to fights	4	4	0.97	0.68

N=100 (students); N=77(teachers)

Source: Researcher 2022

As depicted in Table 39, the survey participants also expressed a high level of agreement, with a mean score of 4, regarding the potential for continued consumption of medications prescribed by a doctor to result in poor interpersonal relationships with peers at school. These findings suggest that interventions aimed at curbing the misuse of these drugs should prioritize raising awareness of the associated risks. This aligns with the research conducted by Nargiso et al. (2015), which suggests that substance use can have an impact on interpersonal relationships. Consequently, heightened risk awareness related to non-medical use of medications prescribed by a doctor (NMUPD) could potentially deter adolescents from using them, thereby significantly influencing their psychosocial well-being, as confirmed by the findings of this study.

Table 39

Continued Consumption Could Lead to Poor Interpersonal Relations with Peers at School

Statement	Descriptive Statistics			
	Mean		Std. Dev.	
	Students	Teachers	Students	Teachers
Continued consumption could lead to poor interpersonal relations with peers at school	4	4	1.04	0.57

N=100 (students); N=77(teachers)

Source: Researcher 2022

Both students and teachers also reached a strong consensus, with a mean score of 4, regarding the potential for medications prescribed by a doctor to result in conflicts with parents and guardians, as indicated in Table 40. Awareness of these risks could significantly influence students' decisions regarding substance use. Interventions designed to address the misuse of these substances should, therefore, prioritize raising awareness of the associated risks. These findings further reinforce the research

conducted by Nargiso et al. (2015), which underscores the impact of substance misuse on behavioral outcomes.

Table 40

Medications prescribed by a doctor could lead to trouble with parents and guardians

Descriptive Statistics				
Statement	Mean		Std. Dev.	
	Students	Teachers	Students	Teachers
Prescription drugs could lead to trouble with parents and guardians	4	4	0.96	0.64

N=100 (students); N=77(teachers)

Source: Researcher 2022

Both students and teachers also exhibited a strong consensus, with a mean score of 4, regarding the potential for students who misuse medications prescribed by a doctor to engage in disciplinary issues at school, as presented in Table 41. These results indicate a high level of awareness among students about this risk, which could impact their inclination to misuse prescription drugs. These findings align with the research conducted by Yang and Yang (2017), which demonstrates a positive relationship between substance use and disciplinary problems.

Table 41

Abuse of Medications prescribed by a doctor Could Lead to Indiscipline at School

Descriptive Statistics				
Statement	Mean		Std. Dev.	
	Students	Teachers	Students	Teachers
Abuse of prescription drugs could lead to indiscipline at school	4	4	0.92	0.55

N=100 (students); N=77(teachers)

Source: Researcher 2022

The students reached a strong consensus, with a mean score of 4, regarding the potential for students who misuse medications prescribed by a doctor to resort to theft in order to obtain money for purchasing those drugs. On the other hand, teachers exhibited an even higher level of agreement, with a mean score of 5, in response to the same statement, as depicted in Table 4. These findings illustrate that awareness of this risk could have an impact on the extent to which students engage in substance misuse. These results align with the perspective of Johnson et al. (2013), who suggested that substance use could lead to risky behaviors such as theft, as individuals seek funds to acquire substances.

Table 42

Students Who Abuse Medications prescribed by a doctor Could Start Stealing to Get Money to Purchase Those Drugs

Descriptive Statistics				
Statement	Mean		Std. Dev.	
	Students	Teachers	Students	Teachers
Students who abuse prescription drugs could start stealing to get money to purchase those drugs	5	4	0.82	0.55

N=100 (students); N=77(teachers)

Source: Researcher 2022

There was a significant agreement among both educators and students, as shown by a mean score of 4, regarding the likelihood of individuals who abuse prescription medications engaging in high-risk sexual activities, such as prostitution, in order to finance their drug consumption. The level of knowledge of this danger among students has the potential to have a substantial impact on their propensity to engage in the use of prescription medications. Johnson et al. (2013) recognized prostitution as a vice that is often linked to drug use. This association arises from the fact that people

often turn to engaging in prostitution as a means to get financial resources for acquiring substances. The aforementioned results were shown in Table 43.

Table 43

Abuse Medications prescribed by a doctor and Risky Sexual Behaviours to Get Money

Descriptive Statistics				
Statement	Mean		Std. Dev.	
	Students	Teachers	Students	Teachers
Students who abuse prescription drugs could get into risky sexual behaviours such as prostitution to get money to purchase those drugs	4	4	0.90	0.55

N=100 (students); N=77(teachers)

Source: Researcher 2022

The results of this study suggest a significant degree of knowledge among students on the potential behavioral hazards linked to the inappropriate use of prescription medications. This is consistent with the findings of Yang and Yang's (2017) research, as well as the study done by Johnson et al. (2013). Principals and officials from the Ministry of Education (MOE) have said that increased knowledge of the behavioral dangers associated with prescription medication addiction has contributed to a decline in drug utilization. This implies that the integration of social resistance and life skills components, together with efficient implementation, may lead to substantial reductions in drug use via preventive programs targeting drug misuse. Furthermore, the significance of active community engagement in monitoring drug use patterns among adolescents was underscored by the researchers. Regarding this matter, one of the principals expressed:

Everyone in the society should find opportunities to discuss about prescription drug addiction around key occasions and holidays. Because many students who abuse prescription medicines also abuse alcohol and other substances, awareness activities should be scheduled around occasions and dates that are traditionally linked with alcohol usage, such as term breaks and holidays (Respondent C, Nairobi County, May 2022).

In addition, the participants reached a consensus that expediting radio and television ads, together with school visits, would be beneficial in increasing knowledge of behavioral hazards among adolescents who engage in the misuse of prescription medicines and other substances. One of those in attendance expressed their opinion on this matter.

The majority of students who abuse pain relievers say they receive them from relatives and friends, as well as from their homes. As a result, it is critical to keep medicines safe at home. Also, teaching adolescents and their parents about the dangers of drug misuse and abuse can help to address the problem (Respondent A, Nairobi County, May 2022).

The misuse of medications prescribed by a doctor has been linked to various physical and psychological health complications. The study's results suggest that individuals with strong social connections are less likely to engage in prescription drug misuse, while those with weak social ties are more prone to such behavior in adulthood. Importantly, recent social relationships appear to have a more significant influence than earlier life bonds. This observation aligns with the statement made by Yang and Yang (2017), whose research indicates that drug use contributes to the emergence of problematic social behaviors.

Furthermore, the research reveals a correlation between prescription drug use and impaired cognitive and motor skills, which heightens the risk of accidents such as drowning. McCauley et al. (2010) argue that engaging in risky behaviors and developing dependencies can not only impact the lives of those misusing substances

but also affect their academic performance, psychological well-being, and adjustment to the educational environment.

The study also highlights a concerning prevalence of excessive prescription opioid, tranquilizer, and stimulant use in conjunction with high-risk sexual behaviors. Participants noted that individuals who misuse medications prescribed by a doctor may turn to prostitution as a means of obtaining funds for purchasing these drugs. This finding is consistent with the research conducted by Johnson et al. (2013), which found a connection between injectable risk behaviors and opioid misuse, as well as hazardous sexual activities and the misuse of prescription opioids, tranquilizers, and stimulants.

On a positive note, the study reveals that increased awareness of the behavioral risks associated with prescription drug abuse is associated with a decrease in drug usage. This suggests that prevention programs targeting drug abuse can significantly reduce drug use when they incorporate social resistance strategies and general life skills, provided they are effectively implemented. The authors emphasize the importance of active community involvement in monitoring drug use behaviors among adolescents. This supports the view put forward by Johnson et al. (2013) that it is crucial to prioritize the exploration of effective prevention approaches and the development of tactics to mitigate the unauthorized use and misuse of pharmaceuticals originally intended for therapeutic purposes.

In light of the co-occurrence of prescription drug misuse and substance addiction, the authors recommend organizing awareness events during significant occasions and

holidays when alcohol consumption is historically high. This proactive approach can contribute to addressing prescription medication addiction and related issues in society.

The last research hypothesis was also tested using Pearson correlation and the findings presented in Table 44.

HO₅: There is no statistically significant relationship between awareness of behavioural risk of prescription drugs misuse and psychosocial wellness of students in government-funded high schools in Nairobi County, Kenya

Table 44

Correlation between Awareness of Behavioural Risk and Psychosocial Wellness of Students

		Psychological Wellness Scores
Behavioral Risks Scores	Pearson Correlation	.473**
	Sig. (2-tailed)	0.000
	R ²	0.22
	N	100

***. Correlation is significant at the 0.01 level (2-tailed).*

Source: Researcher 2022

The Person correlation analysis indicates that awareness of behaviour risk ($r=0.473$, $P<0.05$) had a statistically significant relationship with the psychosocial wellness of students. As a result, the null hypothesis was rejected because it became clear that behavioral risk had a significant impact on the misuse of prescription drugs. These findings align with the research conducted by Yang and Yang (2017), which established connections between drug abuse and negative social behaviors. It is

therefore expected that awareness of these risks should discourage students from using prescription drugs. Unfortunately, this is often not the case

4.10 Psychosocial Wellness

The study focused on the dependent variable of psychosocial wellbeing among the participants. To evaluate this variable, respondents were asked to express their level of agreement with specific statements related to the psychological wellness of students who misuse prescription drugs. The research presents the findings collected through questionnaires and interviews.

The initial findings, as shown in Table 45, reveal a strong consensus among both teachers and students, as indicated by a mean score of 4, regarding the potential impact of misusing medications prescribed by a doctor on a student's sense of purpose in life. This finding is consistent with the research conducted by Ryff (2014), which posits that psychosocial wellbeing encompasses various dimensions, including the ability to maintain positive relationships, personal mastery, autonomy, a sense of purpose and meaning in life, as well as personal growth and development (Ryff, 2014, p. 10-28).

Table 45

Abuse of Medications prescribed by a doctor Could Affect a Student's Purpose in Life

Descriptive Statistics				
Statement	Mean		Std. Dev.	
	Students	Teachers	Students	Teachers
Abuse of prescription drugs could affect a student's purpose in life	4	4	1.15	0.66

N=100 (students); N=77(teachers)

Source: Researcher 2022

In addition, the participants revealed a significant degree of consensus, as shown by a mean score of 4, regarding the negative impact of prescription medication use on the sense of self-worth of students, as seen in Table 46. The results of this study indicate that there is a positive correlation between the escalating misuse of prescription pharmaceuticals and a heightened probability of experiencing a decrease in feelings of worth among students in general. The aforementioned observation aligns with the findings of Ryff's (2014) research, which underscores the negative effects of drug use on a person's confidence in oneself.

Table 46

Consumption of Medications prescribed by a doctor Reduces a Student's Self-Esteem

Descriptive Statistics				
Statement	Mean		Std. Dev.	
	Students	Teachers	Students	Teachers
Consumption of prescription drugs reduces a student's self-esteem	4	4	1.27	0.61

N=100 (students); N=77(teachers)

Source: Researcher 2022

The results shown in Table 47 demonstrate that the participants, including both students and instructors, expressed a considerable degree of agreement (M=4) on the impact of prescription drug use on a student's self-acceptance. This observation indicates that there exists a considerable degree of awareness between students and educators about the potential influence of prescription medication usage or misuse on a student's self-perception and self-acceptance.

The findings further underscore the acknowledgement that the use of prescription medications might yield not only physiological and health-related ramifications, but

also psychological along with emotional impacts. The concept of self-acceptance has significant importance in relation to mental well-being and the broader scope of psychosocial wellbeing. The recognition of the possible effect of prescription medication use on self-acceptance is consistent with the more comprehensive comprehension that substance abuse may have extensive consequences for an individual's self-regard, self-value, and general perception of self.

Additionally, the results are consistent with the research conducted by Ryff (2014). The congruence between these findings and existing research serves to substantiate the conclusions of the study, as well as the respondents' recognition of the neurological and emotional consequences associated with the use of prescription drugs.

This finding highlights the need of implementing comprehensive substance addiction curbing initiatives that not only tackle the physical hazards but also prioritize the neurological and emotional repercussions associated with the misuse of prescription drugs. Through the implementation of educational programs, students may be provided with the necessary knowledge and understanding to make well-informed decisions about their health, hence prioritizing their overall psychosocial well-being. This can be achieved by enhancing awareness about the possible consequences on acceptance of themselves and psychological well-being.

Table 47

Consumption of Medications prescribed by a doctor and the Level of a Student's Self-Acceptance

Descriptive Statistics				
Statement	Mean		Std. Dev.	
	Students	Teachers	Students	Teachers
I believe that consumption of prescription drugs affects the level of a student's self-acceptance	4	4	1.22	0.68

N=100 (students); N=77(teachers)

Source: Researcher 2022

The results shown in Table 47 demonstrate that the participants, including both students and instructors, expressed a considerable degree of agreement (M=4) on the impact of prescription drug use on a student's self-acceptance. This observation indicates that there exists a considerable degree of awareness between students and educators about the potential influence of prescription medication usage or misuse on a student's self-perception and self-acceptance.

The findings further underscore the acknowledgement that the use of prescription medications might yield not only physiological and health-related ramifications, but also psychological along with emotional impacts. The concept of self-acceptance has significant importance in relation to mental well-being and the broader scope of psychosocial wellbeing. The recognition of the possible effect of prescription medication use on self-acceptance is consistent with the more comprehensive comprehension that substance abuse may have extensive consequences for an individual's self-regard, self-value, and general perception of self.

Additionally, the results are consistent with the research conducted by Ryff (2014). The congruence between these findings and existing research serves to substantiate the conclusions of the study, as well as the respondents' recognition of the neurological and emotional consequences associated with the use of prescription drugs.

This finding highlights the need of implementing comprehensive substance abuse curbing initiatives that not only tackle the physical hazards but also prioritize the neurological and emotional repercussions associated with the misuse of prescription drugs. Through the implementation of educational programs, students may be provided with the necessary knowledge and understanding to make well-informed decisions pertaining to their health, hence prioritizing their overall psychological and social health. This can be achieved by enhancing awareness about the possible consequences on acceptance of themselves and psychological well-being.

Table 48

Continued Consumption of Medications prescribed by a doctor Could Reduce a Student's General Quality of Life

Statement	Descriptive Statistics			
	Mean		Std. Dev.	
	Students	Teachers	Students	Teachers
Continued consumption of prescription drugs could reduce a student's general quality of life.	4	4	1.14	0.65

N=100 (students); N=77(teachers)

Source: Researcher 2022

Moreover, the participants exhibited a strong consensus, with a mean score of 4, regarding the potential influence of prescription drug use on a student's emotional

stability, leading to heightened feelings of anxiety and irritability, as indicated in Table 49. The research findings underscored that students were well aware of the association between the misuse of prescription medications and its potential to disrupt a student's emotional equilibrium, resulting in increased levels of anxiety and irritability. These results align with the research conducted by Lubman et al. (2008), which highlights that sustained use of volatile substances like toluene can yield similar outcomes to those observed with other substances of abuse. Furthermore, it suggests that such usage can impact neurotransmitter pathways involved in mental and emotional functioning and neurological development, particularly among individuals in the pediatric and adolescent age groups.

The findings presented in Table 49 signify a significant consensus among the participants, including both students and instructors, in recognizing the potential impact of prescription drug use on a student's emotional stability. This impact may manifest as heightened anxiety and irritability. This consensus highlights the participants' awareness of the potential adverse consequences associated with the misuse of medications prescribed by a doctor on one's mental and emotional well-being.

This consensus within the context of the study indicates an acknowledgment that the misuse of medications prescribed by a doctor has the potential to disrupt the delicate balance of neurotransmitter systems responsible for regulating emotions, cognitive functions, and overall brain development. The awareness that improper substance use can lead to emotional imbalances, such as increased anxiety and irritability, underscores the far-reaching implications of drug misuse.

Furthermore, the current findings lend support to the research conducted by Lubman et al. (2008), which demonstrates that consistent use of volatile substances, including toluene, can yield outcomes similar to those observed with other commonly abused substances. Importantly, this type of usage can influence neurons involved in mental and emotional functioning as well as brain development, especially among individuals in the pediatric and adolescent age groups. This finding further reinforces the notion put forth in the present research that prescription medications, like other frequently abused substances, have the potential to impact an individual's emotional well-being. The awareness demonstrated by both students and instructors regarding this potential impact underscores the importance of addressing the issue of prescription drug misuse not only in terms of physical health but also concerning mental and emotional well-being. This awareness has the potential to enhance the development of comprehensive prevention and intervention strategies that effectively address the potential psychological consequences of prescription drug abuse on individuals.

Table 49

Consumption of Medications prescribed by a doctor Could Affect a Student's Emotional Balance

Statement	Descriptive Statistics			
	Mean		Std. Dev.	
	Students	Teachers	Students	Teachers
Consumption of prescription drugs could affect a student's emotional balance leading to anxiety and irritations	4	4	1.20	0.69

N=100 (students); N=77(teachers)

Source: Researcher 2022

Furthermore, the study participants exhibited a substantial degree of consensus (mean = 4) about the possible influence of prescription medication use on a student's social interactions with their fellow classmates within an educational setting, as seen in Table 50. The recognition of the impact of prescription medication usage on a student's social interactions underscores the possible importance of this understanding on a student's choices about substance misuse. The results align with Ryff's (2014, p. 10-28) study, which highlights the impact of drug use on interpersonal dynamics.

The findings in this domain suggest a shared acknowledgment among the participants questioned of the possible societal ramifications of misusing prescription drugs, particularly in regards to interpersonal connections within the educational setting. This statement highlights the recognition that substance addiction, which encompasses the inappropriate use of prescription medications, may result in changes in behavior that affect a student's interactions with other students.

The value of this understanding lies in its ability to shed light on the wider social ramifications associated with the abuse of prescription drugs, which go beyond individual health effects. Interpersonal interactions are of utmost importance in the holistic well-being and academic journey of a student. Hence, the acknowledgment that drug misuse has the potential to disrupt these interpersonal connections highlights the complex and diverse effects of these behaviors on the lives of students.

Table 50

Consumption of Medications prescribed by a doctor Could Affect the Way A Student Relates With Other Students in School

Statement	Descriptive Statistics			
	Mean		Std. Dev.	
	Students	Teachers	Students	Teachers
Consumption of prescription drugs could affect the way a student relates with other students in school	4	4	1.16	0.73

N=100 (students); N=77(teachers)

Source: Researcher 2022

The findings presented in Table 51 indicate a consensus among the participants regarding the potential impact of prescription drug use on a student's interactions with teachers within an educational context, with a mean score of 4 indicating a high level of agreement. This collective recognition points to a significant awareness within the surveyed population about the potential risks associated with the misuse of prescription drugs, particularly in terms of its negative effects on student-teacher relationships. The acknowledgment of these risks has the potential to influence students' decisions regarding the use of such drugs, as they recognize the implications for their educational goals. This finding aligns with the research conducted by Ryff (2014), which highlights the impact of substance use on interpersonal interactions. Substance use can indeed influence the dynamics of how students interact with their teachers, which, in turn, can impact their educational outcomes.

The observed consensus underscores the importance of recognizing the broader consequences of prescription drug misuse, extending beyond peer relationships to interactions with authority figures such as teachers. The heightened level of awareness

emphasized here signifies the potential impact of substance abuse on a student's behavior, interpersonal skills, and relationships within the academic setting. It suggests that drug misuse among students can have implications for their engagement in the classroom, academic performance, and overall educational experiences.

Table 51

Consumption of Medications prescribed by a doctor Could Affect the Way a Student Relates with Teachers in School

Statement	Descriptive Statistics			
	Mean		Std. Dev.	
	Students	Teachers	Students	Teachers
Consumption of prescription drugs could affect the way a student relates with teachers in school	4	4	1.15	0.73

N=100 (students); N=77 (teachers)

Source: Researcher 2022

The data presented in Table 52 reflects a substantial level of consensus among both teachers and students (M=4) regarding the potential impact of prescription drug abuse on a student's relationships with their parents and siblings. This consensus indicates that the students in the study were highly aware of the risks associated with strained relationships within their immediate families due to the abuse of prescription drugs. This heightened awareness could potentially deter them from engaging in such drug misuse.

These findings align with the research conducted by Ryff (2014), reinforcing the notion that substance abuse, including prescription drug misuse, can have far-reaching effects on various aspects of an individual's life, including family dynamics. The

collective recognition of this issue underscores the multifaceted nature of the consequences of prescription drug misuse, emphasizing that it extends beyond the individual to impact the family unit.

The acknowledgment of these potential familial consequences highlights the need for a comprehensive and holistic approach to addressing prescription drug misuse among students. Effective prevention and intervention strategies should consider not only the individual but also their familial context, recognizing that family relationships play a crucial role in a student's overall well-being and development.

Table 52

Abuse of Medications prescribed by a doctor Affects a Student’s Relationship with Parents and Siblings

Statement	Descriptive Statistics			
	Mean		Std. Dev.	
	Students	Teachers	Students	Teachers
Abuse of prescription drugs affects a student’s relationship with parents and siblings	4	4	1.39	0.64

N=100 (students); N=77(teachers)

Source: Researcher 2022

The participants exhibited a high level of agreement (M=4) regarding the potential influence of prescription drug abuse on a student's social interactions within the community. This consensus highlights their awareness that a student's actions, including substance abuse, can have consequences that extend beyond the school environment. It implies that such behavior may result in strained social relationships, communication difficulties, and potential changes in how the student is perceived by

others in the community .These findings align with the study by Nargiso et al. (2015), which emphasizes the impact of substance use on interpersonal relationships. The prevailing consensus in this context underscores that students are cognizant of the broader societal repercussions associated with the misuse of prescription drugs.

Recognizing these potential effects on community relationships emphasizes the importance of adopting a comprehensive approach to addressing prescription drug misuse. Effective prevention and intervention programs should consider not only the school setting but also the broader social context in which students live and interact. A holistic strategy is essential for effectively addressing the issue of prescription drug abuse.

Table 53

Abuse of Medications prescribed by a doctor May Affect the Way a Student Relates with Others in the Community

Descriptive Statistics				
Statement	Mean		Std. Dev.	
	Students	Teachers	Students	Teachers
Abuse of prescription drugs may affect the way a student relates with others in the community	4	4	1.12	0.54

N=100 (students); N=77(teachers)

Source: Researcher 2022

According to the data shown in Table 54, the participants demonstrated a significant level of consensus about the notion that adolescents who engage in prescription drug usage may exhibit a lack of involvement in community activities (M=4). This observation indicates an increased awareness of the potential consequences of misusing prescription medicines on a student's capacity to actively participate in

community endeavors. This observation is consistent with the conclusions drawn from the research conducted by Ritchie and Roser (2019), which indicate that drug use may have a significant detrimental impact on an individual's cognitive abilities, hence influencing their engagement in social interactions and personal drive.

The convergence of viewpoints in this particular scenario underscores the awareness of students about the possible ramifications of misusing medications prescribed by a doctor on their engagement in community activities. This observation emphasizes the wider social consequences of such conduct and stresses its potential to diminish participation in communal endeavors and interpersonal exchanges.

The recognition of these possible impacts on community engagement highlights the need for comprehensive strategies to tackle the issue of prescription medication abuse. In order to develop effective preventative and intervention measures, it is crucial to take into account not just the academic setting but also the wider community milieu in which students reside and engage. This heightened awareness has the potential to enhance endeavors focused on encouraging students' proactive engagement in community activities and cultivating a strong sense of social accountability.

Table 54

Psychosocial Wellness

Descriptive Statistics				
Statement	Mean		Std. Dev.	
	Students	Teachers	Students	Teachers
Students who abuse prescription drugs may not be active in community events	4	4	1.23	0.70

N=100 (students); N=77(teachers)

Source: Researcher 2022

The data provided in Table 55 reveals a widespread consensus among both students and instructors, indicating a substantial correlation ($M=4$) between students who engage in the misuse of prescription medications and their ability to effectively participate in social interactions within religious groups. This suggests that the misuse of prescription medications has had an impact on the psychological well-being of students. These findings are in line with the research conducted by Monnat and Rigg (2016), which highlights a significant association between higher levels of religiosity and lower rates of drug use, as well as a reciprocal relationship between weaker religious beliefs and higher rates of substance use. Consequently, it suggests a potential link between the misuse of prescription medications among students and a decline in their engagement in religious activities.

The alignment of perspectives in this context underscores the recognition among both students and instructors of the potential consequences of prescription drug misuse on a student's ability to actively participate in social interactions within religious communities. This emphasizes the multifaceted impact of such behavior, extending beyond academic and community settings to encompass spiritual and religious aspects of a student's life.

This awareness underscores the importance of adopting comprehensive approaches to address prescription drug misuse, taking into consideration its potential effects on various dimensions of a student's well-being, including their religious and spiritual life. Effective prevention and intervention strategies should not only address academic and community contexts but also the spiritual and psychological dimensions of students' lives.

Table 55

Students Who Abuse Medications prescribed by a doctor May Not Socialize Well with Others *in*

Descriptive Statistics				
Statement	Mean		Std. Dev.	
	Students	Teachers	Students	Teachers
Students who abuse prescription drugs may not socialize well with others in religious organizations	4	4	1.20	0.71

N=100 (students); N=77(teachers)

Source: Researcher 2022

The principals and officials from the Ministry of Education (MOE) demonstrated that various socioeconomic and socio-cultural variables play a role in the occurrence of prescription drug abuse. Additionally, they highlighted that the consequences of drug abuse impact not only the individuals involved but also the wider society. These consequences encompass a range of issues such as a higher rate of high school drop-outs, engagement in risky sexual behaviors, lack of discipline, increased criminal activity, compromised health, and inadequate personal hygiene, as suggested by Johnson et al. (2013). One of the participants confirmed these results by stating:

Students who abused medications prescribed by a doctor were affected in various ways. Some of them, for example, started abusing risky sexual behaviours. Some become undisciplined with some taking to crime among others (Respondent B, Nairobi County, May 2022).

The perspectives shared by the principals and Ministry of Education (MOE) officials emphasize the idea that students who have a history of abuse and stress, as well as those who are older, are more prone to becoming involved in substance misuse. These findings align with the study conducted by Yang and Yang (2017), which also indicated a connection between substance abuse and psychosocial well-being. This

implies that preventative measures are required among students to prevent the misuse of prescription drugs. One of the participants conveyed this perspective, stating:

Abuse of medications prescribed by a doctor could affect the psychosocial wellness of abusers. This issue has to be addressed urgently (Respondent G, Nairobi County, May 2022).

The findings suggest that a range of factors associated with demography, economics, and socio-cultural characteristics contributed to the inappropriate use of prescription medications. Moreover, the ramifications of substance misuse have extensive implications, affecting both individuals and the broader societal fabric. These repercussions include an elevated prevalence of high school dropouts, participation in dangerous sexual practices, heightened levels of indiscipline, escalating crime rates, deteriorated health, and challenges pertaining to personal cleanliness.

The findings shown in this study are consistent with the perspectives put forth by Conn and Marks (2015), who contend that the interaction between personal variables and societal influences has a substantial role in shaping the actions of adolescents with regards to prescription medicines. Furthermore, Kasundu et al. (2012) argue that these factors play a significant role in the occurrence of drug abuse, leading to consequences that extend beyond the individual and have societal implications. These repercussions include an elevated rate of high school drop-outs, an increase in homosexuality, involvement in prostitution, heightened levels of crime, compromised health, and concerns pertaining to personal hygiene.

A student's personality and manner significantly change once they begin taking or abusing drugs. Additionally, this individual starts to behave rather irresponsibly in all of their other community engagements, including those at work, school, and home.

Families of substance addicts are particularly affected by it, and they go through a wide range of experiences and emotions.

Additionally, the research indicates that students with a prior history of abuse and stress, particularly older individuals, were at a heightened risk of engaging in substance misuse. Consequently, the misuse of doctor-prescribed medications could adversely impact the psychosocial well-being of those involved. According to Gray and Damian (2017), medications designed to address both common health issues and the prolonged physical and mental health requirements of adolescents can exert a substantial influence on the emotional well-being of young individuals. These findings underscore the necessity for implementing preventive measures among students to deter the abuse of such pharmaceuticals. Medications prescribed by a doctor are routinely used and accessed by young people for a variety of health issues. Teenagers' emotional health can be significantly affected by medications employed for addressing common health problems as well as prolonged physical and mental health necessities.

4.11 Regression Analysis for Variables

The study aimed to assess the predictability of the dependent variable from the independent variable. The results of this analysis were presented in Tables 56, 57, and 58.

4.11.1 Model Summary

As indicated in Table 15, the results reveal that the independent variables could account for 91.4% and 97.9% of the variations in psychosocial wellness for students and teachers, respectively, in model 1. These findings are presented in Table 56.

Table 56

Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1 Students	.956 ^a	.914	.910	.12708
1 Teachers	.989 ^a	.979	.978	.07330

a. Predictors: (Constant), Awareness of Behavioural Risk, Awareness of Addictive Risk, Awareness of Morbidity Risk, Awareness of Toxicity Risk, Awareness of Physical Dependence Risk

4.11.2 Analysis of Variance

The findings from Models 1, which were conducted on students and teachers, indicate that the collective impact of the variables that are autonomous may be used to statistically and substantially forecast the occurrence of prescription drug misuse between students in funding from the government secondary educational institutions in Nairobi. The statistical analysis yielded significant results for both the model geared towards students ($F= 200.533$, $p<0.05$) and the teacher model ($F=843.641$, $p<0.05$).

Table 57*Analysis of Variance*

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1 Students	Regression	16.192	5	3.238	200.533	.000 ^b
	Residual	1.518	94	.016		
	Total	17.710	99			
1 Teachers	Regression	18.133	4	4.533	843.641	.000 ^b
	Residual	.387	72	.005		
	Total	18.519	76			

a. Dependent Variable: Psychosocial Wellness of Students

b. Predictors: (Constant), Awareness of Behavioural Risk, Awareness of Addictive Risk, Awareness of Morbidity Risk, Awareness of Toxicity Risk, Awareness of Physical Dependence Risk

Source: Researcher 2022

4.11.3 Regression Coefficient

The regression coefficients in both the models for students and teachers reveal that the awareness of the risk of addiction, recognition of the risk of physical dependence, understanding of the risk of toxicity, awareness of morbidity risk, and recognition of behavioral risks are significant factors that forecast the abuse of prescription drugs among students in publicly-funded high schools in Nairobi. The t-tests conducted on the p-values (<0.05) validate this discovery. Hence, it can be inferred that the observed statistical associations between knowledge of different risks and the psychosocial well-being of learners in government-funded secondary educational institutions in Nairobi County, Kenya, lacked support from the data.

The study also tested the regression which was:

Where:

Y = Psychosocial Wellness

X1 = Awareness of addictive risk

X2 = Awareness of physical dependence risks

X3 = Awareness of toxicity risk s

X4 = Awareness of morbidity risks

X5 = Awareness of behavioural risks

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ = regression coefficients

μ =the error term

The fitted regression models were as follows for students and teachers:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \mu$$

Students' Fitted Model

$$\begin{aligned} \text{Psychosocial Wellness} = & 0.186 - (0.153 \cdot \text{Awareness of physical dependence risks}) - \\ & (0.153 \cdot \text{Awareness of physical dependence risks}) - (0.166 \cdot \text{Awareness of toxicity risk}) \\ & + (1.021 \cdot \text{Awareness of morbidity risk}) + (0.302 \cdot \text{Awareness of behavioural risks}) - \\ & 0.099 \end{aligned}$$

The regression coefficients were presented in Table 58.

Table 58

Regression Coefficients

Model		Coefficients ^a			t	Sig.
		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta		
1 Students	(Constant)	.186	.061		3.023	.003
	Awareness of Addictive Risk	-.153	.062	-.151	-2.450	.016
	Awareness of Physical Dependence Risk	-.166	.079	-.169	-2.101	.038
	Awareness of Toxicity Risk	1.021	.067	1.050	15.202	.000
	Awareness of Morbidity Risk	.302	.073	.297	4.117	.000
	Awareness of Behavioural Risk	-.099	.048	-.101	-2.049	.043
	1 Teachers	(Constant)	-.037	.030		-1.255
Awareness of Addictive Risk		.202	.047	.202	4.302	.000
Awareness of Physical Dependence Risk		-.601	.077	-.598	-7.808	.000
Awareness of Toxicity Risk		1.008	.053	1.003	19.174	.000
Awareness of Morbidity Risk		.202	.065	.281	5.186	.000
Awareness of Behavioural Risk		.407	.057	.405	7.137	.000

a. Dependent Variable: Psychosocial Wellness of Students

Source: Researcher 2022

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The following section provides a concise overview of the analysis's results. This is done in accordance with the study objectives as well as the key sections under which data was presented.

5.2 Summary

The study found that there is a significant frequency of medicinal product addiction among learners., particularly involving analgesics, psychostimulants, and anxiolytics. medications. The majority of students (97%) reported instances of prescription drug abuse in their schools, while a small percentage (3%) said they hadn't observed such abuse. Similarly, a significant proportion of teachers (98.7%) acknowledged the presence of prescription drug abuse among students, with only a few (1.3%) stating otherwise.

The specific drugs mentioned as being commonly abused varied by gender. According to students, sedatives, tranquilizers, painkillers, and sleeping pills were among the most abused substances. Male students reported higher rates of sedative abuse, while female students mentioned slightly higher rates of tranquilizer abuse. Painkillers and sleeping pills were abused at similar rates by both genders. The study revealed that a majority of the substances under scrutiny were subject to extensive misuse and abuse, with sedatives, tranquilizers, and painkillers ranking as the most frequently abused drugs.

Male teachers identified painkillers, tranquilizers, and sedatives as the most commonly abused substances among students. Female teachers reported similar findings, with painkillers ranking highest followed by tranquilizers and sedatives. Sleeping pills and stimulants were also mentioned as significant substances of abuse. These findings indicated elevated rates of prescription drug misuse among students across various drug categories.

When asked in order to prioritize the specific drugs utilized or misused, students mentioned names such as Valium, Panadol, Piriton, Diclofenac, Rohypnol, Artane, and Methadone. The frequency of abuse varied, with some drugs being used once or twice per week, while others were used weekly or even daily. The most commonly mentioned drugs by students were Valium, Panadol, and Piriton.

The open-ended question about the main prescription drugs abused by students yielded responses that aligned with the aforementioned findings. Valium, Panadol, Artane, Rohypnol, Cozapam, Piriton, Diclofenac, and Methadone were mentioned as the main drugs being abused by students. These findings were consistent with existing literature on prescription drug abuse, which highlighted the misuse of medications prescribed for pain relief, anxiety, sleep problems, and attention-deficit hyperactivity disorder (ADHD) – common issues faced by students

The study highlighted the challenge of combating prescription drug abuse as they are legal and easily accessible over the counter. While governments invest significant resources in combating the trafficking and abuse of illegal drugs, the abuse of

medications prescribed by a doctor poses a unique challenge. The findings of the study align with similar research that reported high rates of prescription drug misuse.

- i. The first objective of the study was to examine the relationship between awareness of the addictive risk of prescription drug misuse and the psychosocial wellness of students in government-funded high schools in Nairobi County, Kenya. The survey participants were tasked with assessing the degree of awareness regarding the risk of addiction and its impact on the psychosocial well-being of students in Nairobi County. The results revealed a strong consensus among both students and teachers, indicating that they largely agreed that prolonged use of medications prescribed by a doctor carried the potential for adverse side effects. These included tolerance, both physical and psychological withdrawal symptoms, the development of dependence syndrome, continued usage despite experiencing harm, and an elevated risk of drug-related comorbidities. These findings underscored the participants' awareness of the addictive risks associated with the use of prescription drugs.

This awareness of addictive risk was further supported by one of the principals and MOE officials who stated that the awareness of addictive risk among students in Nairobi County was inadequate. They emphasized that preventing prescription drug misuse requires understanding the factors that contribute to addiction, including drug exposure, socio economic background, parenting quality, peer group influence, and individual vulnerability. Factors such as low harm avoidance, poor impulse control, family history of alcoholism and drug abuse, high levels of family conflict, lack of consistent parental discipline,

academic failure, and antisocial behaviour were identified as personal characteristics that can contribute to prescription drug use. Additionally, exposure to traumatic situations and post-traumatic stress disorder (PTSD) were found to be associated with increased prescription drug use.

The study noted that despite the awareness of the addictive risks, many students continued, peer influence, and vulnerabilities stemming from their family backgrounds. The inadequate awareness among students highlighted the need for interventions to address the issue of prescription drug misuse.

In terms of hypothesis testing, the study's objective was to examine the connection between awareness of the risk of addiction and the psychosocial well-being of students. The results obtained from the Pearson correlation analysis revealed a statistically significant relationship ($r=0.428, p<0.05$) between awareness of addiction risk and psychosocial well-being. Consequently, the null hypothesis was rejected, indicating that a substantial relationship exists between awareness of addiction risk and psychosocial well-being. These findings were consistent with prior research, such as the study done by EL kazdou et al (2018), which underscored the importance of awareness in mitigating the risks associated with substance use

- ii. The second objective of the study aimed to explore the relationship between awareness of the physical dependence risk of prescription drug misuse and the psychosocial health of learners in government-funded secondary institutions in Nairobi County, Kenya. The participants were requested to indicate their degree

of agreement concerning the impacts of continued consumption of medications prescribed by a doctor on aspects such as irritability, appetite, sleep, dependence syndrome, strange dreams, depressed mood, anxiety, and physical withdrawal symptoms. The findings indicated that both learners and teachers concurred to a significant degree that the misuse of medications prescribed by a doctor could lead to increased irritability, decreased appetite, sleeplessness, dependence syndrome, depressed mood, anxiety, and physical withdrawal symptoms.

These findings were supported by the viewpoints of the principals and MOE officials who acknowledged the impact of awareness of physical dependence risk on prescription drug abuse among students. However, they also highlighted the need for specific programs to address drug use in schools, as the efforts of schools and parents to educate students about the dangers of prescription drug abuse did not always yield the desired results. Continued exposure to drugs, lack of awareness, and physical reliance were identified as factors contributing to the exacerbation of withdrawal symptoms.

The effects of prescription drug misuse can vary depending on the medication, dose, and mode of administration. Even using medication moderately or as prescribed by a doctor can have short-term effects. For example, opioids prescribed for pain relief can provide relief but also cause drowsiness, shallow breathing, and constipation. The research findings indicated that prescription misuse of drugs had a noteworthy impact on students' psychosocial well-being, which could affect various aspects of their lives, including academic performance. Prolonged drug use can lead in relation to the aspects of the

system and its operation changes in the brain, impacting memory, learning, and focus.

The results obtained from the investigation indicated a highly negative trend between the frequency of prescription drug use and a student's psychosocial well-being. Participants, including teachers, expressed similar views on the relationship between physical dependence risk and psychosocial wellness. The awareness of physical dependence risk influenced the misuse of prescription medications in the student population, particularly in the absence of specific programs targeting drug use prevention. Factors such as continued exposure to drugs contributed to physical reliance and worsened withdrawal symptoms.

The hypothesis testing revealed a statistically noteworthy correlation ($r=0.528$, $P<0.05$) related to being aware of physical dependence connected to the relationship between awareness of risk and psychosocial health of learners. This supported previous research, such as Ritchie and Roser (2019), which emphasized the importance of understanding the physical dependence risk in preventing prescription drug abuse and its impact on psychosocial well-being.

- iii. The third objective of the study aimed to assess the relationship between awareness of the toxicity risk of prescription drug misuse and the psychosocial wellness of students in government-funded high schools in Nairobi County, Kenya. The participants were requested to indicate their degree of agreement concerning the consequences of prescription drug misuse on gastrointestinal problems, blood pressure, physiological dependence, aggravation of

mental/psychiatric illnesses, cardiovascular problems, seizures, hallucinations, agitation, and the risk of addiction to other substances.

The results of the study revealed a high level of agreement among both students and teachers regarding the potential adverse effects of prescription drug misuse. These effects include gastrointestinal issues, elevated blood pressure, physiological dependence, exacerbation of mental and psychiatric disorders, cardiovascular complications, seizures, hallucinations, agitation, and an elevated susceptibility to developing addiction to other substances. The results of this study indicate a notable degree of knowledge of the possible toxicity hazards linked to the misuse of prescription medications among both students and instructors. This heightened awareness has the ability to impact behaviors connected with the use of these substances.

The principals and officials from the Ministry of Education (MOE) underscored the hazards linked to the misuse of prescription pharmaceuticals. They highlighted that several children have encountered hazardous effects due to prolonged consumption of these medications. The significance of the potential dangers associated with toxicity underscores the need for collaborative efforts at all social strata to effectively tackle this issue. Non-governmental organizations (NGOs) and entities such as the National Authority for the Campaign Against Alcohol and Drug Abuse (NACADA) have established partnerships with educational institutions to foster knowledge dissemination and the implementation of preventative strategies.

The investigation revealed occurrences of misuse of medications prescribed by a doctor and severe toxicity, including cases of overdose. The results of the study revealed that prescription medications may potentially elicit a range of detrimental consequences, including but not limited to elevated blood pressure, physiological dependence, exacerbation of mental and psychiatric disorders, heightened susceptibility to addiction to other substances, cardiovascular complications, seizures, hallucinations, and agitation. One of the participants highlighted the increased significance of the hazards linked to the use of prescription medications, specifically citing instances of toxicity arising from prolonged drug consumption. The abuse of medications prescribed by a doctor may result in significant medical ramifications, including heightened rates of emergency department visits, fatalities due to overdose, and hospitalizations for the treatment of prescription drug use disorders.

It has been shown that only generating awareness does not always result in the intended consequences. In order to be effective, preventive programs must encompass a range of risk and protective factors, offer information that is appropriate for the developmental stage of the target audience, empower individuals to identify and withstand influences that may encourage drug use, provide comprehensive training in personal and social skills, and employ interactive approaches that are sensitive to cultural nuances. These programs have the potential to be implemented via a range of channels, including but not limited to the home, school, community, or healthcare settings.

The results of the hypothesis testing indicated a statistically significant association ($r=0.544$, $P<0.05$) between the level of knowledge of toxicity risk and the psychological well-being of students. The findings of this study provide evidence to refute the null hypothesis, suggesting that there exists a statistically significant correlation between the level of knowledge of toxicity risk and an individual's psychological well-being. The results of this study are consistent with the research conducted by Lubman et al. (2008), which highlighted the prevalence of drug addiction and the associated dangers of toxicity, particularly in relation to neurological consequences.

- iv. The fourth objective of the study aimed to examine the relationship between awareness of the morbidity risk of prescription drug misuse and the psychosocial wellness of students in government-funded high schools in Nairobi County, Kenya.

Participants were requested to assess their degree of agreement concerning the impact of prescription drug misuse on sudden cardiac arrests, severe organ dysfunction, terminal diseases, susceptibility to accidents and life-threatening dangers, fatal outcomes resulting from minor illnesses due to drug intolerance, vulnerability to assaults by criminals or wild creatures, and the emergence of suicidal inclinations.

The results of the study revealed a high level of agreement among both students and teachers regarding the potential consequences of prescription drug misuse. These consequences include sudden heart attacks and death, severe organ failure

and terminal illnesses, increased susceptibility to accidents and life-threatening dangers, fatal outcomes resulting from drug intolerance during common illnesses, heightened vulnerability to attacks by criminals or wild animals, and the emergence of suicidal tendencies. The results of this study revealed a notable degree of knowledge among students and instructors about the possible health concerns connected with the abuse of prescription drugs. This heightened understanding has the potential to impact their attitudes and actions towards drug use.

The principals and officials from the Ministry of Education (MOE) placed further emphasis on the extensive knowledge of the morbidity concerns associated with prescription medications. The authors cited the rise in opioid-related fatalities as an illustrative instance highlighting the severity of the problem. The participants emphasized the need of consistently emphasizing the dangers associated with the abuse of medications prescribed by a doctor among student populations. The misuse of prescription medications has the potential to result in enduring psychological consequences, including but not limited to symptoms of depression, heightened levels of anxiety, and the development of panic disorders. The inadvertent use of prescription medications presents a substantial peril to persons as a result of the inherent dangers associated with morbidity and addiction. The utilization of drugs might have an impact on a range of biological processes and elevate the likelihood of death resulting from cardiovascular, respiratory, digestive ailments, as well as exterior factors.

The findings of the research indicate that the use of drugs, particularly opioids, might have a direct impact on both the circulatory system and respiratory function. Opioids are classified as central nervous system depressants, which have a decelerating effect on respiration, hence inducing respiratory dysfunction and increasing the susceptibility to pulmonary edema. The chronic use of opioids has the potential to worsen pre-existing respiratory disorders and introduce supplementary health hazards.

The investigation further shown that there is a noteworthy incidence of overdose fatalities connected to prescription medications, and many risk variables associated with patients and their medications have been found. The aforementioned risk variables may provide a basis for the implementation of risk reduction programs among student populations.

The results of the hypothesis is testing using Pearson correlation analysis indicated a statistically significant association ($r = 0.468$, $p < 0.05$) between the level of knowledge of morbidity risk and the psychological well-being of students. As a result, the null hypothesis was rejected, suggesting a statistically significant association between knowledge of morbidity risk and psychological health. The results indicated that individual's knowledge of the potential health hazards linked with prescription medications had an impact on their likelihood of using these prescribed medications.

- v. The fifth objective of the study aimed to determine the relationship between awareness of behavioral risk and psychosocial wellness among students in

government-funded high schools in Nairobi County, Kenya. Participants were requested to assess their degree of agreement concerning the behavioral hazards linked to the misuse of prescription drugs. These hazards encompassed heightened aggression or irritability, engaging in quarrelsome behavior that may lead to physical altercations, experiencing difficulties in interpersonal relationships with peers, encountering challenges in relationships with parents and guardians, and involvement in risky sexual activities, such as engaging in prostitution to acquire funds for purchasing drugs.

The results of the study indicated a high level of agreement among both students and teachers regarding the potential consequences of prescription drug misuse. These consequences include heightened aggression or irritability, contentious behavior, impaired interpersonal relationships with peers, difficulties in parent and guardian interactions, and involvement in risky sexual behaviors. The results of this study revealed a notable degree of awareness of the behavioral hazards linked to the usage of medications prescribed by a doctor among both students and instructors.

The significance of recognizing behavioral hazards in mitigating drug use was underscored by the principals and officials from the Ministry of Education (MOE). According to the authors, preventative programs targeting drug misuse, namely those that include social resistance strategies and general life skills, have notable efficacy in mitigating drug use when executed effectively. The significance of active engagement from the community in monitoring drug use behaviors among students was also emphasized.

The participants proposed the accelerated adoption of radio and television commercials, as well as school visits, as strategies to increase awareness among students who engage in the misuse of prescription medicines and other substances, about the associated behavioral dangers. The research revealed a correlation between the misuse of medications prescribed by a doctor and a range of physiological and psychological health problems. The presence of robust social connections has been recognized as a mitigating factor against substance misuse, while the absence of strong social links has been linked to an elevated susceptibility to drug abuse. Moreover, it has been shown that the use of medications prescribed by a doctor has a detrimental effect on cognitive abilities and motor skills, hence elevating the likelihood of accidents and physical harm.

The research also revealed a troubling correlation between the improper use of prescription medications and participation in high-risk sexual behaviors, such as engaging in prostitution as a means to acquire funds for drug consumption. Nevertheless, the research also emphasized the beneficial effects of being aware of behavioral hazards, resulting in a decrease in drug use.

The results of the hypothesis testing using Pearson correlation analysis revealed a statistically significant association ($r=0.473$, $p<0.05$) between the level of knowledge about behavioral risk and the psychological well-being of students. As a result, the null hypothesis was rejected, suggesting that there is a statistically significant relationship between behavioral risk factors and the misuse of prescription medicines. The aforementioned results are consistent with prior research that has shown a correlation between substance misuse and

impaired social behaviour. It is anticipated that awareness of these potential hazards should serve as a deterrent for students in the use of prescription medications. Nevertheless, it is often observed that this assertion does not hold true.

The psychological well-being of pupils at government-funded high schools in Nairobi County, Kenya served as the dependent variable in the research. The results of the study revealed that the misuse of prescription medications had a notable influence on the psychological welfare of pupils.

There was a consensus among both students and instructors that the misuse of prescription medicines has the potential to significantly impact a student's sense of purpose, diminish their self-esteem and self-acceptance, and ultimately lower their overall quality of life. The influence of using prescription medicines on a student's emotional equilibrium and their relationships with classmates, teachers, parents, siblings, and other community members was also regarded to be significant. It has been observed that students who engage in the misuse of prescription medicines may exhibit less involvement in community activities and have challenges in associating with other members of religious groups. The aforementioned results underscore the adverse consequences of prescription medication usage on several facets of students' psychological welfare.

The principals and officials from the Ministry of Education (MOE) emphasized that many demographic, economic, and socio-cultural variables have a significant role in the occurrence of prescription medication addiction.

Furthermore, they noted that the consequences of this issue are not limited to the individual but also have far-reaching impacts on society as a whole. A variety of negative outcomes have been identified in relation to substance misuse, including but not limited to increased rates of high school dropouts, engagement in hazardous sexual behaviors, lack of discipline, involvement in criminal activities, compromised physical well-being, and neglect of personal cleanliness. Furthermore, it was shown that students who have a background of abuse, experience significant levels of stress, and are of advanced age are more susceptible to engaging in drug misuse, hence exacerbating the impact on their psychological welfare. The aforementioned results underscore the need of implementing preventative measures aimed at mitigating the issue of prescription medication addiction among the student population.

The primary objective of the research was to forecast the extent of the dependent variable, namely psychosocial well-being, based on the independent factors including knowledge of various hazards. The findings of the models indicate that the independent variables possess the ability to account for a substantial amount of the variations seen in the psychological well-being of both students and instructors. The regression results suggest that the variables of knowledge of addiction danger, physical dependency risk, toxicity risk, morbidity risk, and behavioral risk have significant predictive power in relation to the misuse of prescription medications among student populations. As a result, the null hypotheses were invalidated, providing evidence that there exist statistically significant associations between the knowledge of all the dangers investigated and the psychological well-being of students.

5.3 Conclusion

The primary objective of this research was to examine the correlation between the level of knowledge of the risks associated with prescription medications and the psychological well-being of students attending government-funded high schools in Nairobi County. The findings revealed a significant association between individuals' knowledge of the possible addictive consequences linked to the abuse of medications prescribed by a doctor and their overall psychological and social well-being. Students who had an elevated level of consciousness of the potential dangers associated with addiction demonstrated enhanced psychological well-being. This highlights the need of educating students on the addictive properties of prescription pharmaceuticals as a proactive strategy to deter usage and mitigate its adverse effects on psychological welfare.

Moreover, the research shed light on a significant correlation between the recognition of the potential for physical dependency resulting from the abuse of medications prescribed by a doctor and one's psychological and social welfare. Students who exhibited a higher level of understanding of the potential for physical reliance showed improved psychosocial well-being. This emphasizes the significance of knowledge in influencing attitudes and actions pertaining to prescription medicines.

Furthermore, the inquiry revealed a noteworthy association between the recognition of the prospective dangers linked to the abuse of medications prescribed by a doctor and one's psychological and social welfare. Students with a greater comprehension of the possible adverse consequences demonstrated enhanced

psychological welfare. This underscores the need of providing students with education on the hazards associated with the abuse of medications prescribed by a doctor and its hazardous effects.

Furthermore, the research emphasized a significant correlation between the recognition of the potential harm associated with the inappropriate use of medications prescribed by a doctor and an individual's psychological and social welfare. Students who demonstrated an increased level of knowledge about the possible health-related outcomes exhibited improved psychological well-being. This underscores the need of providing students with education on the potential consequences of drug usage on their physical and mental health, as well as their general state of well-being.

Lastly, the research underscored the profound impact of prescription drug misuse on various aspects of psychosocial well-being among students. The repercussions extended from self-esteem and interpersonal relationships to emotional balance and life purpose. The findings underscore the need for a comprehensive approach aimed at promoting psychosocial well-being in students.

5.4 Recommendations

Based on the findings, the following recommendations were made:

1. Awareness of Addictive Risk of Abuse of Medications prescribed by a doctor and Psychosocial Wellness
 - Ministry of Education (MoE) to develop age-appropriate educational programs that focus on the addictive nature of prescription drugs, highlighting real-life examples and consequences.

- Incorporate testimonies from individuals who have experienced addiction due to prescription drug misuse to create a stronger impact.
 - Offer workshops or seminars for parents and guardians to enhance their awareness of the addictive risks associated with prescription drugs, enabling them to have informed conversations with their children.
2. Awareness of Physical Dependence Risk of Abuse of Medications prescribed by a doctor and Psychosocial Wellness
- Schools to implement peer-led initiatives where students educate their peers about the physical dependence risks of prescription drugs, using relatable language and scenarios.
 - Integrate information about physical dependence risks into health and life skills classes to ensure students receive consistent and comprehensive education.
 - Collaborate with healthcare professionals to conduct interactive sessions that simulate the physical effects of drug dependence, enhancing students' understanding of the topic.
3. Awareness of Toxicity Risk of Abuse of Medications prescribed by a doctor and Psychosocial Wellness
- MoE and Schools to create visual aids and multimedia materials illustrating the toxic effects of prescription drug misuse, making the information engaging and memorable.
 - Organize guest speaker sessions with medical professionals who can provide firsthand accounts of patients who have experienced toxicity due to prescription drug misuse.

- Establish a student-led awareness campaign, utilizing posters, social media, and public service announcements to emphasize the dangers of toxicity and its impact on psychosocial well-being.
4. Awareness of Morbidity Risk of Abuse of Medications prescribed by a doctor and Psychosocial Wellness
- MoE and Schools to develop case studies that depict the long-term health consequences of prescription drug misuse, encouraging students to reflect on the potential impact on their future well-being.
 - Integrate discussions on morbidity risks into existing subjects, such as biology and health education, to provide students with a holistic understanding of the topic.
 - Organize workshops where students collaborate with healthcare professionals to explore the physiological and psychological implications of prescription drug misuse.
5. Psychosocial Wellness
- Schools to establish peer support groups that focus on promoting positive self-esteem, emotional balance, and healthy relationships among students.
 - Develop mindfulness and stress management programs that equip students with coping mechanisms, reducing the likelihood of turning to medications prescribed by a doctor for relief.
 - Integrate psychosocial well-being as a core component of the school's values and culture, fostering an environment where students feel safe, supported, and valued.

5.5 Suggestion for Further Studies

This study was focused on Nairobi County. There is need for similar studies focused on other counties especially the major cities such as Kisumu and Mombasa for comparative reasons. In-depth studies of each of the variables under investigation in this study focused on other study other segments of the society such as parents, the clergy and local security officials such as chiefs and village elders would also interesting. Studies can also be done on the effects of medications prescribed by a doctor on performance of students.

REFERENCES

- Abelman, D.D. (2017). Mitigating risks of students' use of study drugs through understanding motivations for use and applying harm reduction theory: a literature review. *Harm Reduction Journal*, 14(1), 68.. <https://doi.org/10.1186/s12954-017-0194-6>
- Adom, D., Hussein, E., & Adu-Agyem, J. (2018). Theoretical and conceptual framework: mandatory ingredients of a quality research. *International Journal of Scientific Research*, 7, 438–441.
- Alemann, C., Garg, A., & Vlahovicova, K. (2020). The role of fathers in Parenting for gender equality. In Conference Proceedings, “Expert Group Meeting on “Families in Development: Focus on Modalities for IYF+30, Parenting Education and the Impact of COVID-19” June 2020.
- Alomar, M.J. (2014). Factors affecting the development of adverse drug reactions (Review article). *Saudi Pharm J.*, 22(2), 83-94. DOI: 10.1016/j.jsps.2013.02.003
- Apuke, O. (2017). Quantitative Research Methods: A Synopsis Approach. *Arabian Journal of Business and Management Review (Kuwait Chapter)*, 6, 40–47. doi: 10.12816/0040336
- Bao, M.J., Wang Y.P, Su R. J., Liu M.F., Li M.X., & Lu, L. (2019). Effects of medication-assisted treatment on mortality among opioids users: a systematic review and meta-analysis. *Molecular psychiatry*, 24(12), 1868-1883.
- Baqutayan, S. (2015). Stress and Coping Mechanisms: A Historical Overview. *Mediterranean Journal of Social Sciences*. 6(2). 1-7.
- Bayard, M., McIntyre, J., Hill, K., & Woodside, J. (2004). Alcohol Withdrawal Syndrome. *American family physician*. 69(1). 1443-1450.
- Becker, H. (1963). *Overview of Labelling Theories*. Hewett, Norfolk. Sch. uk/curric/soc/crime/labelling/diakses pada, 10.
- Bendtsen, K. M., Krych, L., Sørensen, D. B., Pang, W., Nielsen, D. S., Josefsen, K., Hansen, L. H., Sørensen, S. J., & Hansen, A. K. (2012). Gut microbiota composition is correlated to grid floor induced stress and behavior in the BALB/c mouse. *PLoS one*, 7(10), e46231.
- Benner, A. D., Boyle, A. E., & Sadler, S. (2016). Parental Involvement and Adolescents' Educational Success: The Roles of Prior Achievement and Socioeconomic Status. *Journal of youth and adolescence*, 45(6), 1053–1064. <https://doi.org/10.1007/s10964-016-0431-4>
- Bennett, T., & Holloway, K. (2017). Motives for illicit prescription drug use among university students: A systematic review and meta-analysis. *Int J Drug Policy*. 44(1). 12–22. doi:10.1016/j.drugpo.2017.02.012.
- Best, J.W., & Kahn, J.V. (2006). *Research in Education* (10th Ed.). Pearson Education Inc., Cape Town.
- Bhattacharya, S., Pradhan, K. B., Bashar, M. A., Tripathi, S., Thiyagarajan, A., Srivastava, A., & Singh, A. (2020). Salutogenesis: A bona fide guide towards health preservation. *Journal of family medicine and primary care*, 9(1), 16–19.
- Bloor, M. (1995b). *The Sociology of HIV Transmission*. London: Sage.
- Borders, T. F., Booth, B. M., Falck, R. S., Leukefeld, C., Wang, J., & Carlson, R. G. (2009). Longitudinal changes in drug use severity and physical health-related quality of life among untreated stimulant users. *Addictive Behaviors*, 34(11), 959-964.

- Boru, T. (2018). Chapter Five Research Design and Methodology 5.1. Introduction. In Lelissa TB (Author), *Research Methodology*. University of South Africa, PHD Thesis. doi: 10.13140/RG.2.2.21467.62242
- Botvin, G.J., Baker, E., Dusenbury, L., Botvin, E.M., & Diaz, T. (2020). long-term follow-up results of a randomized drug abuse prevention trial in a white middle-class population. *JAMA*, 273(14), 1106–1112.
- Bovin, G., & Griffin, K. (2007). School-based programmes to prevent alcohol, tobacco, and other drug use. *Int Rev Psychiatry*, 19(1), 607–15.
- Boyd, C. J., McCabe, S. E., Cranford, J. A., & Young, A. (2006). Adolescents' motivations to abuse prescription medications. *Pediatrics*, 118, 2472–2480.
- Boyd, C. J., Young, A., Grey, M., & McCabe, S. E. (2009). Adolescents' nonmedical use of prescription medications and other problem behaviors. *Journal of Adolescent Health*, 45, 543–550.
- Burns, R. (2016). Psychosocial Well-being. In *Encyclopedia of Geropsychology* (pp. 1–8). http://dx.doi.org/10.1007/978-981-287-082-7_251
- Burris J.L., Brechting E.H., Salsman J. & Carlson C.R. (2009). Factors Associated with the Psychological Well-Being and Distress of University Students, *Journal of American College Health*, 57 (5), 536-544. DOI: 10.3200/JACH.57.5.536-544
- Calcaterra, S., Glanz, J., & Binswanger, I. A. (2013). National trends in pharmaceutical opioid related overdose deaths compared to other substance related overdose deaths: 1999-2009. *Drug and alcohol dependence*, 131(3), 263–270. <https://doi.org/10.1016/j.drugalcdep.2012.11.018>
- Calsyn, D. A., Cousins, S. J., Hatch-Maillette, M. A., Forcehimes, A., Mandler, R., Doyle, S. R., & Woody, G. (2010). Sex under the influence of drugs or alcohol: Common for men in substance abuse treatment and associated with high-risk sexual behavior. *The American journal on addictions*, 19(2), 119-127.
- Carter, N., Bryant-Lukosius, D., DiCenso, A., Blythe, J., & Neville, A. J. (2014). The use of triangulation in qualitative research. *Oncology nursing forum*, 41(5), 545–547. <https://doi.org/10.1188/14.ONF.545-547>
- Carville M. (2022). Medicines associated with dependence or withdrawal symptoms: summary of NICE guideline. *BMJ* 378 doi: <https://doi.org/10.1136/bmj.o1454>. *BMJ* 2022; 378:o1454.
- Chang, Y., & Compton, P. (2016). Opioid misuse/abuse and quality persistent pain management in older adults. *Journal of Gerontological Nursing*, 42(12), 21-30.
- Cheatle, M (2015). Prescription Opioid Misuse, Abuse, Morbidity, and Mortality: Balancing Effective Pain Management and Safety. *Pain Med*, 16 (Suppl 1), S3-8. DOI: 10.1111/pme.12904. Epub 2015 Sep 11.
- Cheung, S.Y., & Mckay, S. (2010). *Training and Progression in the Labour Market*. United Kingdom: Department for Work and Pensions.
- Chibi, B., Yende-Zuma, N., & Mashamba-Thompson, T. P. (2020). Prevalence and correlates of prescription drug diversion and misuse among people living with HIV in the eThekweni district, KwaZulu-Natal, South Africa. *PloS one*, 15(12).
- Christensen, P. (2004). Children's Participation in Ethnographic Research: Issues of Power and Representation. *Children & Society*, 18(1), 165 - 176. [10.1002/chi.823](https://doi.org/10.1002/chi.823).

- Compton, W.M., & Volkow, N.D (2006). Abuse of medications prescribed by a doctor and the risk of addiction. *Drug Alcohol Depend*, 83(1), S4-7.
- Conn, B.M., & Marks, A.K. (2015). An Ecological Approach to Understanding Adolescent Prescription Drug Misuse. *Journal of Adolescent Research*, 32 (2), 183-204.
- Criss, M. M., Lee, T. K., Morris, A. S., Cui, L., Bosler, C. D., Shreffler, K. M., & Silk, J. S. (2015). Link between Monitoring Behavior and Adolescent Adjustment: An Analysis of Direct and Indirect Effects. *Journal of child and family studies*, 24(3), 668–678. <https://doi.org/10.1007/s10826-013-9877-0>
- Currie, C.L., & Wild, T.C. (2012). Adolescent use of medications prescribed by a doctor to get high in Canada. *Canadian Journal of Psychiatry*, 57(12), 745-51.
- Darling-Hammond, L., Flook, L., Cook-Harvey, C., Barron, B., & Osher, D. (2020). Implications for educational practice of the science of learning and development. *Applied Developmental Science*. 24(2), 97-140.
- Das, J. K., Salam, R. A., Arshad, A., Finkelstein, Y., & Bhutta, Z. A. (2016). Interventions for Adolescent Substance Abuse: An Overview of Systematic Reviews. *The Journal of Adolescent Health*, 59(4S), S61–S75. <https://doi.org/10.1016/j.jadohealth.2016.06.021>
- Denscombe, M. (2001). Uncertain Identities and Health-Risking Behaviour: The Case of Young People and Smoking in Late Modernity. *The British journal of sociology*, 52 (1), 157-77.
- Dillard, DM (2019). *The Transactional Theory of Stress and Coping Scholar Works*. Thesis. Walden University.
- Domina, T. (2005). Leveling the Home Advantage: Assessing the Effectiveness of Parental Involvement in Elementary School. *Sociology of Education - Social Educ.*, 78(1), 233-249. [10.1177/003804070507800303](https://doi.org/10.1177/003804070507800303).
- Douglas, M. (1986). *Risk Acceptability According to the Social Sciences*. London: Routledge and Kegan Paul.
- Edgerton, J. D., & Roberts, L. W. (2014). Cultural capital or habitus? Bourdieu and beyond in the explanation of enduring educational inequality. *Theory and Research in Education*, 12(2), 193–220. <https://doi.org/10.1177/1477878514530231>
- Eiroa-Orosa, F. J. (2020). Understanding Psychosocial Wellbeing in the Context of Complex and Multidimensional Problems. *International Journal of Environmental Research and Public Health*, 17(16), 5937. doi: [10.3390/ijerph17165937](https://doi.org/10.3390/ijerph17165937)
- El Kazdoui, H., El-Ammari, A., & Bouftini, S. (2018). Adolescents, parents, and teachers' perceptions of risk and protective factors of substance use in Moroccan adolescents: a qualitative study. *Substance Abuse Treat Prev Policy*, 13 (1), 31
- El Omari, F., Salomonsen-Sautel, S., Hoffenberg, A., Anderson, T., Hopfer, C., & Toufiq, J. (2015). Prevalence of substance use among Moroccan adolescents and association with academic achievement. *World journal of psychiatry*, 5(4), 425–431.
- Ewart C.K. (1991). Social Action Theory for a public health psychology. *The American Psychologist*, 46(1), 931–946.
- Fan X., & Chen M. (2001). Parent involvement and students' academic achievement: A meta-analysis. *Educ Psychol Rev*. 13(1). 1–22.

- Frazzoli, C. (2020). Toxicological Risk Analysis in Data-Poor Countries: A Narrative Approach to Feed an "Awareness Raising—Community Empowerment." *Medicina*, 56(11), 629; <https://doi.org/10.3390/medicina56110629>
- Frohlich, K.L., Corin, E., & Potvin, L. (2001) A theoretical proposal for the relationship between context and disease. *Sociology of Health & Illness*, 23(6), 776–97.
- Fuentes, M.C, Garcia O.F., & Garcia, F. (2020). Protective and Risk Factors for Adolescent Substance Use in Spain: Self-Esteem and Other Indicators of Personal Well-Being and Ill-Being. *Sustainability*, 12(15), 5962. DOI:10.3390/su12155962
- Furstenberg, FF., & Cherlin, A. (1991). *Divided Families: What Happens to Children When Parents Part*. Cambridge: Harvard University Press.
- Gerald, M. C. (1991). National drug policy and rational drug use: A model curriculum for developing countries. *Journal of Clinical Epidemiology*, 44(Suppl 2), 95S–99S. [https://doi.org/10.1016/0895-4356\(91\)90119-t](https://doi.org/10.1016/0895-4356(91)90119-t)
- Gilson, A., Ryan, K., Joranson D., & Dahl, J. (2004). A reassessment of trends in the medical use and abuse of opioid analgesics and implications for diversion control: 1997–2002. *J Pain Symptom Manage*, 28(2), 176–188.
- Gjerde, H., Christophersen, A., Normann, P., & Mørland, J. (2011). Toxicological investigations of drivers killed in road traffic accidents in Norway during 2006-2008. *Forensic Sci Int.*, 212(1-3), 102-109. 10.1016/j.forsciint.2011.05.021
- Gore-Felton, C., Rotheram-Borus, M. J., Weinhardt, L. S., Kelly, J. A., Lightfoot, M., Kirshenbaum, S. B., Johnson, M. O., Chesney, M. A., Catz, S. L., Ehrhardt, A. A., Remien, R. H., Morin, S. F., & Project Team, N. H. L. (2005). The Healthy Living Project: An Individually Tailored, Multidimensional Intervention for HIV–Infected Persons. *AIDS Education and Prevention*, 17 (supplement_a), 21–39.
- Goundar, S. (2012). Chapter 3 - Research Methodology and Research Method. In *Cloud Computing*. Multiple Universities.
- Government of Kenya. (2008). *Kenya National Pharmaceutical Policy 2008*. Ministry of Medical Services. Accessed on January 20, 2021, from <http://digicollection.org/hss/documents/s18078en/s18078en.pdf>
- Government of the Republic of Kenya, Office of the President. (2011). *National Drug Abuse Control Policy: Final Draft* Nairobi: Kenya.
- Grant, J. E., Lust, K., Fridberg, D. J., King, A. C., & Chamberlain, S.R. (2019). E-cigarette use (vaping) is associated with illicit drug use, mental health problems, and impulsivity in university students. *Annals of clinical psychiatry: official journal of the American Academy of Clinical Psychiatrists*, 31(1), 27–35.
- Gray, N.J., & Damian M.W. (2017). The Role of Medication in Supporting Emotional Wellbeing in Young People with Long-Term Needs. *Healthcare* 5 (4), 84.
- Guo, L., Xu, Y., & Deng, J., (2016). Association between nonmedical use of medications prescribed by a doctor and suicidal behavior among adolescents. *JAMA Pediatr*, 170(10), 971–978.
- Gupta, M., Gokarakonda, S., Attia, F. (2022). “Withdrawal Syndromes.” In: *StatPearls [Internet]. Treasure Island (FL)*. StatPearls Publishing. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK459239/> [Accessed October 27, 2022].

- Gupta, M., Gokarakonda, SB., Attia, FN., & Withdrawal S. [Updated 2022 May 20]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2022 Jan-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK459239/>
- Hawkins, J., Catalano, R., & Arthur, M. (2002). Promoting science-based prevention in communities. *Addictive Behav*, 27(1), 951–76.
- Hayakawa, M., Giovanelli, A., Englund, M. M., & Reynolds, A. J. (2016). Not Just Academics: Paths of Longitudinal Effects from Parent Involvement to Substance Abuse in Emerging Adulthood. *Journal of Adolescent Health*, 58(4), 433-439.
- Hernandez, J. B. R., & Kim, P. Y. (2023). Epidemiology Morbidity and Mortality. [Updated 2022 Oct 3]. In: *StatPearls [Internet]*. Treasure Island (FL): StatPearls Publishing. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK547668/>
- Herzberg, D., Guarino, H., Mateu-Gelabert, P., & Bennett, A. (2016). Recurring Epidemics of Pharmaceutical Drug Abuse in America: Time for an All-Drug Strategy. *American Journal of Public Health*, 106, e1–e3. doi: 10.2105/AJPH.2015.302982
- Higgins, C., Smith, BH., & Matthews, K. (2018). Incidence of iatrogenic opioid dependence or abuse in patients with pain who were exposed to opioid analgesic therapy: a systematic review and meta-analysis. *Br J Anaesth*. 2018; 120: 1335-1344
- Hurley, E., Dietrich, T. & Rundle-Thiele, S. (2019). A systematic review of parent based programs to prevent or reduce alcohol consumption in adolescents. *BMC Public Health*, 19(1), 1451. <https://doi.org/10.1186/s12889-019-7733-x>
- Hwang, A., Dave, C., & Smith, S. (2018). Use of Prescription Medications That Potentially Interfere with Blood Pressure Control in New-Onset Hypertension and Treatment-Resistant Hypertension. *Am J Hypertens*, 31(12), 1324-1331.
- Hwang, A., Dave, C., & Smith, S. (2018). Use of Prescription Medications That Potentially Interfere With Blood Pressure Control in New-Onset Hypertension and Treatment-Resistant Hypertension. *Am J Hypertens.*, 31(12), 1324-1331.
- Ibarra F. (2020). Single dose phenobarbital in addition to symptom-triggered lorazepam in alcohol withdrawal. *Am J Emerg Med*. 38(2). 178-181.
- Iyeke, P., & Dafe, O.F. (2016). Knowledge of Hazards of Self-Medication among Secondary School Students in Ethiopia East Local Government Area of Delta State, Nigeria. *Journal of Education and Practice (Online)*, 7 (5), 105.
- Iyeke, P., & Onoharigho, F. (2016). Knowledge of Hazards of Self-Medication among Secondary School Students in Ethiopie East Local Government Area of Delta State. *Journal of Education and Practice*, 7(5), 105.
- Jabeen, I., Venkataswamy, M., Sadaf, J., Reddy, N., Mallika, A & Sushmitha, M. (2018). Drug Abuse, Addiction, its Causes and Treatment Abstract. *Research Journal of Pharmaceutical Dosage Forms and Technology*. 10(1). 975-4377. 10.5958/0975-4377.2018.00038.1.
- Jeffrey, E.P., Ashley, P.B., Andrea, B., Balestrieri, L.P., & Matsona, K.L. (2019). Rx for addiction and medication safety: An evaluation of teen education for opioid misuse prevention. *Research in Social and Administrative Pharmacy*, 15(8), 917-924.
- Johnson, K. M., Fibbi, M., Langer, D., Silva, K., & Lanckenau, S. E. (2013). Prescription drug misuse and risk behaviors among young injection drug users. *Journal of psychoactive drugs*, 45(2), 112–121.

- Johnson, K., Fibbi, M., Langer, D., Silva, K., & Lankenau, S. (2013). Prescription drug misuse and risk behaviors among young injection drug users. *J Psychoactive Drugs*, 45(2), 112-21.
- Johnson, M. O., Carrico, A. W., Chesney, M. A., & Morin, S. F. (2008). Internalized heterosexism among HIV-positive, gay-identified men: Implications for HIV prevention and care. *Journal of Consulting and Clinical Psychology*, 76(5), 829–839.
- Kabir, S. M. (2016). Methods of Data Collection. In *Basic Guidelines for Research: An Introductory Approach for All Disciplines* (pp. 201–275). *Book Zone Publication*, Chittagong-4203, Bangladesh.
- Kahuthia-Gathu, Okwarah, P., Gakunju, R., & Thungu J. (2013). Trends and emerging drugs in Kenya: A case study in Mombasa and Nairobi County. *Journal of Applied Biosciences*, 67(1), 5308 – 5325.
- Kamamia, L., Ngugi, N., & Thinguri, R. (2014). To establish the extent to which the subject mastery enhances quality teaching to student-teachers during teaching practice. *International Journal of Education and Research*, 2(7), 641
- Kamender, M., Muteti, J., Okioma, V., Nyamongo, I., Kimani, S., Kanana & Kahi, C. (2021). Status of Drugs and Substance Use among Secondary School Students in Kenya. *African Journal of Alcohol & Drug Abuse*. 1(1). 1-7.
- Kamenderi, M., Muteti, J., Okioma, V., Kandie, J., Munyoki, W., Lelei, K. & Kimani, S. (2022). Emerging Trends on Non-Medical Use of Medications prescribed by a doctor in Kenya. *African Journal of Alcohol & Drug Abuse*, 5(1), 41-51.
- Kasundu, B., Mutiso, M.M., Chebet, P.S., & Mwirigi, P.W. (2012). Factors Contributing to Drug Abuse among the Youth in Kenya: A Case of Bamburi. *Social Science*, 46 (1), 8259-8267.
- Kimani, M.N. (2013). *Drug and substance abuse in secondary schools in Kenya: A case study of Kiambu County*. Master's Thesis. University of Nairobi.
- Kimber J., Stoové M., & Maher L. (2019). Mortality among people who inject drugs: Ten-year follow-up of the hepatitis C virus cohort. *Drug and Alcohol Review*, 38(3), 270-273. DOI: 10.1111/dar.12884
- KNBS (2019). *Kenya Population and housing census: population by county and sub-county*. Kenya National Bureau of Statistics. Accessed on January 18, 2021, from <http://housingfinanceafrica.org/app/uploads/VOLUME-I-KPHC-2019>. Pdf
- Kolodny, A., Courtwright, D. T., Hwang, C. S., Kreiner, P., Eadie, J. L., Clark, T. W., & Alexander, G. C. (2015). The prescription opioid and heroin crisis: a public health approach to an epidemic of addiction. *Annual review of public health*, 36, 559–574.
- Koob, G. F., & Volkow, N. D. (2016). Neurobiology of addiction: a neurocircuitry analysis. *The lancet. Psychiatry*, 3(8), 760–773. [https://doi.org/10.1016/S2215-0366\(16\)00104-8](https://doi.org/10.1016/S2215-0366(16)00104-8)
- Kothari, C.R. (2004). *Research Methodology: Methods and Techniques* (2nd Ed.). New Delhi: New Age International (P) Limited Publishers.
- Lakhan, S. E., & Hagger-Johnson, G. E. (2007). The impact of prescribed psychotropics on youth. *Clinical practice and epidemiology in mental health: CP & EMH*, 3, 21. <https://doi.org/10.1186/1745-0179-3-21>
- Lakhan, S.E., & Kirchgessner, A. (2012). Prescription stimulants in individuals with and without attention deficit hyperactivity disorder: misuse, cognitive impact, and adverse effects. *Brain and Behavior*, 2(5), 661-677.

- Lechner W.V., Laurene R. K, Patel S., Anderson M., Grega C., & Kenne, D.R. (2020). Changes in alcohol use as a function of psychological distress and social support following COVID-19 related University closings. *Science Direct, 110*, S106527,
- Li, G., Brady, J., Lang, B., Giglio, J., Wunsch, H., & DiMaggio, C. (2014). Prescription drug monitoring and drug overdose mortality. *Inj. Epidemiol. 1*, 9. <https://doi.org/10.1186/2197-1714-1-9> Prescription drug monitoring and drug overdose mortality.
- Liebschutz, J. M., Crooks, D., Rose-Jacobs, R., Cabral, H. J., Heeren, T. C., Gerteis, J., Appugliese, D. P., Heymann, O. D., Lange, A. V., & Frank, D. A. (2015). Prenatal substance exposure: What predicts behavioral resilience by early adolescence? *Psychology of addictive behaviors: journal of the Society of Psychologists in Addictive Behaviors, 29*(2), 329–337. <https://doi.org/10.1037/adb0000082>
- Lubman, D.I., Yücel, M., & Lawrence, A.J. (2008). Inhalant abuse among adolescents: neurobiological considerations. *British Journal of Pharmacology, 154* (1), 316–326;
- Luborsky, MR, & Rubinstein, RL. (1995). Sampling in qualitative research: rationale, issues and methods *Res Aging. 17*(1). 89–113.
- Lumish, R., Goga, JK., & Brandt, NJ. (2018). Optimizing Pain Management through Opioid Deprescribing. *J Gerontol Nurs. 44*(1). 9-14.
- Madras, B. K., Han, B., Compton, W. M., Jones, C. M., Lopez, E. I., & McCance-Katz, E. F. (2019). Associations of Parental Marijuana Use with Offspring Marijuana, Tobacco, and Alcohol Use and Opioid Misuse. *JAMA network open, 2*(11), e1916015.
- Malhotra, N.K. (2004). *Marketing research: An applied orientation* (4th edition) Pearson Education, Inc: New Jersey.
- Mallah, N., Badro, D. A., Figueiras, A., & Takkouche, B. (2022). Association of knowledge and attitudes with the misuse of tranquilizers in parents: A study in Beirut (Lebanon). *Psychology & Health, 37*(7), 903–916.
- Manchia, M., Adli, M., Akula, N., Ardu, R., Aubry, J. M., Backlund, L., Banzato, C. E., Baune, B. T., Bellivier, F., Bengesser, S., Biernacka, J. M., Brichant-Petitjean, C., Bui, E., Calkin, C. V., Cheng, A. T., Chillotti, C., Cichon, S., Clark, S., Czernski, P. M., Dantas, C., ... Alda, M. (2013). Assessment of Response to Lithium Maintenance Treatment in Bipolar Disorder: A Consortium on Lithium Genetics (ConLiGen) Report. *PloS one, 8*(6), e65636. <https://doi.org/10.1371/journal.pone.0065636>
- Mangat AK., Schmölder GM., & Kraft WK. (2019). Pharmacological and non-pharmacological treatments for the Neonatal Abstinence Syndrome (NAS). *Semin Fetal Neonatal Med. 24*(2), 133-141.
- Manish, G., Deepali, T., & Neetu, S. (2020). Effect of the Drug Abuse on the Academic Performance of the Students/Adolescents. *Biomedical Journal of Scientific & Technical Research, 28* (3), 21601-21611.
- Marsden, J., White, M., Annand, F., Burkinshaw, P., Carville, S., Eastwood, B., Kelleher, M., Knight, J., O'Connor, R., Tran, A., Willey, P., Greaves, F., & Taylor, S. (2019). Medicines associated with dependence or withdrawal: a mixed-methods public health review and national database study in England. *Lancet Psychiatry, 6*(11), 935-950. DOI: 10.1016/S2215-0366(19)30331-1.

- Martínez-Mesa, J., González-Chica, D., Bastos J., Bonamigo, R., & Duquia, R. (2014). Sample size: how many participants do I need in my research? *An Bras Dermatol*, *89*(4), 609-15. doi: 10.1590/abd1806-4841.20143705. PMID: 25054748; PMCID: PMC4148275.
- Masese G. A. (2020). Upsurge of Drug Use among University Students in Kenya: Causes and Consequences. *International Journal of Research in Social Sciences*, *10* (6), 1.
- McCabe, S. E., West, B. T., Veliz, P., McCabe, V. V., Stoddard, S. A., & Boyd, C. J. (2017). Trends in Medical and Nonmedical Use of Prescription Opioids among US Adolescents: 1976-2015. *Pediatrics*, *139*(4), e20162387. <https://doi.org/10.1542/peds.2016-2387>
- McCabe, S.E., Schulenberg, J., McCabe, V.V., & Veliz, P. T. (2020). Medical Use and Misuse of Prescription Opioids in US 12th-Grade Youth: School-Level Correlates. *Pediatrics*, *146*(4), e20200387.
- McCabe, S.E., Schulenberg, J.E., & Schepis, T.S. (2022). Trajectories of Prescription Drug Misuse Among US Adults From Ages 18 to 50 Years. *JAMA Netw Open*. *5*(1), e2141995.
- McCauley, J.L., Danielson, C.K., Amstadter, A.B., Ruggiero, K.J., Resnick, H.S., Hanson, R.F., Smith, D.W., Saunders, B.E., & Kilpatrick, D.G. (2010). The role of traumatic event history in non-medical use of medications prescribed by a doctor among a nationally representative sample of US adolescents. *The Journal of Child Psychology and Psychiatry*, *51*(1), 84-93.
- McCauley, J.L., Danielson, C.K., Amstadter, A.B., Ruggiero, K.J., Resnick, H.S., Hanson, R.F., Smith, D.W., Saunders, B.E., & Kilpatrick, D.G. The role of traumatic event history in non-medical use of medications prescribed by a doctor among a nationally representative sample of US adolescents. *Journal of Child Psychology and Psychiatry*, *51*(1), 84-93.
- McClelland, E., & Mckinney, C. (2016). Disruptive Behavior and Parenting in Emerging Adulthood: Mediational Effect of Parental Psychopathology. *Journal of Child and Family Studies*, *25* (1), 212-223. 10.1007/s10826-015-0205-8.
- McGaghie, W.C., Bordage, G., & Shea, J.A. (2001). Problem statement, conceptual framework, and research question. *Academic Medicine*, *76*(9), 923-924.
- McKetin, R., Voce, A., Burns, R., & Shanahan, M. (2019). Health-related quality of life among people who use methamphetamine. *Drug and Alcohol Review*, *38*(5), 503-509
- McLafferty, M., Lapsley, C. R., Ennis, E., Armour, C., Murphy, S., Bunting, B. P. & O'Neill, S. M. (2017). Mental health, behavioural problems and treatment seeking among students commencing university in Northern Ireland. *PLoS one*, *12*(12), e0188785.
- McLellan, A. T. (2017). Substance Misuse and Substance Use Disorders: Why Do They Matter in Healthcare? *Transactions of the American Clinical and Climatological Association*, *128*, 112-130.
- Millar, B. M., Starks, T. J., Gurung, S., & Parsons, J. T. (2017). The impact of comorbidities, depression, and substance use problems on quality of life among older adults living with HIV. *AIDS and Behavior*, *21*(6), 1684-1690.
- Milloy M.J., Wood E., Reading C., Kane D., Montaner J., & Kerr T. (2010). Elevated overdose mortality rates among First Nations individuals in a Canadian setting: a population-based analysis. *Wiley Online Library*, *105*(11), 1962-1970. DOI: 10.1111/j.1360-0443.2010.03077.

- Moeller, S. J., & Goldstein, R. Z. (2014). Impaired self-awareness in human addiction: Deficient attribution of personal relevance. *Trends in Cognitive Sciences, 18*(12), 635–641. <https://doi.org/10.1016/j.tics.2014.09.003>
- Mohajan, H. K. (2017). Two Criteria for Good Measurements in Research: Validity and Reliability. *Annals of Spiru Haret University, 17*, 59–82. doi: 10.26458/1746
- Monnat, S.M., & Rigg, K.K. (2016). Examining rural/urban differences in prescription opioid misuse among US Adolescents. *The journal of rural health, 32*(2), 204-218.
- Moral-García J.E, Agraso-López A.D, Ramos-Morcillo A.J, Jiménez A, Jiménez-Eguizábal A. (2020). The Influence of Physical Activity, Diet, Weight Status and Substance Abuse on Students' Self-Perceived Health. *International Journal of Environmental Research and Public Health., 17*(4),1387. DOI: 10.3390/ijerph17041387
- Morrison-Smith, S., & Ruiz, J. (2020). Challenges and barriers in virtual teams: A literature review. *SN Applied Sciences, 2*, 1096. <https://doi.org/10.1007/s42452-020-2801-5>
- Mugenda, O.M., & Mugenda, A. G. (2003). *Research Methods Quantitative and Qualitative Approaches* Nairobi: ACTS Press Publishers.
- Muhuri, P., Gfroerer, J., & Davies, M.C. (2013). Associations of nonmedical pain reliever use and initiation of heroin use in the United States. CBHSQ Data Review <https://www.samhsa.gov/data/sites/default/files/DR006/DR006/nonmedical-pain-reliever-use-2013.htm>.
- Musyoka. C.M, Mbwayo, A., Donovan, D., & Mathai, M. (2020) Alcohol and substance use among first-year students at the University of Nairobi, Kenya: Prevalence and patterns. *PLoS ONE 15*(8), e0238170. <https://doi.org/10.1371/journal.pone.0238170>
- Mutiso, V.N. (2022). Prevalence and perception of substance abuse and associated economic indicators and mental health disorders in a large cohort of Kenyan students: towards integrated public health approach and clinical management. *BMC Psychiatry, 22*(1), 191
- Nabavi, R. T., & Bijandi, M. (2012). Bandura's Social Learning Theory & Social Cognitive Learning Theory. *Journal of Personality and Social Psychology, 1*, 589.
- NACADA (2016). National Survey on Alcohol and Drug Abuse among Secondary Students in Kenya. NACADA.
- NACADA (2019). *New Shocking Details of Drug Abuse in Kenya schools*. NACADA.
- NACADA. (2012). *Rapid situation assessment of the status of drug and substance abuse in Kenya*. National Authority for the Campaign Against Alcohol and Drug Abuse.
- Nagaraj, S. (2022). Loss of Appetite in Adult Patients: Effectiveness and Safety of an Appetite Stimulating Medication in an Open-Label, Investigator-Initiated Study in India. *J Nutr Metab., 2022*(1), 2661912. DOI: 10.1155/2022/2661912.
- Nargiso, J.E., Ballard, E.L., & Skeer, M.R. (2015). A Systematic Review of Risk and Protective Factors Associated with Nonmedical Use of Medications prescribed by a doctor Among Youth in the United States: A Social-Ecological Perspective. *Journal of Studies on Alcohol and Drugs, 76*(1), 5-20.

- National Institute on Drug Abuse. (2018, June 6). Understanding Drug Use and Addiction Drug Facts. National Institute on Drug Abuse. Retrieved from <https://nida.nih.gov/publications/drugfacts/understanding-drug-use-addiction>
- National Institute on Drug Abuse. (2023, March 6). *Overview*. National Institute on Drug Abuse. Retrieved from <https://nida.nih.gov/publications/research-reports/misuse-prescription-drugs/overview>
- National Institute on Drug Abuse. (2022). National Survey on the Status of Drugs and Substance Use in Kenya Abridged Version. Government of Kenya. Retrieved from https://nacada.go.ke/sites/default/files/2023-05/Abridged%20Version_National%20Survey%20on%20the%20Status%20of%20Drugs%20and%20Substance%20Use%20in%20Kenya%202022.pdf
- Nicholson, J., Catherine D., Marcum G., & Higgins, E. (2022) Predictors of Prescription Drug Misuse among High School Students in the United States, *Deviant Behavior*, 43(1). 91-101. DOI: 10.1080/01639625.2020.1785237.
- Nicolas, A., & Ruby, P. (2020). Dreams, Sleep, and Psychotropic Drugs. *Front Neurol.*, 511, 507495. DOI: 10.3389/fneur.2020.507495.
- Olsson, I., Runnamo, R., & Engfeldt, P. (2011). Medication quality and quality of life in the elderly, a cohort study. *Health Qual Life Outcomes*, 3(9), 95. DOI: 10.1186/1477-7525-9-95.
- Orodho, A., & Kombo, D. (2002). *Research Methods*. Nairobi: Kenyatta University, Institute of Open Learning.
- Parfitt, JR., & Driman, DK. (2007). Pathological effects of drugs on the gastrointestinal tract: a review. *Hum Pathol.* 38(1). 527–536.
- Parsons, E., & Atkinson, P. (1992) Lay constructions of genetic risk. *Sociology of Health and Illness*, 14, 437-55.
- Pedrelli, P., Nyer, M., Holt, D., Bakow, B., Fava, M., Baer, L., Cassiello, C., Mulligan, M., Cusin, C., & Farabaugh, A. (2013). Correlates of irritability in college students with depressive symptoms. *J Nerv Ment Dis.*, 201(11), 953-8. DOI: 10.1097/NMD.0000000000000038.
- Peltzer, K., & Pengpid, S. (2018). Prevalence, risk awareness and health beliefs of behavioural risk factors for cardiovascular disease among university students in nine ASEAN countries. *BMC Public Health*, 18, 237. <https://doi.org/10.1186/s12889-018-5142-1>
- Peteet, B.J. (2019). Psychosocial risks of prescription drug misuse among U.S. racial/ethnic minorities: A systematic review. *Journal of ethnicity in substance abuse*, 18(3), 476–508.
- Philpott, H.L., Nandurkar, S., Lubel, J., Gibson, P. (2014). Drug-induced gastrointestinal disorders. *Frontline Gastroenterol.*, 5(1), 49-57. DOI: 10.1136/flgastro-2013-100316.
- Piehler, T. F., & Winters, K. C. (2017). Decision-making style and response to parental involvement in brief interventions for adolescent substance use. *Journal of family psychology: JFP: journal of the Division of Family Psychology of the American Psychological Association (Division 43)*, 31(3), 336–346.
- Pilgrim, A.L., Robinson, S. M., Sayer, A. A., & Roberts, H.C. (2015). “An overview of appetite decline in older people,” *Nursing Older People*. 27(5). 29–35.
- Pontes, N., & Pontes, M. (2021). Sex differences in the relationship between prescription opioid misuse and gun and other weapon-carrying behaviors. *Drug and alcohol dependence*, 221,108596. <https://doi.org/10.1016/j.drugalcdep.2021.108596>

- Poulin C. (2001). Medical and nonmedical stimulant use among adolescents: from sanctioned to unsanctioned use. *CMAJ*, 165(3), 1039–44.
- Prommer, E. (2020). Midazolam: an essential palliative care drug. *Palliat Care Soc Pract.*, 14(1), 2632352419895527. DOI: 10.1177/2632352419895527.
- Republic of South Africa. (2007). Department of *Social Development*. National Drug Master Plan 2006-2011 RP05/2007 Pretoria: Government Printers.
- Ryff C. D. (2014). Psychological well-being revisited: advances in the science and practice of eudaimonia. *Psychotherapy and psychosomatics*, 83(1), 10–28. <https://doi.org/10.1159/000353263>
- Rhodes, T., & Quirk, A. (1996) Heroin, risk, and sexual safety: some problems for interventions encouraging community change. In Rhodes, T., & Hartnoll, R. (Eds) *AIDS, Drugs and Prevention: Perspectives on Individual and Community Action*. London: Routledge.
- Richards, M., Huppert, FA. (2011). Do positive children become positive adults? Evidence from a longitudinal birth cohort study. *J Posit Psychol*.6(1). 75–87.
- Ritchie, H., & Roser, M. (2019). *Drug Use*. OurWorldInData.org. Retrieved from: <https://ourworldindata.org/drug-use> (Accessed January 31, 2022)
- Rolles, S., & Slade, H. (2022). *How to Regulate Cannabis: A Practical Guide* (3rd ed.). Bristol: TRANSFORM Drug Policy Foundation.
- Routledge, L. (2017). *Substance abuse and psychological well-being of South African adolescents in an urban context*. UPSpace Institutional Repository. 2017. <http://hdl.handle.net/2263/26379>
- Roviš, D., Bezinović, P., & Bašić, J. (2015). Interactions of School Bonding, Disturbed Family Relationships, and Risk Behaviors Among Adolescents. *The Journal of School Health*, 85, 671–679. <https://doi.org/10.1111/josh.12296>
- Saing, C. H., Chhoun, P., Chann, N., et al. (2022). Sex under the influence of drugs among people who use drugs in Cambodia: Findings from a national survey. *Archives of Sexual Behavior*, 51, 1461–1470. <https://doi.org/10.1007/s10508-021-02243-x>
- SAMHSA. (2013b). *Treatment Episode Data Set (TEDS): 2001–2011. State admissions to substance abuse treatment services*. Rockville, MD: SAMHSA.
- Santibáñez R., Solabarrieta J., & Ruiz-Narezo M. (2020). School Well-Being and Drug Use in Adolescence. *Frontiers in Psychology*, 11
- Santucci, K. (2012). Psychiatric disease and drug abuse. *Curr Opin Pediatr.*, 24(2), 233-237. doi:10.1097/MOP.0b013e3283504fbf.
- Sauda, K. (2019). *Factors Influencing Substance abuse among Youth in Lamu County: A Case of Faza Ward- East Sub County*. Thesis, Kenya Methodist University
- Scarpelli, S., Bartolacci, C., D'Atri, A., Gorgoni, M., & De Gennaro, L. (2019). The Functional Role of Dreaming in Emotional Processes. *Frontiers in psychology*, 10, 459. <https://doi.org/10.3389/fpsyg.2019.00459>
- Schepis, T. S., & Krishnan-Sarin, S. (2008). Characterizing adolescent prescription misusers: a population-based study. *Journal of the American Academy of Child & Adolescent Psychiatry*, 47(7), 745-754.
- Schepis, T., & Krishnan-Sarin, S. (2018). Characterizing Adolescent Prescription Misusers: A Population-Based Study. *Journal of the American Academy of Child & Adolescent Psychiatry*, 47, 745–754. <https://doi.org/10.1097/CHI.0b013e318172ef01>

- Schifano, F., Chiappini, S., Corkery, J.M., & Guirguis, A. (2018). Abuse of Medications prescribed by a doctor in the Context of Novel Psychoactive Substances (NPS): A Systematic Review. *Brain Science*, 8(4), 73.
- Sharma, S., & Bal, L. (2014). Psychology of Craving. *Open Journal of Medical Psychology*, 4.
- Shehnaz, S.I., Khan, N., Sreedharan, J., & Arifulla, M. (2013). Drug knowledge of expatriate adolescents in the United Arab Emirates and their attitudes towards self-medication. *International Journal of Adolescent Medicine and Health*, 26(3), 423–431.
- Sordo, L., Barrio, G., Bravo, M. J., Indave, B. I., Degenhardt, L., Wiessing, L. & Pastor-Barriuso, R. (2017). Mortality risk during and after opioid substitution treatment: systematic review and meta-analysis of cohort studies. *bmj*, 357.
- South Africa's National Drug Master Plan 2006-2011 (NDMP) and Kenya's National Drug Abuse Control Policy 2011 (NDACP)
- Sproule, B.A., Busto, U.E., Somer, G., Romach, M. K., & Sellers, E. M. (1999). Characteristics of dependent and nondependent regular users of codeine. *Journal of Clinical Psychopharmacology*, 19(4), 367–372.
- Steinmann, B., Klug, H. J. P., & Maier, G. W. (2018). The Path Is the Goal: How Transformational Leaders Enhance Followers' Job Attitudes and Proactive Behaviour. *Frontiers in Psychology*, 9, 2338. <https://doi.org/10.3389/fpsyg.2018.02338>
- Sun J., Mehta S.H., Astemborski J., Piggott D.A., Genberg B.L., Woodson-Adu T., Benson E., , David T., Vlahov, D., & Kirk, G.D. (2021). Mortality among people who inject drugs: a prospective cohort followed over three decades in Baltimore, MD. *Wiley Online Library, USA*, 117(3), 646-655. DOI: 10.1111/add.15659
- Swendsen, J., Conway, K.P., Degenhardt, L., Glantz, M., Jin, R., & Merikangas, K.R., Sampson, N., & Kessler, R.C. (2019). *Mental disorders as risk factors for substance use, abuse, and dependence: results from the 10-year follow-up of the National Comorbidity*. *Addiction*, 105(6), 1117-1128.
- Tadayon Nabavi, R., & Bijandi, M. (2012). *Bandura's Social Learning Theory & Social Cognitive Learning Theory*. University of Science and Culture
- Tannenbaum C., Greaves L., & Graham ID. (2016). Why sex and gender matter in implementation research. *BMC Med Res Methodol*. 16(1):145. doi: 10.1186/s12874-016-0247-7. PMID: 27788671; PMCID: PMC5084413.
- Tariq, R.A., & Vashisht R., Sinha A. (2022). Medication Dispensing Errors and Prevention. [Updated 2022 Apr 4]. In: StatPearls [Internet]. *Treasure Island (FL): StatPearls Publishing*; Jan-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK519065/>
- Tham, S. W., Palermo, T. M., Chrisman, S., & Groenewald, C. B. (2021). Prescription Opioid Misuse and Sports-Related Concussion among High School Students in the United States. *The Journal of head trauma rehabilitation*, 36(5), 338–344. <https://doi.org/10.1097/HTR.0000000000000706>.
- Vallat, R., Chatard, B., Blagrove, M., & Ruby, P. (2017). Characteristics of the memory sources of dreams: a new version of the content-matching paradigm to take mundane and remote memories into account. *PLoS ONE*, 12, e0185262.
- Walker, E.R., Pratt, L.A., Schoenborn, C.A., & Druss, B.G. (2017). Excess mortality among people who report lifetime use of illegal drugs in the United States: A

- 20-year follow-up of a nationally representative survey. *Drug Alcohol Depend*, 171(1), 31–8.
- Whitesell, M., Bachand, A., Peel, J., & Brown, M. (2013). Familial, social, and individual factors contributing to risk for adolescent substance use. *Journal of Addiction*, 2013, 579310. <https://doi.org/10.1155/2013/579310>
- World Health Organization (WHO). (2001). *The world health report 2001: mental health: new understanding, new hope*. Geneva: World Health Organization.
- World Health Organization. (2023). *Global Status Report on Noncommunicable Diseases 2023*. World Health Organization.
- Wu, S., & Farmer, A. (2022). Risk and Protective Factors of Youth Prescription Drug Misuse: Variations across Racial/Ethnic Groups. *Child and Adolescent Social Work Journal*, 39, 499–514 <https://doi.org/10.1007/s10560-021-00752-1>
- Yang, X.Y., & Yang, T. (2017). Nonmedical prescription drug use among adults in their late twenties: the importance of social bonding trajectories. *Journal of Drug Issues*, 47 (4), 665-678.
- Zedler, B., Xie, L., Wang, L., Andrew, J., Vick, C., Kariburyo, F., Rajan, P., Baser, O., & Murrelle, L. (2014). Risk Factors for Serious Prescription Opioid-Related Toxicity or Overdose among Veterans Health Administration Patients. *Pain Medicine*, 15(11), 1911–1929.
- Zhao, et al. (2022). Risk Factors Associated with Social Media Addiction: An Exploratory Study. *Frontiers in Psychology* 13(1). 66-83DOI: 10.3389/fpsyg.2022.837766.
- Nyaga, J., Mwaura, P., Mutundu, K., Njeru, D., Juma, G., & Were, T. (2021). Socio-Economic and Health Consequences of Drugs and Substance Use in Gachie, A Peri-Urban Town on the Outskirts of Nairobi. *African Journal of Alcohol & Drug Abuse*: Volume 6

APPENDICES

APPENDIX I: INTRODUCTION LETTER

Dear respondent,

I am undertaking a Ph.D. study aimed at examining the relationship between awareness of addictive, psychosocial, and toxicity risk and abuse of medications prescribed by a doctor among adolescents in Nairobi County, Kenya.

Please participate in this study by responding to the research instruments. This study is for academic purposes only and the responses shall be handled confidentially. No identifying information shall be presented in the research findings.

Thank you in advance

Cecilia Mburu

APPENDIX II: STUDENTS' AND TEACHERS' QUESTIONNAIRE

Dear respondent,

I am undertaking a Ph.D. study aimed at examining the relationship between misuse of medications prescribed by a doctor risk awareness and the psychosocial wellness of students in government-funded high schools in Nairobi County, Kenya. Please participate in this study by filling in the blank spaces. This study is for academic purposes only and the responses shall be handled confidentially. No identifying information shall be presented in the research findings.

SECTION A: GENERAL INFORMATION

1. Sex: Male Female
2. How old are you? (Indicate in years)

For Students Only [omit in teachers' printed copy]

3. Who do you live with? Father & Mother Father Mother Sibling Guardian
Alone
4. Class: Form 1 Form 2 Form 3 Form 4

For Teachers Only [omit in students' printed copy]

3. How long have you taught in this school? Less than 1 years 2-5 years
6-10 More than 10 years
4. What is your level of the highest level of education?
Diploma Degree Post-Graduate Diploma PhD Other [Specify]

SECTION B: ABUSE OF MEDICATIONS PRESCRIBED BY A DOCTOR

5. Are there instances of prescription drug abuse among students in your school?
Yes No
6. If yes to question 5 above, which of the following medications prescribed by a doctor have you seen or heard about a student abusing? Please rate the level of use on the scale provided. 1=Never; 2=Once or twice; 3 Monthly, 4=Weekly; 5 = daily or almost daily.

Substances	Never	Once or Twice	Monthly	Weekly	Daily/Almost Daily
Pain relievers					
Tranquilizers					
Sedatives					
Stimulants					
Pain relievers					
Sleeping pills					

7. If yes to question 5, which of the following specific names of drugs have you seen or heard about a student abusing? Please rate the level of use on the scale provided. 1=Never; 2=Once or twice; 3 Monthly, 4=Weekly; 5 = daily or almost daily.

Substances	Never	Once or Twice	Monthly	Weekly	Daily/Almost Daily
Valium					
Panadol					
Artane					
Rohypnol					
Cozapam,					
Piriton					
Diclofenac					
Methadone					

**SECTION C: AWARENESS OF ADDICTIVE RISK OF ABUSE OF MEDICATIONS
PRESCRIBED BY A DOCTOR AND PSYCHOSOCIAL WELLNESS**

8. To what extent do you agree with the following statements regarding the possible addictive risk of prescription drugs? Rate in a scale of 1 to 5 (1-Not at all, 2-to a little extent, 3- to a moderate extent, 4-to a great extent, 5-to a very high extent)

Statements	1	2	3	4	5

i) Continued consumption of medications prescribed by a doctor makes students experience unpleasant side effects after consumption					
ii) Continued consumption of medications prescribed by a doctor can lead to tolerance (need to use high volumes of the drink to get intended feeling) among students					
iii) Continued consumption of medications prescribed by a doctor makes students experience physical and psychological withdrawals.					
iv) Consumption of medications prescribed by a doctor could make students lack the ability to control the use by suffering dependence syndrome					
v) Consumption of medications prescribed by a doctor could make students continue using them regardless of the harm experienced					
vi) Consumption of medications prescribed by a doctor could make one dependent and prone to drug comorbidities (possibility of abusing other substances)					

SECTION D: AWARENESS OF PHYSICAL DEPENDENCE RISK OF ABUSE OF MEDICATIONS PRESCRIBED BY A DOCTOR AND PSYCHOSOCIAL WELLNESS

9. To what extent do you agree with the following statements regarding the possible psychosocial risks of prescription drugs? Rate in a scale of 1 to 5 (1-Not at all, 2-to a little extent, 3- to a moderate extent, 4-to a great extent, 5-to a very high extent)

Statements	1	2	3	4	5
i) Continued consumption of medications prescribed by a doctor could make students experience increased irritability if they do not use them					

ii) Continued consumption of medications prescribed by a doctor can make students experience decreased appetite if they do not use them					
iii) Continued consumption of medications prescribed by a doctor could make students experience sleeplessness if they do not use them					
iv) Consumption of medications prescribed by a doctor could make students suffer dependence syndrome making them weak and inactive if they do not use them					
v) Abuse of medications prescribed by a doctor could make students experience strange dreams if they do not use them					
vi) Medications prescribed by a doctor make students have depressed mood if they do not use them					
vii) Medications prescribed by a doctor make students experience anxiety if they do not use them					
viii) Medications prescribed by a doctor can make students suffer physical withdrawal symptoms such as nausea, vomiting, diarrhea, seizures, hallucinations					

SECTION E: AWARENESS OF TOXICITY RISK OF ABUSE OF MEDICATIONS PRESCRIBED BY A DOCTOR AND PSYCHOSOCIAL WELLNESS

10. To what extent do you agree with the following statements regarding the possible toxicity/intoxication risks of prescription drugs? Rate in a scale of 1 to 5 (1-Not at all, 2-to a little extent, 3- to a moderate extent, 4-to a great extent, 5-to a very high extent)

STATEMENTS	1	2	3	4	5
i. Medications prescribed by a doctor lead to gastrointestinal systems problems (stomach-aches and other complications)					

ii. Medications prescribed by a doctor could lead to an increase in blood pressure					
iii. Consumption of medications prescribed by a doctor might lead to breathing (Cardiovascular) problems, heart attack, and even death in a student					
iv. Consumption of medications prescribed by a doctor might lead to seizures, hallucination, and agitations in a student					
v. Consumption of medications prescribed by a doctor might lead to physiological dependence on the drugs (being unable to work well without taking them)					
vi. Consumption of medications prescribed by a doctor might aggravate mental/psychiatric illnesses					
vii. Continued consumption of medications prescribed by a doctor increases the risk of addiction to other substances of abuse					

SECTION F: AWARENESS OF MORBIDITY RISK OF ABUSE OF MEDICATIONS PRESCRIBED BY A DOCTOR AND PSYCHOSOCIAL WELLNESS

11. To what extent do you agree with the following statements regarding possible morbidity risks of prescription drugs? Rate in a scale of 1 to 5 (1-Not at all, 2-to a little extent, 3- to a moderate extent, 4-to a great extent, 5-to a very high extent)

Statements	1	2	3	4	5
i) Consumption of medications prescribed by a doctor could lead to sudden heart attack and death					
ii) Continued consumption of medications prescribed by a doctor can lead to massive organ failure and terminal illnesses					
iii) Abuse of medications prescribed by a doctor could lead to poisoning and sudden death					

iv) Continued consumption of medications prescribed by a doctor could make one dizzy vulnerable to road accidents and other life-threatening hazards					
v) Abuse of medications prescribed by a doctor could lead to drug intolerance leading to death from simple illnesses					
vi) Abuse of medications prescribed by a doctor could make one faint and vulnerable to attacks by bandits/wild animals at night					
vii) Medications prescribed by a doctor could make one develop suicidal tendencies					

SECTION G: AWARENESS OF BEHAVIOURAL RISK OF ABUSE OF MEDICATIONS PRESCRIBED BY A DOCTOR AND PSYCHOSOCIAL WELLNESS

12. To what extent do you agree with the following statements regarding the possible behavioural risks of prescription drugs? Rate in a scale of 1 to 5 (1-Not at all, 2-to a little extent, 3- to a moderate extent, 4-to a great extent, 5-to a very high extent)

Statements	1	2	3	4	5
i) Students who abuse medications prescribed by a doctor could suffer from increased aggression or irritability					
ii) Medications prescribed by a doctor could lead to quarrelsome behaviour that could lead to fights					
iii) Continued consumption could lead to poor interpersonal relations with peers at school					
iv) Medications prescribed by a doctor could lead to trouble with parents and guardians					
v) Abuse of medications prescribed by a doctor could lead to indiscipline at school					

vi) Students who abuse medications prescribed by a doctor could start stealing to get money to purchase those drugs					
vii) Students who abuse medications prescribed by a doctor could get into risky sexual behaviours such as prostitution to get money to purchase those drugs					

SECTION I: PSYCHOSOCIAL WELLNESS

14. To what extent do you agree with the following statements regarding the psychological wellness of students who abuse prescription drugs? Rate in a scale of 1 to 5 (1-Not at all, 2-to a little extent, 3- to a moderate extent, 4-to a great extent, 5-to a very high extent)

STATEMENTS	1	2	3	4	5
Psychological Wellbeing					
i) Abuse of medications prescribed by a doctor could affect a student's purpose in life					
ii) Consumption of medications prescribed by a doctor reduces a student's self-esteem					
iii) I believe that consumption of medications prescribed by a doctor affects the level of a student's self-acceptance					
iv) Continued consumption of medications prescribed by a doctor could reduce a student's general quality of life.					
v) Consumption of medications prescribed by a doctor could affect a student's emotional balance leading to anxiety and irritations					
Sociological Wellbeing					
i) Consumption of medications prescribed by a doctor could affect the way a student relates with other students in school					

ii) Consumption of medications prescribed by a doctor could affect the way a student relates with teachers in school					
iii) Abuse of medications prescribed by a doctor affects a student's relationship with parents and siblings					
iv) Abuse of medications prescribed by a doctor may affect the way a student relates with others in the community					
v) Students who abuse medications prescribed by a doctor may not be active in community events					
vi) Students who abuse medications prescribed by a doctor may not socialize well with others in religious organizations					

THANK YOU

APPENDIX IV: AUTHORIZATION LETTERS



**OFFICE OF THE PRESIDENT
MINISTRY OF INTERIOR AND CO-ORDINATION OF NATIONAL GOVERNMENT
STATE DEPARTMENT FOR INTERIOR AND CITIZEN SERVICES**

Telegrams.....
Telephone: Nairobi 316845, 341666
When replying please quote

**COUNTY COMMISSIONER
NAIROBI COUNTY
P.O. BOX 30124-00100
NAIROBI**

REF NO. ED 10/6 VOL. XXVI(4)

DATE: 19th May, 2022


Cecilia Mburu
P.O. Box 143

RUIRU

RE: RESEARCH AUTHORIZATION

Your letter 19th May, 2022 refers.

This office has no objection and authority is hereby granted to conduct a Research on "Relationship between Misuse of Prescription Drugs Risk Awareness and Psychosocial Wellness of Students in Public Secondary Schools" in Nairobi County on condition that the laid down guidelines are strictly adhered to.

For

FLORA MWOROA
COUNTY COMMISSIONER
NAIROBI COUNTY

Copy to: All Deputy County Commissioners
NAIROBI COUNTY



Republic of Kenya

MINISTRY OF EDUCATION

STATE DEPARTMENT OF EARLY LEARNING AND BASIC EDUCATION

Telegrams: "SCHOOLING", Nairobi
Telephone; Nairobi 020 2453699
Email: rcenairobi@gmail.com
cdenairobi@gmail.com

REGIONAL DIRECTOR OF EDUCATION
NAIROBI REGION
NYAYO HOUSE
P.O. Box 74629 – 00200
NAIROBI

When replying please quote

Ref: RDE/NRB/RESEARCH/1/65 Vol.1

Date: 20th May, 2022

Ms. Cecilia Mburu
Maasai Mara University

RE: RESEARCH AUTHORIZATION

We are in receipt of a letter from the National Commission for Science, Technology and Innovation regarding research authorization in Nairobi County on the topic: **"Relationship Between Misuse of Prescription Drugs Risk Awareness and Psychosocial Wellness of Students in Public Secondary Schools in Nairobi County, KENYA."**

This office has no objection and authority is hereby granted for a period, ending **9th April, 2023** as indicated in the request letter.

DR. GLADYS MALONZA
FOR: REGIONAL DIRECTOR OF EDUCATION
NAIROBI.



Copy to: Director General/CEO
National Commission for Science, Technology and Innovation
NAIROBI.





Maasai Mara University

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30th March, 2022

RESEARCH PERMITS SECTION
NACOSTI
UTALII HOUSE

REF: CECILIA MBURU (REG. NO DE04/4006/2012)

We wish to confirm that the above named is a *bona fide* PhD student at Maasai Mara University pursuing PhD in Educational Psychology in the School of Education. Her proposed research is '*Relationship between misuse of prescription drugs risk awareness and psychosocial wellness of students in public secondary schools in Nairobi County, Kenya*'. She would like to apply for a research permit from NACOSTI before she can proceed for field work and data collection.

We further confirm that the candidate has adhered to all research protocol requirements of Maasai Mara University and the proposed research has been rated as having no known adverse impacts on the environment and does not pose any ethical concerns.

This is therefore to request your office to issue her with a research permit.

Faithfully yours,

R Abila

Prof. Romulus Abila, PhD.

DIRECTOR, BOARD OF POSTGRADUATE STUDIES

abila@mmarau.ac.ke, <https://orcid.org/0000-0001-8762-7153>

APPENDIX V: RESEARCH PERMIT



 REPUBLIC OF KENYA



NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

RefNo: 442086
Date of Issue: 09/April/2022

RESEARCH LICENSE



This is to Certify that Ms.. Cecilia Mburu of Maasai Mara University, has been licensed to conduct research in Nairobi on the topic: RELATIONSHIP BETWEEN MISUSE OF PRESCRIPTION DRUGS RISK AWARENESS AND PSYCHOSOCIAL WELLNESS OF STUDENTS IN PUBLIC SECONDARY SCHOOLS IN NAIROBI COUNTY, KENYA for the period ending : 09/April/2023:

License No: NACOSTI/P/22/16804

442086

Applicant Identification Number



Director General
NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

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APPENDIX VI: MAP OF STUDY AREA

