

DETERMINING THE PREVALENCE AND PERCEPTION OF STUDENTS ON DRUGS AND ALCOHOL ABUSE IN SELECTED SECONDARY SCHOOLS IN ADO-EKITI, EKITI STATE

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Abstract

This study investigate drug and alcohol substance use among secondary school students in Ado-Ekiti, Nigeria. This study used the non-experimental, descriptive research design with a questionnaire titled Questionnaire on Alcohol and Drug Use Among Secondary School Students (QADUSSS) as an investigative tool. The trial involved 300 randomly selected secondary school students whose mean age was 14.65 ± 2.33 years. The majorly high responders (65.3%) were in SSS1-3 with the majority of them spending below 1000 dollars a day. The socio-demographic profile showed that the most of respondents were the Yoruba ethnic group, and the corresponding rate of alcohol and smoking was 4.00% and 4.05%, respectively. From the study, it was apparent that 45.12 % of the respondents had moderate knowledge of drug and alcohol abuse. Peer pressure and trying out drugs were the major causes of disablement while the long-term consequences were mental disorders and financial burden to the parents and the country at large. Mainly the alcohol and drug dependence could be considered as consequences of the poor parent-child upbringing. The exam did not indicate an association between gender, age, and the awareness of misusing alcohol and drugs. On the hand, over one-fifth (22.48%) of respondents were not aware about alcohol and drug abuse. This research stresses the need to raise awareness about effective parenting like discussions often about upbringing of Godly children and lowering of divorce among married couples.

Introduction

The global issue of drug abuse presents significant challenges, impacting health, families, societies, and various aspects of life including education and careers (Gobir, 2018). Nigeria, particularly, has garnered attention as a hub for drug trafficking and usage, particularly among its youth population (Jatau, 2021). Despite decreasing rates of adolescent drug use, experimentation with drugs and alcohol remains prevalent, driven by various factors (NIDA, 2021). The pervasive nature of substance abuse necessitates multidisciplinary research efforts to understand its complexities and mitigate its harmful effects (Wing et al., 2020). Prevention and treatment are fundamental intervention strategies, focusing on raising awareness about substance misuse dangers and aiding individuals in achieving abstinence and preventing relapse (Poznyak, 2019). However, substance abuse continues to impose significant human, social, health, and economic costs globally,

emphasizing the urgency for comprehensive solutions (Wing et al., 2020). In Nigeria, as in many countries, adolescents are not immune to the allure of alcohol and drugs, with substantial percentages engaging in such behaviors (NIDA, 2017). The transition from being primarily a drug-consuming nation to a drug-producing one underscores the gravity of the situation (Akanbi, 2019). Alcohol, a widely consumed substance, carries significant health and societal burdens, contributing to various disorders and diseases (Geetanjali, 2016). Adolescence, marked by experimentation and risk-taking behaviors, including substance use, plays a crucial role in shaping identities and peer relationships (Akanbi, 2019). However, the misuse of substances among adolescents poses serious health and social risks, necessitating focused research and intervention efforts (Idowu et al., 2018). It is against this background that this seeks to determining the prevalence and perception of students on drugs and alcohol abuse in selected secondary schools in Ado-Ekiti, Ekiti State

Statement of the Problem

Alcohol consumption and drug abuse present alarming public health challenges globally, contributing to millions of deaths annually and a substantial burden of disease (Bowden et al., 2017). In Nigeria, despite existing laws and preventive measures, the prevalence of drug abuse remains high, compounded by its role in criminal activities and its impact on societal welfare (Jatau, 2021). The lack of comprehensive data on illicit drug users in Nigeria hinders effective intervention strategies, as does the early onset of substance abuse among students (Bashir, 2018). Adolescents are particularly vulnerable, with illicit drug use detrimentally affecting academic performance and posing significant health risks (Akanbi et al., 2015). Despite the gravity of the situation, research on substance abuse in Ado Ekiti, particularly among secondary school students, remains limited, highlighting the need for focused studies to understand the prevalence, knowledge, and perceptions of substance abuse in this population.

Objectives of the Study

The primary objective of this study is to gather comprehensive data on the prevalence, perceived causes, effects, and prevention methods related to illicit drug and substance abuse among youth in Ado-Ekiti. Specific objectives include investigating the prevalence of drugs and alcohol abuse, determining the knowledge level of secondary school students on alcohol and drug abuse, identifying perceived causes and consequences of substance abuse, and identifying preventive and control measures.

Hypotheses

The study formulates two hypotheses to be tested regarding the knowledge level and socio-demographic variables related to alcohol and drug abuse among secondary school students in Ado-Ekiti. The first hypothesis posits no significant difference in knowledge between male and female students, while the second hypothesis proposes no significant relationship between knowledge level and socio-demographic variables such as gender and age.

Theoretical Background and Literature Review

In this section, the discussion would focus on global prevalence of drug and alcohol abuse, central nervous system, types of substance commonly abuse, perception of citizen to abuse of drug and alcohol, cycle of addiction, effect of alcohol and drugs, consequences of alcohol and drug abuse, perceived benefits of alcohol and drug abuse, causes of alcohol and drug abuse, sources of information about alcohol and drug abuse, knowledge of teens on alcohol and drug abuse. Theoretical framework and its relevance would not be left.

Pathophysiology of Substance Abuse

Understanding the basis in studying the deranged function of organs/body systems in an individual following exposure to substance of abuse is of paramount importance. However, there are three important components in the pathophysiology of the disease: The nerve cell, neurotransmitters and receptors. Cellular communications within the brain take place between neurons. Abused/illicit drugs modify several parts of this communication between the neurons to exert their effects. Neurons are specific cells existing in different forms and sizes. They consist of four fundamental portions; the cell body, dendrites axon (nerve fibre) and axon terminals as seen in figure I

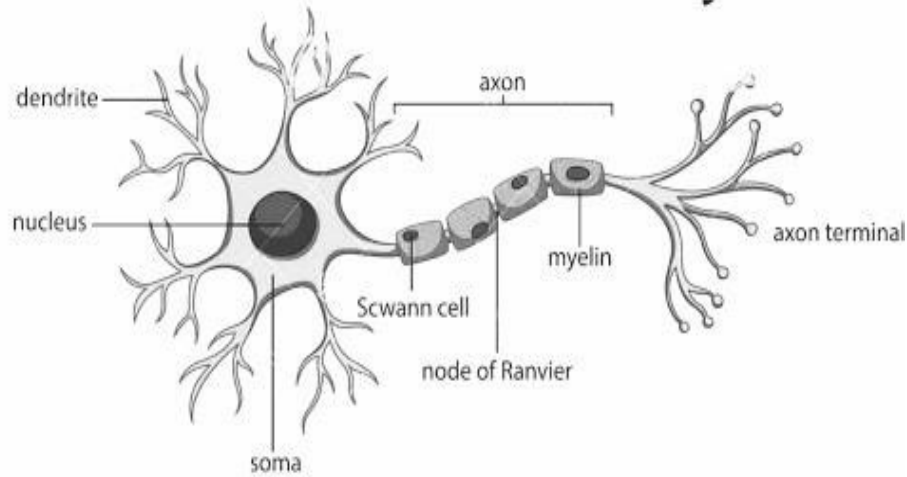


Figure 1: Structure of a Neuron
Source: (Debajani, 2016).

The transfer of the messages from the axon of one nerve cell to the dendrites of the next nerve cell is known as neurotransmission. Neurotransmitters are then released upon arrival of nerve impulses/action potential to the axon terminal. Neurotransmitters spread across the synaptic cleft to bind with specific receptors on the dendrite of the impulse receiving neuron that depicts the effect of the neurotransmitter. The neurotransmitter either stimulates or inhibits an electrical reaction in the receiving neuron. Approximately forty neurotransmitters are in the central nervous system. Substances of abuse/illicit drugs interfere with the release and reuptake of the neurotransmitters as well as their accessibility to the receptor binding sites (Debajani, 2016)

Neurotransmitters are chemical substances released into the synaptic cleft by one neuron and affect the function of another neuron in a particular fashion .for example; dopamine, serotonin, Gamma amino butyric acid (GABA), Norepinephrine, epinephrine, Acetylcholine, endogenous peptides like enkephalin etc. They are widely distributed within the Central Nervous System Geetanjali (2016).

Signs and symptoms of substance abuse

Physical and behavioural symptoms of substance abuse

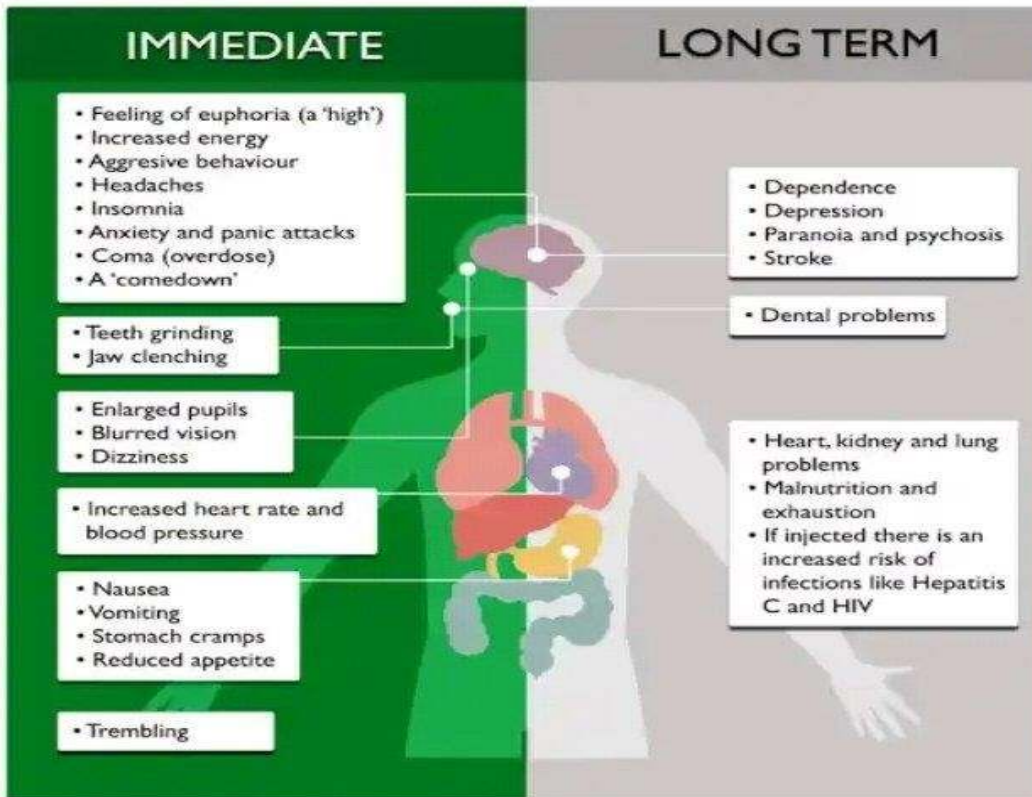


Figure 2: Signs and symptoms of substance abuse

Source: (Debajani, 2016)

Immediate and long term signs and symptoms include;

- Feeling of euphoria (a high)
- Increased energy
- Aggressive behaviour
- Headaches
- Insomnia
- Anxiety and panic attacks
- Coma (overdose)
- Teeth grinding
- Jaw clenching
- Enlarged pupils
- Blurred vision
- Dizziness

- Increased heart rate and blood pressure
- Nausea and vomiting
- Stomach cramps
- Reduced appetite
- Tremor
- Dependence
- Depression
- Paranoid and psychosis
- Stroke
- Dental problems
- Heart, Kidney and Lung problems
- Malnutrition and exhaustion

If injected, there is an increased risk of infections and HIV.

Types of Substances Commonly Abused

According to Okafor (2020), various substances are commonly abused in Nigeria, each with distinct effects and risks. Stimulants, such as those sourced from caffeine-containing products, directly stimulate the central nervous system, initially providing users with increased energy and alertness. Hallucinogens, like marijuana and similar substances, alter the brain's sensory processing, leading to distorted perceptions and a range of emotional experiences including anxiety, euphoria, and inner joy. Narcotics, including heroin, codeine, and opium, are known for their pain-relieving properties, ability to induce sleep, and high potential for addiction. Sedatives, like valium, alcohol, promethazine, and chloroform, are widely used and abused for their perceived stress-alleviating and relaxation-inducing effects.

Additionally, miscellaneous substances, such as volatile solvents or inhalants sourced from glues, spot removers, and perfumes, provide euphoria and distorted thoughts to users. Tranquilizers, including Librium and Valium, are often sought for their calming effects without causing drowsiness. Beyond these, other commonly abused drugs in Nigeria encompass bromazepam (Lexotan), cannabis, opiates, amphetamines, benzodiazepines (Valium), barbiturates, and Tramadol, as noted by Ikoh et al., (2019). Substance abuse, as highlighted by Samaila & Abdukadir

(2016), is associated with numerous problems including addiction, tolerance, dependence, accidents, and various behavioral and health-related issues such as suicidal attempts.

Cycle of Addiction

The American Society of Addiction Medicine defines addiction as a chronic brain disease that affects various cognitive functions including reward, pleasure, memory, and motivation. Addiction typically progresses through a series of stages, forming what is known as the cycle of addiction. These stages can unfold rapidly or over an extended period, sometimes spanning years.

Initial Use

The cycle begins with initial use, where individuals are introduced to alcohol or drugs for various reasons, such as pain relief, insomnia, peer influence, or medical prescription. This stage may evolve into regular substance use, often initiated by self-medication without professional guidance.

Abuse

Subsequent to initial use is the stage of substance abuse, characterized by recurrent and improper consumption aimed at achieving euphoric effects rather than therapeutic benefits. Abuse often arises when individuals self-administer drugs to address mental or physical issues without medical supervision.

Tolerance

Prolonged substance use can lead to tolerance, where the body adapts to the drug's presence, diminishing its initial effects. Tolerance prompts individuals to escalate their dosage or frequency of use in pursuit of the desired outcome, indicating physiological changes in response to the substance.

Dependence

As substance use persists, dependence may develop, wherein the body or brain relies on the substance to function normally. Dependence can manifest as a need for the drug beyond its intended medical use, potentially leading to addiction.

Addiction

Addiction represents the pinnacle of the cycle, characterized by a chronic mental health disorder marked by specific symptoms and behaviors. These include an inability to cease substance use, interpersonal conflicts arising from drug consumption, and neglect of important activities due to

substance prioritization. Addiction is diagnosed based on criteria such as craving, withdrawal symptoms upon cessation, and continued use despite adverse consequences.

Relapse

The cycle of addiction acknowledges that for some individuals, relapse or a return to drug use following attempts at cessation may occur. However, modern treatments aim to mitigate relapse through comprehensive intervention strategies. Similar to other chronic medical conditions, addiction treatment often involves managing relapse risks and promoting sustained recovery efforts.

Prevalence and Effect of Substance Abuse

Jatau (2021) reported a prevalence of 20-40% of drug use among students and 20.9% among youths in Nigeria. In Nigeria, one in seven persons (about 14.3 million) between age 5 and 64 had in the past used a drug and that among four persons using drugs, one is a woman. Generally, it is estimated that about 376, 000 Nigerians are high drug users with majority of these people are using opioids regularly. Southern geopolitical zones recorded the highest prevalence of drug use in the past ranging between 13.8% to 22,4% as compared to Northern zones with prevalence ranging between 10% to 13,6% (UNODC, 2018). According to Gabir (2018), the prevalence of drug abuse among youths in rural community in the northern part of Nigeria was 10% and that the drug mostly abused was tramadol with 52.8%. Ajayi and Somefun (2020) reported that 24.5% of the students studied had ever used drugs for recreational reasons while 17.5% are currently using drugs for recreation. According to Erin (2017), majority (91.3%) of the medical students studied reported alcohol consumption, together with alcohol, marijuana and tobacco were the most common drugs used. Anyawu et al. (2016) reported a prevalence of 32.9% for substance abuse among adolescents in secondary schools in Abakaliki with alcohol most commonly abused. Umukoro et al. (2021) also reported a prevalence of substance abuse to be 19.4% among secondary school students in Sapele, Nigeria.

Effects of Substance Abuse on Health

Substance abuse, particularly alcohol consumption, exerts a profound and multifaceted impact on both physical and mental health. Chronic and excessive alcohol intake is associated with a myriad of detrimental effects on various bodily systems, ranging from neurological complications to organ damage, and contributes to the development of numerous chronic diseases. Firstly, chronic alcohol

consumption leads to neurobiological changes and neurological complications. Ethanol, the active ingredient in alcoholic beverages, has a neurotoxic effect on the brain, leading to structural and functional alterations. The brain's delicate balance is disrupted, resulting in neuronal cell death, impaired neurotransmission, and alterations in synaptic plasticity. These changes contribute to cognitive deficits, memory impairment, and disordered thinking, ultimately manifesting as conditions such as dementia and cognitive decline (Harper et al., 2018).

Moreover, alcohol consumption exerts detrimental effects on the liver, resulting in a spectrum of liver diseases collectively known as alcoholic liver disease (ALD). ALD encompasses various pathological conditions, including fatty liver, alcoholic hepatitis, fibrosis, and cirrhosis. Chronic alcohol abuse leads to hepatic steatosis, characterized by the accumulation of fat within liver cells, which progresses to more severe forms of liver damage such as inflammation, fibrosis, and ultimately cirrhosis (Louvet et al., 2015). In addition to liver damage, chronic alcohol consumption increases the risk of developing pancreatitis, an inflammatory condition of the pancreas. Alcohol-induced pancreatitis can be acute or chronic and is characterized by abdominal pain, nausea, vomiting, and pancreatic dysfunction. The mechanisms underlying alcohol-induced pancreatitis involve oxidative stress, inflammation, and acinar cell injury, leading to pancreatic damage and dysfunction (Pitchumoni et. al, 2020).

Furthermore, alcohol abuse has profound effects on the cardiovascular system, increasing the risk of cardiovascular diseases such as hypertension, cardiomyopathy, and arrhythmias. Excessive alcohol intake disrupts normal cardiac function, leading to structural and functional abnormalities in the heart muscle. Chronic alcohol consumption also contributes to the development of atherosclerosis, a buildup of fatty deposits in the arteries, increasing the risk of heart attacks and strokes (Rehm et al., 2017). Moreover, alcohol consumption is a well-established risk factor for various cancers, particularly those of the digestive system. Chronic alcohol abuse increases the risk of developing cancers of the esophagus, stomach, liver, colon, and pancreas. Alcohol exerts carcinogenic effects through multiple mechanisms, including the production of acetaldehyde, oxidative stress, and the disruption of DNA repair mechanisms, ultimately promoting tumor growth and progression (Shield et al., 2020).

Additionally, chronic alcohol consumption adversely affects sexual and reproductive health, leading to sexual dysfunction and infertility in both men and women. Alcohol disrupts hormonal balance, impairs reproductive function, and contributes to conditions such as erectile dysfunction, reduced libido, menstrual irregularities, and impaired fertility. Moreover, prenatal alcohol exposure poses significant risks to fetal development, leading to a range of adverse outcomes collectively known as fetal alcohol spectrum disorders (FASDs) (Emanuele et al., 2018). In conclusion, chronic substance abuse, particularly alcohol consumption, exerts a wide range of detrimental effects on physical and mental health. From neurological complications and liver damage to increased risk of cardiovascular diseases and cancer, the consequences of substance abuse are far-reaching and multifaceted. It is imperative to address substance abuse through comprehensive prevention and intervention strategies to mitigate its devastating impact on individuals and society as a whole.

Consequences of Substance Abuse

Substance abuse, particularly alcohol consumption, has significant repercussions on both physical and mental health, leading to a range of adverse effects on various bodily systems.

Chronic and excessive alcohol consumption inflicts considerable damage on the brain, precipitating neurobiological changes that result in neurobehavioral alterations. Ethanol, the primary component of alcoholic beverages, initiates a cascade of detrimental effects, primarily mediated through the formation of acetaldehyde, a metabolite of ethanol. Acetaldehyde is implicated in damaging neuronal health and precipitating behavioral disorders associated with alcoholism. Moreover, alcohol exerts deleterious effects on astrocytes, specialized glial cells that play a pivotal role in maintaining central nervous system (CNS) homeostasis. Ethanol-induced astroglial activation and upregulation of pro-inflammatory cytokines contribute to neuroinflammation, neurodegeneration, and hindered brain development, exacerbating the neuropathological consequences of alcohol abuse (Attal et al., 2010). Furthermore, chronic alcoholism disrupts neurotransmitter systems, particularly targeting the N-methyl-D-aspartate receptor (NMDAR) in the brain. The interaction of ethanol with NMDAR leads to ethanol tolerance, dependence, withdrawal symptoms, and craving, contributing to cognitive deficits and neuronal loss observed in individuals with alcohol use disorder (Harris et al., 2008). Additionally, alcohol abuse significantly increases the risk of developing various chronic diseases and conditions, as evidenced by the International Classification of Disease (ICD)-10 codes attributable to alcohol-related pathologies. These include

tumors, cancers of the upper and lower digestive tracts, cardiovascular diseases, digestive disorders, and neuropsychiatric conditions (Rehm et al., 2017). Alcoholic liver disease (ALD) represents a spectrum of liver pathologies associated with chronic alcohol consumption, ranging from fatty liver to alcoholic hepatitis and cirrhosis. Ethanol metabolism in the liver generates toxic byproducts such as acetaldehyde and free radicals, which contribute to hepatic inflammation, fibrosis, and ultimately liver damage (Seitz and Stickel, 2007).

Moreover, alcohol abuse exacerbates pancreatic problems, increasing the risk of acute and chronic pancreatitis, particularly when combined with smoking. Alcohol-induced pancreatitis results from oxidative stress and inflammation in the pancreas, leading to tissue damage and dysfunction (Yadav and Pitchumoni, 2019). Furthermore, chronic alcohol consumption adversely affects sexual and reproductive health, leading to sexual dysfunction and infertility in both men and women. Alcohol disrupts hormonal balance, impairs reproductive function, and contributes to conditions such as erectile dysfunction, reduced libido, menstrual irregularities, and impaired fertility (Emanuele et al., 2018). In conclusion, substance abuse, particularly alcohol consumption, exacts a heavy toll on physical and mental well-being, precipitating a multitude of adverse health effects. From neurological complications and liver damage to sexual dysfunction and infertility, the consequences of substance abuse underscore the urgent need for comprehensive prevention and intervention strategies to mitigate its devastating impact on individuals and society.

Causes of Substance Abuse

The ten reasons why teenagers indulged in substance abuse were hierarchically discussed by Okafor (2020). The most prominent reason which was needed to cope with academic challenges faced in schools. Ignorance about dangers inherent in drug abuse and societal acceptances of some drugs for instance alcohol, “opaehin”, “jedi” in different sachets and containers. Experience of parents on drug use and abuse and the need to cope with academic challenges were fourth and fifth respectively. Peer group influence and lack of good parental care were also fingered to be responsible for abuse of alcohol and drug among secondary school students. Desire to feel popular among colleagues was found to be number eight position. Every child wants to be accorded with respect among his/her mates and desire to be recognized. If it is too much it could lead to alcoholism and drug addiction. High level of poverty and lack of good parental care may look alike but they are not exactly the same thing. A parent may be economical stable and yet fails in parenting but

extreme poverty could make the child to be vulnerable to abuse of both alcohol and drug, this was however formed ninth position. The last reason according to Okafor (2020) was influence of electronic media (Television and Radio) and social media (Facebook, Instagram, Visit, Hangout and the rest).

Idowu et al. (2020) also identified experimental curiosity, peer pressure, poor socio- economic conditions and the need for additional energy to perform daily activities as some of the factors responsible for alcohol and substance abuse. Personality theory explains that some individuals who abused drugs have low self-esteem and poor impulse control which makes them to be at higher risks of substance abuse.

Knowledge and Sources of Information on Substance Abuse

Salazar et al. (2018) reported that about two-third (66.5%) of the university students studied had low knowledge of alcohol and drug abuse. According to Gotsang et al. (2020), most children are aware of substance use and abuse and the major sources of information are shown in Table below. Television was the most common source of information mentioned 157(75.8%) followed by printed media 107(51.7%). Information from friends and peers was listed by 21 (10.1%). Children were asked whether the schools have programmes to prevent substance abuse, 83(40.1%) said schools have such programmes while the majority 124(59.9%) said no specific and targeted programmes for preventing drugs and substance abuse exist at their schools (Gotsang et al., 2020).

Table 2.1: Sources of awareness of substance abuse among teenagers

S/N	Sources	Total
1	School	33
2	Television	157
3	Newspapers	107
4	Internet	32
5	Friend/Peer	21

Source: Gotsang et al., (2017).

Socio-Demographic Variables

Gotsang et al. (2017) tabulated the socio-demographic variable of school going adolescents in Ramostswa in Bostwana on their perception substance abuse. The sample size use was 207 with 109(52.7%) males and 98(47.3%) females. Their religions were Christianity 201 (97.1%), and African traditional belief 6(2.9%). The education grades were standard 6, standard 7, form 1, form2, form3, form4 and form5 with number and percent of 14(6.8%), 97(46.9%), 21(10.1%), 19(9.2%), 17(8.2%), 1(0.5%) and 38(18.4%) respectively.

Benefits of Substance Abuse

Control and Preventive Measures of Substance Abuse

According to Ikoh et al. (2020), substance abuse serves not only as a means of escapism from feelings of depression or isolation but also presents an alternative lifestyle that is perceived as more lucrative, prestigious, and exhilarating than conventional options. Many individuals who abuse drugs may be driven by a desire for a sense of purpose, belonging to a community, and excitement. Additionally, drug users often report experiencing self-satisfaction, feelings of security, and personal enhancement as benefits of their behavior. In such cases, the perceived advantages of substance abuse outweigh the associated costs, leading users to prioritize acquiring drugs at any cost. To address the challenges posed by substance abuse, concerted efforts should focus on early detection, raising awareness, and implementing preventive measures, as well as routinely monitoring the health data of adolescents. Given the significant impact of substance abuse on young individuals, it is imperative to identify and implement effective interventions aimed at enhancing social skills, problem-solving abilities, and self-confidence. Standardized screening tools are available to identify adolescents at high risk, as outlined by publications from the American Academy of Pediatrics and the National Institute on Alcohol Abuse and Alcoholism. School-based surveys play a crucial role in monitoring health-related behaviors among adolescents at the national level. Prevention efforts should target modifiable risk factors and bolster protective factors through collaborative initiatives involving families, schools, and communities. Various prevention programs can be implemented across different platforms, including schools, communities, and healthcare systems, with the overarching goal of identifying cases and providing referrals for treatment or risk reduction (Jai et al., 2016).

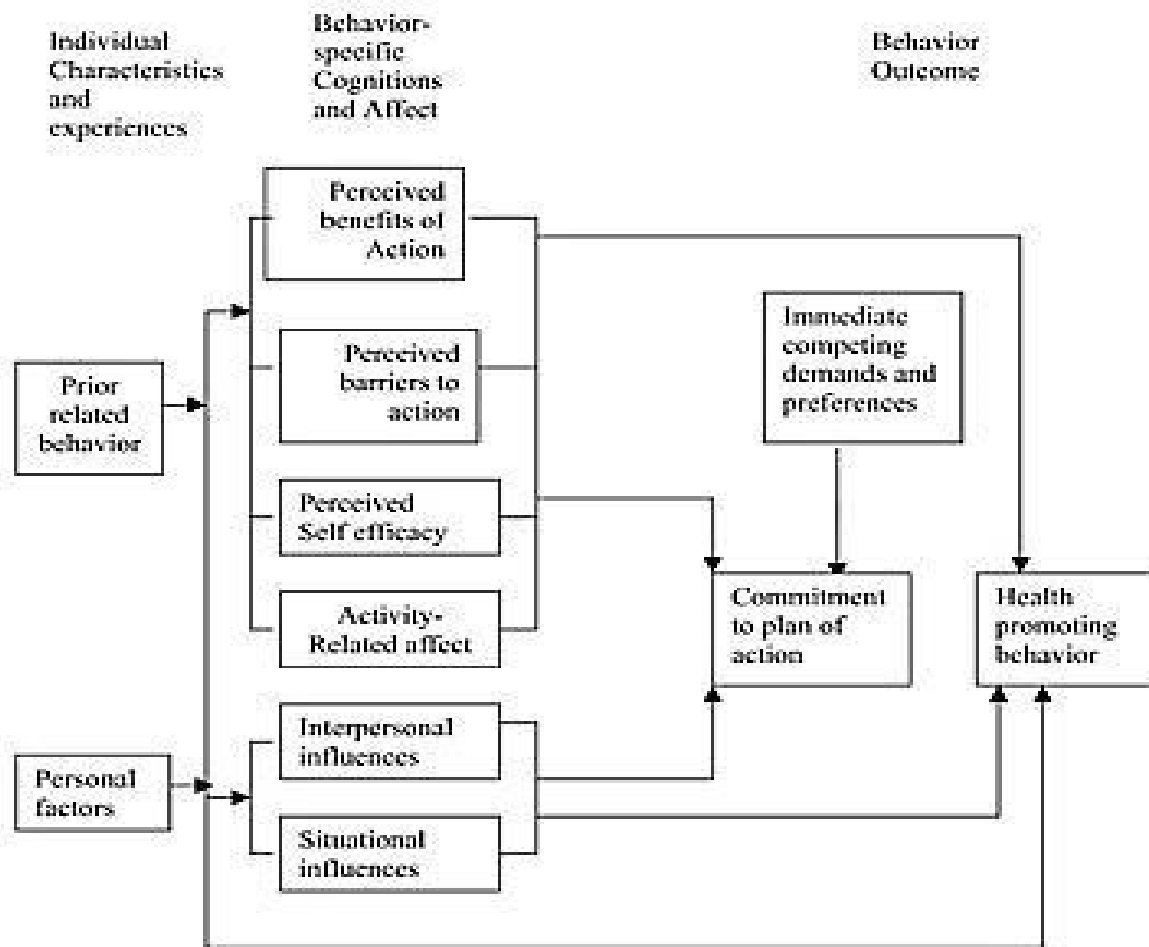


Figure 4: Diagrammatical Illustration of Health Promotion Model by Nola Pender

Source: Pearson and Pender, (2018).

Health promotion: Is defined as a behaviour motivated by desire to increase wellbeing and actualize human health potentials. It is an approach to wellness.

Interpersonal influences: This involves cognitive behaviour, beliefs or attitudes of others that motivate an individual to engage in the health behaviour.

Perceived barrier to action: They include anticipated, imagined hindrances and personal costs that interfere with health behaviour.

Perceived self-efficacy: This involves judgment of personal capacity to organize and execute a health promoting behaviour, for instance; confidence in one's ability to action. It is influenced by interpersonal influences and turn influences expectation.

Situational influence: This refers to the personal perception and cognition of any given situation or context that can facilitate or impede behaviour; include perceptions of options available, demand characteristics and aesthetic features of the environment in which given health promoting is proposed to take place. Situational influences may have direct or indirect influences on health behaviour.

Activity related affect: This refers to subjective positive or negative feeling that occur before, during and following behaviour based on stimulus properties of the behaviour itself.

Application of the Theory to the Study

Perceived Benefit of Action: A motivation to take action to change behaviour requires a belief that precautions taken will effectively suit the condition. A teenager may take to drugs and alcohol if convinced by friends that it is rewardable and worth experimenting or as a result of peer pressure.

Perceived Barrier of Action: These are factors that prevent an individual from executing the health promoting behaviour. This includes personal factors such as home training, religion teaching, punishment attached to drug abuse, poverty, absent parents, peer group among others.

Perceived Self-Efficacy: This depends on how a teenager perceives self and how the teenager wants others to see him/her. That is, believes and abilities of a secondary school student to take some decisions based on personality and self-acclaimed status.

Interpersonal influences: This is the interaction between the teenagers' school and home environment; these could be the teenager and peers; teenagers and school authority, teenagers and senior colleagues and so on. All these could influence decision and practice of teenagers towards abuse of drug and alcohol.

Situational Influence: This gives an explanation of what the students perceives about her susceptibility to, severity of, cost of treatment if sick, which affect its perception to alcohol and drug abuse in secondary school in Ado Ekiti.

The health belief model would be applied in this study to assess perceived benefit of action, perceived consequences of action and perceived barrier of action.

METHODOLOGY

A non-experimental, descriptive research design of a cross sectional type was adopted. Cross sectional type offers an opportunity to study the subjects at different location in their natural setting. The population comprised all selected secondary school students in public schools in Ado metropolis. A of sample size of 321 was selected using modified Fischer's formula

A 3-stage multi sampling procedure was used to obtain the sample. Three political wards in Ado Ekiti were selected using simple random sampling technique in first stage. In stage two, purposive sampling technique was used to select two secondary schools in each electoral ward making six secondary schools altogether. A purposive sampling technique was used in stage two so that only grade I schools were selected. The stratified proportional sampling technique was used in stage three to select at least 50 secondary school students from each school earmarked for this study.

Inclusion criteria

The inclusion criteria for this study include,

- ✓ Being a registered student in a secondary school in Ado Local Government Area.
- ✓ Residing in any part of Ado Ekiti.
- ✓ Those that volunteered to participate and with informed consent.

Exclusion criteria

Exclusion criteria are characteristics that could affect the outcome of the study. The following students will be excluded:

- ✓ Those who are physically or mentally handicapped which could affect their ability to respond.
- ✓ Those that have low readability skill
- ✓ Those outside the selected electoral wards in Ado Ekiti
- ✓ Truants and deviant students.

The instrument for data collection was a questionnaire, the questionnaire was tagged Alcohol and Drug Use among Secondary School Students (ADUSSS). The instrument was validated by experts in the departments of Nursing and Sociology of both Afe Babalola University Ado Ekiti (ABUAD) and Ekiti State University Ado Ekiti (EKSU). Construct validity was also carried out. The stability of the instrument was achieved using test-retest method, the instrument was administered on the same set of 20 students twice in Amoye Grammar School in Ikere Ekiti who are not part of the target population within two weeks' interval. The correlation coefficient was determined using Pearson Product Moment Correlation, the coefficient value of 0.88 was obtained which attested that the instrument was reliable. The data collected for the study was analysed using descriptive statistics including frequency, percentages and table, measures of central tendencies (mean) and dispersions (standard deviation) and inferential statistics involving Chi

square and student t-test at significant level of 0.05 was used to determine the relationship and difference between categorical variables respectively.

RESULTS

The questionnaires administered to three hundred and twenty-one (321) secondary school students in Ado Local Government Area. Descriptive and inferential statistics were used to analyze the gathered data. The participants were selected using multi-stage sampling technique. Tables were used to present the data analysis that answered the research questions and tested the hypotheses. A response rate of 100% (321) was achieved for the study since all the copies of questionnaire were retrieved.

Socio-Demographic Characteristics of Respondents

Table 1: Participants' Demographic Data

Variables		Frequency	Percent
Sex	Male	170	52.7
	Female	151	47.3
Age	10-13years	91	28.4
	14-17years	215	66.9
	18-21years	9	2.8
	22 and above	6	1.9
	Total	321	100.0
Mean Age		14.62 ±2.33	
Marital status	Single	281	87.4
	Married	35	10.9
	others	5	1.7
	Total	321	100.0
Religion	Christianity	286	88.5
	Islam	25	7.7
	Traditional	10	3.8
	Total	321	100.0
Class	JSS1-3	86	26.6
	SSS1-3	235	72.8
	Total	321	100.0
Daily money pocket	Less #1000	211	65.7
	#1000 - #2000	66	20.5
	Above #2000	44	13.8
	Total	321	100.0

Parent economic status (personal assessment)	Poor	47	14.6
	Average	130	40.2
	Rich	114	35.5
	Very rich	30	9.3
	Total	321	100.0
Tribe	Yoruba	283	87.6
	Hausa	14	4.3
	Igbo	21	6.5
	Others	3	0.9
	Total	321	100

Source: Field Survey, (2022)

Table 1 showed the socio demographic characteristics of the 321 participants with the mean 14.65 ± 2.33 years. Respondents within 14-17 years were 66.6% of age while 10.8% respondents fall between the ages of 18-21 years. It was revealed that 7.7% were married, 88.5% were Christians. Few respondents (26.6%) were in JSS1-3 while more than half of the participants (72.8%) were in SSS1-3. Majority of the respondents (65.3%) spent less than #1,000 daily. By the respondents' assessment of parents economic status; 14.6% agreed that their parents were poor; 40.2% ticked average economic status for their children while 35.3% and 9.3% indicated rich and very status respectively and over four-fifth (87.62%) were of Yoruba tribe

Research Question: What is the prevalence of drugs and alcohol abuse among secondary school students in Ado Ekiti?

Table 2: Prevalence of drugs and alcohol abuse among secondary school students in Ado Ekiti

Drinking status	Frequency	%
Non-drinker	217	67.2
Occasional drinker	58	18
Light drinker	24	7.4
Party drinker	9	2.8
Heavy drinker	13	4.0*
Total	321	100.0
Smoking Status	Frequency	%
Non-smoker	267	82.7
Occasional smoker	23	7.1

Light smoker	14	4.3
Party smoker	4	1.2
Heavy smoker	13	4.05*
Total	321	100.0

Source: Field Survey, (2022)

In Table 2, majority of the respondents (67.2%) were non-drinkers, 18% were occasional drinker, (7.4%) were light consumers of alcohol, (2.8%) only drink alcohol when there is a party while the prevalence of alcohol consumption among secondary school student found to (4.0%). (82.7%) of the participants were non- smokers, (7.1%) smoke once in a while, (4.3%) were light smoker while 1.2% only smoke when there is a party, the prevalence of smoking was found among heavy smokers which was discovered to be (4.05%).

Research Question 2: What is the knowledge level of secondary school students in Ado-Ekiti on alcohol and drug abuse?

Table 3: knowledge level of secondary school students in Ado-Ekiti

Score	Freq	Percent	Knowledge level(%)	Mean	S.D	Range
0.00	6	1.86	Poor knowledge (22.48%)	6.22	2.22	16.00
1.00	26	8.09				
2.00	4	1.25				
3.00	2	0.62				
4.00	5	1.56				
5.00	12	3.74				
6.00	14	4.36				
7.00	21	6.54	Fair knowledge (46.12%)			
8.00	31	9.66				
9.00	50	15.58				
10.0	46	14.33				
11.0	44	13.71	Good knowledge (32.40%)			
12.0	38	11.84				
13.0	12	3.74				
14.0	7	2.18				
15.0	2	0.62				
16.0	1	0.31				
Total	321	100.0				

Source: Field Survey, (2022).

As shown in Table 3 the mean knowledge score was 6.22. Respondents with poor knowledge of alcohol and drug abuse were 22.48% while respondents with fair knowledge and good knowledge were 45.12% and 32.4% respectively. About one- third of the respondents 90(28.04%) scored below average.

Research Question 3: What are the causes of alcohol and drug abuse among secondary school students in Ado-Ekiti?

Table 4: The causes of alcohol and drug abuse among secondary school students

S/N	Variables	SA (1)	A (2)	D (3)	SD(4)	Mean±SD	REM
26	Persuasion from friends called peerpressure	168	96	23	27	1.73±1.04	C
27	For enjoyment	89	117	34	66	2.25±1.09	C
28	To find out what's the big deal in it(experimenting)	103	108	45	55	2.16±1.07	C
29	To calm one's nerves (head)	97	89	61	90	2.39±1.13	C
30	Readily available in my area	98	94	61	90	2.41±1.16	C
31	Relatives also indulge (partake) in it	95	92	49	75	2.56±1.13	NAC
32	Poverty	82	85	67	87	2.54±1.14	NAC
33	Parental failure/divorce	105	92	49	75	2.34±1.14	C
34	To become a celebrity like those on social media	93	94	70	64	2.35±1.09	C
35	For boldness and confidence	100	102	44	65	2.23±1.11	C
36	To be recognized by mates/friends	95	98	47	74	2.31±1.14	C

N = 321, C = cause, NAC= Not A Cause, Expected Mean= 2.50

Source: Field Survey, (2022).

Table 4 indicated causes of alcohol and drug abuse among secondary school students in Ado Ekiti. It was revealed that relatives' indulgence and poverty with mean and standard deviation values of 2.56 ± 1.13 and 2.54 ± 1.14 respectively were not responsible for students alcohol and drug abuse. While items 26, 27, 28, 29, 30, 33, 34, 35 and 36 were responsible for alcohol and drug abuse among secondary school students.

Research Question 4: What are the perceived consequences of alcohol and drug abuse among secondary school students in Ado-Ekiti?

Table 5: Perceived Consequences of alcohol and drug abuse among secondary school students

Variables	SA	A	D	SD	Mean±SD	REM
Poor health	162	82	28	49	1.92±1.09	O
Aggressive behavior	164	85	33	39	1.87±1.04	O
Loss of future ambition	173	58	42	48	1.93±1.13	O
It leads to criminal act	175	72	25	49	1.86±1.11	O
Loss of personal integrity and respect	179	79	25	39	1.86±1.55	O
Loss of hope and anxiety by parents/guardian	159	88	31	43	1.91±1.06	O
Dropout of school	173	74	25	49	1.88±1.10	O
Psychiatric problem	172	84	22	43	1.83±1.06	O
A colossal waste to the parents and the nation at large	169	86	27	39	1.85±1.05	O

N=321, O=Outcome, Expected Mean=2.5

Source: Field Survey, (2022).

Table 5 revealed consequences of alcohol and drug abuse among secondary school students in Ado local government area. All the perceived consequences were affirmed to be the outcome of alcohol

and drug abuse. Poor health (1.92 ± 1.09), aggressive behaviour (1.87 ± 1.04), Loss of future ambition (1.93 ± 1.13), It leads to criminal act (1.86 ± 1.11), Loss of personal integrity and respect (1.86 ± 1.55), Loss of hope and anxiety by parents/guardian (1.91 ± 1.06), Dropout of school (1.88 ± 1.10), Psychiatric problem (1.83 ± 1.06), and A colossal waste to the parents and the nation at large (1.85 ± 1.05).

Research Question 5: What are the perceived preventive and control measures to alcohol and drug abuse among secondary school students in Ado-Ekiti?

Table 6: The perceived preventive and control measures to alcohol and drug abuse

Variables	SA	A	D	SD	Mean±SD	REM
Outright ban on alcohol and illicit drug	188	80	22	31	1.71±0.98	GM
Good parental child upbringing should encouraged	191	93	14	23	1.62±0.88	GM
Severe punishment for abusers and sellers	180	83	26	32	1.76±0.99	GM
Provide extra curricula activities in the schools	187	67	30	37	1.81±1.02	GM
Provision of recreation centres in the community devoid of alcohol and illicit drugs.	187	67	30	37	1.79±1.05	GM

N=321, G.M= Good measure, Expected mean

Source: Field Survey, (2022).

In Table 6, all the perceived preventive and control measure were found out to be good measure to curb alcohol and drug abuse. Outright ban on alcohol and illicit drug; good parental child upbringing should be encouraged; severe punishment for abusers and sellers; provide extra curricula activities in the schools and provision of recreation centres in the community devoid of alcohol and illicit drugs with mean and standard values of 1.71 ± 0.98 , 1.62 ± 0.88 , 1.76 ± 0.99 , 1.81 ± 1.02 and 1.79 ± 1.05 respectively.

Testing of Hypotheses

Hypothesis 1: There is no significant difference between the knowledge level of male and female students in secondary schools in Ado Ekiti drug and alcohol abuse

Table 7: Difference between mean scores of male and female students

Sex	N	Mean	SD	Df	T	P
Male	170	9.18	7.917	319	0.947	0.270
Female	151	8.54	3.422			

The mean and standard deviation for males were 9.18 and 7.917 respectively. Similarly, the mean and standard deviation for females were 8.54 and 3.422 respectively. The t-test value equal to 0.947, the alpha value (0.05) was less than 0.270, it was not significant, and therefore, hypothesis was not rejected. It implies that the sexes of the students don't determine level of knowledge on alcohol and drug abuse (Table 7).

Hypothesis 2: There is no significant relationship between knowledge level on alcohol and drug abuse and socio-demographic variable (sex, age) of students in secondary school in Ado Ekiti.

Table 8: Relationship between knowledge level and socio-demographic variables

Variables	Knowledge				df	χ^2	p
	Poor	Fair	Good	Total			
Age							
10-13	18	40	33	91	6	10.52	0.104
14-17	46	101	68	215			
18-21	5	2	2	9			
22and above	0	5	1	6			
Total	69	148	104	321			
Sex							
Male	40	72	58	170	2	2.129	0.345
Female	29	76	46	151			
Total	69	148	104	321			

Table 8 indicated that relationship between the respondents' age brackets and knowledge of alcohol and drug abuse was not significant with value of 0.104 which was greater than the alpha value of 0.05, where the $\chi^2_{cal} = 10.54$, with degree of freedom (df) of 6. The null hypothesis that stated that there is no significant relationship between the respondents' socio-demographic factor (age) and level of knowledge of alcohol and drug was therefore not rejected. It implies that the age of the respondents was not a function of knowledge of alcohol and drug abuse.

Similarly, in the same Table 8, it was revealed that relationship between the respondents' sex and knowledge level of alcohol and drug abuse was not significant with value of 0.345 which was greater than the alpha value of 0.05, where the $\chi^2_{cal} = 2.129$, with degree of freedom (df) of 2. The null hypothesis which stated that there is no significant relationship between socio-demographic factor (sex) of secondary school students and level of knowledge of alcohol and drug abuse was therefore not rejected. It implies that the level of sex of secondary school students in Ado-Ekiti didn't reflect on knowledge of abuse.

Discussion of Findings

The prevalence of drug and alcohol abuse among students in Ado Ekiti was explored in comparison to existing literature. Jatau (2021) reported varying prevalence rates of drug use among Nigerian students and youths, with the southern geopolitical zones exhibiting higher prevalence rates than the northern zones. Similarly, Ajayi and Somefun (2020) highlighted the prevalence of drug use for recreational purposes among students, while Anyawu et al. (2016) and Umukoro et al. (2021) reported specific prevalence rates of substance abuse among adolescents in different Nigerian regions. However, the findings of the current study revealed a notably lower prevalence of drugs and alcohol abuse (4.0% and 4.05%, respectively) among students in Ado Ekiti. This discrepancy may be attributed to factors such as effective parental training, limited availability of substances, socio-cultural background, and the prioritization of education in Ekiti State.

Respondents' Knowledge Level

The study assessed respondents' knowledge level regarding alcohol and drug abuse, revealing a mean score of 6.22. The majority of respondents demonstrated fair to good knowledge (77.52%), which contrasts with findings from Salazar et al. (2018), who reported a higher prevalence of low knowledge among university students. However, the results align with Gotsang et al. (2020), indicating widespread awareness of substance use and abuse among children.

Causes of Alcohol and Drug Abuse among Secondary School Students

Factors contributing to alcohol and drug abuse among secondary school students in Ado Ekiti were identified, including peer influence, academic challenges, and lack of parental care, consistent with findings by Okafor (2020) and Idowu et al. (2020). However, conflicting results regarding poverty and relatives' influence were observed compared to previous studies.

Perceived Consequences of Alcohol and Drug Abuse

Participants acknowledged various consequences of alcohol and drug abuse, including poor health, aggressive behavior, academic decline, and social alienation. These findings correspond to those reported by Ikoh et al. (2020) and Erin (2020), highlighting the multifaceted impact of substance abuse on individuals' lives.

Perceived Preventive and Control Measures to Alcohol and Drug Abuse

Various preventive and control measures were identified, such as banning alcohol and illicit drugs, promoting good parental upbringing, imposing strict penalties for abusers and sellers, and providing recreational alternatives. These measures mirror interventions recommended by Jai et al. (2016) and underscore the importance of multi-level strategies to address substance abuse effectively.

Significant Difference between the Mean Scores of Male Students and Female Students

The study found no significant difference in knowledge levels between male and female students, contrasting with Akanbi et al. (2015), who reported gender disparities in academic performance among substance-abusing students. However, results from Haddad et al. (2020) supported the notion of widespread knowledge among students of both sexes regarding substance abuse.

Relationship between Respondents' Age and Gender with Respect to Knowledge Level

No significant relationship was observed between respondents' age or gender and knowledge level regarding alcohol and drug abuse, consistent with findings by Haddad et al. (2020). However, associations between adolescents' knowledge and socio-demographic variables such as age, class, and parents' occupation were found to be significant by Debajani (2016), contrasting with the current study's findings.

In summary, this study provides valuable insights into the prevalence, causes, consequences, and preventive measures of alcohol and drug abuse among secondary school students in Ado Ekiti, Nigeria. The findings underscore the need for comprehensive interventions targeting multiple levels of influence to mitigate the adverse effects of substance abuse on respondents.

Conclusion and Recommendations

The research effectively assessed the prevalence, knowledge, perceived causes, consequences, and preventive measures of alcohol and drug abuse among secondary school students in Ado Ekiti, Ekiti State. The study identified factors contributing to substance abuse, such as peer influence,

and highlighted the importance of parental upbringing in mitigating such behaviors. Additionally, it emphasized the need for comprehensive interventions to address substance abuse among adolescents effectively. Therefore, the study recommends that:

1. Nurses and other healthcare providers should focus on awareness and preventive measures for alcohol and drug abuse, alongside rehabilitation efforts for affected individuals.
2. Medical outreaches should be conducted regularly to identify addiction and provide timely treatment, thereby reducing societal burdens, crime rates, and mental health issues.
3. School counselors should offer proactive guidance to discourage peer pressure and educate students on the dangers of substance abuse.
4. Counseling centers for drug control should be established within communities, either by governmental or private initiatives.
5. Nurses should equip themselves with knowledge of substance abuse signs and symptoms to provide effective care to affected individuals.
6. Legal measures should be implemented to restrict the availability of alcohol and narcotic drugs in communities, thereby reducing substance consumption rates.
7. Parental education on raising morally upright children should be promoted, alongside efforts to reduce divorce rates and strengthen family bonds.
8. Schools should offer extracurricular activities and establish recreation centers to engage students positively and divert their attention from substance abuse.

Implications of the Study to Nursing

The study's findings underscore the importance of nursing education, administration, practice, and research:

1. Nursing education programs should incorporate substance abuse training to enhance nurses' knowledge and enable them to contribute to awareness efforts effectively.
2. Nursing administrations should prioritize the recruitment and training of psychiatric and pediatric nurses to handle substance abuse cases.
3. Nurses should be vigilant in identifying and addressing the health problems and aggressive behaviors associated with substance abuse among their patients.
4. The study's data contributes to existing knowledge on substance abuse prevention and control, serving as a valuable resource for future research endeavors.

Limitations of the Study

Despite its strengths, the study encountered limitations such as social desirability bias among respondents. However, measures were taken to mitigate these challenges, ensuring the validity of the study's findings.

References

- Afolabi, E.R.I. (2012). Validity of Tests. *Educational Test & Measurement*. Ile-Ife: ObafemiAwolowo University Press.
- Ajayi, A.I. & Somefun, O.D. (2020). Recreational drug use among Nigerian University students: Prevalence, correlates and frequency of use. *PLoS ONE* 15 (5).
- Akanbi, M.I., Augustina, G., Theophilus A.B., Muritala, M. & Ajiboye, A.S. (2015). Impact of Substance Abuse on Academic Performance among Adolescent Students of Colleges of Education in Kwara State, Nigeria. *Journal of Education and Practice*. 6(28)
- Anyanwu, O.U., Ibekwe, R.C. & Ojinaka, N.C (2016). Pattern of substance abuse among adolescent secondary school students in Abakaliki. *Cogent Medicine*. 3(1).
- Attal, N., Cruccu, G., Baron, R. A., Haanpää, M., Hansson, P., Jensen, T. S., & Nurmikko, T. (2010). EFNS guidelines on the pharmacological treatment of neuropathic pain: 2010 revision. *European journal of neurology*, 17(9), 1113-1188.
- Bashir, B.(2018). Available: <https://www.vanguardngr.com/20/18/05/drug-abuse-declare-state-emergency-Katsina-group>
- Bowden, J.A., Delfabbro, P., Room, R., Miller, C.L. & Wilson, C. (2017). Prevalence, perceptions and predictors of alcohol consumption and abstinence among South Australian school students: a cross-sectional analysis. *BMC Public Health*. 17:549 DOI 10.1186/s12889-017-4475-5
- Debajani N. (2016). Knowledge and practice of substance abuse among the adolescent group (a descriptive study). *International Journal of Nursing Education and research*. 4(2):1-3
- Erin, E. A., Destiny, R., Jeffrey, S. W. & Hyacinth, R.C. M. (2017). Prevalence, Perceptions, and Consequences of Substance use in Medical Students. *Medical Education Online*, 22:1, 1392824, DOI: 10.1080/10872981.2017.1392824
- Geetanjali P., Veer B & Singh R. (2016). Alcohol abuse and related health issues. *International Research Journal of Medical Sciences*. 4(8)18-23.
- Gobir, A.A., Sambo, M.N., Bashir, S.S, Olorukoba, A.A., Ezeh, O.E., Bello, M., Usma, B., Salaudeen, A.G., Joseph, S., Bashar, J. & Omole, N.V. (2018). Prevalence and Determinants

- of Drug abuse among Youths in a Rural Community in North Western Nigeria. *Tropical Journal of Health Sciences*.24 (40).
- Gotsang G, Mashalla, Y &Seloilwe E. (2017).Perception of School going Adolescent about Substance Abuse in Ramostwa in Botswana.
- Gray, K.M. & Squeglia, L.M.(2018). Research Review: What have we learned about Adolescent Substance Use? *Journal of Child Psychology and Psychiatry*. 59:618–627.
- Idowu, A., Aremu, A. O., Olumide, A. &Ogunlaja, A. O. (2018). Substance abuse among students in selected secondary schools of an urban community of Oyo State, South west Nigeria: Implication for policy action. *Afr Health Sci*18(3): 776-785.
- Ikoh, M.U., Smah, S.O., Okwanya, I., Clement, U.A &Aposhi, Z.A. (2019). Factors affecting entry into drug abuse among youth in Lafia-Metropolis: implications on security. *Sage Open*. DOI: 10. 117712158244018823428
- Interventions for Adolescent Substance Abuse: An Overview of Systematic ReviewsJai K. Das, M.D., M.B.A. a ,Rehana A. Salam, M.Sc. a , Ahmed Arshad, M.B.B.S. a , Yaron Finkelstein, M.D. b,c , and Zulfiqar A. Bhutta, Ph.D. d,e,
- Jai K. Das, M.D. , Rehana A. S, Ahmed A, Yaron F. , &Zulfiqar A. (2016). Interventions for Adolescent Substance Abuse: An Overview of Systematic Reviews. *Journal of Adolescent Health*:(59) S61-S75.
- Jatau, A.I., Abubakar, S., Gulman, A.K., Shittu, S., Garba, M.K., Abubakar, I., Wada, A.S. & Mustapha, M. (2021). The burden of drug abuse in Nigeria: A review of epidemiological studies and drug laws. *Public Health Rev* 29
- National Institute of Drug Abuse (2020). Drugs, Brains, and Behaviour: the Scienceof Addiction Treatment and Recovery. <https://www.drugabuse.gov/nida-tv>
- Okafor., I. P. (2020). Causes and Consequences of Drug Abuse among Youth in Kwara State, Nigeria. *Canadian Journal of Family and Youth*, 12(1): 147-162
- Omirin, S.o (2012). *Research for Beginners*. Lagos: Atlantic associated Limited Poznyak, V.B.(2019). Public health implications of addictive behaviours and substance use. *Journal of Behavioural Addiction*. (8) 1-23.
- Pitchumoni, C., Mishra, S. P., & Yadav, H. (2020). Gut Microbiota and Aging: A Broad Perspective. *Geriatric Gastroenterology*, 1-21.
- Rehm, J., Gmel Sr, G. E., Gmel, G., Hasan, O. S., Imtiaz, S., Popova, S., ... & Shuper, P. A. (2017). The relationship between different dimensions of alcohol use and the burden of disease—an update. *Addiction*, 112(6), 968-1001.

- Salazar, M.J., Castellanos, C.E., Garcia, E.A., Conzatti, H.E., Cabrera, M.M., Perez, E.Y. & Enriquez, H.B.(2018). Alcohol consumption and knowledge of healthrisks in students that entered to the university: Nursing intervention. *Journal of drug abuse*
- Samaila, A.& Abdukadir, B. (2018). Pathophysiology of substance abuse: A review> International Journal of science and Research. 7(1):1013-1019.
- Seitz, H. K., & Stickel, F. (2007). Molecular mechanisms of alcohol-mediated carcinogenesis. *Nature Reviews Cancer*, 7(8), 599-612.
- Shield, K., Manthey, J., Rylett, M., Probst, C., Wettlaufer, A., Parry, C. D., & Rehm, J. (2020). National, regional, and global burdens of disease from 2000 to 2016 attributable to alcohol use: a comparative risk assessment study. *The Lancet Public Health*, 5(1), e51-e61.
- Umukoro, E.K., Eduviere, A.T., Ahama, E.E., Moke, E.G., Edje, K.E., Omorodion, L.I. &Ovigue, C. (2021). Substance Abuse: Awareness and Attitude among Secondary School Students in Sapele, Nigeria. *Journal of Applied Sciences and environmental Management*.25 (3).
- UNODC. World Drugs Report (2017). Global Over View of Drug Demand andSupply Latest Trends, Cross-Cutting Issues; 2017.Available:https://www.unodc.org/wdr2017/field/Booklet_2_HEALTH.pdf
- UNODC.(2017). World drugs report 2017. Global over view of drug demand and supply latest trends, cross-cutting issues; Available: https://www.unodc.org/wdr2017/field/Booklet_2_HEALTH.pdf
- Wing, T.L., Jerf, W. K. Y & Tam C H. L. (2020). Substance Abuse and PublicHealth: A Multilevel Perspective and Multiple Responses International. *Journal of Environment. Research Public Health* 17, 2610;doi:10.3390/ijerph17072610