

**A STUDY ON DRUG, SUBSTANCE ABUSE AND MENTAL HEALTH
OF UNDERGRADUATE STUDENTS IN KOLKATA**

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CERTIFICATE

Certified that the Thesis entitled "A STUDY ON DRUG, SUBSTANCE ABUSE AND MENTAL HEALTH OF UNDERGRADUATE STUDENTS IN KOLKATA" submitted by me for the award of the Degree of Doctor of Philosophy in Arts at Jadavpur University, is based upon my work carried out under the supervision of Professor (Dr.) Bishnupada Nanda, Department of Education, Jadavpur University and neither this thesis nor any part of it has been submitted before for any degree or diploma anywhere/elsewhere.

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CHAPTER I

INTRODUCTION

1.1 INTRODUCTION

Substance abuse is a global concern. The necessity of robust international cooperation to address substance use and addictive behaviour as significant determinants of mental health and well-being has become more apparent as the world emerges from the COVID-19 pandemic, which profoundly affected our lives and public health priorities. The fourth forum on drugs, alcohol, and addictive behaviour was held by the World Health Organisation in Geneva, Switzerland, in June 2023. According to WHO estimates, there are around 2 billion alcohol users, 1.3 billion smokers, and 185 million drug users across the globe who use psychoactive substances. According to studies done all across the world, including in India, 20 to 40 percent of students from different academic programs take drugs. The drug menace in India is a rising concern that threatens our public and social health. Drug abuse and addiction have increased steadily owing to factors like modern lifestyle, family problems, nuclear family, economic challenges, unemployment, academic pressure. Youngsters experiment with drugs mostly to deal with psychological stress and to experience the feel-good factor despite knowing their harmful effects. The civil society and academia need to come forward to address and remedy this issue of drug and substance abuse, mental health and well-being of the vulnerable young individuals.

India is a treasure trove of young budding minds which form the human capital of the nation. Drug abuse is a major threat to the human capital of our country. It is important that we are conscious at a deeper level towards the problem of drug menace in our society.

Consumption of narcotic substances in India like cannabis, cocaine and heroin which are traditional plant based drugs as well as synthetic drugs like tramadol has increased manifold over the years.

Cannabis and opioids account for the majority of users in India's illegal drug marketplaces. In India, cannabis in the form of bhang is legal. The other types, such as charas (hashish) and ganja (marijuana), are prohibited. The AIIMS report from 2019 estimates that there are 3.1 crore cannabis users in India. While the remainder drink bhang, 1.3 crore of them utilise ganja

and charas. Opioids are marketed as pharma opioids, heroin (brown sugar, smack), and opium (doda, phukki, or poppy husk). As per the global average, opioid use is three times higher here, whereas the use of illegal cannabis is lower.

1.2 HISTORICAL BACKGROUND OF PSYCHOTROPIC DRUGS

The native population of Mesoamerica and South America were the discoverers of tobacco. According to archaeological excavations, the Americans began using tobacco about 12,000 years ago. Chewing of tobacco was commonly found among the agricultural population of America. Tobacco was used indigenously in spiritual and religious ceremonies as well as in indigenous medicinal practices. Tobacco was used as a painkiller for earache and toothache. Tobacco was also realised as a form of currency in the Chesapeake Colonies where it was extensively cultivated. When the European settlers arrived in the Americas, they took the practice to Europe. The Spanish introduced tobacco to the Europeans. Tobacco became the primary reason for colonisation and was responsible for the introduction of the American slave labour. James Bonsack, in 1881, created a machine for the production of cigarettes, which brought about growth in the tobacco industry. Smoking of cigarettes became popular around 1910. In the period between 1910 and 1930, more women became smokers, thereby challenging and contradicting the traditional gender norms. The 19th century saw the beginning of awareness of the dangers smoking poses to one's health. Medical experts began to voice their worries about smoking's detrimental impacts on health.

Drugs have been used by the human civilisation from time immemorial. Alcoholic beverages were used in the treatment of many mental and physical illnesses in ancient times. Alcohol and other psychotropic drugs have been used for centuries for generating a sense of well-being among the people (Taylor, 1966 & Andrews, 1975). It has been commonly practiced by different sections of people to use drugs like cannabis, opium and their derivatives for the purpose of getting relief from pain and misery. The modern youth opts either for barbiturates or take the route to heroin (Chein et al, 1964) to get relief from tension. But drug is not always a thing that should generate a sense of aversion. Cannabis has medicinal qualities as has been recorded by ancient sacred books like the Atharva Veda. Martial castes or classes eulogize intoxicants because of their effect on increasing one's courage.

Somras has been defined as an elixir containing hallucinogens. We find mention of soma in Vedic mythology which could be *Cannabis sativa*, commonly called bhang (Swamy, 1974).

Many believe somras is simply milk or honey. The idea that Aztec mushrooms and Grecian ambrosia gave the gods immortality is one of the more common and ancient myths. Priests had to utilise it in sacred ceremonies as a sacrifice to the gods and even to make up songs and chants. The God Indra used somras to strengthen himself before battle. In the Rig Veda, Somras is utilised in many different ways and is associated with light, daybreak, the sun's cause, and even the king. Additionally, it is thought that Hindu gods ingested somras to become immortal. It was referred to as Soma Mandala in the Rigveda. Soma is considered a ceremonial beverage in the Vedic culture. In Chapter 9, verse 20 of the Bhagavad Gita, it is referenced as a beverage. It is comparable to the haoma of Iran. Juices from plants are extracted to make soma. The herb is traditionally identified as Somalata (*Sarcostemma acidum*). According to its etymology, Soma is a Vedic Sanskrit word that literally translates to "distil," "extract," and "sprinkle." These words are frequently used in relation to ceremonies. Geldnar (1951) claims that the term "soma" comes from the Indo-Iranian word "sau-ma," which refers to a beverage made by squeezing plant stalks. As the Old Indie civilisation developed, Indra emerged as its primary deity. Vedic Rishis devoted 250 hymns to him in the Rig Veda. He was linked to the stimulant medication Soma, which may have been developed from *Ephedra*.

The drink, the plant, and its deity are all referred to by the same name in the Vedas: soma. Immortality is obtained by consuming soma (Amrita Rigveda 8.48.3). It is implied that Indra and Agni consumed large amounts of soma. According to Vedic belief, Indra consumed a lot of soma while battling the serpent demon Vritra. Human ingestion of soma is frequently documented in Vedic ceremonies.

Since around 7000–6600 BC, humans have created and used alcohol for its intoxicating properties. After caffeine, alcohol is the most widely used psychoactive substance in the world. Unlike many other recreational narcotics, alcohol is legal in most nations and is often socially accepted. However, there are frequent limitations on the sale and usage of alcohol, such as minimum drinking age and prohibitions on drinking in public and while driving. In many parts of the world, alcohol plays significant social roles and has significant societal and cultural significance. Parties, festivals, and social events frequently entail alcohol consumption, and drinking businesses like bars and nightclubs are centred around the sale and consumption of alcoholic beverages. Alcohol is linked to a number of social issues, such as violent crime, domestic violence, sexual assault, drunk driving, and unintentional injury. Alcohol is still prohibited in several nations, mostly in the Middle East, for both sale and consumption.

Christianity and Shinto are two religions that use alcohol in sacrament, but Islam and other religions forbid their use.

Phytochemicals drew our attention in Vedic Age for transcendence, euphoria, vigour, very long life and sexual potency as we have heard of soma (nectar). Uncontrolled use of drug, its consequent toxic effect in making men unfit for job drew society's attention. Phytochemicals were known as purely vegetarian items in ancient India which were consumed mainly by the male adults for health and recreation. We also find mention of rejuvenating and euphoric substances which were made into tonics in Ayurveda.

Alcoholic drinks were prepared from plant extracts and fruit juices and inhalants were prepared from flowers and floral dusts. Though these items were not legally controlled, there were social prohibitions against their improper use particularly by minor and female. Tobacco was banned; punishment for selling that was very severe, for e.g. death penalty was found to be present for illicit selling of tobacco in the Middle East countries in the 15th century. The Koran banned both wine and hashish.

In the age of the Old Testament, drunkenness was regarded as a sin but not wine- the workmanship of God, the grapes. The Gin Prohibition Act, around 1730, failed its mission for want of public support and finally the Act was repealed, license was issued and it met Treasury's need for more revenue. The East India Company captured the Moghul Empire, their opium monopoly and the prospect of selling more of it in China. Following foreign invasions, some plants of foreign origin were brought to India for plantation due to suitability of soil and climate. Narcotics became a source for country's revenue and the habit of consuming them spread over the country via inland trafficking and export-import. Following the British regime, narcotics earned commercial importance and emerged as a major source of revenue for the administration. This was the time when legal control was introduced to prevent free production of crops and their free marketing. The British regime was not concerned with health hazard associated with use of narcotics. Among the subjects faithful to the British rulers, drinking alcohol came to be associated with social status among the aristocrats and the elite class. Opium, Bhang, Ganja and Charas became substances of daily use in tolerable dose by the working class after a hard day's work. Bhang, an intoxicant made from leaves of female cannabis plant. Bhang has cultural significance in India as the cannabis plant is preferred by Lord Shiva, the God of Destruction.

In 1806, German chemist F. W. A. Serturmer extracted morphine, the first addictive component, from crude opium, a natural substance. The use of morphine transformed the management of pain. In the US, morphine, heroin, opium, and cocaine combined to increase public dread of drug misuse, which prompted stringent legal limitations.

Methadone (a medication used to treat heroin dependence) had acted as a substitute for morphine to meet German needs during World War II.

Opium smoking and eating was done in ancient civilizations for pleasure. It was prepared by Sumerians in 5000 B.C. From the 7th century B.C. opium was first used in Assyrian medical tablets. Barbosa first mentioned opium in 1511. During the Mughal period from Babur to Akbar opium taking was popular among all classes.

Opium was chiefly produced in Asia Minor by the beginning of the Christian Era. Mohammedans introduced this drug in India. Abul Fazl stated in Ain-i-Akbari that poppy was cultivated in regions such as Allahabad, Fatehpur and Gazipur. During the Mughal period it was cultivated in Bengal and Orissa. British Government (Warren Hastings , 1788) imported it into China.

Morphine and heroin derived from opium in 4000 B.C. and 1874 respectively. With the evolution of time, the pattern of route of self administration of opium groups of drugs witnessed changed. From opium smoking, heroin sniffing, and morphine subcutaneous injection and intravenous self-injection of heroin has been adopted in recent times (Choudhury,2004).

In India, drug use and drug abuse have been long standing problems. According to an article by R. Ray (2004) where he gives an account of the nature, extent and magnitude of the drug problem from an early period till the 70s. Opium, alcohol and cannabis have been the traditional drugs of abuse in the subcontinent notably in India, Bangladesh, Nepal and Sri Lanka. The sociocultural acceptance of opium and cannabis use is reflected in studies on drug use and abuse in India. People either drank or ate opium. Ganja (marijuana) was smoked and cannabis leaves (bhang) were chewed. They were occasionally combined with milk, sugar, and other substances to create sweetmeats. A mixture of bhang, opium, datura (*Datura stramonium*) and alcohol was also consumed. These were consumed either in excess or occasionally in moderation. The users belonged to both the upper and lower classes.

The use of cocaine and “khat” was also reported in India in the 1940s. Bengal, Bihar, Odisha and Maharashtra were the most affected areas. Cocaine, however, never grew in India.

The traditional use of opium and cannabis is still in continuance. In the 1990s, opium users in Rajasthan, Punjab and Gujarat were reported. Cannabis is ritualistically used in U.P. and Karnataka.

1.3 PRESENT DRUG SCENARIO

The availability of illegal drugs and over-the-counter medications has led to an increase in drug usage in India, which is a source, transit, and destination for precursor chemicals and illegal drugs. In addition to the increasing usage of pharmaceutical drugs like tramadol, opioids, and MDMA (ecstasy), heroin, cannabis, and cocaine are among the substances that are often abused in India. India is the world's biggest producer of generic medications, which are also used to make illegal synthetic substances like MDMA, heroin, methamphetamine, and prescription opioids. In 2004 and 2019, the Ministry of Social Justice and Empowerment released the results of two nationwide drug surveys. These polls' findings imply that drug use in India is still increasing unchecked. From 0.7% to just over 2%, the number of people using opioids has grown from two million to over 22 million. Worse, heroin is now the most misused opioid, surpassing even the natural opioids, opium and poppy husk. Cocaine and other synthetic drug use have also dramatically grown. The survey's findings point to the necessity of strengthening our current system, putting in more effort, and closing any gaps. The investigator focussed on studying the drug scenario in Kolkata in the recent years. She came across newspaper articles which highlighted the prevalence of drug menace in Kolkata. Another key revelation was the involvement of college students in the various drug rackets going on in the city of Kolkata.

1.4 RATIONALE OF THE RESEARCH STUDY

India is predominantly a youth centric nation. India’s population is 1.38 billion of which 22% are the youth (18-29 years). Of these, 34.3 million are college going students according to the Annual Status of Higher Education (ASHE, 2021-22). Statistics show that there is an addiction problem in India. According to a report in 2016, 2 million college students have used an illicit drug. The students fall prey to abusing drugs and substances in the college as they are vulnerable. The prevalence of drug related problems gets reflected in the data of death due to substance abuse and it is alarming to note that the students make up a considerable part of it. There is a need for educational research on the drug menace prevalent in Kolkata. Geographical

vulnerability is a contributor to Kolkata being a drug hotspot though national surveys do not reflect the scenario, thereby signifying a knowledge gap. The post pandemic academic world is undergoing major upheavals which is taking a toll on the psychological wellbeing of the students thereby adding to the pressure. So it becomes more imperative to study the problem of drug and substance abuse prevalent in students and how it affects their mental health. Another dimension that calls for attention is the relationship between substance abuse and mental health.

The “Global Burden of Disease Study” estimates that in 2017 alone, illegal substances killed around 7.5 lakh people worldwide. It was believed that 22,000 people died in India. In 2018, there were 2 crore opioid users in India, with heroin usage being the highest, according to government data. More than twice as many people used opium as heroin in 2004.

Awareness about the growing drug menace is the need of the hour. We, the educators cannot turn a blind eye to this social problem as it affects the health of the youth who are the human resource of the country. A collaborative partnership between the administration, teachers, parents, community and the students is required to tackle the issue of drug menace. The drug and substance abuse which occurs so rampantly in the campus needs to be addressed in the context of health education as proposed by NEP-2020 as it impacts the students’ life in a detrimental manner. Knowledge, skills and values need to be cultivated in a dynamic manner in order to promote personal and academic growth.

One of the leading cities in India for the sale of illegal substances like hashish and LSD is Kolkata. The city's advantageous location close to the borders of Bangladesh and Nepal makes it simple for drug dealers to enter (NCB). According to NCB, college students in the city are roped in to sell drugs. Kolkata has turned into a drug hotspot as is evident from the series of recent raids conducted by the NCB which busted international cannabis smuggling ring in Kolkata in 2021 seizing a huge amount of the world’s strongest marijuana.

It is important to find out the extent and pattern of drug menace in Kolkata, especially its reach among the college students at the UG level in the post-pandemic time period. The students had to face a lot of uncertainty during the pandemic period. The drug menace used to exist in the pre pandemic era so it becomes imperative that extensive research is carried out to find out the challenges of drug abuse that the college students faced as they had to cope up with the pressure of online and blended classes.

1.5 CLASSIFICATION OF PSYCHOACTIVE DRUGS

Psychoactive medications are substances that change the brain. They consist of caffeine and heroin. These substances have the ability to change behaviour, feelings, consciousness, and thoughts. Depending on the situation, psychoactive medications can have either beneficial or detrimental effects. Often, the phrase "psychoactive drug" refers to illegal substances like heroin, cocaine and LSD. However, these drugs are part of a larger class of psychoactive compounds, some of which are allowed. Psychoactive substances like alcohol, caffeine, and nicotine are frequently used by people. In actuality, 80% of adult Americans consume coffee daily. Any drug that affects the central nervous system is considered psychoactive. When utilised, drugs change how the brain responds to inputs. Their influence on the central nervous system causes a range of changes in an individual, including variations in mood, conduct, consciousness, thoughts, and feelings. These changes could be desired or helpful, but psychoactive chemicals can also have unexpected effects.

Psychoactive substances can be divided into many groups based on the effects they have on users. These consist of:

Alcohol: Because it slows down a person's thoughts and reactions, alcohol is typically categorised as a depressant. It can induce feelings of euphoria, relaxation, or serenity. But it can also impair judgement and lessen a person's capacity for logical thought. An someone may become dependent on alcohol or acquire a tolerance to it over time.

Nicotine: Nicotine is a stimulant and depressive that is present in smoked and chewed tobacco products. First, nicotine gives you a "buzz" of pleasure and energy. Over time, though, this impact wears off and leaving a person feeling exhausted. Additionally, their body may develop a nicotine dependence, which may result in addiction.

Caffeine: This is the most widely used type of psychoactive substance that is legal. As a stimulant, caffeine can help increase attentiveness. But it can also cause sleep disturbances. A person can develop a tolerance to caffeine, meaning they need to take more to experience its effects, much like they can with nicotine and alcohol. When someone quits using it, they may have withdrawal symptoms and dependency.

Depressants: Depressants have the ability to relax people, quiet the brain and induce drowsiness. However, they can also cause anxiety, anger, and nightmares. An example of a depressant is alcohol.

Stimulants: Stimulants comprise of substances such as cocaine and caffeine. Stimulants can release in energy, wakefulness and alertness.

Opiates: Opiates are analgesics that produce a calming effect and enhance sensations of joy or euphoria. They comprise of substances like heroin and, if abused, can result in addiction.

Hallucinogens: People who use these medicines may experience hallucinations, which occur when they see or hear things that are not there. They can also make someone feel profoundly perceptive, disengaged from their environment, or have an altered perspective on time. One example of a hallucinogen is LSD.

Psychoactive chemicals come in a variety of forms, and each one affects the body and brain differently. Any psychoactive substance can be abused, even though not all of them are prohibited. Here are some typical instances of psychoactive substances and how they affect the body.

Heroin: Heroin is an illicit substance that produces a "rush" of euphoric feelings by binding to opioid receptors in the brain. Notwithstanding the first euphoric effects, heroin usage can result in drowsiness, a slowed heartbeat, and impaired cognitive function. However, heroin's physical side effects, such slowed breathing and a slower heartbeat, can occasionally be fatal.

Cocaine: A stimulant that is prohibited in many nations is cocaine. An instant euphoric sensation that lasts anywhere from a few minutes to almost an hour may result from it. An individual may exhibit irregular behaviour, such as aggressiveness, anxiety, panic, and paranoia, when taking higher dosages of this medication. It may also cause serious side effects on a person's first use, such as heart attacks and unexpected death.

LSD: Those who use LSD and other hallucinogens may see, hear, or experience things that are not real. While some of these experiences might be terrifying, others can be meaningful and enjoyable. Additionally, LSD might result in dizziness, insomnia, and increased blood pressure. Furthermore, LSD use can result in tolerance to other hallucinogens as well as the drug itself, requiring larger dosages to produce the same "high."

Methylenedioxy-methylamphetamine (MDMA): MDMA, commonly referred to as ecstasy or Molly, is a stimulant that also has hallucinogenic properties. Some users report feeling happier, more energised, and more empathetic and emotionally connected. On the other hand, anxiety, sadness, insomnia, and irritability can result from moderate use.

Amphetamines: This class of stimulant includes amphetamines. They may be prescribed drugs under the names Adderall or Dexedrine to treat narcolepsy or attention deficit hyperactivity disorder. These can provide a "rush" of euphoria and boost alertness and energy, thus people occasionally take them as recreational drugs. But they can also lead to psychosis, rage, and paranoia. Excessive dosages may result in convulsions or cardiac failure.

Cannabis: Commonly referred to as "weed," cannabis is a class of psychoactive substance that can produce hallucinogenic, stimulant, or depressive effects. Although each person reacts to this medicine differently, frequent side effects include relaxation, exhilaration, and an increase in hunger. Additionally, some people may have changed sensations, such as seeing colours that are brighter. After using the medication, some people, however, could have adverse side effects like panic, fear, and mistrust.

Prescription Opioids: If a patient has moderate to severe pain, a doctor may prescribe opioids. Prescription opioids are commonly marketed under the brands OxyContin and Percocet. When taken as prescribed by a physician and for a short time period, they are relatively safe. However, prescription drugs can be abused by:

- Taking medication that has been given by a doctor to someone else
- taking it in quantities or manners that differ from those recommended by a doctor;
- taking it to get high

If someone consumes prescription opiates in a different way than the doctor has prescribed, it can be extremely dangerous. Misuse of them can result in hypoxia, which is when the brain does not receive enough oxygen, because they impede breathing. Coma, irreversible brain damage, or even death may result from this.

1.6 CLASSIFICATION OF NARCOTIC DRUGS

Cannabis: The common hemp plant, Cannabis (*Cannabis sativa*), belongs to the Cannabaceae family and contains hashish, hashish oil and marijuana (pot, grass), which are hallucinogens with some calming effects.

Marijuana: It is the leaf of the cannabis plant, in a dried form.

Hashish: The sticky exudate of the cannabis plant is known as hashish.

Coca: The stimulant needed to produce cocaine is found in the leaves of the Coca (*Erythroxylum coca*) shrub.

Narcotics, which include opium, its derivatives, and synthetic alternatives, are medications that reduce pain and frequently cause sleep. Opium, morphine, and codeine are examples of natural narcotics. Heroin (smack) is a semisynthetic drug. Methadone is one type of synthetic narcotic.

Opium: Natural and semisynthetic drugs are derived from opium, which is the brown, sticky exudate of the incised, unripe seedpod of the opium poppy (*Papaver somniferum*).

Stimulants: Cocaine (coke, crack), amphetamines, ephedrine, and ecstasy are examples of stimulants, which are medications that boost energy and activity and alleviate mild depression.

Depressants: Barbiturates, benzodiazepines (Librium, Valium), and methaqualone are examples of depressants (sedatives), which are medications that lessen stress and anxiety.

Hallucinogens: Drugs that alter perception, thought, emotion, and self-awareness are known as hallucinogens. LSD and amphetamine derivatives are examples of hallucinogens.

1.7 TYPES OF NARCOTIC DRUGS ABUSED BY THE STUDENTS AND THE YOUTH IN INDIA

Drug usage is becoming a bigger issue in India, as some drug types are more frequently abused than others. These drugs are widely abused by people of all ages, from young people in urban areas to those living in rural areas. The following are a few of the most often misused medications in India:

- **Opioids:** Two of the most often misused narcotics in India are heroin and opium. The opioid issue is especially severe in states like Punjab.

- Cannabis: Ganja and bhang are readily available types of cannabis, which are used extensively throughout the nation.
- Stimulants: Methamphetamine and cocaine are becoming more and more popular, particularly among urban youth.
- Prescription Drugs: Due to their sedative properties, painkillers and other prescription medications are frequently abused, which causes dependency problems all over India.
- Alcohol and Tobacco: Although they are legal, both rural and urban areas have high rates of alcohol and tobacco abuse. Indian culture also has a strong tradition of tobacco use, especially chewing tobacco.

In India, the kinds of drugs that people use and misuse differ greatly depending on where they live. These regional trends are influenced by a number of factors, such as local laws, socioeconomic circumstances, and cultural norms.

- North India: Heroin and opium misuse are rampant in Punjab, Himachal Pradesh, and other northern provinces, which are facing a serious opioid crisis.
- South India: Many people misuse painkillers and anxiety drugs, making prescription drug addiction a serious issue in the southern states.
- Urban Areas: Cocaine and methamphetamine are becoming more and more common, particularly among young people, in places like Delhi, Mumbai, and Bangalore.
- Rural Areas: The most typically abused drug kinds in rural India are alcohol, cannabis, and tobacco, which are frequently used in social situations or as part of customs.

1.7.1 INCREASING RATE OF DRUG ABUSE IN INDIA

In India, drug addiction is an issue since the country is surrounded by two of the largest opium-production areas of the globe. The “Golden Triangle” is on one side and the “Golden Crescent” is on the other. Golden Triangle is made up of Iran, Afghanistan, and Pakistan.

1. Geographical factors: India's location between the “Golden Crescent” and “Golden Triangle” makes it a prime site for the transportation of heroin. With the western international border along Pakistan serving as a focal point, it enters the nation through the land, sea, and international boundaries.

The region where the borders of Thailand, Laos, and Myanmar converge at the meeting point of the Ruak and Mekong rivers is known as the "Golden Triangle." Myanmar produces 80% of

the world's heroin and is the second-largest illegal supplier of both morphine and heroin worldwide.

- Golden Crescent: In contrast, the Golden Crescent is a significant global location for the manufacturing of opium in Afghanistan, Iran, and Pakistan. From there, drugs are trafficked into India via Gujarat, Punjab, Rajasthan, and Jammu & Kashmir.
- Closeness to the sea: Afghanistan, Myanmar, and other nations that are important drug producing and transit hubs are next to India. Drug traffickers find it to be a desirable transit location due to its extensive and porous borders.
- Approximately 70% of all illegal drugs imported into India are thought to be trafficked via marine routes in the Bay of Bengal and the Arabian marine.

2. For technological reasons:

- Drones and digital tools: New drones and digital technologies are being used to smuggle drugs across these borders. Additionally, drug gangs increasingly deliver and smuggle drugs in via the mail, couriers, and parcels.
- Darkweb: There is a direct correlation between the rise in Dark Web activity in India and the rise in the use of couriers or postal services. Illegal drugs are purchased on the dark web, frequently with cryptocurrency.

3. Criminal Organisations:

- The relationship between terrorists, organised crime networks, and drug traffickers: Terrorists take use of well-traveled trafficking routes and work with established criminal organisations to sneak weapons and explosives across borders, making security issues worse. Numerous terrorist and rebel activities have been financed with money obtained from the drug trade.
- The 1993 Mumbai serial bombings and the December 31, 2015, Pathankot attack, for instance, demonstrate the strong connection between narcotics traffickers and anti-national groups.
- Corruption: To make their operations easier, drug traffickers have been known to bribe law enforcement and other government personnel.

4. Socioeconomic factors:

- Lack of education: Youth who have low-quality education in the state's rural and urban government schools are disillusioned and more prone to drug use as a result of their unfulfilled expectations.
- Vicious cycle: Drug users from low-income households turn to drug-peddling to cover the costs of their daily dosage, and the growing young unemployment rate has further exacerbated their disenchantment.

5. Synthetic drug and precursor chemical smuggling: India produces a large number of synthetic drugs and precursor chemicals that are illegally exported.

6. Inadequate law enforcement: India's law enforcement organisations frequently struggle to identify or stop drug shipments due to a lack of specific training, equipment, and manpower. The drug mafia is frequently missed by the agencies, which focus more on dealing with distributors and peddlers.

1.7.2 CHALLENGES/ IMPACT OF DRUG ABUSE IN INDIA

Weapons smuggling: Drug traffickers use the nation's international boundaries to smuggle both weapons and terrorists into the nation. Terrorist financing: The large sums of money made from the selling of illegal drugs are frequently used to support terrorist attacks.

Problems with law and order: The widespread availability of drugs and narcotics fuels domestic demand, which in turn causes dysfunctional behaviour and concerns with law and order in society.

Economic impact: Production losses and resources taken away from treating and rehabilitating drug addicts are only two examples of the significant financial costs associated with drug usage.

State role being undermined: As the trafficking network gains control over the illicit drug trade, it has the potential to undermine and corrupt state institutions, thus undermining the political process.

Facilitation of organised crime: Drug trafficking makes it easier for other organised crime groups, such as human trafficking and narcoterrorism, to transfer people, weapons, and goods using the same networks and channels.

Loss of demographic dividend: Drug usage directly contributes to an increase in crime and violence. In order to pay for their narcotics, addicts turn to criminal activity. Abuse of substances can cause inhibitions to be removed, which can affect judgement, potential, and individual productivity.

Adverse Social Impact: The entire family may be negatively impacted by a partner's addiction, which can strain relationships and stability and increase the risk of sexually transmitted infections, violence, child abuse, economic instability, and school deprivation.

Psychological impact: Addiction to drugs not only jeopardises a person's financial security but also causes family strife and great emotional suffering for all family members.

Government Measures as a response to counter the drug problem: The Ministry of Home Affairs is taking three distinct actions to combat the drug problem: bolstering institutional frameworks, empowering all agencies involved in drug control and improving their coordination, and launching an awareness campaign.

1.7.3 INSTITUTIONAL ACTIONS

The “Ministry of Home Affairs” oversees the “Narcotics Control Bureau” (NCB), which is in charge of organising efforts to combat illegal drugs and gathering information on drug trafficking cases in the nation that are submitted to it by other agencies.

Through a multifaceted approach that includes education, treatment for addiction, and rehabilitation for impacted individuals and their families, the “National Action Plan for Drug Demand Reduction (NAPDDR)” for 2018–2025 seeks to lessen the negative effects of drug abuse.

The “Prevention of Alcoholism and Substance (Drug) Abuse Scheme” provides funding to eligible organisations and voluntary organisations to establish and operate an Integrated Rehabilitation Centre for Addicts.

1.7.4 ADDITIONAL GOVERNMENT PREVENTIVE MEASURES

More surveillance and patrolling: rigorous enforcement and surveillance at import and export locations, as well as intensive preventive and interdiction actions along known drug routes.

Training programs: To counteract the drug scourge, training programs are being held for a variety of law enforcement officials.

Campaign for Nasha Mukta Bharat: In 2020, it was introduced in 272 designated districts. It combines a holistic strategy to drug reduction, which includes the NCB's supply curb, the Department of Social Justice's outreach and awareness and demand reduction efforts, and the Health Department's empowerment and treatment initiatives.

Strengthening anti-narcotic units: Eligible States have received financial support to bolster their anti-narcotic units.

In order to give the drug law enforcement authorities and other stakeholders a common platform for coordinated actions, the Narco Coordination Centre (NCORD) was established under the Director General of the Narcotics Control Bureau.

1.7.5 INTERNATIONAL MEASURES

International Drug Control Convention

The goal of the “1961 Single Convention on Narcotic Drugs” is to prevent drug misuse by concerted worldwide action. It strives to regulate the use, manufacturing, import, export, distribution, sale, and possession of medicines to just medicinal and scientific uses. In order to dissuade and deter drug traffickers, it also fights drug trafficking through international collaboration.

Convention on Psychotropic Substances 1971: Psychotropic Substances Convention 1971: An international system of regulation over psychotropic chemicals is established under the Convention on Psychotropic chemicals. It adopted regulations over some synthetic pharmaceuticals based on their potential for misuse and their therapeutic usefulness.

Collaboration with neighbours: India is participating in a number of bilateral and international agreements to address the problem of stopping the illegal trafficking of chemicals and drugs in an effort to promote cooperation among neighbours.

The world's biggest producer of generic medications is India. According to the “World Drug Report” (2021), prescription drugs and their precursors or constituents are progressively being diverted for recreational use in India, according to the “World Drug Report”, 2021. The fact

that India is connected to the transportation of pharmaceuticals offered on the 19 main darknet markets examined between 2011 and 2020 is another concerning statistic. In 2024, the UNODC issued its annual World Drug Report, alerting the world's 300 million users to the rise in drug trafficking. Despite having 17% of the world's population, India barely contributes 2% of its GDP and 1% of its trade. The distribution of income is extremely unequal, poverty is still widespread, and the growth in per capita income has been sluggish. Drug abuse has increased recently due to these factors, India's location between the two biggest producers of illegal opium in the world, and the disintegration of traditional social capital brought on in part by widespread rural-to-urban migration and the influences of modernisation that goes along with it.

The majority of this criminal activity falls on "displaced, poor, and migrant communities," who sometimes have no choice but to work in illegal resource extraction or opium cultivation to make ends meet. As a result, civilians may become drug addicts or incur debt at the hands of criminal organisations.

1.8 CONCEPTS OF MENTAL HEALTH

Sound mental health is necessary for people to learn and work efficiently, manage the challenges of life, realise their full potential, and provide service to their communities.

1.8.1 DETERMINANTS OF MENTAL HEALTH

"A variety of individual, social, and situational factors may interact to affect our mental health" (WHO). Characteristics like heredity, substance abuse, and EQ, can make a person susceptible to mental health problems.

Protective influences help to build resilience which include our personal, social, and emotional qualities, and communal togetherness, among other things.

Many people get a mental health disorder even if they have no known risk factors. On the other hand, people may not undergo a mental health issue even when exposed to a risk factor. However, the interaction of mental health variables either strengthens or weakens mental health.

1.8.2 CONNECTION BETWEEN SUBSTANCE USE DISORDERS AND MENTAL ILLNESS

Drugs may affect one's mental well-being. They have the power to alter behaviour and mood. Long-term mental health issues might result from drug use. Substance misuse can either cause new symptoms of mental illness or significantly worsen existing ones. Additionally, alcohol and drug abuse can affect the way that antidepressants and anxiety medicines work to treat symptoms.

Adolescents with SUD also have significant rates of co-occurring mental disorders, according to research. Research indicates that drug and substance use are strongly linked to comorbid substance use disorders and anxiety disorders, such as panic disorder, and posttraumatic stress disorder. Depression, bipolar disorder, ADHD, psychotic disease and schizophrenia are among the mental disorders that co-occur with SUD. According to April 2020, around one in four people with severe mental illness have a relationship with an SUD.

1.9 DEFINITIONS OF TECHNICAL TERMS:

DRUGS

Drug can be defined as “any chemical substance which affects bodily function, mood, perception or consciousness which has potential for misuse and which may be harmful to the individual or the society” (Jullian,1977).

HARD DRUG

A drug which causes addiction leading to severe physical or psychological dependence is a hard drug. E.g. Heroin, Opioids, Ecstasy, hallucinogens like LSD. Hard drugs are considered more addictive, potent and toxic as compared to the soft drugs. Cocaine and Crystal meth are also hard drugs which cause severe health issues within a short span of time.

SOFT DRUG

Soft drugs are comparatively less harmful than hard drugs. Soft drugs are legally available and are socially acceptable than the hard drugs. E.g. Alcohol, Nicotine, Marijuana. Soft drugs are physically and mentally less addictive as compared to the hard drugs. Nicotine and alcohol are considered as soft drugs due to their legal status for adult use and social acceptability compared

to the hard drugs. However, alcohol, nicotine and marijuana can lead to major health issues and can cause mental health issues as they create complications in brain function.

DRUG ABUSE

Improper and illegal drug usage is known as drug abuse. Therefore, drug abuse is using substances like alcohol, tobacco, Ganja, opium, cocaine etc for non-medical purposes to experience pleasure.

DRUG DEPENDENCE

Drug dependence refers to the bodily dependence of a person on the use of the drug (physical dependence) or to the strong craving for the drug and the individual feels that his well-being depends only on its use (psychological dependence).

ALCOHOLISM

When an individual loses his control over his urge to consume alcohol and is unable to stay away from drinking, everytime he begins to drink, is known as alcoholism.

DRUG ADDICTION

According to WHO, “drug addiction is the state of intoxication, which may be periodic or chronic, caused by the repeated use of drug”. This is detrimental to the individual as well as to the society. It is the dependence of a person on the consumption of drugs.

1.10 ETIOLOGY/RISK FACTORS OF DRUG ADDICTION/ALCOHOLISM

Peer pressure or peer bonding has been identified as the risk factor of drug/alcohol addiction. Weak family and school bonding and strong peer bonding causes ATOD (Alcohol, Tobacco and other drugs) addiction (Elliotte & Voss,1974; Kandel,1982; Jessor & Jessor,1997; Hirschi,1969)

Self-medication: Self-medication(opium) to reduce anxiety and depression may cause drug dependence.

Family disruption: Family problems and conflicts as well as broken family causes drug dependence among the youth.

Lack of communication among the family members: When the parents are unable to maintain a healthy relationship among the family members and fail to inculcate healthy values among their children, they(the children) are at high risk of taking refuge in drugs thereby making them prone to drug addiction.

Predisposition: Genetic factors may also play a role leading to alcoholism and drug abuse.

Availability: Physical and emotional availability of drugs may cause drug dependence among the youth.

Personality factors: Personality disorder, low ego-strength, low emotional stability, higher anxiety and stress level are associated with heroin (drug) addiction.

Psychological factors: Self-esteem, self-confidence, assertiveness, risk taking behaviour are important in ATOD use among adolescents.

Parental drug addiction: Presence of a smoker or an alcoholic parent may increase the probability of ATOD dependence among the adolescents.

Cultural identity: Cultural identity is associated with increased or decreased drug use.

Ecological factors: Availability of drugs, low socio-economic status (low income, lack of employment opportunities) facilitate initiation as well as greater use of drugs among the minority youths.

Social and economic factors:

Curiosity:

ILL EFFECTS OF NICOTINE OR TOBACCO The ‘Centres for Disease Control and Prevention’ stipulate that cigarette smoke comprises of over 7,000 different chemical components, hundreds of which are hazardous to health. Here are few instances:

Rubber is made from a chemical called 1,3-butadiene. ‘Arsenic’ is used in the preservation of wood, however it is thought to be a carcinogen that can cause some blood cancers. Certain arsenic compounds have been connected to bladder, liver, skin, and lung cancer.

- Other compounds are made from benzoene. In humans, it can result in cancer, especially leukaemia. Batteries are made from the metal cadmium. In addition to being

linked to kidney and prostate cancer, cadmium and its compounds can cause lung cancer.

- Paint, pigments, and alloy metals are all made with chromium VI. Compounds containing chromium VI have been linked to nose and nasal sinus cancer as well as lung cancer.
- Resins and other compounds are made with formaldehyde. It serves as a preservative as well. Leukaemia and cancer in respiratory tissues are caused by formaldehyde.
- It has been demonstrated that the radioactive element polonium-210 causes cancer in animals.
- Tar refers to a group of compounds found in tobacco smoke rather than a particular component. It leaves your teeth, fingernails, and lungs with a sticky, dark residue.

CARBONDIOXIDE & NICOTINE: ‘Carbon monoxide’ is one harmful substance which smokers inhale. It leaves your lungs and enters your bloodstream. ‘Carbon monoxide’ lowers the quantity of oxygen transported by red blood cells. Furthermore, it raises cholesterol which is deposited in the arteries’ inner lining, which may eventually result in the hardening of the arteries. This leads to vascular disease, heart ailment. Nicotine is an addictive substance as well. The arteries (blood-carrying vessels) may narrow, and the blood flow of the heart, blood pressure, and heart rate may rise. The drug may also result in hardening of the artery walls, which can cause a heart attack. This material may stay in your body for six to eight hours, depending on how often you smoke. As with most addictive substances, there are also some withdrawal symptoms. Moreover, e-cigarettes and certain contemporary tobacco products contain significantly more nicotine than traditional cigarettes.

SECONDHAND SMOKE/ PASSIVE SMOKING: The consequences of tobacco smoke are not limited to smokers. For nonsmokers, especially kids, second-hand smoke and vapour pose a major health risk. Second -hand smoke has the capacity to increase the chance of heart disease in nonsmokers with high blood pressure or cholesterol. Second-hand tobacco smoke may cause premature deaths from lung cancer and heart disease. According to studies, those who are exposed to ambient tobacco smoke at work or home have a roughly 25–30% increased risk of heart disease. Compared to children of nonsmokers, children of smokers experience a significantly higher rate of respiratory infections.

1.11 DELIMITATIONS OF THE STUDY

1. The investigator collected data only from 300 college going respondents
2. To study UG students' mental health, the investigator used only one standardized test available from the market. She did not develop any mental health scale.
3. She collected data only from the Kolkata based college going respondents and not from the rural and semi-urban based colleges.

CHAPTER II

LITERATURE REVIEW

2.1. INTRODUCTION

The reviews have been arranged in two categories, namely, national reviews and international reviews. This chapter presents the national reviews first to gain an insightful perspective of the national concerns in the arena of drug and substance abuse and mental health. The international reviews are carried out to gain knowledge about the global challenges and concerns in the field of drug and substance abuse and mental health. The reviews have been carried out to explore the trend of research in the concerned areas and to contextualize the research gaps.

2.2. OBJECTIVES OF REVIEW OF RELATED LITERATURE

The objective and aim of this chapter is to carry out a systematic review of drug and substance abuse and mental health related research.

2.3. INDIAN RESEARCH ON DRUG ABUSE

1. **Dixit, S., Sharma, S., Sharma, N., & Patel, M. (2024) carried out a study on “A Quantitative Study to Assess the Effect of a Community-Academy Partnership Event on Knowledge, Awareness and Engagement against Substance Abuse.”**

Objective: The objective is to study the effects (quantitative) of the partnership between the community and the academy. An event named ‘Chaitanya Utsav’ was organized to understand the extent of knowledge, engagement and awareness regarding the drug misuse in local community, and additionally to evaluate the participant’s awareness and understanding regarding substance usage and indulgence in preventive efforts.

Method: Participants at the Chaitanya Utsav comprising of scholars and students were surveyed. The program included lectures, seminar that aimed at interacting with the students creating awareness about the hazards and potential threats of use of drugs and most importantly to recommend preventive policies. A pre-event survey had been carried out before the start of the Chaitanya Utsav in order to collect the preliminary data.

Findings: The sample was of 150 participants. Low engagement and incomplete knowledge of substance abuse was found to be prevalent among a significant number of students (n=45). 55.5% had low knowledge scores, whereas 66.6% reported zero community involvement. 44.4% reported that they were not aware of prevention programs, thereby indicating low awareness levels.

2. Venkatesh, U., Aparnavi, P., Mogan, K.A., Durga, R., Pearson, J., Kishore, S., Joshi, H.S., Nair, N.S., Nisha, B., & Agarwal, R. (2024) carried out a study on “Determinants of substance use among young people attending primary centres in India.”

Objective: To evaluate the pattern of use of substances among individuals attending healthcare centres in India and to find out the determinants of use of substances.

Method: 15 states in India were surveyed. Sample size was 1630 young individuals belonging to the age category of 10-24 yrs. The ASSIST questionnaire was administered on individuals attending primary healthcare centres.

Findings: Substance use was found to be prevalent at 32.8%. 75.5% users had started substance use around adolescence. Tobacco, alcohol and cannabis were commonly abused. Substance using individuals mostly belonged to the lower socio-economic status.

3. Dogra, A., Tiwari, J.K., & Bhardwaj, O.P. (2023) studied “Awareness of Drug Addiction among law students in Himachal Pradesh.”

Objective: To assess the awareness of law students about drug addiction in Himachal Pradesh, to study the differences in their awareness levels with regard to their gender, area and type.

Method: Technique of random sampling was employed for collection of data. 50 law students from four law colleges of Himachal Pradesh made up the sample.

Findings: No significant difference in awareness about drug abuse was found among the law students as far as their area and type of college was concerned. However, significant difference in drug abuse awareness was found with respect to gender with boys having mean score than the girls.

4. Parmar, A., Bhatia, G., Sharma, P., & Pal, A. (2023) carried a study on “Understanding the epidemiology of substance use in India: A review of nationwide surveys.”

Objective: The objective is to explore the epidemiological studies undertaken to provide data on use of substances in India.

Method: Review of literature of nationally conducted surveys on substance use across India.

Findings: A lack of regular monitoring on the prevalence of substances was reported. The study indicated the need for upscaling prevention programs and treatment services. Relevant data that emerged highlighted that the trend of abuse of drugs and substances. Tobacco use by men was 57% and 11% among women (2005-2006). Licit cannabis use was 2% compared to illicit cannabis use which was reported at 1.2% (2019). Opioid use was found to be 0.7% and heroin use was reported at 0.2%. Substance abuse was found to be lesser in females than in males.

5. Dutta, D. K., Sen, D. J., & Mahanti, B. (2023) studied “The role of hard drugs and soft drugs in Pharmaceutical Sciences.”

Objectives: To have a clear understanding of the pharmaceutical concept of hard and soft drugs, their concepts, effect of drug addiction on the brain.

Method: A quantitative analysis of published literature on pharmaceutical sciences.

Findings: Soft drugs are considered to be physically or psychologically less addictive as compared to hard drugs, however, they are equally unsafe. E.g. Cannabis. The brain’s reward circuit is affected by all drugs which is the seat of instinct and mood. Use of drugs causes release of dopamine that has effect on our emotions and feelings of pleasure. Release of dopamine causes a feeling of high among the users and this leads to addiction.

6. Banerjee, T. (2023) carried out a study on “Comparative study of Drug Addiction, Alcoholism between single child and more than one child in college level students in West Bengal.”

Objective: To evaluate the impact of family size on the frequency and pattern of drinking habit and abuse of substances among the college going students of West Bengal and to understand

how being a single child or having siblings contributes towards the substance misuse among young adults.

Method: A mixed method approach was employed to collect information from students studying in colleges in West Bengal with the help of surveys and in-depth interviews.

Findings: Peer pressure, familial ties, demographic and socio-economic factors are connected to addiction among the young adults examined in the study. The drinking habits of college students who are single child is significantly higher than those who come from families with several children. Similarly students coming from homes with just one child have significantly higher drug use compared to students who came from families with several children.

7. Srivastava, S., Kumar, P., Ronak Paul, R., & Dhillon, P. (2021) carried out a study on “Does substance use by family members and community affect the substance use among adolescent boys? Evidence from UDAYA study, India.”

Objective: To examine whether there is any correlation between substance use among members of the family and the community with the adolescent boys’ use of substances.

Method: Around 6000 adolescent boys of the age group of 10-19 yrs from UDAYA were surveyed. An effort was made to understand the association between substance use behaviour of adolescents and their family history.

Findings: 16% adolescent boys were abusing substances. Substance abuse was higher among the school drop outs (40%). 28% of them came from families with family history of tobacco, alcohol abuse and abuse of drugs. Adolescents were more likely to abuse substances to come from substance abusing communities.

8. Gupta, H., Gupta, S., & Rozatkar, A.R. (2021) carried out a study on “Magnitude of Substance Use and its Associated Factors Among the Medical Students in India and Implications for Medical Education: A Narrative Review.”

Objective: To review literature on the extent of use of substances and related problems among the UG students of India.

Method: Online databases were reviewed to study the relevant literature.

Findings: 39 relevant reviews were found. Medical students were found to abuse alcohol (43.8%), tobacco (28.8%) and cannabis (15%). Use of sedatives among the females was higher than the males. Family history and peer pressure were the responsible factors.

9. Kovilveettil, A.N. (2021) carried out research on “A study on substance abuse among young people (10-24 yrs) in urban slums of Jorhat, Assam.”

Objective: To evaluate the trend of substance abuse by urban slum dwellers, to assess the contributing factors and recommend suggestion.

Method: An Interviewers Proforma by the Institutional Ethics Committee was employed. Data was collected using the Proforma which was administered on 174 slum dwellers. Only those in the age category of 10-24 yrs were included. Also, those who wished to participate willingly were made a part of the survey.

Findings: 22-24 yrs old males predominantly abused substances compared to the females. Tobacco and alcohol were the most most commonly abused substances. Peer influence was the major reason the initial exposure to substance abuse. The frequency of substance abuse ranged from multiple times daily to weekly. The substances were obtained from local peddlers. Hallucination and euphoria were the feelings experienced by the substance abusers. The side effects of substance abuse were ulcers and malignancy.

10. Saikia, N., & Debbarma, B. (March, 2020) carried out a “Study on the socio-economic correlates of substance use among male adults in North East India.”

Objective: To evaluate the correlates, which are of socio-economic nature, substance consumption among adult men of North East India.

Method: They analyzed the data from the ‘National Family Health Survey’ (2015-2016). They studied the prevalence of smoking and alcohol consumption. The sample consisted of 14,555 men in the age group of 15 to 54 years.

Findings: Substance use was found to be higher among the male adults of NEI (70.83%) while the rest of the country was reported at 50.03%. Smoking and consumption of alcohol was also found to be higher. There are more than ten million substance users approximately, 6.7 million from Assam. 44.38% of adolescents (aged 15-19yrs) consumed at least one type of substance. The pattern of indulgence in substances rises in the 25-49 age category. The probability of

substance use lowers with higher education and family income. ST adults are most likely to use substance.

11. Prajapati, B.B., Dedun, M.R., Jalfava, H.S., & Shukla, A.A. (2019) carried out a study on “A study of socio-demographic profile and pattern of drug use among substance abusers attending mind care de-addiction center in Ahmedabad.”

Objective: To study the socio-demographic pattern of drug use among substance abusers.

Method: The survey was carried out on one-hundred participants at a de-addiction centre, Ahmedabad who were administered a semi-structured questionnaire.

Findings: Males were the major substance abusers (98%). 46% of the substance abusers belonged to the age category of 31-45 yrs.

12. Arlappa, P., Jha, S., & Jayaseeli, S. (2019) studied the “Impact of Addiction on Family: an Exploratory Study with reference to slums in Kolkata.”

Objective: The paper studies the respondents’ socio-economic background, sociological effect of addiction in a family and the strategies of intervention to tackle the challenge of addiction.

Method: Interaction with the women and young members of the affected families living in the slums of Tangra, Kolkata was carried out. The method of snowball sampling was employed in collaboration with an NGO working in the area.

Findings: The study identified stressors-like physical abuse, conflict, economic problems within the family which give rise to addiction which leads to family dysfunction dynamics leading to mental health issues.

13. Haldar, D., Majumdar, K. K., & Roy, S. (2018) carried out a study on “Substance Abuse among the Undergraduate students of a Medical College of Kolkata.”

Objective: The objective was to find out the socio-demographic pattern and kind of substances abused by the UG medical students of a South Kolkata Medical College.

Method: The method of “stratified random sampling” was adopted, whereby 452 students were selected. A standardized questionnaire was used to collect data. Data was analyzed using suitable statistical tests.

Findings: Substance abuse was prevalent at 60.26% among the students. Alcohol was the most commonly abused after cigarettes.

Conclusion: Lack of health consciousness was noted among the medical students as they indulged in substance abuse despite knowing their health hazards. This was due to an increased academic and peer pressure.

14. Sarkar, K., Roy, S.K., & Singh, R. (2018) carried out a “A Study of substance abuse among male engineering students staying at hostels in a township near Kolkata.”

Objective: The objective is to realise the prevalence of substance abuse among the male engineering students who stay in hostels.

Methodology: A two-part questionnaire proposed by WHO (WHO-ASSIST) was administered, one part covering screening tests (8 items) on alcohol, smoking and substance involvement. The second part was on socio demographic details.

Results: It was found that 66.0% and 22.0%, were the respective percentage of use of tobacco and alcohol. Students also abused cannabis. Students of government colleges abused more substances than the private colleges.

Conclusions: Government male engineering students who resided in the hostels showed higher level of substance abuse.

15. Arora, A., Kannan, S., Gowri, S., Choudhury, S., Sudarasan, S., & Khosla, P.P. (2016) carried out a “Study on Substance Abuse among the medical students in a developing country.”

Objective: To find out the prevalence of substance abuse among the medical students in a North Indian medical college.

Method: A validated questionnaire was administered on UG and PG medical students of a private medical college to carry out a cross-sectional study.

Findings: 110 (47.8%) were male respondents and 120 (52.2%) were female respondents. Majority lived in a hostel. Prevalence rate was 20.43%. Prevalence found to be significantly higher in males. The PG students were observed to abuse more than the UG students.. Stress was the most common reason for substance abuse. Several substances were being abused such

as alcohol(19.13%), smoking (4.34%), tobacco (chewing 2.17%) and cannabis. More than one substance was being used by the abusers.

16. Daniel, D., Shetty, D., Jose, G.J., Haritha, J., Ravi, J., Pillai, L.S., Neghandi, A., Santhosh., & Kundapur, R. (2015) carried out a study on “Attitude of college students towards alcohol consumption in Mangalore.”

Objective: To study the attitude of college students about consumption of alcohol.

Method: A survey was conducted in the colleges under NITTE University and a questionnaire comprising of questions covering the objectives of the survey was administered on the students present at the time of survey.

Findings: Out of the 1150 students surveyed, 26.4% students consume alcohol. Of these, 61.84% students thought that it was not a risky habit. 72.03% students said that they do not wish to stop their drinking habit. The rest of the students were aware of the harmful effects of alcohol consumption.

17. Datta, A., Bhattacharya, A., & Naskar, N. N. (2015) carried out a study on “Study of substance abuse among medical students of a medical college in Kolkata.”

Objective: To assess the extent of substance abuse and evaluate the associated socio-economic factors.

Method: A study, which was cross-sectional in nature, among the medical students of a randomly selected medical college in Kolkata was conducted. It was ensured that students across all semesters are covered in the study. Data was analysed and tabulated.

Results: Information was collected from eight hundred students. 57% was the prevalence of substance use. Second year students (76%) were found to use more drugs than the other years. The most commonly used substance was tobacco (57.4%) followed by alcohol and cannabis. The respondents cited tension to be the primary reason for substance abuse. The major source of drugs were friends.

18. Gupta, S., Singh, S. S., Kumar, D., Kaur, T., & Arora, S. (2013) studied the “Prevalence, Pattern and Familial Effects of Substance Use Among the Male College Students in Chandigarh.”

Objective: A survey was conducted among the college going students of Chandigarh to find out the pattern and prevalence of substance abuse.

Method: A community-based study was conducted. The data was collected by ‘stratified random sample’. The WHO questionnaire was consulted. The sample size was 256.

Findings: Prevalence rate was found to be 52.7% among age group 19-21 years. Law students (76.2%) were the highest abusers. Alcohol was most commonly abused substance, smoking secured the second spot and the third spot was occupied by the use of cannabis. 49% were daily users. The most common reason for abuse was to get relief from stress of the psychological kind.

Conclusion: The researcher suggests that there is a need for education and counselling young students about the ill effects of substance use.

19. Ghosh, G. (2013) carried out a study on “Substance abuse among Young People in India- Approaches at Curbing the Menace.”

Objective: This paper explores the pattern, trends and extent of substance abuse among children in India.

Method: Review of research studies and field based observations of the marginalized drug-addicted children in collaboration with an NGO bestowed with the responsibility of carrying out the Ministry supported Drug De-Addiction and Integrated Child Protection Scheme. It also addresses challenges of substance abuse.

Conclusion: 40% of the high risk substance abusers are below 18 years of age. Teenagers in WB, Andhra Pradesh, U.P. and Haryana are using gateway drugs. Children from Low economic status take up smoking every year.

Suggestions: There is a requirement for intervention to manage the substance abuse determinants in the Indian context. There is a need to focus beyond the interventions of the bio-medical and behavioural modification approach.

20. Sahu, K.K., & Sahu, S. (2012) carried out a “Study on Substance Abuse: Causes and Consequences.”

Objective: Exploring the menace of substance abuse in the Indian youngsters.

Methodology: Systematic literature review of research papers and relevant articles.

Results: Abuse of substances affect all the segments of the Indian society. Use of alcohol, tobacco and other drugs is a wide spread occurrence among the youngsters. Psychoactive drug abuse is an issue of national importance. Substance abuse is a major concern as it is a public health hazard. Substance abuse is rising at an alarming rate globally with worsening health, increased criminal activity, decreased productivity, degrading relationships, descending societal and moral values. The biggest target of the threat of substance abuse are the vulnerable youngsters.

21. Murthy, P., Manjunatha, N., Subodh, B.N., Chand, P. K., & Benegal, V. (2010) carried out a research on “Study on the substance use and addiction research in India.”

Objective: This paper examines research on substance use and related disorders in India.

Method: Online systematic review of the ‘Indian Journal of Psychiatry’ was carried out. It included articles pertaining to reviews of substance use, case studies and reports having significant implications. Review includes research sites like Medlar (1992-2009) and Pubmed (1950-2009). Epidemiology and clinical issues like diagnosis, psychopathology and comorbidity were studied.

Results: Relevant publications are found in IJP-200. 537 International journals relating to substance abuse were found. Studies between 1968-2000, primarily focused on alcohol abuse. Prevalence of overall substance use was recorded at 6.9/1000 for urban India and rural rates of 5.8 and 7.3/1000 population. The rate of abuse among men was about 12% and among women was about 2%.

22. Ahmad, N., Bano, R., Agarwal, V.K., & Kalakoti, P. (2009) carried out a “Study on substance abuse in India.”

Objective: The objective is to analyse the substance abuse epidemic in India which encompasses the youngsters.

Method: Qualitative study of literature related to the problem of abuse of drugs in the country.

Findings: Drug abuse among adolescents is at an all-time high. About 50% of boys have abused a substance by the time they reached the 9th grade. Cannabis and heroin are the most frequently abused in India. According to statistics, the most commonly abused substance is alcohol followed by cannabis. Users of alcohol include subjects as young as 15 year old. In U.P., the most consumed substance was alcohol (82.5%) followed by cannabis (16.1%). All these have an adverse effect on the socio-cultural and economic conditions as well.

23. Naskar, N.N., & Bhattacharya, S.K. (1999) carried out “A Study on Drug Abuse among the undergraduate medical students in Calcutta.”

Objective: To study the prevalence of drug abuse among the undergraduate medical students in Kolkata.

Method: The UG students in two medical colleges of Kolkata were surveyed.

Findings: The prevalence rate was 48.9% and 27.9%. One interesting fact that surfaced was that the rate of drug abuse increased with each advancing academic year i.e. 24% in the first year to 74.4% in the final year. The usage among the boys (about 60%) was significantly higher than that among the girls (26%). Those living in hostels were found to be more frequently using drugs compared to the non-hostellers.

24. Das, Indira (1993) studied the “Drug cognizance of late adolescent school students in Kolkata.”

Objective: To understand the mentality of those youths who had knowledge of drugs, acquaintance with drug addicts, lived in the social environment with social permissibility for drug taking and with availability of drugs in the market but kept themselves aloof from developing drug habits and comparing them with youths who are drug addicts against certain

approved indicators like nature of drug cognizance, locus of behaviour control, personality characteristics and values of life.

Method: 480 boys and 480 girls were selected randomly from 36 Higher Education schools, equiproportionately scattered over the North, South and Central zones of Calcutta (Kolkata). They were students of H.S. school leaving class and belonged to age-range 18-19 years. Drug Abuse Information Schedule (locally built) and Drug Cognizance Questionnaire (locally constructed and standardized) were used for data collection.

Findings: 39% boys and 36% girls had the experience of different stimulant drugs and narcotic substances. Greater percentage of them had to live with addicts in their primary group life and had acquaintance with drug addict contemporaries and senior youths in the community-comparatively higher in frequency than the low cognizant group. High cognizant students were found with the following personality characteristics- less participating, less emotionally stable. Only 6% boys and 5% girls of low cognizant group had one or two accidental experience of drug-taking. They were highly sociable and emotional.

Conclusion: The student population was inquisitive about the harmful effect and health hazards of drug abuse. 14% were recognized as high cognizant group, 68% were the moderately cognizant group and 18% students were described as the low cognizant group or risk free group.

25. Khan, M. Z., & Unnithan, N.P. (1979) studied the “Sociocultural differences between former and current users of psychoactive drugs in a sample of college students.”

Objective: To study the sociocultural factors that differentiate previous drug users from drug users who are currently using drugs among the college youth.

Method: The sample consisted of both sets of drug using and non-drug using urban college students.

Findings: There was little difference between the two sets as they belonged to a similar social milieu. Drug users who stopped abusing drugs were primarily belonging to the middle/lower socioeconomic status and had drug abstaining family members. They included junior students enrolled in professional courses. It was their personal decision to give up drugs prompted by

their family members' influence and their own drug experience. This is how former users differed from the current users.

26. Dube, K.C., Kumar, A., Kumar, N., & Gupta, S.P. (1977) carried out a “Study on drug use among college students-an interim report.”

Objective: To analyse the pattern and extent of the non-medical usage of drug which might cause dependence among the PG students of colleges in Agra, Uttar Pradesh.

Method: Survey method

Findings: Drug use was found to be the highest at 80.66% among the male medical students. The males were found to use substances like alcohol, barbiturates, Mandrax, Vesparax, Equanil, Librium, pain killers and cannabis. The female students mainly used painkillers. The main reason for drug use cited by majority of the students (50-59%) was to relieve stress and feel relaxed. The common effects of drug abuse were sleepiness, sluggishness, giddiness, lack of concentration.

Conclusion: A need for stringent measure to curb the menace of drug use was favoured.

2.4.INDIAN RESEARCH ON MENTAL HEALTH

27. Chakrapani, V., & Bharat, S. (2023) carried out a study on “Mental Health in India: Sociocultural dimensions, policies and programs- An introduction to the Indian Series.”

Objectives: To assess the mental health scenario in India with respect to the sociocultural dimensions, policies and programs.

Method: Review of related literature.

Findings: There has been a rise in mental health issues like depression and anxiety due to socio-cultural transformations and decline in cultural and moral values. Prevalence of mental health disorders was higher among the females. Urbanization and pressure to excel at education were found to be the triggering factors. Stress, stigma and discrimination leading to marginalization contribute to o-occurrence of mental health problems.

28. Meghrajani, V. R., Marathe, M., Sharma, R., Potdukhe, A., Wanjari, M. B., & Taksande, A. B. (2023) carried out a research on “Study on A Comprehensive Analysis of Mental Health Problems in India and the Role of Mental Asylums.”

Objective: To study the mental health scenario in India, the roadblocks, initiatives and the future steps to be taken for improving mental healthcare delivery. The study discusses the state of mental asylums and the associated challenges including stigmatisation, human rights concern, quality care and the requirement for alternative approaches to mental healthcare.

Method: A comprehensive study of related literature on problems of mental healthcare in India was carried out. ‘PubMed’ and ‘Google Scholar’ were searched covering a wide range of studies.

Findings: Studies report high prevalence rates of 9.5 to 370 per 1000 people in India. This emphasizes the need for intervention to cater to the mental well-being of the population. Mental illness bears social stigma in Indian society resulting to discrimination and social isolation of those with mental health difficulties.

29. Guleria, P. (2022) carried out a study on “Examining Depression among Male and Female College Students.”

Objective: To study depression among the college students.

Method: Hindi version of “Beck’s Depression Inventory” was administered on 80 students belonging to the age range of 20-22 yrs.

Findings: Depression was higher among the female students as the female students scored higher in the dimensions of dejection, worthiness, guilt and apprehension.

30. Dhyani, A., Gaidhane, A., Choudhari, S. G., Dave, S., & Choudhary, S. (2022) carried out a research on “Study on Strengthening Response Toward Promoting Mental Health in India: A Narrative Review.”

Objective: To study the prevalent mental health situation in India.

Method: A review of related literature was carried out using digital platforms like Google Scholar and PubMed database.

Findings: Emphasis on community mental health requirements. The essential elements for effecting change at the community level include public health initiatives, awareness and information dissemination, and educational and communication activities.

31. Ransing, R., Kar, S. K., & Menon, V. (2021) carried out a study on “Mental Health Research in India: New Challenges and the Way Forward.”

Objective: The purpose of this paper is to discuss the potential influence of the new legislation on several components of mental health research. The report further dives into the obstacles and barriers related with mental health research in India.

Method: Related Literature Review

Findings: According to “Mental Health Care Act 2017”, mental health researchers may get informed consent from the caregiver of the patients with psychotic disorder, schizophrenics, manic and severe depression, alcohol withdrawal symptoms and so on in their pursuit of mental health research. The consent of the “State Mental Health Authority (SMHA)” is required in this regard. The challenges faced comprise lacking adequate mental health practitioners, limited research training opportunities, low priority attributed by the government to mental health.

Recommendations: Mental health practitioners should be provided exemption from getting approval from SMHA for research. Necessary support to mental health researchers should be provided in order to clear regulations and procedures to enable them to focus on research. Professional organizations like the Indian Psychiatric Society can set guidelines for mental health researchers and stakeholders of SMHA pertaining to the review and approval of multi-state research proposal.

32. Sakthivel, A., Kannappan, S., & Panicker, A. S. (2021) studied the “Prevalence of Mental Health Problems among High School Students.”

Objective: A study was done to analyse the mental health condition of children in India and to discover the contributing factors affecting mental health.

Method: A “cross-sectional study” was done among high school students, in the age group of 15-17 years, in a government aided school in Coimbatore over a period of 2 months.

Results: The study found at least 50% of the pupils had some type of mental illness. Depression (about 60%) and anxiety (about 64%) were prevalent followed by stress (39%).

33. Waghmare, R.D. (2018) carried out “A Study of Mental Health among Male and Female College Students.”

Objective: The purpose of the study was to analyse the mental health of male and female college students and evaluate the gender difference with respect to their mental health.

Method: 100 college students, (50 male and 50 female) were administered Jagdish and Srivastav’s “Mental Health Inventory”. The sample consists of 50% urban and 50% rural college students.

Findings: Male college students were found to be mentally more healthy than the female students with regards to the mental health dimensions of “Perception of Reality”, “Autonomy”, “Group Oriented Attitudes”.

34. Malla, A., Joobar, R., & Garcia, A. (2015) carried out a study on “Mental Illness is like any other medical illness: a critical examination of the statement and its impact on patient care and society.”

Objective: The first to coin the term “mental health” was Plato. It was defined as a reason controlled by emotion and assisted by temper. Griesinger, 200 years ago, emphasised that mental illness is related to illness of the brain. This paper discusses the causes underlying mental illness and its effects. The term mental illness should be treated like any other medical ailment having a biological basis.

Method: Thorough study of research on biological psychiatry.

Results: Mental disorders damage the core of an individual as he or she confronts events of different intensity. It transforms the person’s thinking, consciousness and perception of the self, others and the world. It is crucial that the individuality of each individual be appreciated and similarly the awareness of mental disease like any other medical ailment should be shared.

35. Kansal, A.K., & Bala, C. (2015) studied the “Relationship among Mental Health and Emotional Maturity of 10th class adolescents.”

Objective: To evaluate the association of mental health and emotional maturity of class 10 teenagers of Bhatinda District.

Method: The sample consisted of 580 adolescents of the 10th class of Bhatinda District. The approach employed to acquire the sample was stratified random sampling. The tools used for data gathering were ‘Mental Health Battery’ (Singh & Gupta, 1983).

Findings: There is a strong negative link between mental health and emotional stability, social adjustment and independent determinants of emotional maturity.

2.5 FOREIGN RESEARCH ON MENTAL HEALTH

36. Majeed, T., Hopkins, G., Wang, K., Nepal, S., Votruba, N., Gronholm, P., Gurung, D., Semrau, M., Bagade, T., Farina, N., Musyimi, C., Pingani, L., Breuer, E., Lund, C., Thornicroft, G., & Evans-Lacko, S. (2024) carried out a study on “Anti-stigma interventions in low income and middle income countries: a systematic review.”

Objective: To review anti-stigma interventions taken in low and middle income countries across diverse identities and health conditions.

Method: 10 online database review of literature.

Findings: Diverse segments of population received intervention which resulted in stigma-related addressal of issues. The positive outcomes, that were reported, clearly highlight the need for interventions to reduce stigma.

37. Campbell, F., Blank, L., Cantrell, A., Baxter, S., Blackmore, C., Dixon, J., & Goyder, E. (2022) studied the “Factors that influence Mental Health of University and College students in the UK: A Systematic Review.”

Objective: To discover parameters associated to mental health of students in higher education in the United Kingdom.

Method: A systematic review of observational studies was done for evaluating factors related with student mental well being and bad mental health. Five databases were intensively searched. Studies completed in the UK have been included (2010-2020).

Findings: From the 31 studies that were examined, the characteristics consistently related with higher risk of having poor mental health included pupils with a history of traumatic experiences in childhood. Factors supporting wellbeing included helpful and strong social networks. Students who are well acclimated to the adjustments they encounter while transitioning to higher education report improved mental health.

38. Schauman, O., Macleod, A.K., Thornicroft, G., & Clement, S. (2019) carried out a study on “Mental illness related discrimination: The role of self-devaluation and anticipated discrimination for decreased well-being.”

Objective: To study the correlation between the discriminatory behaviour that people with mental illness experience, and their well-being.

Method: Data was collected from specialised mental healthcare services in South London, U.K.

Findings: High degree of discrimination was found to be associated with lower well-being, This was characterized by stigmatization and hopelessness. These were again associated with fear of negative stereotypes and demoralization.

Suggestions: Discrimination against mental illness is an area which is under researched and needs to be addressed to enhance the state of well-being of individuals having mental health issues.

39. Wainberg, M.L., Scorza, P., Shultz, J.M., Helpman, L., Mootz, J.J.J., Neria, Y., Bradford, J.M., Oquendo, M.O., & Arbuckle, M.R. (2017) carried out a study on “Challenges and Opportunities in Global Mental Health: a Research to Practice Perspective.”

Objective: To review how accessible mental health services are in low and middle income countries, to evaluate the mental health gap in services being provided, identification of the challenges and scope for further research.

Method: Review of related literature

Findings: There exists a treatment gap in the mental health sector. Globally, there is a need to enhance the access to mental health services of high quality. Research capacity needs to be increased and focussed on mental health issues.

Suggestions: The need of the hour is to build the capacity for more research, clinics and policies to overcome barriers.

40. Pedrelli, P., Nyer, M., Yeung, A., Zulauf, C., & Wilens, T. (2014) carried out a study on “College Students: Mental Health Problems and Treatment Considerations.”

Objective: A study on the concerning problems of mental health among the college students on their psychological health as they cope with academic pressure. An attempt is made to summarize the treatments given to the college students with mental health problems and assessing the age of onset of their psychopathology.

Method: An online survey of 2822 college students’ mental health.

Findings: Eating disorders like bulimia, anorexia and binge eating are a major health issue related with the mental health issue of the youngsters as they cope with academic, social and peer pressures. Depression (36%), anxiety disorders (15%), panic are often the common mental health issues. However the students seeking intervention and treatments are quite low owing to the social stigma attached with mental health issues. Another important finding was that more women receive treatment compared to men (39% vs 30%).

Suggestions: Technology based programs could be employed for screening as well as for treatment of the college students dealing with mental health issues as they shy away from seeking support as they worry about what the others would think.

2.6 INDIAN RESEARCH ON DRUG ABUSE AND MENTAL HEALTH

41. Srivastava, A. (2024) studied the “Impact of substance abuse on mental health among students in India.”

Objective: To study the impact of substance abuse on the psychological well-being of the students.

Methodology: Secondary data from databases like PubMed and Science Direct was studied. The time frame of 2015-2023 was selected for carrying out the study.

Findings: 21.8% students abuse substances with the prevalence higher among the urban students. Male students abuse substances more than the female students however the gap is found to be closing with each passing year due to cultural and social factors playing a determining role in influencing the behaviour of the young generation. Alcohol and tobacco are the leading substances of abuse. 18-20% students having substance use disorder as well as mental health disorders.

42. Ali, A., Gujar, N.M., & Deuri, S.K. (2024) carried out a study on “Prevalence of Mental Health Problems and Substance Use among school going Adolescents of Tribal Ethnicity: A Preliminary Study from N.E. India.”

Objective: To assess the prevalence of mental health issues and substance abuse among the tribal adolescents.

Method: A descriptive study design was adopted and was carried out across the 5 N.E. states. Sample was collected from schools based on convenience sampling. Two schools were selected per state from areas with high tribal population. 983 adolescents participated in the study.

Findings: Highest prevalence of mental health issues were found among the adolescents of Arunachal Pradesh (41.9%). Manipur reported lowest prevalence at 14.22%. Substance abuse was highest in Nagaland at 29.44%. 28.04% of the students in Meghalaya abused marijuana and cocaine.

43. Negi, M. (2023) carried out a study on “Substance Abuse’s Effect on Mental Health: An Assessment of Himachal Pradesh.”

Objective: To study the relationship between mental health and substance abuse emphasizing the correlation, consequences and significance of addressing them collectively.

Method: Himachal Pradesh was selected as the area of study. Meta analysis technique was adopted to quantitatively analyze the data. Websites like Google Scholar and Scopus indexed journals were searched for data on substance abuse and mental health in Himachal Pradesh. Meta analysis was carried out to to analyze the data obtained from 22 independent studies.

Findings: Substance abuse problems coexist with severe mental illnesses. Environmental factors like stress and unfavourable life events contribute to the dual disorder of substance abuse and mental health. Drug trafficking via Pakistan occurs at an alarming rate in Himachal Pradesh due to its geographically vulnerable location. LSD, Morphine and Chitta are the common drugs. 3.2% of the population uses charas and Ganja in Himachal Pradesh. Severe mental illness and substance abuse was found to coexist. The stigma associated with the dual disorder leads to marginalization.

44. Singh, S., Singh B., & Pal, Y. (2017) carried out a study on “A Review of Indian Research on Co-occurring Psychiatric Disorders and Alcohol Use Disorders.”

Objective: The study is meant to review, in a systematic manner, Indian literature on alcohol use disorders and psychiatric diseases.

Method: Relevant literature on co-occurring psychiatric problems and alcohol problems is investigated systematically utilising several search platforms like Google Scholar, digital archives etc.

Findings: The research put light on the fact that excessive usage of alcohol has been highlighted as a key contributor to the worldwide burden of disease. According to statistics, alcohol misuse accounts for 5.9% fatalities globally. Alcohol usage has been connected with increased morbidity and mortality at the worldwide level.

45. Singh, V. P. (2002) carried out a “Study on the personality of drug users in relation to their value and mental health.”

Objective: To study and compare the different personality factors of types of drug users.

Method: The Multi-variables personality inventory was administered on 200 heavy, 200 occasional and 200 non-drug users.

Results: Non-drug users showed better social desirability than heavy and occasional users of drugs. The occasional drug users had high extraversion than non-drug users and heavy drug users. The heavy drug users are not conscious of their psychological difficulties and have excessive dogmatism. Non-drug users and occasional drug users have high ego-ideal than heavy drug users. Non drug users have great self confidence and high domineering personality. Non-drug users have significantly greater self-confidence, empathy, dominance, have low

emotional instability, more autonomy, better mental health, high social maturity than drug users.

2.7 FOREIGN RESEARCH ON MENTAL HEALTH AND DRUG ABUSE

46. Seabra, D.S. (2025) carried out a study on “History of psychotropic drugs: reopening question.”

Objective: To understand the biochemical effects that the psychotropic drugs produce on mental health.

Method: Historical review of psychotropic drugs and its link with psychiatry.

Findings: The study reflects the use and impact of psychotropic drugs on mental health treatment and highlights the multiplicity of effects that the psychotropic drugs can have.

47. Baingana, F., al’Absi, M., Becker, A. E., & Pringle, B. (2015) studied the “Global research challenges and opportunities for mental health and substance use disorder.”

Objective: This paper looks at the challenges occurring due to the rising health, economic and social burdens connected with mental health and substance use disorders.

Method: PubMed and Google Scholar databases.

Findings: There is focus on research for global mental health and drug use disorders primarily to respond to the unmet requirements in poor and medium income nations. Innovation in service delivery is showing encouraging outcomes and is enhancing the quality of care as well as access. The Social Development Goals established by UN (2015) recognises mental health as an element of universal health coverage.

48. Braslow, J.T., & Marder, S.R. (2019) carried out a study on “History of Psychopharmacology.”

Objective: To understand psychiatry’s dependency on psychiatric drugs in the care of patients.

Method: Historical review of related literature

Findings: The success of psychopharmacology was not because of the effective pharmaceuticals but a consequence of a complicated combination of political, economic

circumstances, pharmaceutical marketing, breakthroughs in basic sciences and changes in the mental health-care system.

2.8 FOREIGN RESEARCH ON DRUG ABUSE

49. Okorie, Charity., Omale, Caroline., Josephine E. Ben, Ochigbo., & Johnson, Ben Obakpo. (2020) studied the “Statistical Analysis of the Effect of Drug Abuse on Academic Performance in Wukari.”

Objective: The study tries to establish the relation between poor academic performance and use of drugs. The purpose for this research is because it has been seen that anytime students begin to involve themselves in drug usage, they start to perform poorly in the academics.

Method: Data was collected through distribution of questionnaire in Wukari. The questionnaires given out were 215 and the number realized was 182. Chi-square was used for the analysis.

Results: It was observed that drug abuse has effect on student’s academic performance.

50. Baptiste-Roberts, K., & Hossain, M. (2018) carried out a study on “Socioeconomic Disparities and Self-reported Substance Abuse-related Problems.”

Objective: To find whether substance abuse differs with respect to the socioeconomic status.

Method: The 2013 ‘National Survey on Drug Use and Health’ was administered on participants who abused illicit drugs.

Findings: Participants belonging to “lower socioeconomic status” were found to be over using illicit drugs.

51. Hsu, J., Lin, J., & Tsay, W. (2014) carried out a study on “Analysis of drug abuse data reported by medical institutions in Taiwan from 2002 to 2011.”

Objective: To review and analyse the data of drug abuse retrieved from the database of the “Taiwan Surveillance System of Drug Abuse and Addiction Treatment” from 2002 to 2011.

Method: Review of related literature based on the database of drug abuse cases as provided by the Taiwanese medical institutions.

Findings: The top 5 reported drugs which are abused by medical institutions was found to be heroin and methamphetamine. The abuse of heroin was significant but has thereafter exhibited a declining trend. Ketamine and zolpidem are drugs which are increasingly being abused and have displayed growing tendencies. MDMA abuse has re-emerged and has increased progressively. Factors responsible for drug misuse were substance dependence, peer influence and stress alleviation. It should be emphasised that the availability of drugs by means of the Internet has expanded yearly, and the same requires regular monitoring.

52. Patrick, Megan E., Wightman, Patrick., Schoeni, Robert F., & Schulenberg, Johnne. (2012) carried out a study on the “Socio-economic status and Substance use among Young Adults: A Comparison Across Constructs and Drugs.”

Objective: To find out if socio-economic status and substance misuse are related. The most important socio-economic status indicator is the family SES, for example income, family wealth and education of parents. The major aim of this study is to find out the correlation between the SES and the usage of substance among the college going adults.

Method: Data was gathered from a study of USA families that contains data from parents and children. The data was gathered from a sample of young adults, in the age group of 18–23 years old in 2005 and 2007. The background on the basis of socioeconomic variables was determined on the basis of education of the parents, income and wealth (birth to age 17 years).

Results: The tendency to smoke in young adults is correlated with lower childhood family “socio-economic status”. The consumption of alcohol and marijuana use in young adults was found to have association with greater childhood household socioeconomic status, even after adjusting for confounders.

53. McCabe, E., & Boyd, Carol. J. (2005) carried out a study on the “Sources of prescription drugs for illicit use.”

Objective: This is an exploratory study that studied the sources of 4 types of abusable prescription drugs abused by the undergraduate students.

Method: A web-based survey was administered on a random sample of 9161 UG students, studying at a public research institution in Midwestern.

Results: The results suggested that about eighteen sources of prescription medicines can be identified. The students pursuing undergraduate studies had received medicines from peer groups and reported comparatively greater rates of alcohol and drug use than students who did not indulge in prescription drugs in an illegal manner, or students who had acquired medication from family sources.

Conclusion: The findings show compelling evidence of undergraduate students receiving prescription medicines, that are susceptible to abuse, from their friends. There is a need to enforce greater preventive measures to limit the unlawful use of prescription drugs.

2.9 REVIEW MATRIX

Sl. No.	Name, Year	Publication	Topic	Description	Findings
1.	Dixit, S., Sharma, S., Sharma, N., & Patel, M. (2024)	www.researchgate.net	“A Quantitative Study to Assess the Effect of a Community-Academy Partnership Event on Knowledge, Awareness and Engagement against Substance Abuse.”	Objective: The objective is to study the effects (quantitative) of the partnership between the community and the academy. An event named ‘Chaitanya Utsav’ was organized to understand the extent of knowledge, engagement and awareness regarding the drug misuse in local community, and additionally to evaluate the participant’s awareness and understanding regarding substance usage	Findings: The sample was of 150 participants. Low engagement and incomplete knowledge of substance abuse was found to be prevalent among a significant number of students (n=45). 55.5% had low knowledge scores, whereas 66.6% reported zero community involvement. 44.4% reported that they were not aware of prevention programs, thereby indicating low awareness levels.

				<p>and indulgence in preventive efforts.</p> <p>Method:</p> <p>Participants at the Chaitanya Utsav comprising of scholars and students were surveyed. The program included lectures, seminar that aimed at interacting with the students creating awareness about the hazards and potential threats of use of drugs and most importantly to recommend preventive policies. A pre-event survey had been carried out before the start of the Chaitanya Utsav in order</p>	
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				to collect the preliminary data.	
2.	Venkatesh, U., Aparnavi, P., Mogan, K.A., Durga, R., Pearson, J., Kishore, S., Joshi, H.S., Nair, N.S., Nisha, B., & Agarwal, R. (2024)	<i>National Library of Medicine.</i>	“Determinants of substance use among young people attending primary centres in India.”	<p>Objective: To evaluate the pattern of use of substances among individuals attending healthcare centres in India and to find out the determinants of use of substances.</p> <p>Method: 15 states in India were surveyed. Sample size was 1630 young individuals belonging to the age category of 10-24 yrs. The ASSIST questionnaire was administered on individuals attending primary</p>	<p>Findings: Substance use was found to be prevalent at 32.8%. 75.5% users had started substance use around adolescence. Tobacco, alcohol and cannabis were commonly abused. Substance using individuals mostly belonged to the lower socio-economic status.</p>

				healthcare centres.	
3.	Dogra, A., Tiwari, J.K., & Bhardwaj, O.P. (2023)	<i>International Journal of All Research Education and Scientific Methods.</i>	“Awareness of Drug Addiction among law students in Himachal Pradesh.”	<p>Objective: To assess the awareness of law students about drug addiction in Himachal Pradesh, to study the differences in their awareness levels with regard to their gender, area and type.</p> <p>Method: Technique of random sampling was employed for collection of data. 50 law students from four law colleges of Himachal Pradesh made up the sample.</p>	<p>Findings: No significant difference in awareness about drug abuse was found among the law students as far as their area and type of college was concerned. However, significant difference in drug abuse awareness was found with respect to gender with boys having mean score than the girls.</p>
4.	Parmar, A., Bhatia, G., Sharma,	<i>Indian Journal of Psychiatry.</i>	“Understanding the epidemiology of substance use in India: A review of nationwide surveys.”	<p>Objective: The objective is to explore the epidemiological studies undertaken to</p>	<p>Findings: A lack of regular monitoring on the prevalence of substances was reported. The</p>

	P., & Pal, A. (2023)			<p>provide data on use of substances in India.</p> <p>Method: Review of literature of nationally conducted surveys on substance use across India.</p>	<p>study indicated the need for upscaling prevention programs and treatment services.</p> <p>Relevant data that emerged highlighted that the trend of abuse of drugs and substances. Tobacco use by men was 57% and 11% among women (2005-2006). Licit cannabis use was 2% compared to illicit cannabis use which was reported at 1.2% (2019). Opioid use was found to be 0.7% and heroin use was reported at 0.2%. Substance abuse was found to be lesser in females than in males.</p>
5.	Dutta, D. K., Sen, D. J., &	<i>World Journal of Pharmaceutical and Medical Research.</i>	“The role of hard drugs and soft drugs in	Objectives: To have a clear understanding of the	Findings: Soft drugs are considered to be physically or

	Mahanti, B. (2023)		Pharmaceutical Sciences.”	<p>pharmaceutical concept of hard and soft drugs, their concepts, effect of drug addiction on the brain.</p> <p>Method: A quantitative analysis of published literature on pharmaceutical sciences.</p>	<p>psychologically less addictive as compared to hard drugs, however, they are equally unsafe. E.g. Cannabis. The brain’s reward circuit is affected by all drugs which is the seat of instinct and mood. Use of drugs causes release of dopamine that has effect on our emotions and feelings of pleasure. Release of dopamine causes a feeling of high among the users and this leads to addiction.</p>
6.	Banerjee, T. (2023)	<i>Research Review International Journal of Multidisciplinary.</i>	“Comparative study of Drug Addiction, Alcoholism between single child and more than one child in college level	Objective: To evaluate the impact of family size on the frequency and pattern of drinking habit and abuse of substances	Findings: Peer pressure, familial ties, demographic and socio-economic factors are connected to addiction among the young adults

			students in West Bengal.”	among the college going students of West Bengal and to understand how being a single child or having siblings contributes towards the substance misuse among young adults. Method: A mixed method approach was employed to collect information from students studying in colleges in West Bengal with the help of surveys and in-depth interviews.	examined in the study. The drinking habits of college students who are single child is significantly higher than those who come from families with several children. Similarly students coming from homes with just one child have significantly higher drug use compared to students who came from families with several children
7.	Srivastava, S., Kumar, P., Ronak Paul, R., & Dhillon, P. (2021)	<i>BMC Public Health.</i>	“Does substance use by family members and community affect the substance use among adolescent boys? Evidence	Objective: To examine whether there is any correlation between substance use among members of the	Findings: 16% adolescent boys were abusing substances. Substance abuse was higher among the school drop outs

			<p>from UDAYA study, India.”</p>	<p>family and the community with the adolescent boys’ use of substances.</p> <p>Method: Around 6000 adolescent boys of the age group of 10-19 yrs from UDAYA were surveyed. An effort was made to understand the association between substance use behaviour of adolescents and their family history.</p>	<p>(40%). 28% of them came from families with family history of tobacco, alcohol abuse and abuse of drugs.</p> <p>Adolescents were more likely to abuse substances to come from substance abusing communities.</p>
8.	<p>Gupta, H., Gupta, S., & Rozatkar, A.R. (2021)</p>	<p><i>International Journal of Forensic Mental Health.</i></p>	<p>“Magnitude of Substance Use and its Associated Factors Among the Medical Students in India and Implications for Medical Education: A Narrative Review.”</p>	<p>Objective: To review literature on the extent of use of substances and related problems among the UG students of India.</p> <p>Method: Online</p>	<p>Findings: 39 relevant reviews were found. Medical students were found to abuse alcohol (43.8%), tobacco (28.8%) and cannabis (15%). Use of sedatives among the females was</p>

				databases were reviewed to study the relevant literature.	higher than the males. Family history and peer pressure were the responsible factors.
9.	Kovilveetil, A.N. (2021)	<i>Medical Science and Discovery.</i>	“A study on substance abuse among young people (10-24 yrs) in urban slums of Jorhat, Assam.”	<p>Objective: To evaluate the trend of substance abuse by urban slum dwellers, to assess the contributing factors and recommend suggestion.</p> <p>Method: An Interviewers Proforma by the Institutional Ethics Committee was employed. Data was collected using the Proforma which was administered on 174 slum dwellers. Only those in the age category of 10-24 yrs were included. Also, those who</p>	<p>Findings: 22-24 yrs old males predominantly abused substances compared to the females. Tobacco and alcohol were the most most commonly abused substances. Peer influence was the major reason the initial exposure to substance abuse. The frequency of substance abuse ranged from multiple times daily to weekly. The substances were obtained from local peddlers. Hallucination and euphoria were the feelings</p>

				wished to participate willingly were made a part of the survey.	experienced by the substance abusers. The side effects of substance abuse were ulcers and malignancy.
10.	Saikia, N., & Debbarma, B. (March, 2020)	<i>Clinical Epidemiology and Global Health.</i>	“Study on the socio-economic correlates of substance use among male adults in North East India.”	<p>Objective: To evaluate the correlates, which are of socio-economic nature, substance consumption among adult men of North East India.</p> <p>Method: They analyzed the data from the ‘National Family Health Survey’ (2015-2016). They studied the prevalence of smoking and alcohol consumption. The sample consisted of 14,555 men in the age group of 15 to 54 years.</p>	<p>Findings: Substance use was found to be higher among the male adults of NEI (70.83%) while the rest of the country was reported at 50.03%. Smoking and consumption of alcohol was also found to be higher. There are more than ten million substance users approximately, 6.7 million from Assam. 44.38% of adolescents (aged 15-19yrs) consumed at least one type of substance. The pattern of indulgence in substances rises</p>

					in the 25-49 age category. The probability of substance use lowers with higher education and family income. ST adults are most likely to use substance.
11.	Prajapati, B.B., Dedun, M.R., Jalfava, H.S., & Shukla, A.A. (2019)	<i>International Journal of Community Medicine and Public Health.</i>	“A study of socio-demographic profile and pattern of drug use among substance abusers attending mind care de-addiction center in Ahmedabad.”	Objective: To study the socio-demographic pattern of drug use among substance abusers. Method: The survey was carried out on one-hundred participants at a de-addiction centre, Ahmedabad who were administered a semi-structured questionnaire	Findings: Males were the major substance abusers (98%). 46% of the substance abusers belonged to the age category of 31-45 yrs.
12.	Arlappa, P., Jha, S., & Jayaseeli, S. (2019)	<i>Current Research Journal of Social Sciences and Humanities.</i>	“Impact of Addiction on Family: an Exploratory Study with	Objective: The paper studies the respondents’ socio-economic background,	Findings: The study identified stressors-like physical abuse, conflict, economic

			reference to slums in Kolkata.”	<p>sociological effect of addiction in a family and the strategies of intervention to tackle the challenge of addiction.</p> <p>Method: Interaction with the women and young members of the affected families living in the slums of Tangra, Kolkata was carried out. The method of snowball sampling was employed in collaboration with an NGO working in the area.</p>	<p>problems within the family which give rise to addiction which leads to family dysfunction dynamics leading to mental health issues.</p>
13.	Haldar, D., Majumdar, K. K., & Roy, S. (2018)	<i>International Journal of Research and Review.</i>	“Substance Abuse among the Undergraduate students of a Medical College of Kolkata.”	Objective: The objective was to find out the socio-demographic pattern and kind of substances abused by the	Findings: Substance abuse was prevalent at 60.26% among the students. Alcohol was the most commonly abused after cigarettes.

				<p>UG medical students of a South Kolkata Medical College.</p> <p>Method: The method of “stratified random sampling” was adopted, whereby 452 students were selected. A standardized questionnaire was used to collect data. Data was analyzed using suitable statistical tests.</p>	<p>Conclusion:</p> <p>Lack of health consciousness was noted among the medical students as they indulged in substance abuse despite knowing their health hazards. This was due to an increased academic and peer pressure.</p>
14.	Sarkar, K., Roy, S.K., & Singh, R. (2018)	<i>International Journal of Community Medicine and Public Health.</i>	“A Study of substance abuse among male engineering students staying at hostels in a township near Kolkata.”	<p>Objective: The objective is to realise the prevalence of substance abuse among the male engineering students who stay in hostels.</p> <p>Methodology: A two-part questionnaire proposed by WHO (WHO-</p>	<p>Results: It was found that 66.0% and 22.0%, were the respective percentage of use of tobacco and alcohol. Students also abused cannabis. Students of government colleges abused more substances</p>

				ASSIST) was administered, one part covering screening tests (8 items) on alcohol, smoking and substance involvement. The second part was on socio demographic details.	than the private colleges. Conclusions: Government male engineering students who resided in the hostels showed higher level of substance abuse.
15.	Arora, A., Kannan, S., Gowri, S., Choudhury, S., Sudarasan, S., & Khosla, P.P. (2016)	<i>Indian Journal of Medical Research.</i>	“Study on Substance Abuse among the medical students in a developing country.”	Objective: To find out the prevalence of substance abuse among the medical students in a North Indian medical college. Method: A validated questionnaire was administered on UG and PG medical students of a private medical college to carry out a cross-sectional study.	Findings: 110 (47.8%) were male respondents and 120 (52.2%) were female respondents. Majority lived in a hostel. Prevalence rate was 20.43%. Prevalence found to be significantly higher in males. The PG students were observed to abuse more than the UG students.. Stress was the most common reason for

					<p>substance abuse. Several substances were being abused such as alcohol(19.13%), smoking (4.34%), tobacco (chewing 2.17%) and cannabis. More than one substance was being used by the abusers.</p>
16.	<p>Daniel, D., Shetty, D., Jose, G.J., Haritha, J., Ravi, J., Pillai, L.S., Neghandi, A., Santhosh, , & Kundapur, R. (2015)</p>	<p><i>Nitte Journal of Health Science.</i></p>	<p>“Attitude of college students towards alcohol consumption in Mangalore.”</p>	<p>Objective: To study the attitude of college students about consumption of alcohol. Method: A survey was conducted in the colleges under NITTE University and a questionnaire comprising of questions covering the objectives of the survey was administered on the students</p>	<p>Findings: Out of the 1150 students surveyed, 26.4% students consume alcohol. Of these, 61.84% students thought that it was not a risky habit. 72.03% students said that they do not wish to stop their drinking habit. The rest of the students were aware of the harmful effects of alcohol consumption.</p>

				present at the time of survey.	
17.	Datta, A., Bhattacharya, A., & Naskar, N. N. (2015)	<i>Indian Journal of Hygiene and Public Health, Kolkata.</i>	“Study of substance abuse among medical students of a medical college in Kolkata.”	Objective: To assess the extent of substance abuse and evaluate the associated socio-economic factors. Method: A study, which was cross-sectional in nature, among the medical students of a randomly selected medical college in Kolkata was conducted. It was ensured that students across all semesters are covered in the study. Data was analysed and tabulated.	Results: Information was collected from eight hundred students. 57% was the prevalence of substance use. Second year students (76%) were found to use more drugs than the other years. The most commonly used substance was tobacco (57.4%) followed by alcohol and cannabis. The respondents cited tension to be the primary reason for substance abuse. The major source of drugs were friends.
18.	Gupta, S., Singh, S. S., Kumar, D., Kaur,	<i>Journal of Clinical and Diagnostic Research.</i>	“Prevalence, Pattern and Familial Effects of Substance Use Among the Male	Objective: A survey was conducted among the college going	Findings: Prevalence rate was found to be 52.7% among age group 19-21

	T., & Arora, S. (2013)		College Students in Chandigarh.”	<p>students of Chandigarh to find out the pattern and prevalence of substance abuse.</p> <p>Method: A community-based study was conducted. The data was collected by ‘stratified random sample’. The WHO questionnaire was consulted. The sample size was 256.</p>	<p>years. Law students (76.2%) were the highest abusers. Alcohol was most commonly abused substance, smoking secured the second spot and the third spot was occupied by the use of cannabis. 49% were daily users. The most common reason for abuse was to get relief from stress of the psychological kind.</p> <p>Conclusion: The researcher suggests that there is a need for education and counselling young students about the ill effects of substance use.</p>
19.	Ghosh, G. (2013)	<i>ICMR-NICD.</i>	“Substance abuse among Young People in India- Approaches at	Objective: This paper explores the pattern, trends and	Conclusion: 40% of the high risk substance abusers are

			<p>Curbing the Menace.”</p>	<p>extent of substance abuse among children in India.</p> <p>Method: Review of research studies and field based observations of the marginalized drug-addicted children in collaboration with an NGO bestowed with the responsibility of carrying out the Ministry supported Drug De-Addiction and Integrated Child Protection Scheme. It also addresses challenges of substance abuse.</p>	<p>below 18 years of age.</p> <p>Teenagers in WB, Andhra Pradesh, U.P. and Haryana are using gateway drugs. Children from Low economic status take up smoking every year.</p> <p>Suggestions: There is a requirement for intervention to manage the substance abuse determinants in the Indian context. There is a need to focus beyond the interventions of the bio-medical and behavioural modification approach.</p>
20.	<p>Sahu, K.K., & Sahu, S. (2012)</p>	<p><i>Bangabasi Academic Journal.</i></p>	<p>“Study on Substance Abuse: Causes and Consequences.”</p>	<p>Objective: Exploring the menace of substance abuse in the Indian youngsters.</p>	<p>Results: Abuse of substances affect all the segments of the Indian society. Use of alcohol,</p>

				<p>Methodology: Systematic literature review of research papers and relevant articles.</p>	<p>tobacco and other drugs is a wide spread occurrence among the youngsters. Psychoactive drug abuse is an issue of national importance. Substance abuse is a major concern as it is a public health hazard. Substance abuse is rising at an alarming rate globally with worsening health, increased criminal activity, decreased productivity, degrading relationships, descending societal and moral values. The biggest target of the threat of substance abuse are the vulnerable youngsters.</p>
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21.	<p>Murthy, P., Manjunatha, N., Subodh, B.N., Chand, P. K., & Benegal, V. (2010)</p>	<p><i>Indian Journal of Psychiatry.</i></p>	<p>“Study on the substance use and addiction research in India.”</p>	<p>Objective: This paper examines research on substance use and related disorders in India.</p> <p>Method: Online systematic review of the ‘Indian Journal of Psychiatry’ was carried out. It included articles pertaining to reviews of substance use, case studies and reports having significant implications. Review includes research sites like Medlar (1992-2009) and Pubmed (1950-2009). Epidemiology and clinical issues like diagnosis, psychopatholog</p>	<p>Results: Relevant publications are found in IJP-200. 537 International journals relating to substance abuse were found. Studies between 1968-2000, primarily focused on alcohol abuse. Prevalence of overall substance use was recorded at 6.9/1000 for urban India and rural rates of 5.8 and 7.3/1000 population. The rate of abuse among men was about 12% and among women was about 2%.</p>
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				y and comorbidity were studied.	
22.	Ahmad, N., Bano, R., Agarwal, V.K., & Kalakoti, P. (2009)	<i>Pravara Medical Review.</i>	“Study on substance abuse in India.”	<p>Objective: The objective is to analyse the substance abuse epidemic in India which encompasses the youngsters.</p> <p>Method: Qualitative study of literature related to the problem of abuse of drugs in the country.</p>	<p>Findings: Drug abuse among adolescents is at an all-time high. About 50% of boys have abused a substance by the time they reached the 9th grade. Cannabis and heroin are the most frequently abused in India. According to statistics, the most commonly abused substance is alcohol followed by cannabis. Users of alcohol include subjects as young as 15 year old. In U.P., the most consumed substance was alcohol (82.5%) followed by cannabis (16.1%). All</p>

					these have an adverse effect on the socio-cultural and economic conditions as well.
23.	Naskar, N.N., & Bhattacharya, S.K. (Jan,1999)	<i>Journal of Indian Medical Association.</i>	“A Study on Drug Abuse among the undergraduate medical students in Calcutta.”	<p>Objective: To study the prevalence of drug abuse among the undergraduate medical students in Kolkata.</p> <p>Method: The UG students in two medical colleges of Kolkata were surveyed.</p>	<p>Findings: The prevalence rate was 48.9% and 27.9%. One interesting fact that surfaced was that the rate of drug abuse increased with each advancing academic year i.e. 24% in the first year to 74.4% in the final year. The usage among the boys (about 60%) was significantly higher than that among the girls (26%). Those living in hostels were found to be more frequently using drugs compared to the non-hostellers.</p>

24.	Das, Indira (1993)	<i>Drugs and Substance Abuse Problems.</i>	“Drug cognizance of late adolescent school students in Kolkata.”	Objective: To understand the mentality of those youths who had knowledge of drugs, acquaintance with drug addicts, lived in the social environment with social permissibility for drug taking and with availability of drugs in the market but kept themselves aloof from developing drug habits and comparing them with youths who are drug addicts against certain approved indicators like nature of drug cognizance, locus of behaviour control, personality	Findings: 39% boys and 36% girls had the experience of different stimulant drugs and narcotic substances. Greater percentage of them had to live with addicts in their primary group life and had acquaintance with drug addict contemporaries and senior youths in the community- comparatively higher in frequency than the low cognizant group. High cognizant students were found with the following personality characteristics- less participating, less emotionally stable. Only 6% boys and 5%
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				<p>characteristics and values of life.</p> <p>Method: 480 boys and 480 girls were selected randomly from 36 Higher Education schools, equiproportionately scattered over the North, South and Central zones of Calcutta (Kolkata). They were students of H.S. school leaving class and belonged to age-range 18-19 years. Drug Abuse Information Schedule (locally built) and Drug Cognizance Questionnaire (locally constructed and standardized) were used for data collection.</p>	<p>girls of low cognizant group had one or two accidental experience of drug-taking. They were highly sociable and emotional.</p> <p>Conclusion: The student population was inquisitive about the harmful effect and health hazards of drug abuse. 14% were recognized as high cognizant group, 68% were the moderately cognizant group and 18% students were described as the low cognizant group or risk free group.</p>
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25.	Khan, M. Z., & Unnithan, N.P. (1979)	<i>National Library of Medicine.</i>	“Sociocultural differences between former and current users of psychoactive drugs in a sample of college students.”	<p>Objective: To study the sociocultural factors that differentiate previous drug users from drug users who are currently using drugs among the college youth.</p> <p>Method: The sample consisted of both sets of drug using and non-drug using urban college students.</p>	<p>Findings: There was little difference between the two sets as they belonged to a similar social milieu. Drug users who stopped abusing drugs were primarily belonging to the middle/lower socioeconomic status and had drug abstaining family members. They included junior students enrolled in professional courses. It was their personal decision to give up drugs prompted by their family members’ influence and their own drug experience. This is how former users differed from the current users.</p>
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26.	<p>Dube, K.C., Kumar, A., Kumar, N., & Gupta, S.P. (1977)</p>	<p><i>United Nations Office on Drugs and Crime.</i></p>	<p>“Study on drug use among college students-an interim report.”</p>	<p>Objective: To analyse the pattern and extent of the non-medical usage of drug which might cause dependence among the PG students of colleges in Agra, Uttar Pradesh.</p> <p>Method: Survey method</p>	<p>Findings: Drug use was found to be the highest at 80.66% among the male medical students. The males were found to use substances like alcohol, barbiturates, Mandrax, Vesparax, Equanil, Librium, pain killers and cannabis. The female students mainly used painkillers. The main reason for drug use cited by majority of the students (50-59%) was to relieve stress and feel relaxed. The common effects of drug abuse were sleepiness, sluggishness, giddiness, lack of concentration.</p> <p>Conclusion: A need for stringent</p>
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					measure to curb the menace of drug use was favoured.
27.	Chakrapani, V., & Bharat, S. (2023)	<i>SMM-Mental Health.</i>	“Mental Health in India: Sociocultural dimenions, policies amd programs- An introduction to the Indian Series.”	Objectives: To assess the mental health scenario in India with respect to the sociocultural dimensions, policies and progams. Method: Review of related literature.	Findings: There has been a rise in mental health issues like depression and anxiety due to socio-cultural transformations and decline in cultural and moral values. Prevalence of mental health disorders was higher among the females. Urbanization and pressure to excel at education were found to be the triggering factors. Stress, stigma and discrimination leading to marginalization contribute to o-occurrence of mental health problems.
28.	Meghrajani, V. R.,	<i>PMCID.</i>	“Study on A Comprehensive	Objective: To study the	Findings: Studies report

	<p>Marathe, M., Sharma, R., Potdukhe, A., Wanjari, M. B., & Taksande, A. B. (2023)</p>		<p>Analysis of Mental Health Problems in India and the Role of Mental Asylums.”</p>	<p>mental health scenario in India, the roadblocks, initiatives and the future steps to be taken for improving mental healthcare delivery. The study discusses the state of mental asylums and the associated challenges including stigmatisation, human rights concern, quality care and the requirement for alternative approaches to mental healthcare.</p> <p>Method: A comprehensive study of related literature on problems of mental healthcare in India was carried out.</p>	<p>high prevalence rates of 9.5 to 370 per 1000 people in India. This emphasizes the need for intervention to cater to the mental well-being of the population. Mental illness bears social stigma in Indian society resulting to discrimination and social isolation of those with mental health difficulties.</p>
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				‘PubMed’ and ‘Google Scholar’ were searched covering a wide range of studies.	
29.	Guleria, P. (2022)	<i>International Journal of Indian Psychology.</i>	“Examining Depression among Male and Female College Students.”	Objective: To study depression among the college students. Method: Hindi version of “Beck’s Depression Inventory” was administered on 80 students belonging to the age range of 20-22 yrs.	Findings: Depression was higher among the female students as the female students scored higher in the dimensions of dejection, worthiness, guilt and apprehension.
30.	Dhyani, A., Gaidhane, A., Choudhary, S. G., Dave, S., & Choudhary, S. (2022)	<i>PMCID.</i>	“Study on Strengthening Response Toward Promoting Mental Health in India: A Narrative Review.”	Objective: To study the prevalent mental health situation in India. Method: A review of related literature was carried out using digital platforms like	Findings: Emphasis on community mental health requirements. The essential elements for effecting change at the community level include public health initiatives, awareness and

				Google Scholar and PubMed database.	information dissemination, and educational and communication activities.
31.	Ransing, R., Kar, S. K., & Menon, V. (2021)	<i>Indian Journal of Psychological Medicine.</i>	“Mental Health Research in India: New Challenges and the Way Forward.”	<p>Objective: The purpose of this paper is to discuss the potential influence of the new legislation on several components of mental health research. The report further dives into the obstacles and barriers related with mental health research in India.</p> <p>Method: Related Literature Review</p>	<p>Findings: According to “Mental Health Care Act 2017”, mental health researchers may get informed consent from the caregiver of the patients with psychotic disorder, schizophrenics, manic and severe depression, alcohol withdrawal symptoms and so on in their pursuit of mental health research. The consent of the “State Mental Health Authority (SMHA)” is required in this regard. The challenges faced comprise lacking</p>

					<p>adequate mental health practitioners, limited research training opportunities, low priority attributed by the government to mental health.</p> <p>Recommendations: Mental health practitioners should be provided exemption from getting approval from SMHA for research. Necessary support to mental health researchers should be provided in order to clear regulations and procedures to enable them to focus on research. Professional organizations like the Indian Psychiatric</p>
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					Society can set guidelines for mental health researchers and stakeholders of SMHA pertaining to the review and approval of multi-state research proposal.
32.	Sakthivel, A., Kannappan, S., & Panicker, A. S. (2021)	<i>Indian Journal of Community Medicine.</i>	“Prevalence of Mental Health Problems among High School Students.”	<p>Objective: A study was done to analyse the mental health condition of children in India and to discover the contributing factors affecting mental health.</p> <p>Method: A “cross-sectional study” was done among high school students, in the age group of 15-17 years, in a government aided school in Coimbatore</p>	<p>Results: The study found at least 50% of the pupils had some type of mental illness. Depression (about 60%) and anxiety (about 64%) were prevalent followed by stress (39%).</p>

				over a period of 2 months.	
33.	Waghmare, R.D. (2018)	<i>The International Journal of Indian Psychology.</i>	“A Study of Mental Health among Male and Female College Students.”	<p>Objective: The purpose of the study was to analyse the mental health of male and female college students and evaluate the gender difference with respect to their mental health.</p> <p>Method: 100 college students, (50 male and 50 female) were administered Jagdish and Srivastav’s “Mental Health Inventory”. The sample consists of 50% urban and 50% rural college students.</p>	<p>Findings: Male college students were found to be mentally more healthy than the female students with regards to the mental health dimensions of “Perception of Reality”, “Autonomy”, “Group Oriented Attitudes”.</p>
34.	Malla, A., Joobar, R., & Garcia, A. (2015)	<i>Journal of Psychiatry and Neuroscience.</i>	“Mental Illness is like any other medical illness: a critical examination of the statement and	<p>Objective: The first to coin the term “mental health” was Plato. It was defined as a</p>	<p>Results: Mental disorders damage the core of an individual as he or she confronts events</p>

			<p>its impact on patient care and society.”</p>	<p>reason controlled by emotion and assisted by temper. Griesinger, 200 years ago, emphasised that mental illness is related to illness of the brain. This paper discusses the causes underlying mental illness and its effects. The term mental illness should be treated like any other medical ailment having a biological basis.</p> <p>Method: Thorough study of research on biological psychiatry.</p>	<p>of different intensity. It transforms the person’s thinking, consciousness and perception of the self, others and the world. It is crucial that the individuality of each individual be appreciated and similarly the awareness of mental disease like any other medical ailment should be shared.</p>
35.	<p>Kansal, A.K., & Bala, C. (2015)</p>	<p><i>Indian Journal of Applied Research.</i></p>	<p>“Relationship among Mental Health and Emotional Maturity of 10th</p>	<p>Objective: To evaluate the association of mental health and emotional maturity of</p>	<p>Findings: There is a strong negative link between mental health and emotional</p>

			class adolescents.”	class 10 teenagers of Bhatinda District. Method: The sample consisted of 580 adolescents of the 10th class of Bhatinda District. The approach employed to acquire the sample was stratified random sampling. The tools used for data gathering were ‘Mental Health Battery’ (Singh & Gupta, 1983).	stability, social adjustment and independent determinants of emotional maturity.
36.	Majeed, T., Hopkins, G., Wang, K., Nepal, S., Votruba, N., Gronholm, P.,	<i>Global Health Research and Practice.</i>	“Anti-stigma interventions in low income and middle income countries: a systematic review.”	Objective: To review anti-stigma interventions taken in low and middle income countries across diverse identities and	Findings: Diverse segments of population received intervention which resulted in stigma-related addressal of issues. The positive

	<p>Gurung, D., Semrau, M., Bagade, T., Farina, N., Musyimi, C., Pingani, L., Breuer, E., Lund, C., Thornicroft, G., & Evans-Lacko, S. (2024)</p>			<p>health conditions. Method: 10 online database review of literature.</p>	<p>outcomes, that were reported, clearly highlight the need for interventions to reduce stigma.</p>
37.	<p>Campbell, F., Blank, L., Cantrell, A., Baxter, S., Blackmore, C., Dixon, J., & Goyder, E. (2022)</p>	<p><i>BMC Public Health.</i></p>	<p>“Factors that influence Mental Health of University and College students in the UK: A Systematic Review.”</p>	<p>Objective: To discover parameters associated to mental health of students in higher education in the United Kingdom. Method: A systematic review of observational studies was done for</p>	<p>Findings: From the 31 studies that were examined, the characteristics consistently related with higher risk of having poor mental health included pupils with a history of traumatic experiences in childhood. Factors</p>

				<p>evaluating factors related with student mental well being and bad mental health. Five databases were intensively searched. Studies completed in the UK have been included (2010-2020).</p>	<p>supporting wellbeing included helpful and strong social networks. Students who are well acclimated to the adjustments they encounter while transitioning to higher education report improved mental health.</p>
38.	<p>Schauman, O., Macleod, A.K., Thornicroft, G., & Clement, S. (2019)</p>	<p><i>Stigma and Health.</i></p>	<p>“Mental illness related discrimination: The role of self-devaluation and anticipated discrimination for decreased well-being.”</p>	<p>Objective: To study the correlation between the discriminatory behaviour that people with mental illness experience, and their well-being.</p> <p>Method: Data was collected from specialised mental healthcare services in South London, U.K.</p>	<p>Findings: High degree of discrimination was found to be associated with lower well-being, This was characterized by stigmatization and hopelessness. These were again associated with fear of negative stereotypes and demoralization.</p> <p>Suggestions: Discrimination against mental</p>

					illness is an area which is under researched and needs to be addressed to enhance the state of well-being of individuals having mental health issues.
39.	Wainberg, M.L., Scorza, P., Shultz, J.M., Helpman, L., Mootz, J.J.J., Neria, Y., Bradford, J.M., Oquendo, M.O., & Arbuckle, M.R. (2017)	<i>Current Psychiatry Reports.</i>	“Challenges and Opportunities in Global Mental Health: a Research to Practice Perspective.”	Objective: To review how accessible mental health services are in low and middle income countries, to evaluate the mental health gap in services being provided, identification of the challenges and scope for further research. Method: Review of related literature	Findings: There exists a treatment gap in the mental health sector. Globally, there is a need to enhance the access to mental health services of high quality. Research capacity needs to be increased and focussed on mental health issues. Suggestions: The need of the hour is to build the capacity for more research, clinics and policies to overcome barriers.

40.	<p>Pedrelli, P., Nyer, M., Yeung, A., Zulauf, C., & Wilens, T. (2014)</p>	<p><i>Academic Psychiatry.</i></p>	<p>“College Students: Mental Health Problems and Treatment Considerations.”</p>	<p>Objective: A study on the concerning problems of mental health among the college students on their psychological health as they cope with academic pressure. An attempt is made to summarize the treatments given to the college students with mental health problems and assessing the age of onset of their psychopathology.</p> <p>Method: An online survey of 2822 college students’ mental health.</p>	<p>Findings: Eating disorders like bulimia, anorexia and binge eating are a major health issue related with the mental health issue of the youngsters as they cope with academic, social and peer pressures. Depression (36%), anxiety disorders (15%), panic are often the common mental health issues. However the students seeking intervention and treatments are quite low owing to the social stigma attached with mental health issues. Another important finding was that more women receive treatment</p>
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					<p>compared to men (39% vs 30%).</p> <p>Suggestions:</p> <p>Technology based programs could be employed for screening as well as for treatment of the college students dealing with mental health issues as they shy away from seeking support as they worry about what the others would think.</p>
41.	Srivastava, A. (2024)	<i>International Journal of Educational Research.</i>	“Impact of substance abuse on mental health among students in India.”	<p>Objective: To study the impact of substance abuse on the psychological well-being of the students.</p> <p>Methodology: Secondary data from databases like PubMed and Science Direct was studied. The time frame of 2015-2023 was</p>	<p>Findings: 21.8% students abuse substances with the prevalence higher among the urban students. Male students abuse substances more than the female students however the gap is found to be closing with each passing year due to cultural and</p>

				selected for carrying out the study.	social factors playing a determining role in influencing the behaviour of the young generation. Alcohol and tobacco are the leading substances of abuse. 18-20% students having substance use disorder as well as mental health disorders.
42.	Ali, A., Gujar, N.M., & Deuri, S.K. (2024)	<i>Journal of Indian Association for Child and Adolescent Mental Health.</i>	“Prevalence of Mental Health Problems and Substance Use among school going Adolescents of Tribal Ethnicity: A Preliminary Study from N.E. India.”	Objective: To assess the prevalence of mental health issues and substance abuse among the tribal adolescents. Method: A descriptive study design was adopted and was carried out across the 5 N.E. states. Sample was collected from schools based	Findings: Highest prevalence of mental health issues were found among the adolescents of Arunachal Pradesh (41.9%). Manipur reported lowest prevalence at 14.22%. Substance abuse was highest in Nagaland at 29.44%. 28.04% of the students in Meghalaya

				on convenience sampling. Two schools were selected per state from areas with high tribal population. 983 adolescents participated in the study.	abused marijuana and cocaine.
43.	Negi, M. (2023)	<i>Journal of Emerging Technologies and Innovative Research.</i>	“Substance Abuse’s Effect on Mental Health: An Assessment of Himachal Pradesh.”	<p>Objective: To study the relationship between mental health and substance abuse emphasizing the correlation, consequences and significance of addressing them collectively.</p> <p>Method: Himachal Pradesh was selected as the area of study. Meta analysis technique was adopted to quantitatively analyze the data. Websites like Google</p>	<p>Findings: Substance abuse problems coexist with severe mental illnesses. Environmental factors like stress and unfavourable life events contribute to the dual disorder of substance abuse and mental health. Drug trafficking via Pakistan occurs at an alarming rate in Himachal Pradesh due to its geographically vulnerable location. LSD, Morphine and Chitta are the</p>

				Scholar and Scopus indexed journals were searched for data on substance abuse and mental health in Himachal Pradesh. Meta analysis was carried out to analyze the data obtained from 22 independent studies.	common drugs. 3.2% of the population uses charas and Ganja in Himachal Pradesh. Severe mental illness and substance abuse was found to coexist. The stigma associated with the dual disorder leads to marginalization.
44.	Singh, S., Singh B., & Pal, Y. (2017)	<i>Indian Journal of Psychological Medicine.</i>	“A Review of Indian Research on Co-occurring Psychiatric Disorders and Alcohol Use Disorders.”	Objective: The study is meant to review, in a systematic manner, Indian literature on alcohol use disorders and psychiatric diseases. Method: Relevant literature on co-occurring psychiatric problems and alcohol problems is	Findings: The research put light on the fact that excessive usage of alcohol has been highlighted as a key contributor to the worldwide burden of disease. According to statistics, alcohol misuse accounts for 5.9% fatalities globally. Alcohol usage

				investigated systematically utilising several search platforms like Google Scholar, digital archives etc.	has been connected with increased morbidity and mortality at the worldwide level.
45.	Singh, V. P. (2002)	<i>Substance Abuse and Mental Health Services Administration.</i>	“Study on the personality of drug users in relation to their value and mental health.”	<p>Objective: To study and compare the different personality factors of types of drug users.</p> <p>Method: The Multi-variables personality inventory was administered on 200 heavy, 200 occasional and 200 non-drug users.</p>	<p>Results: Non-drug users showed better social desirability than heavy and occasional users of drugs. The occasional drug users had high extraversion than non-drug users and heavy drug users. The heavy drug users are not conscious of their psychological difficulties and have excessive dogmatism. Non-drug users and occasional drug users have high ego-ideal than heavy drug users. Non drug users have great</p>

					self confidence and high domineering personality. Non-drug users have significantly greater self-confidence, empathy, dominance, have low emotional instability, more autonomy, better mental health, high social maturity than drug users.
46.	Seabra, D.S. (2025)	<i>Interface (Botucatu).</i>	“History of psychotropic drugs: reopening question.”	Objective: To understand the biochemical effects that the psychotropic drugs produce on mental health. Method: Historical review of psychotropic drugs and its link with psychiatry.	Findings: The study reflects the use and impact of psychotropic drugs on mental health treatment and highlights the multiplicity of effects that the psychotropic drugs can have.
47.	Baingana, F., al’Absi,	<i>Nature.</i>	“Global research challenges and opportunities for	Objective: This paper looks at the	Findings: There is focus on research for

	M., Becker, Anna E., & Pringle, B. (2015)		mental health and substance use disorder.”	<p>challenges occurring due to the rising health, economic and social burdens connected with mental health and substance use disorders.</p> <p>Method: PubMed and Google Scholar databases.</p>	<p>global mental health and drug use disorders primarily to respond to the unmet requirements in poor and medium income nations.</p> <p>Innovation in service delivery is showing encouraging outcomes and is enhancing the quality of care as well as access.</p> <p>The Social Development Goals established by UN (2015) recognises mental health as an element of universal health coverage.</p>
48.	Braslow, J.T., & Marder, S.R. (2019)	<i>Annual Review in Clinical Psychology.</i>	“History of Psychopharmacol ogy.”	Objective: To understand psychiatry’s dependency on psychiatric drugs in the care of patients.	Findings: The success of psychopharmacology was not because of the effective pharmaceuticals but a

				<p>Method: Historical review of related literature</p>	<p>consequence of a complicated combination of political, economic circumstances, pharmaceutical marketing, breakthroughs in basic sciences and changes in the mental health-care system.</p>
49.	<p>Okorie, C., Caroline, O., Ben, O.J., & Johnson, B.O. (2020)</p>	<p><i>International Journal of Engineering Applied Sciences and Technology.</i></p>	<p>“Statistical Analysis of the Effect of Drug Abuse on Academic Performance in Wukari.”</p>	<p>Objective: The study tries to establish the relation between poor academic performance and use of drugs. The purpose for this research is because it has been seen that anytime students begin to involve themselves in drug usage, they start to perform poorly in the academics.</p>	<p>Results: It was observed that drug abuse has effect on student’s academic performance.</p>

				<p>Method: Data was collected through distribution of questionnaire in Wukari. The questionnaires given out were 215 and the number realized was 182. Chi-square was used for the analysis.</p>	
50.	<p>Baptiste-Roberts, K., & Hossain, M. (2018)</p>	<p><i>Journal of Addiction and Health.</i></p>	<p>“Socioeconomic Disparities and Self-reported Substance Abuse-related Problems.”</p>	<p>Objective: To find whether substance abuse differs with respect to the socioeconomic status.</p> <p>Method: The 2013 ‘National Survey on Drug Use and Health’ was administered on participants who abused illicit drugs.</p>	<p>Findings: Participants belonging to “lower socioeconomic status” were found to be over using illicit drugs.</p>
51.	<p>Hsu, J., Lin, J., & Tsay, W. (2014)</p>	<p><i>Journal of Food and Drug Analysis.</i></p>	<p>“Analysis of drug abuse data reported by medical institutions in Taiwan from 2002 to 2011.”</p>	<p>Objective: To review and analyse the data of drug abuse retrieved from the database of the “Taiwan</p>	<p>Findings: The top 5 reported drugs which are abused by medical institutions was found to be</p>

				<p>Surveillance System of Drug Abuse and Addiction Treatment” from 2002 to 2011.</p> <p>Method: Review of related literature based on the database of drug abuse cases as provided by the Taiwanese medical institutions.</p>	<p>heroin and methamphetamine. The abuse of heroin was significant but has thereafter exhibited a declining trend. Ketamine and zolpidem are drugs which are increasingly being abused and have displayed growing tendencies. MDMA abuse has re-emerged and has increased progressively. Factors responsible for drug misuse were substance dependence, peer influence and stress alleviation. It should be emphasised that the availability of drugs by means of the Internet has expanded yearly, and the same requires regular monitoring.</p>
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52.	<p>Patrick, Megan E., Wightman, Patrick., Schoeni, Robert F., & Schulenberg, Johne. (2012)</p>	<p><i>PMID.</i></p>	<p>“Socio-economic status and Substance use among Young Adults: A Comparison Across Constructs and Drugs.”</p>	<p>Objective: To find out if socio-economic status and substance misuse are related. The most important socio-economic status indicator is the family SES, for example income, family wealth and education of parents. The major aim of this study is to find out the correlation between the SES and the usage of substance among the college going adults.</p> <p>Method: Data was gathered from a study of USA families that contains data from parents and children. The data was gathered from a sample of</p>	<p>Results: The tendency to smoke in young adults is correlated with lower childhood family “socio-economic status”. The consumption of alcohol and marijuana use in young adults was found to have association with greater childhood household socioeconomic status, even after adjusting for confounders.</p>
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				<p>young adults, in the age group of 18–23 years old in 2005 and 2007. The background on the basis of socioeconomic variables was determined on the basis of education of the parents, income and wealth (birth to age 17 years).</p>	
53.	<p>McCabe, S.E., & Boyd, C. J. (2005)</p>	<p><i>PMID.</i></p>	<p>“Sources of prescription drugs for illicit use.”</p>	<p>Objective: This is an exploratory study that studied the sources of 4 types of abusable prescription drugs abused by the undergraduate students.</p> <p>Method: A web-based survey was administered on a random sample of 9161 UG students, studying at a public research</p>	<p>Results: The results suggested that about eighteen sources of prescription medicines can be identified. The students pursuing undergraduate studies had received medicines from peer groups and reported comparatively greater rates of alcohol and drug use than students who did not indulge in prescription drugs in an</p>

				<p>institution in Midwestern.</p>	<p>illegal manner, or students who had acquired medication from family sources. Conclusion: The findings show compelling evidence of undergraduate students receiving prescription medicines, that are susceptible to abuse, from their friends. There is a need to enforce greater preventive measures to limit the unlawful use of prescription drugs.</p>
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CHAPTER III

RESEARCH METHODOLOGY

3.1 INTRODUCTION

The research is based on the study of drug and substance abuse by the college going students at the UG level in urban colleges in the metropolitan city of Kolkata. The research is also aimed at assessing the mental health of the students and find out if there is any correlation between the drug and substance abuse habit of the students and their mental health. The research also aims to find out whether there is an association between the “socio-economic correlates” of the students and their abuse of drugs and substances habit. The necessary tools for collecting the relevant data were selected. The relevant details of the study are given as follows:

3.2 RESEARCH DESIGN

Descriptive survey method was used to collect the data. The research design constituted of mixed method of both qualitative and quantitative methods.

3.3 POPULATION OF THE STUDY

The students studying at the UG level in the urban general degree and professional degree colleges in the metropolitan city of Kolkata constituted the population of the study.

3.3a INSTITUTIONS VISITED

Table showing the list of institutions visited for sampling

GENERAL DEGREE COLLEGES	PROFESSIONAL DEGREE COLLEGES
WOMEN’S CHRISTIAN COLLEGE	SURENDRANATH LAW COLLEGE
ASHUTOSH COLLEGE	NUJS
BIDHANNAGAR COLLEGE	IEM
HERITAGE COLLEGE	KOLKATA MEDICAL COLLEGE
SCOTTISH CHURCH COLLEGE	NRS MEDICAL COLLEGE
DESHBANDHU COLLEGE FOR GIRLS’	HERITAGE INSTITUTE OF TECHNOLOGY
BEHALA COLLEGE	Dr. R. AHMED DENTAL COLLEGE
BASANTI DEVI COLLEGE	TECHNO INDIA COLLEGE
ST. XAVIERS COLLEGE	

TABLE No. 3.1

3.4 SAMPLE

For the present study, the researcher sought responses from 350 undergraduate students studying in general and professional degree courses at the UG level in colleges of Kolkata. 300 samples were finally selected as the others were discarded for reasons like incomplete data or because of their reluctance to participate in the survey or their discomfort towards providing personal information. Out of the 300 respondents, 150 are boys and 150 are girls. 146 were studying in general degree courses and 154 were studying in professional degree courses. The age group of the respondents ranged from 18-28 years.

Socio-Demographic Characteristics of the sample

Table showing the demographic characteristics of the sample

Independent Variables		Total Number (300)	Percentage %
GENDER	Male	150	50%
	Female	150	50%
AGE	18-20	272	90.67%
	21-23	26	8.67%
	24-28	02	0.67%
COURSE OF STUDY	General	146	48.67%
	Professional/Technical	154	51.34%
ACCOMMODATION	With parents	193	64.34%
	College hostel	70	23.34%
	Self	09	3%
	Rented house	21	7%
	With relatives	02	0.67%
	PG	05	1.67%
BIRTH ORDER OF RESPONDENT	Elder child	62	20.67%
	Middle child	05	1.67%
	Younger child	78	26%

	Only child	155	51.67%
FATHER'S QUALIFICATION	Madhyamik	16	5.34%
	Higher Secondary	53	17.67%
	Graduate	187	62.34%
	Masters	16	5.34%
	PhD	02	0.67%
	Professional Degree	20	6.67%
	Primary	05	1.67%
	Unschoolled	01	0.34%
MOTHER'S QUALIFICATION	Madhyamik	47	15.67%
	Higher Secondary	61	20.34%
	Graduate	151	50.34%
	Masters	22	7.34%
	PhD	01	0.34%
	Professional Degree	09	3%
	Primary	04	1.34%
	Unschoolled	05	1.67%
FATHER'S OCCUPATION	Service	137	45.67%
	Business	138	46%
	Daily income	20	6.67%
	Retired	05	1.67%
MOTHER'S OCCUPATION	Service	36	12%
	Business	18	6%
	Homemaker	246	82%
FAMILY INCOME	Below Rs 10,000	36	12%
	Rs 10,000-Rs 20,000	65	21.67%
	Rs 20,000 and above	199	66.34%

TABLE No.3.2

3.5 SAMPLING TECHNIQUE

The samples were collected using “random purposive sampling technique”. The sample population of the study consisted of 300 respondents

3.6 VARIABLES

3.6.1 DEPENDENT VARIABLES

- a) Drug and Substance abuse by students studying in the urban based UG colleges in Kolkata
- b) Mental health of students studying in the urban based UG colleges in Kolkata

3.6.2 INDEPENDENT VARIABLES

- i) Gender
- ii) Age
- iii) Course of study
- iv) Accommodation
- v) Birth order of respondent
- vi) Qualification of father
- vii) Qualification of mother
- viii) Occupation of father
- ix) Occupation of mother
- x) Family income

3.7 TOOLS OF DATA COLLECTION

In a research study, the tools or instruments are important elements for quantitative study. For collection of relevant data from the respondents, the researcher used Drug and Substance Abuse Survey Questionnaire recommended by WHO. A standardized socio-demographic questionnaire or demographic data sheet was also administered to collect data related to the

socio-demographic attributes of the respondents. The “Mental Health Inventory developed by Dr Jagdish and Dr A. K. Srivastav (1983)” was used to assess the mental health of the respondents.

3.7.1 Demographic Data Sheet:

Demographic Data Sheet is comprised of items seeking information about the students regarding their gender, age, course of study, accommodation, educational background of father, educational background of mother, occupation of parents, income of family etc.

3.7.2 WHO Questionnaire

A detailed demographic data sheet including the types of drugs used was also used for collection of relevant data.

3.7.3 Mental Health Inventory

The tool utilized for measuring the mental health of students studying in urban UG colleges in Kolkata was the standardized “Mental Health Inventory by Dr Jagdish and Dr A.K. Srivastava (1983)”. This inventory has been prepared for the psychological investigation of the college students. It consists of a number of statements relating to feelings of oneself in everyday life. This scale consists of 56 items based on 6 dimensions: 1. “Positive Self- Evaluation” 2. “Perception of Reality” 3. “Integration of Personality” 4. “Autonomy” 5. “Group Oriented Attitude” 6. “Environmental Mastery”.

There are four categories of response: “always”, “most of the time”, “sometimes” and “never”. The “reliability” and “validity coefficients” were found significant as the value of “split-half reliability coefficient” was $r=0.73$ and “construct validity” was $r=0.54$ which confirm the standardization of the scale. The present investigator established the validity of the tool by taking support from the three expert professors. Reliability of the scale was also tested by using “split-half method”.

There are four alternative responses for each statement. The respondents had to choose one of the four alternative responses i.e. “always”, “most of the time”, “sometimes” and “never” according to their choice and suitability indicating the frequency of their feelings and views. No statement was left unanswered.

The “Mental health inventory” explores the following dimensions of mental health:

- “Positive self-evaluation”
- “Perception of reality”
- “Integration of personality”
- “Autonomy”
- “Group- oriented attitude”
- “Environmental mastery”

OPERATIONAL DEFINITIONS

“Mental Health”- “person’s ability to make positive self-evaluation, to perceive the reality, to integrate the personality, autonomy, group oriented attitudes and environmental mastery.”

“Positive Self-evaluation (PSE)”- “self-confidence, self-acceptance, self-identity, feeling of worthiness, realization of one’s potentialities.”

“Perception of Reality (PR)”- “perception free need distortion, absence of excessive fantasy and a broad outlook of the world.”

“Integration of Personality (IP)”- “balance of psychic forces in the individual and includes the ability to understand and to share other people’s emotions. The ability to concentrate at work and interest in various activities.”

“Autonomy (AUTNY)”- “stable set of internal standards for one’s action, dependence on own potentialities for development instead of dependence on other people.”

“Group-oriented Attitude (GOA)”- “ability to get along with others, work with others and ability to find recreation.”

“Environmental Mastery (EM)”- “efficiency in meeting situational requirements, the ability to work and play, the ability to take responsibilities and capacity for adjustment.”

Dimensions of mental health scale with nature (Positive or Negative)

Serial No.	Dimensions	Items	Positive	Negative	Total
1	“Positive Self-Evaluation (PSE)”	1,7,13,19,23,27,32,38,45,51	19,27,32,38,45,5=06	1,7,13,23=04	10
2	“Perception of Reality (PR)”	6,8,14,24,35,41,46,52	6,8,41,52=04	14,24,35,46=04	08
3	“Integration of Personality (IP)”	2,9,15,18,20,25,28,33,36,40,47,53	20=01	2,9,15,18,25,28,33,36,40,47,53=11	12
4	“Autonomy (AUTNY)”	3,10,29,42,48,54	29,54=02	3,10,42,48=04	06
5	“Group Oriented Attitude (GOA)”	4,11,16,21,26,30,39,43,49,55	4,30,39,43=04	11,16,21,26,49,55=06	10
6	“Environmental Mastery (EM)”	5,12,17,22,31,34,37,44,50,56	12,31,34,37,44,50,56=07	5,17,22=03	10
		Total Items	24	32	56

Table 3.3

Scoring:

The mental health scale’s scoring is straightforward. According to the nature of the items, each item is calculated. The inventory consisted of 56 items, each of which was graded on a four-point scale ranging from always to never, with four being assigned to true keyed (positive) statements and one, two, three and four being assigned to false keyed (negative) claims. Subjects who score well have strong mental health, whereas those who score poorly have poor mental health.

Norms for Mental Health (Level/State) of students

	CATEGORY	MENTAL HEALTH	SCORE
		BOYS	GIRLS
Level or Score	Very Good	195.89 & above	196.02 & above
	Good	176.45-195.89	175.14-196.02
	Average	157.01-176.45	154.26-175.14
	Poor	137.57-157.01	133.38-154.26
	Very poor	Below 137.57	Below 133.38

Table No. 3.4

3.8 DATA COLLECTION PROCEDURE

The Department of Education, Jadavpur University issued an authorization letter to the researcher to collect data. The current research was carried out in the metropolitan city of Kolkata. The samples were randomly selected from the different UG colleges in Kolkata. The researcher went to the colleges, met the Heads of the Institution and informed them about the purpose of the study. After receiving permission, the researcher met the respondents in small groups of 25-30. The questionnaire and the inventory were administered by the researcher personally. The respondents were told about the purpose of the research study. The researcher made the respondents comfortable, advised them to give truthful responses and assured them that their personal information shall be kept strictly confidential. The data will be used solely for research purpose. Each sampled respondent was given a questionnaire and an inventory and instructed to complete it at their convenient pace. They were given a clear set of instructions and explained about the different parts of the questionnaire for eg the general information, the sociodemographic information, the information about drug and substance abuse. Similarly, they were instructed about the Mental Health Inventory and told about the alternatives of the items. They were reminded that they were needed to respond to all the items of both the questionnaire and the inventory. The researcher constantly monitored and answered the queries of the respondents while they answered the questionnaire. The researcher collected the questionnaires from the respondents.

3.9 STATEMENT OF THE PROBLEM

A knowledge gap exists as far as the trend of abuse of drugs and substances in Kolkata is concerned. A substantial percentage of the metropolitan population indulges in drug and substance abuse which is not reflected in the national and international surveys and much needs to be explored and unearthed especially in the post Covid period. There is dearth of research conducted on the relation between substance use disorder (SUD) and mental health among the youth and the present research is aimed at exploring and making up for the paucity on the same and focusing on the drug and substance abuse and consequential mental health problems among the college students at the UG level in Kolkata.

3.10 OBJECTIVES OF THE STUDY

1. The objective is to study and understand the trend and prevalence of drug and substance abuse among urban college students in Kolkata at the UG level.
2. The objective is to study and understand the probable causes of drug abuse.
3. The objective is to study and understand the drugs commonly used by the students in campus.
4. The objective is to study and understand the mental health of the undergraduate students.
5. The objective is to study and understand the impact of drug and substance abuse on the mental health of the students.
6. The objective is to study and understand the socio-economic correlates of substance abuse.

3.11 RESEARCH QUESTIONS

- “What is the extent of drug and substance abuse among the college students in Kolkata at the UG level?”
- “Is there any relationship between the drug and substance abuse by the students with their socio-demographic characteristics?”
- “What are the commonly used drugs?”
- “What are the probable causes of drug abuse?”
- “Is there any difference in the prevalence of drug and substance abuse among the general degree and professional degree students studying at the UG level?”
- “What is the relation between drug and substance abuse and mental health of the college students at UG level in Kolkata?”
- “Do students have mental health problems?”

CHAPTER IV

RESULTS AND ANALYSIS

4.1 INTRODUCTION

Analysis of the data was conducted in the following manner:

- (a) Graphical representations of the sample demographics were arranged according to the variables under study. Using descriptive statistics percentage, the results were organized.
- (b) Overview of the drugs and substances abused by the addicted respondents is represented with the help of tables and bar charts.
- (c) The hypotheses were tested using descriptive statistics, “mean”, “standard deviation” (SD) and “inferential statistics”, “independent t-test”, “one way analysis of variance” (ANOVA) and “chi-square test”.
- (d) Item wise analysis of the responses of the respondents to the Mental Health Inventory items was carried out.
- (e) The test of significance of the variables: mental health dimensions vs gender is carried out by the Mann-Whitney Test.

4.1a GRAPHICAL REPRESENTATION OF SAMPLE DEMOGRAPHIC VARIABLES

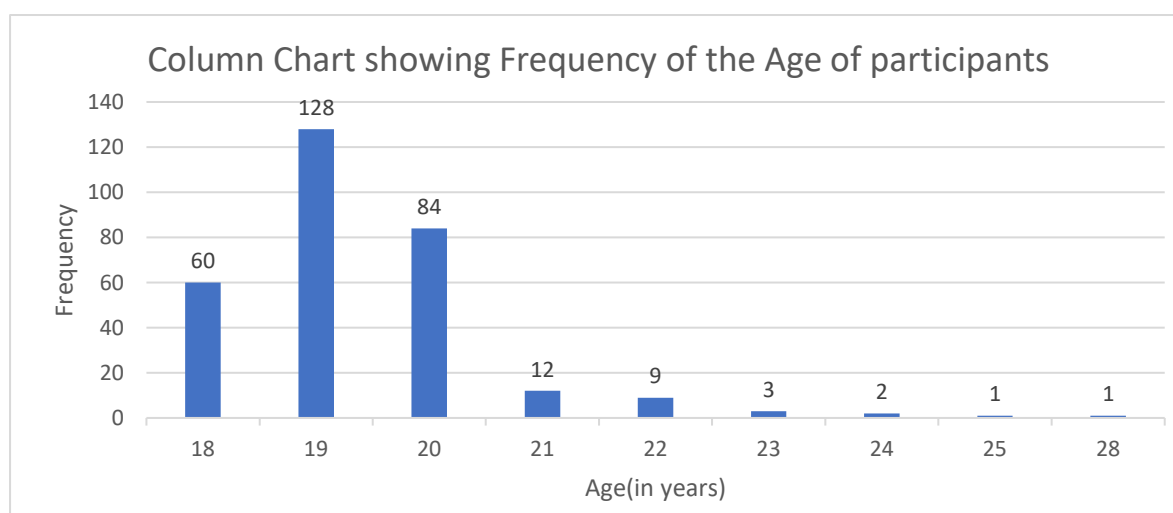


Figure 4.1.1

The above column chart shows the frequency of the age of the respondents. 128 respondents are 19 yrs old, 84 respondents are 20 yrs old, 60 of them are 18 yrs old. 12 of the respondents

are 21 yrs old. 9 of them are 22 yrs old. 3 respondents are 23 yrs old and 2 respondents are 24 yrs old. 1 respondent is 25 yrs old and 1 respondent is 28 yrs old.

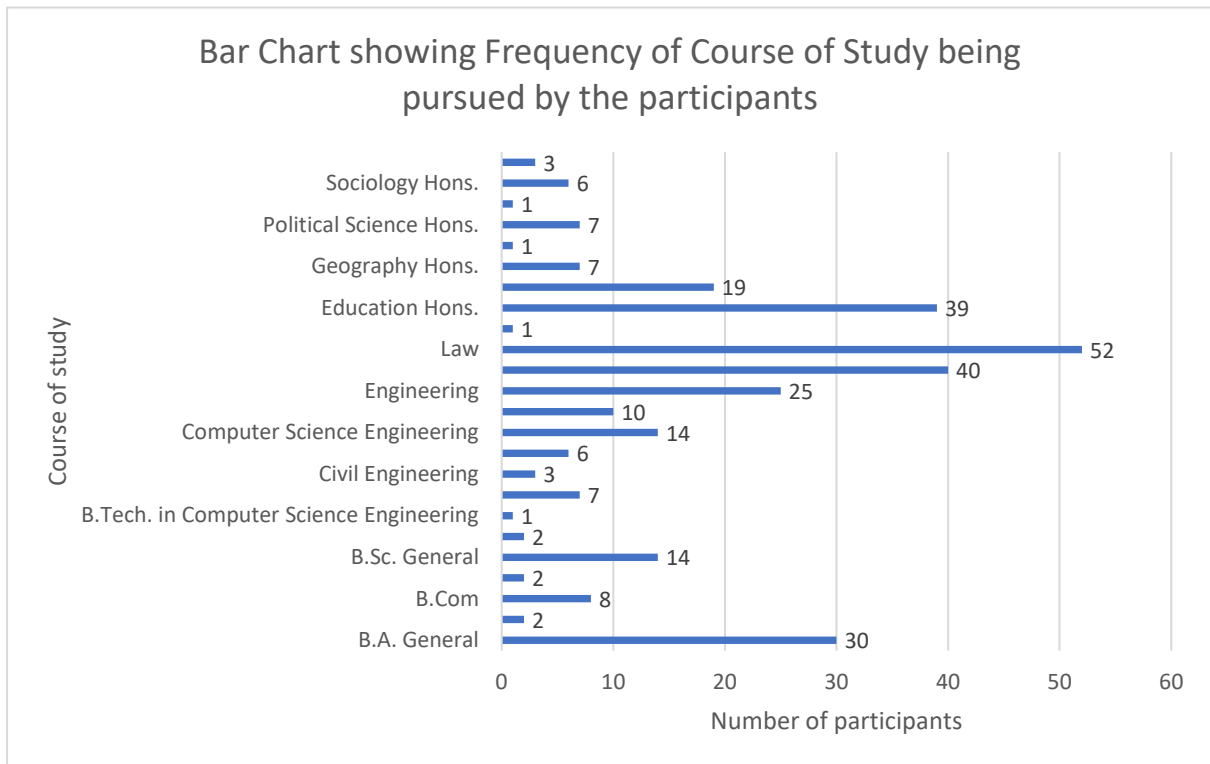


Figure 4.1.2

The above bar chart shows that maximum respondents belong to law (52) followed by MBBS (40), Education Hons (39), B.A. General (30), Engineering (25), English Hons (19), Computer Science Engineering (14), B.Sc General (14), Electronics & Communication (10), BCom (8), Political Sc Hons (7), Geography Hons (7), Computer Science (6), Statistics Hons (3), Civil Engineering (3), 2 respondents each from B.Tech, B,Com Hons, B.A. Hons, 1 each from Psychology Hons, History Hons, Library &Information Study, B.Tech in Computer Science Engineering.

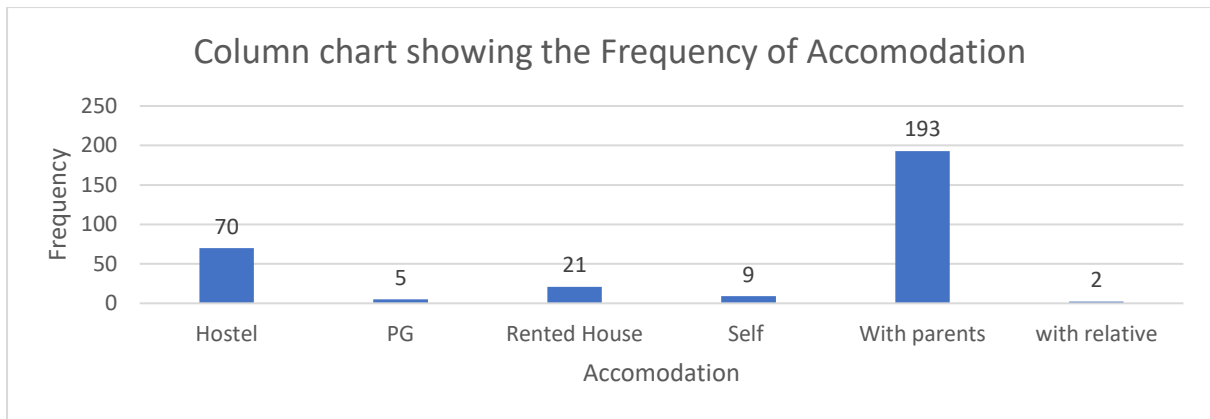


Figure 4.1.3

The column graph above shows that 193 respondents live with their parents, 70 respondents live in hostel. 21 respondents live in a rented house, 9 live on their own, 5 live in a PG and 2 live with their relatives.

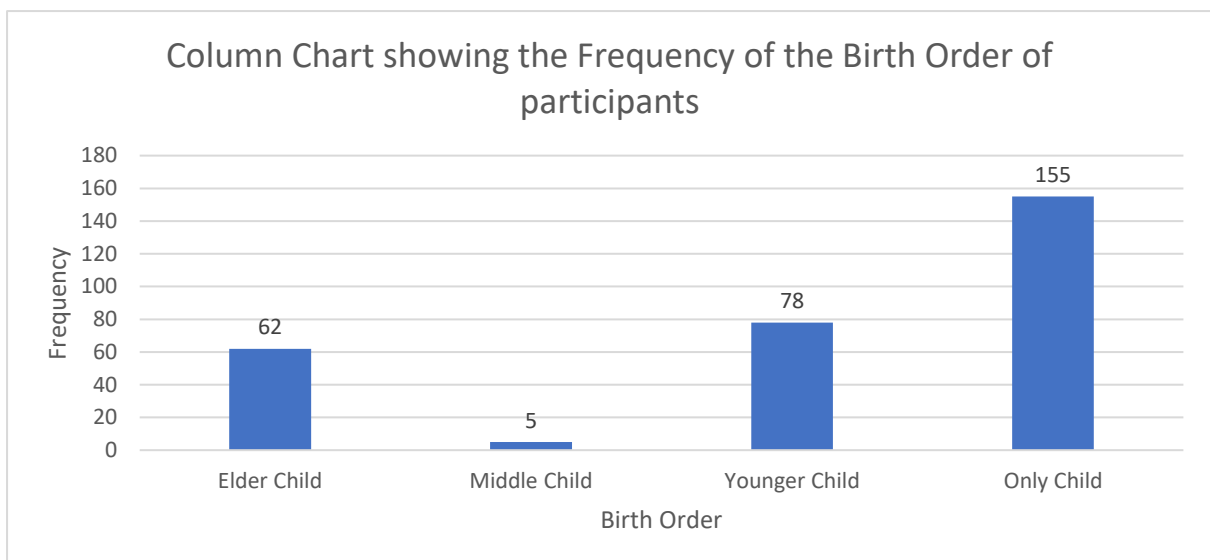


Figure 4.1.4

The above column chart shows that 155 respondents are the only child, 78 of them are the younger child, 62 are the elder child and 5 of the respondents are the middle child.

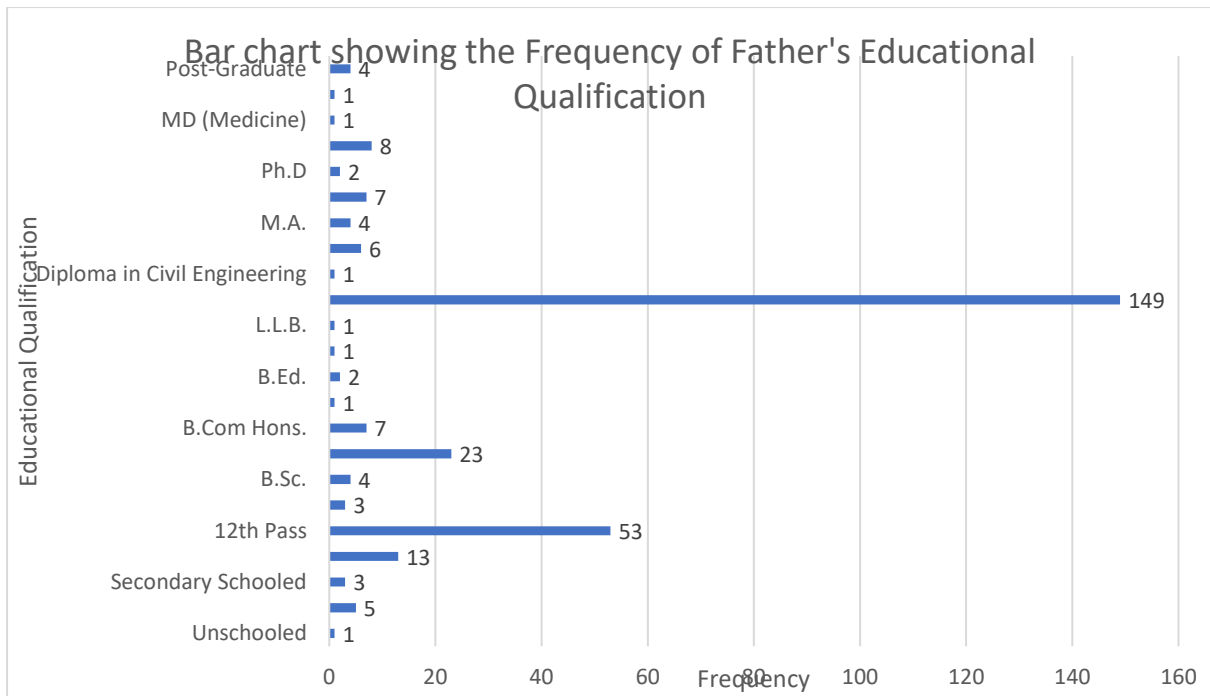


Figure 4.1.5

The above bar chart shows the frequency of the respondents' father's educational qualification. 50% of the respondents' father have a professional degree. 17.67% respondents' fathers are high school pass.

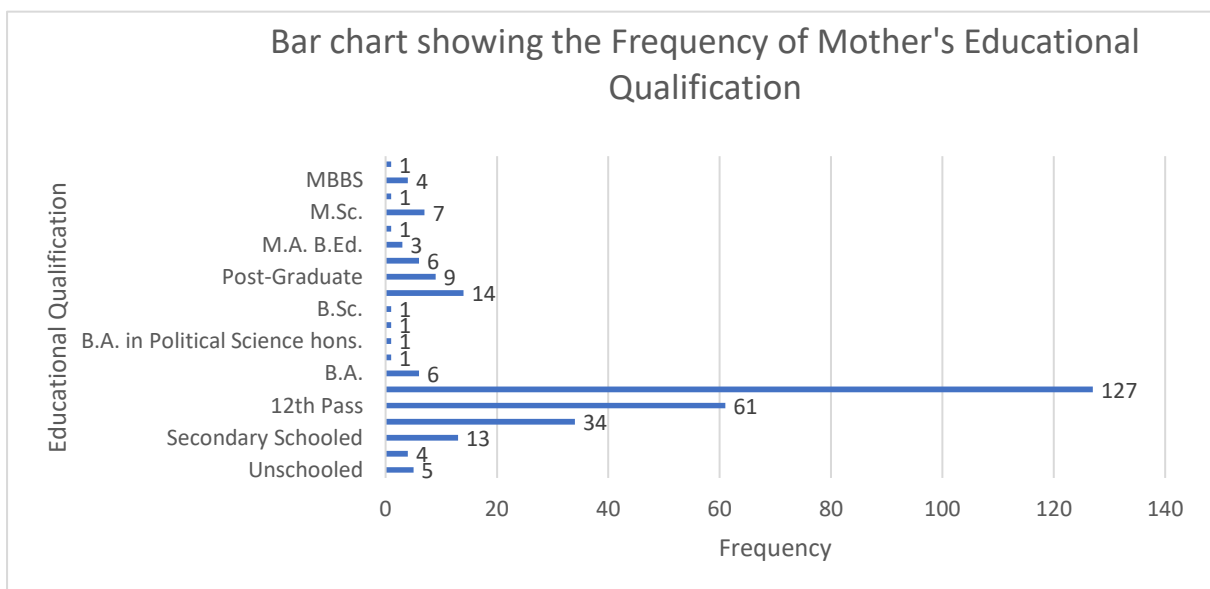


Figure 4.1.6

The above bar chart shows the frequency of the respondents' mother's educational qualification. Majority of the respondents' mothers (42.34%) are high school pass. 56 (18.67%) respondents' mothers have pursued higher education.

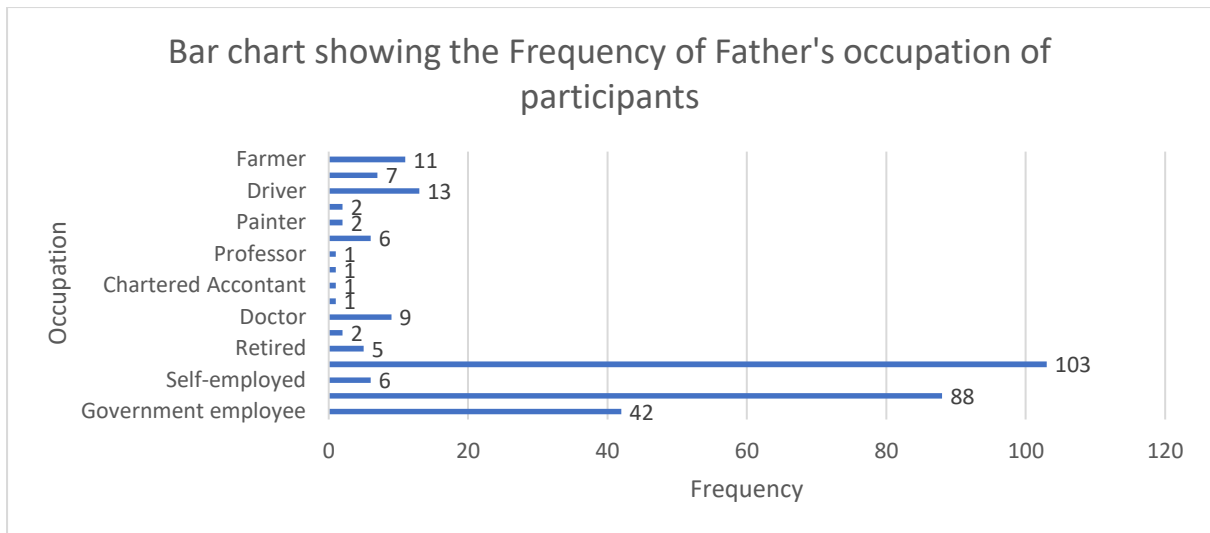


Figure 4.1.7

103 (34.34%) respondents' fathers (34.34%) are self-employed. 42 (14%) respondents' fathers are Government employees. 9 (3%) respondents' fathers are doctors. 11(3.67%) respondents' fathers are farmers.

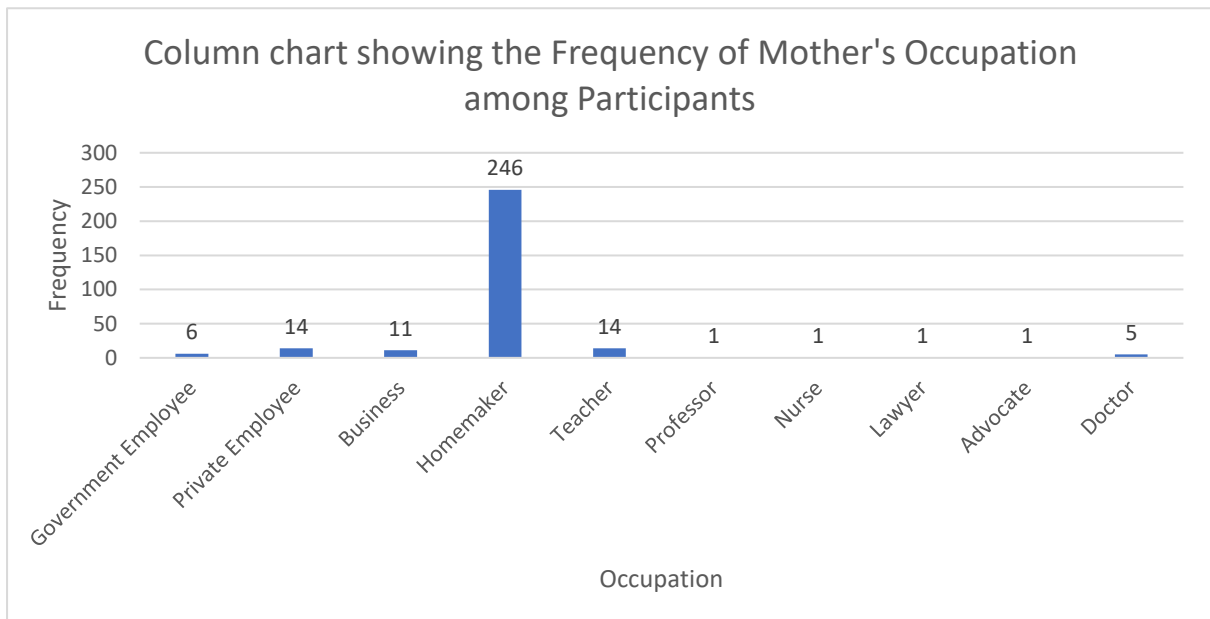


Figure 4.1.8

246 (82%) of the respondents' mothers are homemakers. 14 (4.67%) are in the teaching profession. 5 (1.67%) are doctors, 2 (0.67%) are lawyers.

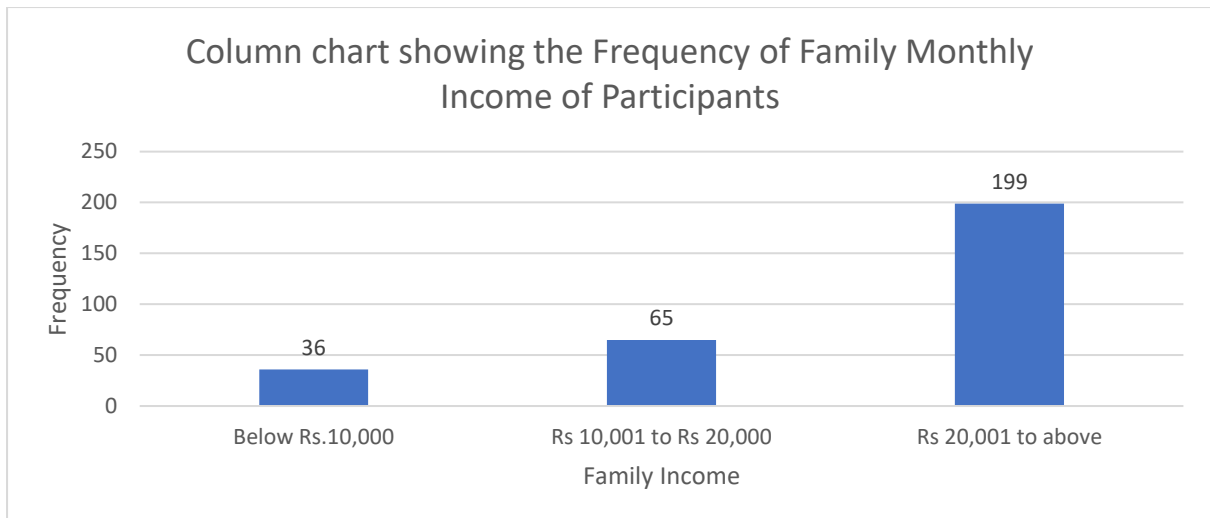


Figure 4.1.9

199 (66.34%) respondents are from the higher income group, 65 (21.67%) are from the middle income group and 36 (12%) belong to the lower income group.

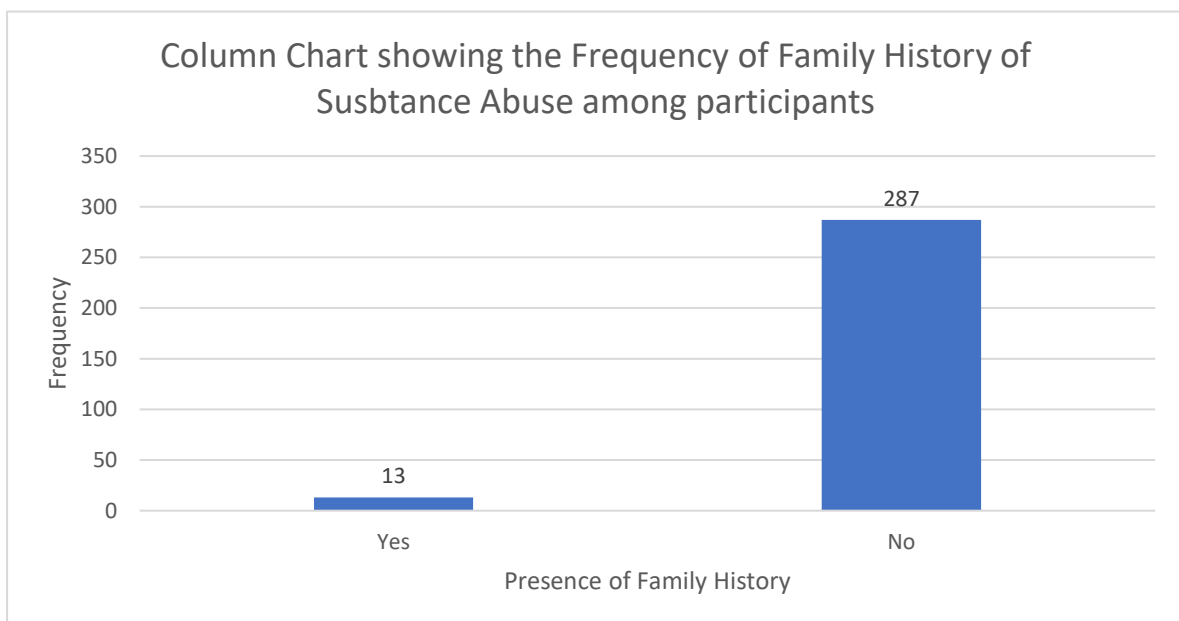


Figure 4.1.10

The above column chart shows that 13 (4.34%) respondents have had a family history of substance abuse.

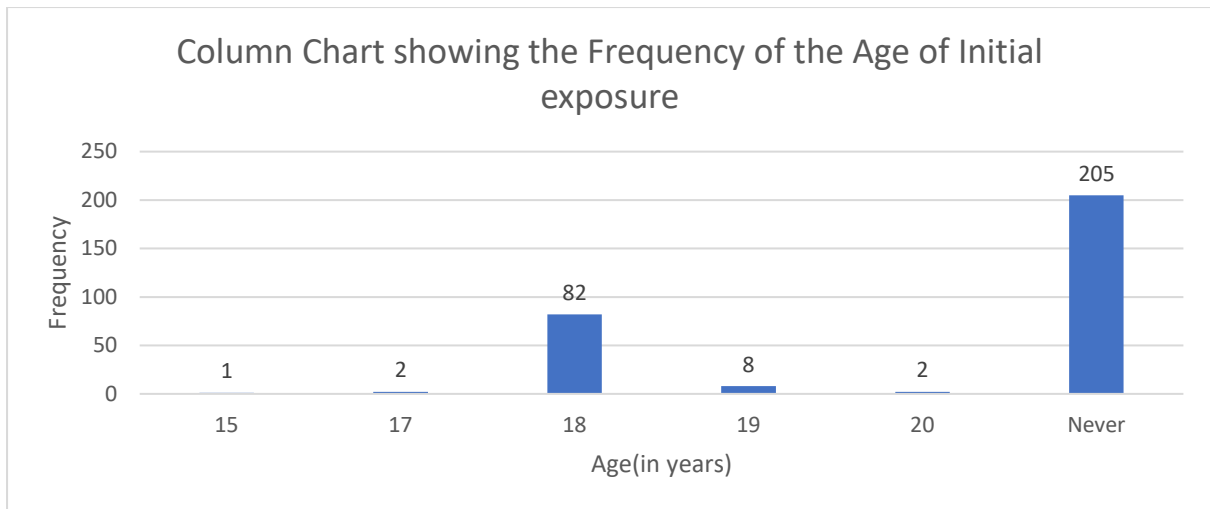


Figure 4.1.11

The above figure shows that in the present study, 18 yrs of age was found to be the most vulnerable age for the initial exposure of drugs and substance abuse of the participants surveyed in this study.

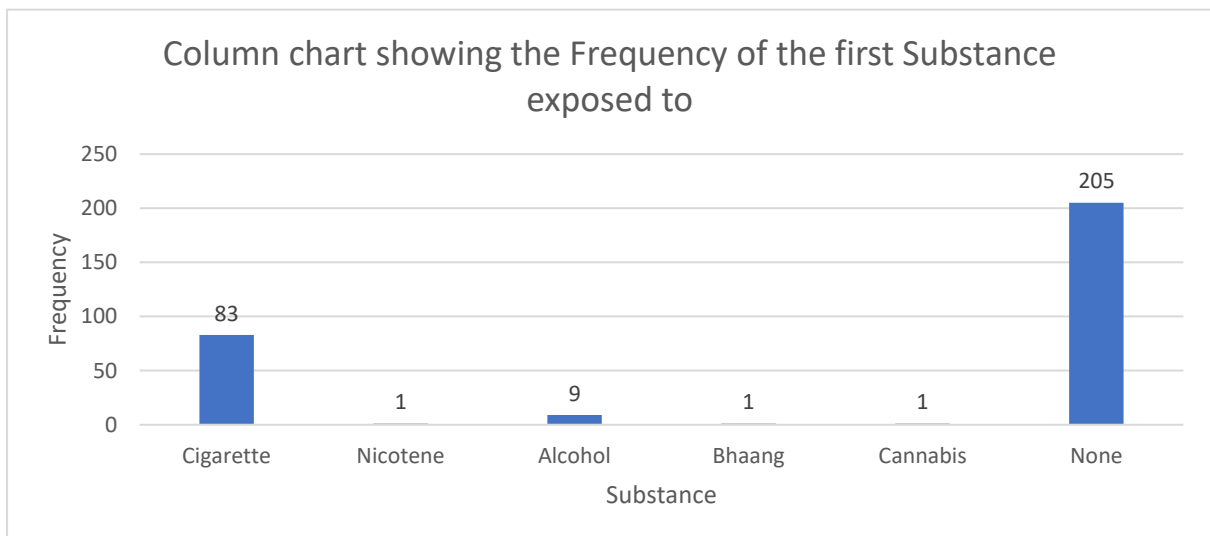


Figure 4.1.12

The above figure shows that among the addicted respondents, the first substance that the majority of the respondents i.e. 83 (88.29%) respondents, were exposed to was cigarettes. 9 respondents said that the first substance they were exposed to was alcohol.

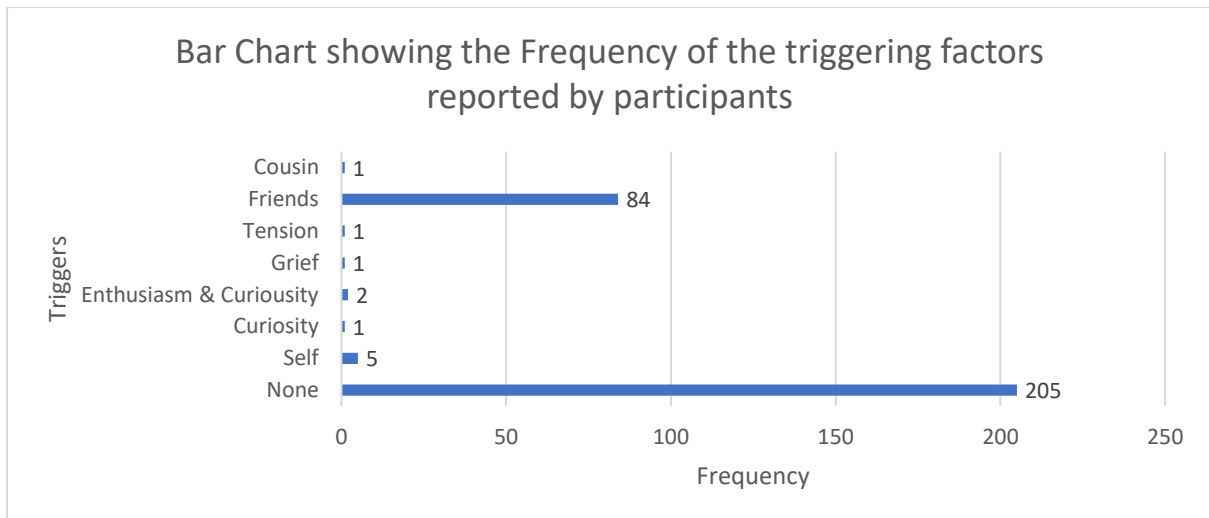


Figure 4.1.13

The above figure shows that among the triggering factors of exposure to substance abuse, 84 (89.36%) respondents said that friends were the triggering factor. The other triggering factors were tension, grief, curiosity.

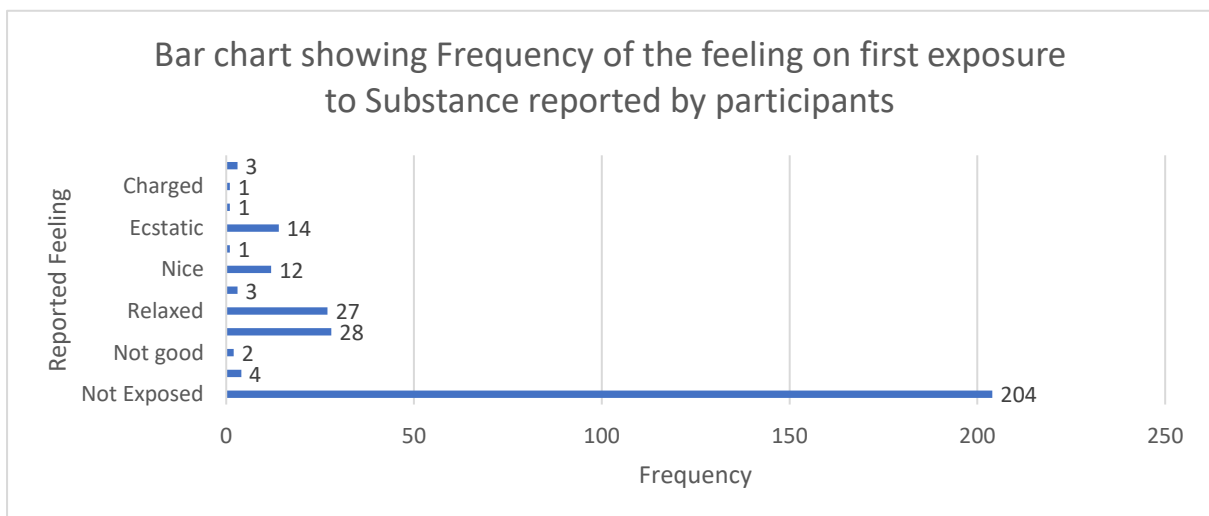


Figure 4.1.14

55 (58.51%) respondents recalled relaxation as the primary feeling experienced on their first exposure to substance abuse. 14 (14.89%) respondents said that they felt ecstatic. 12 (12.76%) respondents said that they felt nice when first exposed to substance abuse. 6 respondents said that they did not feel good on their first exposure to substance.

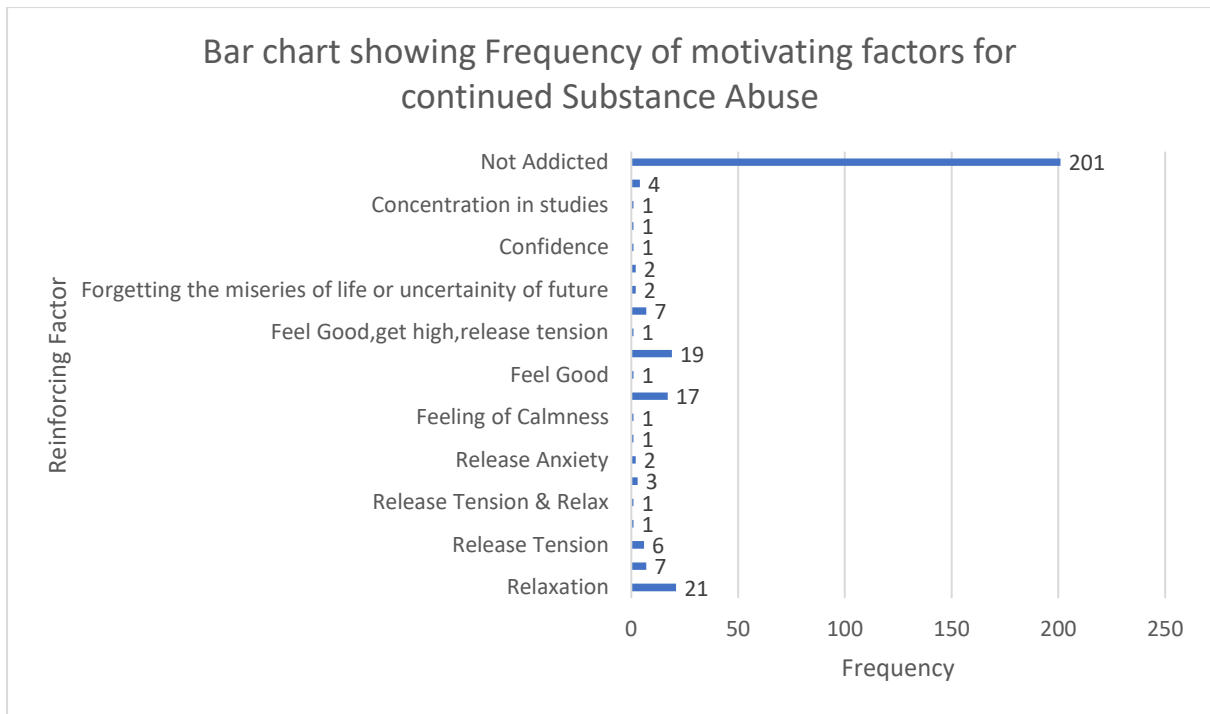


Figure 4.1.15

The above figure clearly shows that majority of the respondents considered the feel good, confident, relaxing and tension releasing feeling associated with substance abuse as the reinforcing factor for their continued addiction.

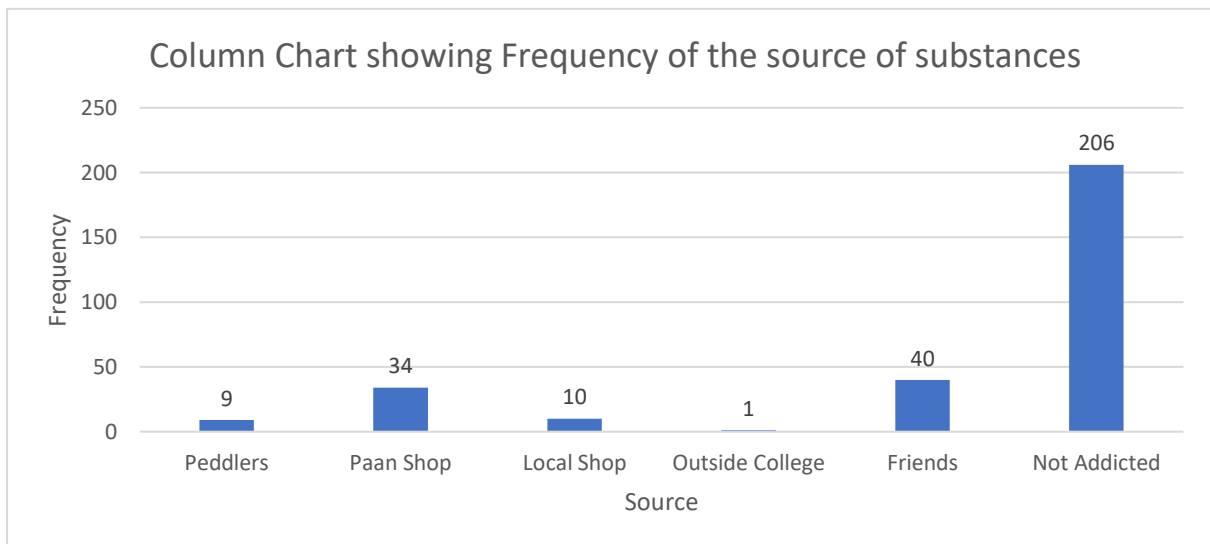


Figure 4.1.16

The above figure throws light on the sources from whom the respondents procured their drugs and substances. 40 (42.55%) respondents said that they got the supply from their friends, 34

(36.17%) said that they bought the substances from the pan shops near their institutes, 10 (10.63%) respondents got it from some local shops and 9 (9.57%) respondents admitted to getting their supply from drug peddlers.

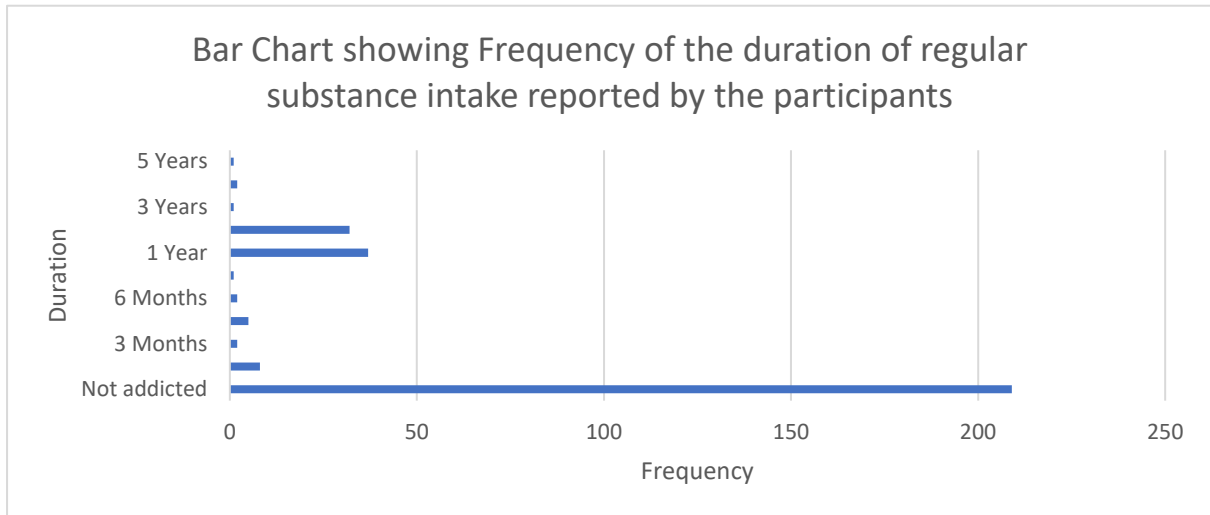


Figure 4.1.17

The above figure shows that the duration of regular substance intake ranges from 3 months to 5 years as reported by the respondents in the present study.

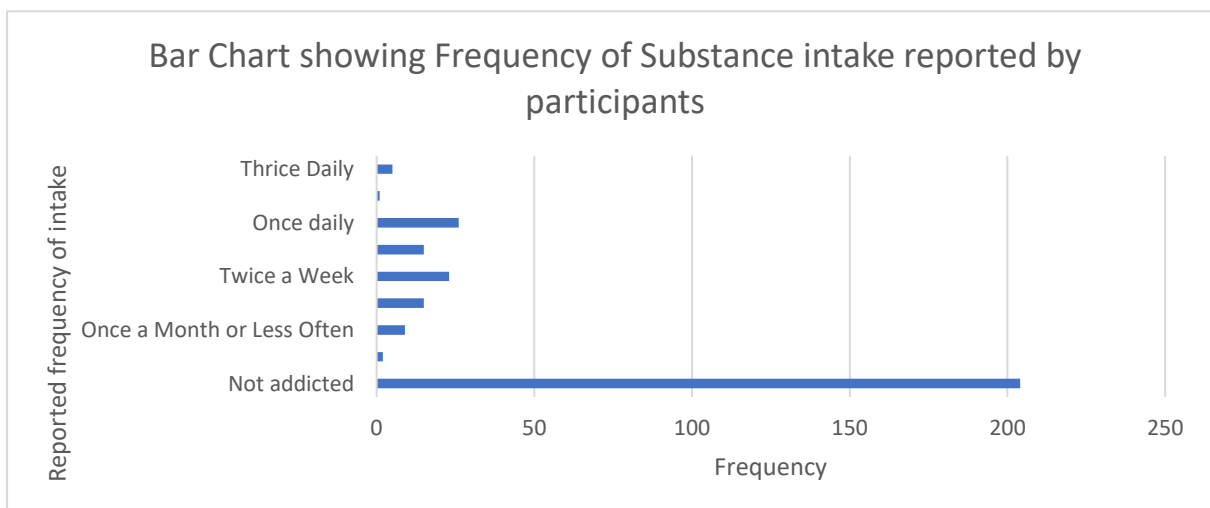


Figure 4.1.18

The above figure shows that the frequency of substance intake varies from once daily, thrice daily, twice a week to once in a month.

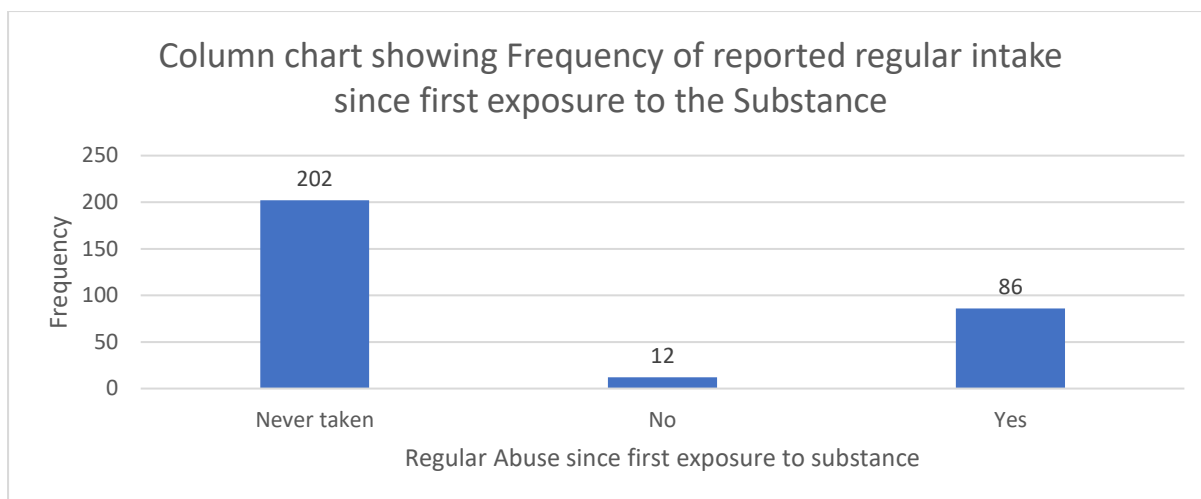


Figure 4.1.19

The above figure shows that 86 (91.48%) respondents have regularly abused substances since their first exposure to substance abuse whereas 12 (12.76%) respondents said that they do not abuse substances on a regular basis.

Table showing types of substances and drugs abused by the respondents

SUBSTANCE ABUSE	FREQUENCY	PERCENTAGE
Not Addicted	206	68.67%
Addicted	94	31.33%
Cigarette	05	1.67%
Alcohol, Cigarette	52	17.34%
Cigarette, Marijuana	01	0.34%
Cannabis	02	0.67%
Alcohol, Cigarette, Ganja	08	2.67%
Alcohol, Cigarette, Marijuana	09	3%
Alcohol, Cigarette, Effexor	01	0.34%
Alcohol, Cigarette, Amphetamines	01	0.34%
Alcohol, Cigarette, Ganja, Hashish	02	0.67%
Alcohol, Cigarette, LSD, Hashish	02	0.67%
Alcohol, Cigarette, LSD	01	0.34%
Alcohol, Cigarette, Hashish, Opium, Ecstasy	07	2.34%
Alcohol, Hashish, Opium, Ecstasy	01	0.34%
Antidepressants, Antipsychotics, Stimulants	02	0.67%

Table No. 4.1.1

The study presents the primary findings of the proportion of students using various addictive substances. Out of the 300 respondents, 94 students abuse drugs and substances. 1.67% of the respondents are addicted to cigarettes only. Alcohol and Cigarettes are the most

widespreadly abused substances among the addicted UG students (17.34%). 0.67% respondents abuse Cannabis. 2.67% of the respondents abuse substances like alcohol, cigarette and Ganja. 0.34% respondents abuse cigarette and marijuana. 0.34% respondents have admitted to using Effexor along with alcohol and cigarettes. 0.34% respondents have abused amphetamines along with alcohol and cigarettes. 0.67% respondents have abused drugs like Ganja and hashish along with alcohol and cigarettes. Another 0.67% respondents have abused hard drugs like LSD and hashish along with alcohol and cigarettes. 0.34% respondents abuse LSD along with alcohol and cigarettes. 2.34% respondents have admitted of abusing a combination of hard drugs like hashish, opium and ecstasy along with alcohol and cigarettes. 0.34% respondents have abused hashish, opium and ecstasy along with alcohol. 0.67% respondents abuse antidepressants and stimulants.

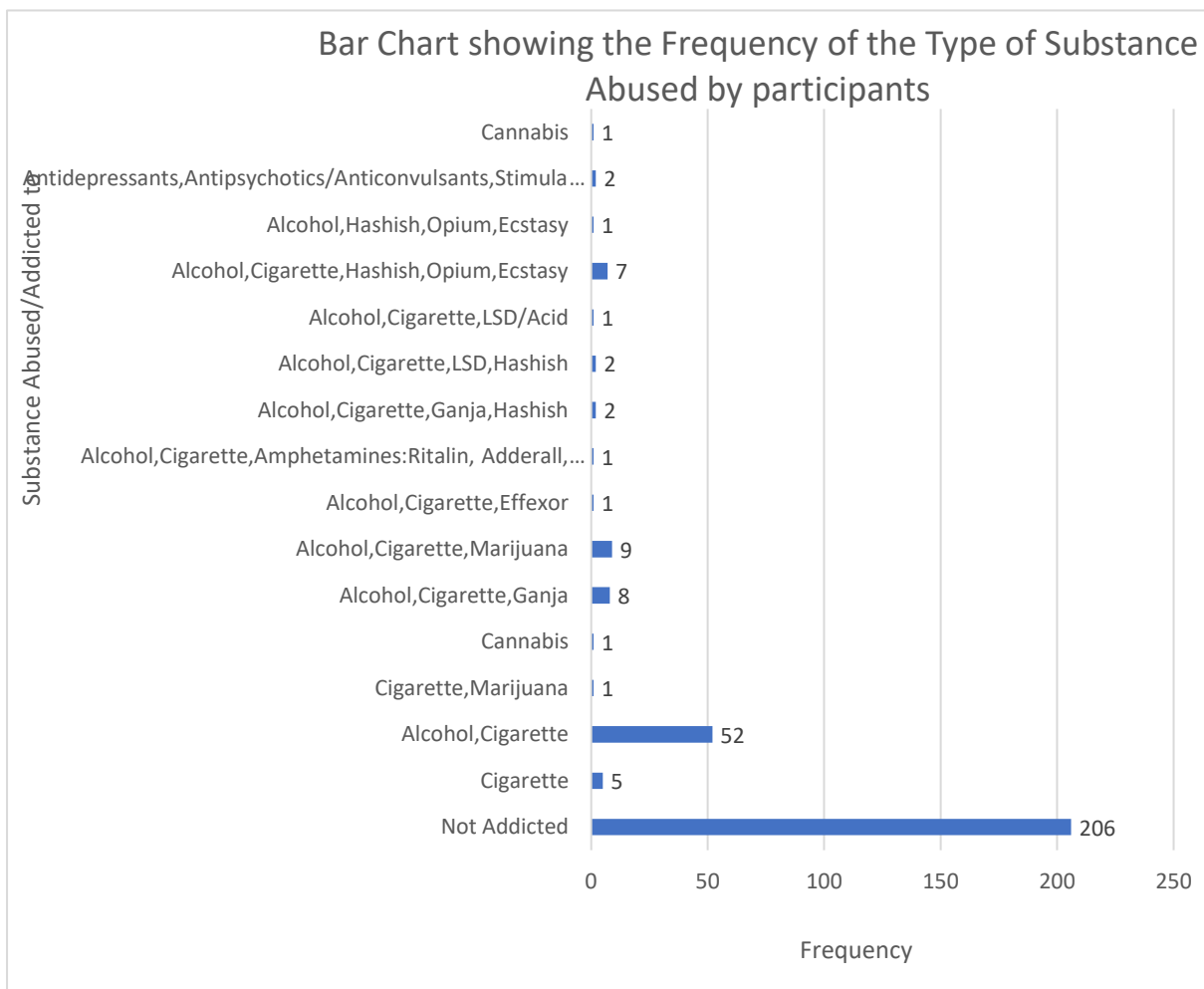


Figure 4.1.20

The bar chart above shows the frequency of respondents abusing different types of drugs and substances.

GRAPHICAL REPRESENTATION SHOWING ASSOCIATION BETWEEN DRUG AND SUBSTANCE ABUSE AND DEMOGRAPHIC VARIABLES

Substance abuse and Gender	Male	Female
Alcohol, Cigarette	19	33
Alcohol, Cigarette, Amphetamines: Ritalin, Adderall, Dexedrine	0	1
Alcohol, Cigarette, Cannabis	0	1
Alcohol, Cigarette, Effexor	1	0
Alcohol, Cigarette, Ganja	3	5
Alcohol, Cigarette, Ganja, Hashish	2	0
Alcohol, Cigarette, Hashish, Opium, Ecstasy	0	7
Alcohol, Cigarette, LSD, Hashish	0	2
Alcohol, Cigarette, LSD, Acid	0	1
Alcohol, Cigarette, Marijuana	0	9
Alcohol, Hashish, Opium, Ecstasy	0	1
Antidepressants, Antipsychotics	2	0
Cannabis	0	1
Cigarette	1	4
Cigarette, Marijuana	0	1
Not Addicted	122	84

Table No. 4.1.2

Table showing the gender wise distribution of the prevalence of drug and substance abuse by the undergraduate students.

In the present study, 28 (29.78%) male students are substance abusers whereas 66 (70.21%) female students are substance abusers. Clearly, female students are found to abuse substances more than the male students.

STACKED BAR-CHART SHOWING FREQUENCY OF SUBSTANCE ABUSE WRT THE DEMOGRAPHIC VARIABLES

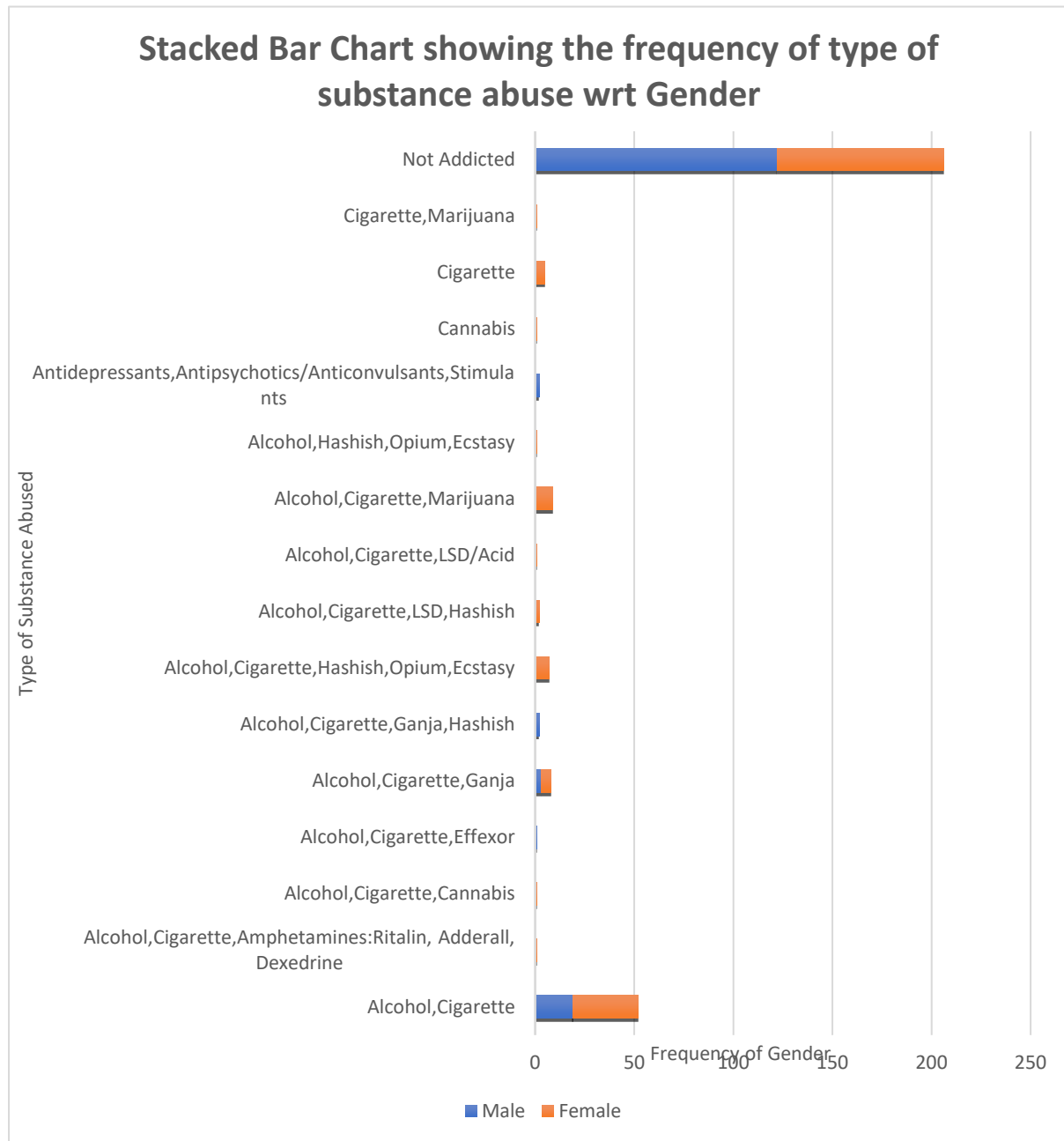


Figure 4.1.21

The above stacked bar chart shows that majority of the addicted girl respondents (more than 50) abuse alcohol and cigarette. The other drugs and substances abused by the girl respondents are marijuana, hashish, opium, ecstasy. Ganja. The boy respondents mostly abuse alcohol and cigarettes followed by ganja, hashish cannabis. A few boys also abuse Effexor, stimulants and antidepressants.

Table showing age wise distribution of drug and substance abuse

Substance abuse and Age	18yrs	19yrs	20yrs	21yrs	22yrs	23yrs	24yrs	25yrs	28yrs
Alcohol, Cigarette	20	18	12	2	0	0	0	0	0
Alcohol, Cigarette, Amphetamines: Ritalin, Adderall, Dexedrine	0	0	0	0	0	0	1	0	0
Alcohol, Cigarette, Cannabis	0	0	1	0	0	0	0	0	0
Alcohol, Cigarette, Effexor	0	0	1	0	0	0	0	0	0
Alcohol, Cigarette, Ganja	1	1	6	0	0	0	0	0	0
Alcohol, Cigarette, Ganja, Hashish	1	0	1	0	0	0	0	0	0
Alcohol, Cigarette, Hashish, Opium, Ecstasy	0	0	7	0	0	0	0	0	0
Alcohol, Cigarette, LSD, Hashish	0	1	1	0	0	0	0	0	0
Alcohol, Cigarette, LSD, Acid	0	0	0	0	1	0	0	0	0
Alcohol, Cigarette, Marijuana	0	7	2	0	0	0	0	0	0
Alcohol, Hashish, Opium, Ecstasy	0	0	1	0	0	0	0	0	0
Antidepressants, Antipsychotics	0	2	0	0	0	0	0	0	0
Cannabis	0	0	1	0	0	0	0	0	0
Cigarette	0	2	2	0	0	0	1	0	0
Cigarette, Marijuana	0	0	1	0	0	0	0	0	0
Not Addicted	38	97	48	10	8	3	0	1	1

Table No. 4.1.3

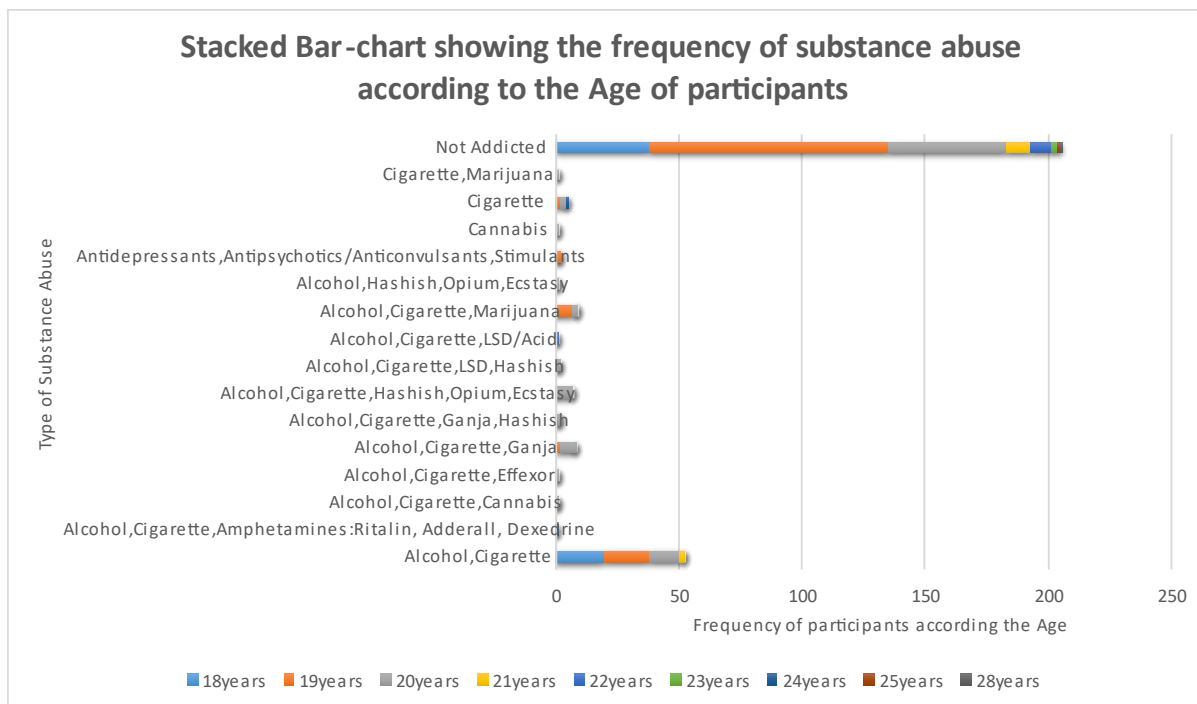


Figure 4.1.22

The above figure shows that majority of the addicted respondents fall in the 18-20 yrs category.

Substance abuse and Course of Study	General Degree Course	Professional Degree Course
Alcohol, Cigarette	19	32
Alcohol, Cigarette, Amphetamines: Ritalin, Adderall, Dexedrine		01
Alcohol, Cigarette, Cannabis	01	01
Alcohol, Cigarette, Effexor	01	
Alcohol, Cigarette, Ganja	02	06
Alcohol, Cigarette, Ganja, Hashish		02
Alcohol, Cigarette, Hashish, Opium, Ecstasy	07	
Alcohol, Cigarette, LSD, Hashish	01	01
Alcohol, Cigarette, LSD, Acid	01	
Alcohol, Cigarette, Marijuana	06	03
Alcohol, Hashish, Opium, Ecstasy	01	
Antidepressants, Antipsychotics		02

Cannabis		01
Cigarette	03	02
Cigarette, Marijuana		01
Total	42	52

Table No. 4.1.4

Table showing the course wise distribution of the prevalence of drugs and substances abused by the undergraduate students.

The above table shows the following:

52 (55.31%) respondents pursuing professional degree course abuse drugs and substances. 42(44.68%) respondents pursuing general degree course abuse drugs and substances. It was found that among the professional degree students, 24 (25.53%) medical students, 16 (17.02%) law students and 13 (13.82%) engineering students abuse drugs and substances.

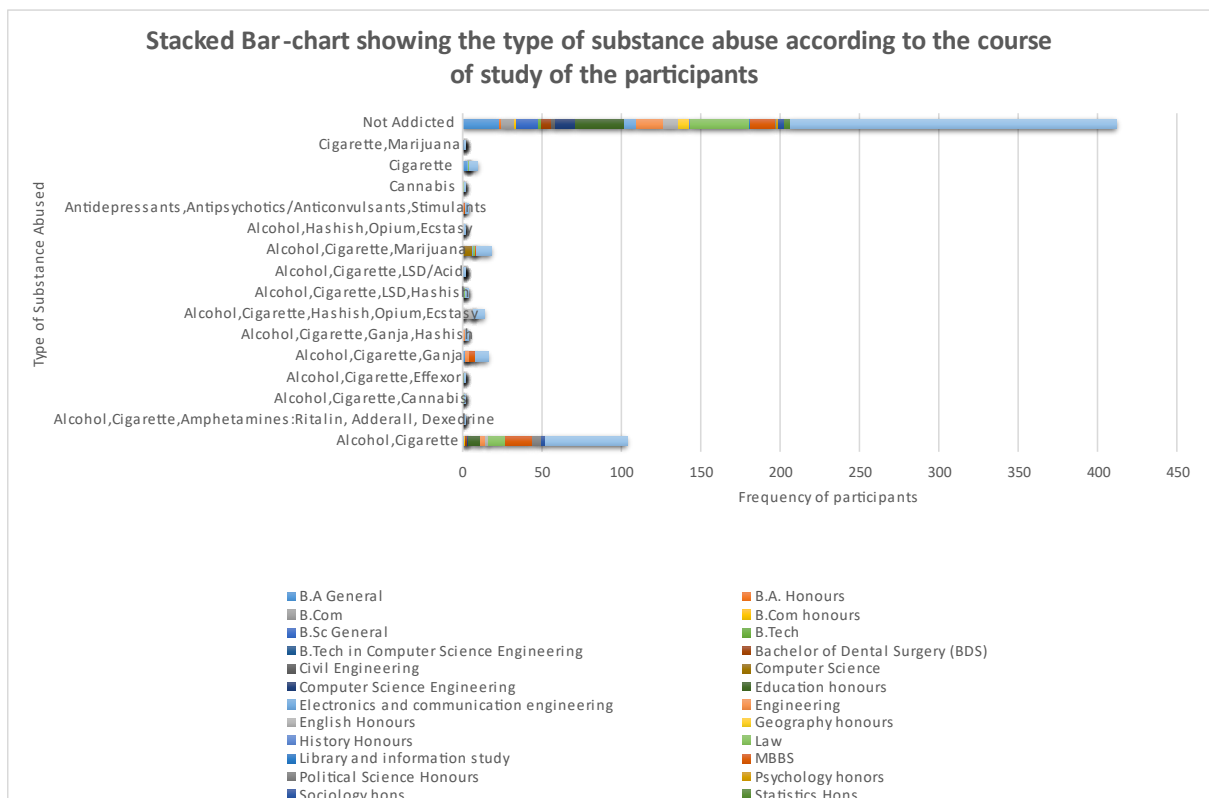


Figure 4.1.23

The above stacked bar chart shows the distribution of the abuse of drugs and substances by the undergraduate students with respect to their course of study

Table showing substance abuse and accommodation

Substance abuse and Accommodation	Hostel	PG	Rented house	Self	With parents	With relatives
Alcohol, Cigarette	13	3	1	2	33	0
Alcohol, Cigarette, Amphetamines: Ritalin, Adderall, Dexedrine	0	0	0	0	1	0
Alcohol, Cigarette, Cannabis	0	0	0	0	1	0
Alcohol, Cigarette, Effexor	0	0	0	0	1	0
Alcohol, Cigarette, Ganja	6	0	0	0	2	0
Alcohol, Cigarette, Ganja, Hashish	2	0	0	0	0	0
Alcohol, Cigarette, Hashish, Opium, Ecstasy	0	0	0	0	7	0
Alcohol, Cigarette, LSD, Hashish	2	0	0	0	0	0
Alcohol, Cigarette, LSD, Acid	0	0	0	0	1	0
Alcohol, Cigarette, Marijuana	1	0	8	0	0	0
Alcohol, Hashish, Opium, Ecstasy	0	0	0	0	1	0
Antidepressants, Antipsychotics	0	2	0	0	0	0
Cannabis	0	0	1	0	0	0
Cigarette	0	0	0	1	4	0
Cigarette, Marijuana	0	0	0	0	1	0
Not Addicted	46	0	11	6	141	2

Table No. 4.1.5

Table showing the accommodation wise distribution of the prevalence of abuse of drugs and substances by the undergraduate students

The above table clearly shows that maximum number of students (33) abusing substances like alcohol and cigarette live with their parents. 7 respondents living with their parents abuse a combination of substances like alcohol, cigarette, ganja and hashish. 13 respondents living in hostel abuse alcohol and cigarettes. 6 respondents living in hostel abuse a combination of

alcohol, cigarette and ganja. 8 respondents living in a rented house abuse alcohol, cigarette and marijuana.

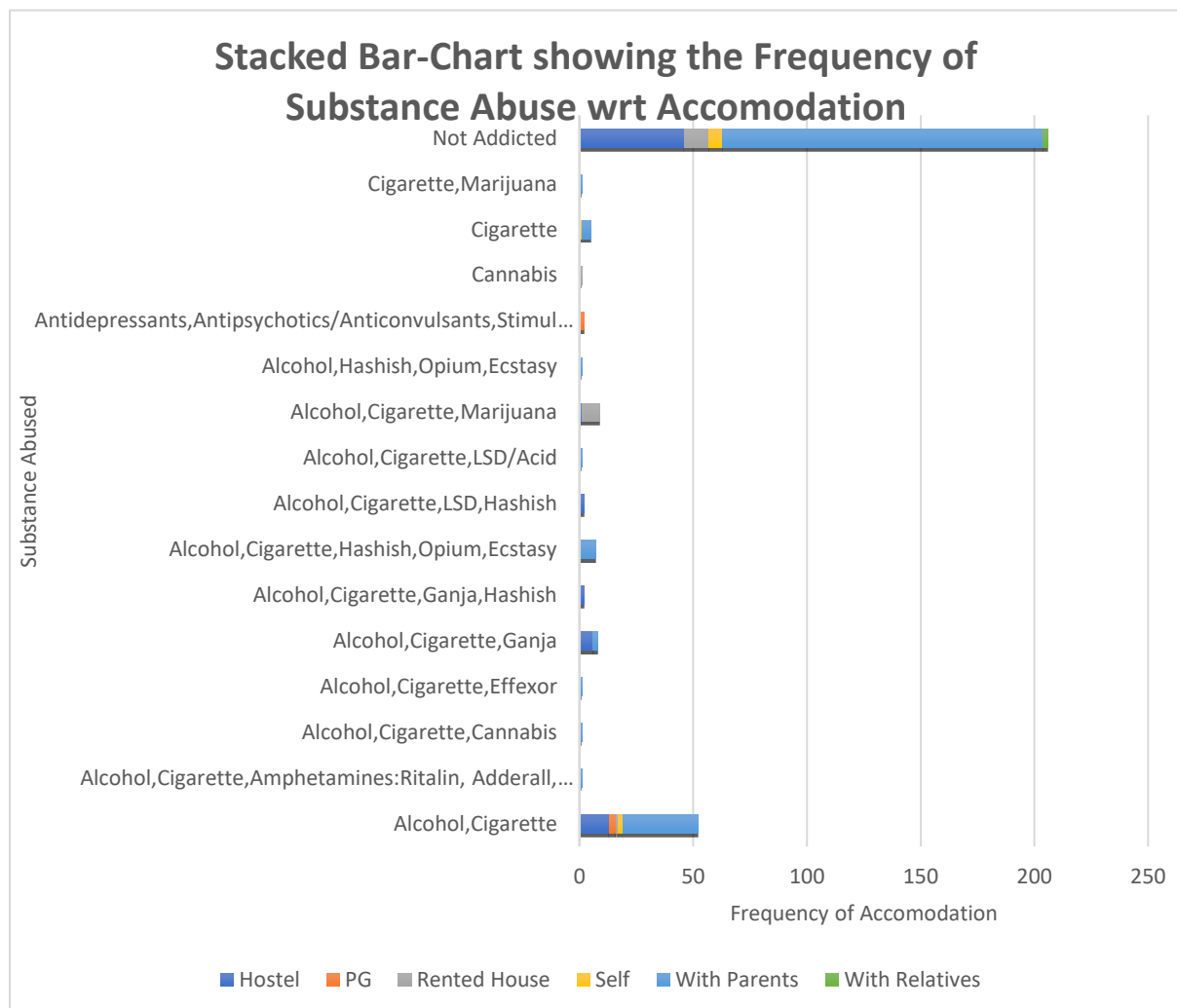


Figure 4.1.24

The above stacked bar chart shows that among the addicted respondents, majority (more than 50) who stay with their parents abuse alcohol and cigarette. Respondents who live in hostel abuse alcohol, cigarette and ganja. Those who live in PG are found to abuse alcohol, cigarette, hashish, opium, ecstasy. Some respondents (more than 10) living in rented accommodation abuse marijuana along with alcohol and cigarette. The respondents who live with relatives are found to smoke cigarettes. The respondents who live on their own abuse alcohol and cigarette.

Table showing substance abuse and birth order of the respondent

Substance abuse and Birth Order	Elder child	Middle child	Only child	Younger child
Alcohol, Cigarette	6	0	40	6
Alcohol, Cigarette, Amphetamines: Ritalin, Adderall, Dexedrine	0	0	1	0
Alcohol, Cigarette, Cannabis	1	0	0	0
Alcohol, Cigarette, Effexor	1	0	0	0
Alcohol, Cigarette, Ganja	3	0	4	1
Alcohol, Cigarette, Ganja, Hashish	1	0	1	0
Alcohol, Cigarette, Hashish, Opium, Ecstasy	0	0	0	7
Alcohol, Cigarette, LSD, Hashish	1	0	1	0
Alcohol, Cigarette, LSD, Acid	0	0	1	0
Alcohol, Cigarette, Marijuana	1	1	7	0
Alcohol, Hashish, Opium, Ecstasy	0	0	0	1
Antidepressants, Antipsychotics	2	0	0	0
Cannabis	1	0	0	0
Cigarette	0	0	2	3
Cigarette, Marijuana	1	0	0	0
Not Addicted	44	4	98	60

Table No. 4.1.6

Table showing the distribution of the prevalence of abuse of drugs and substances by the undergraduate students according to their birth order.

Table 4.1.6 shows that among the addicted respondents, 57 (60.63%) respondents are single child. 18 (19.14%) respondents are the elder child, 18 (19.14%) respondents are the younger child. 1(1.06%) respondent is the middle child.

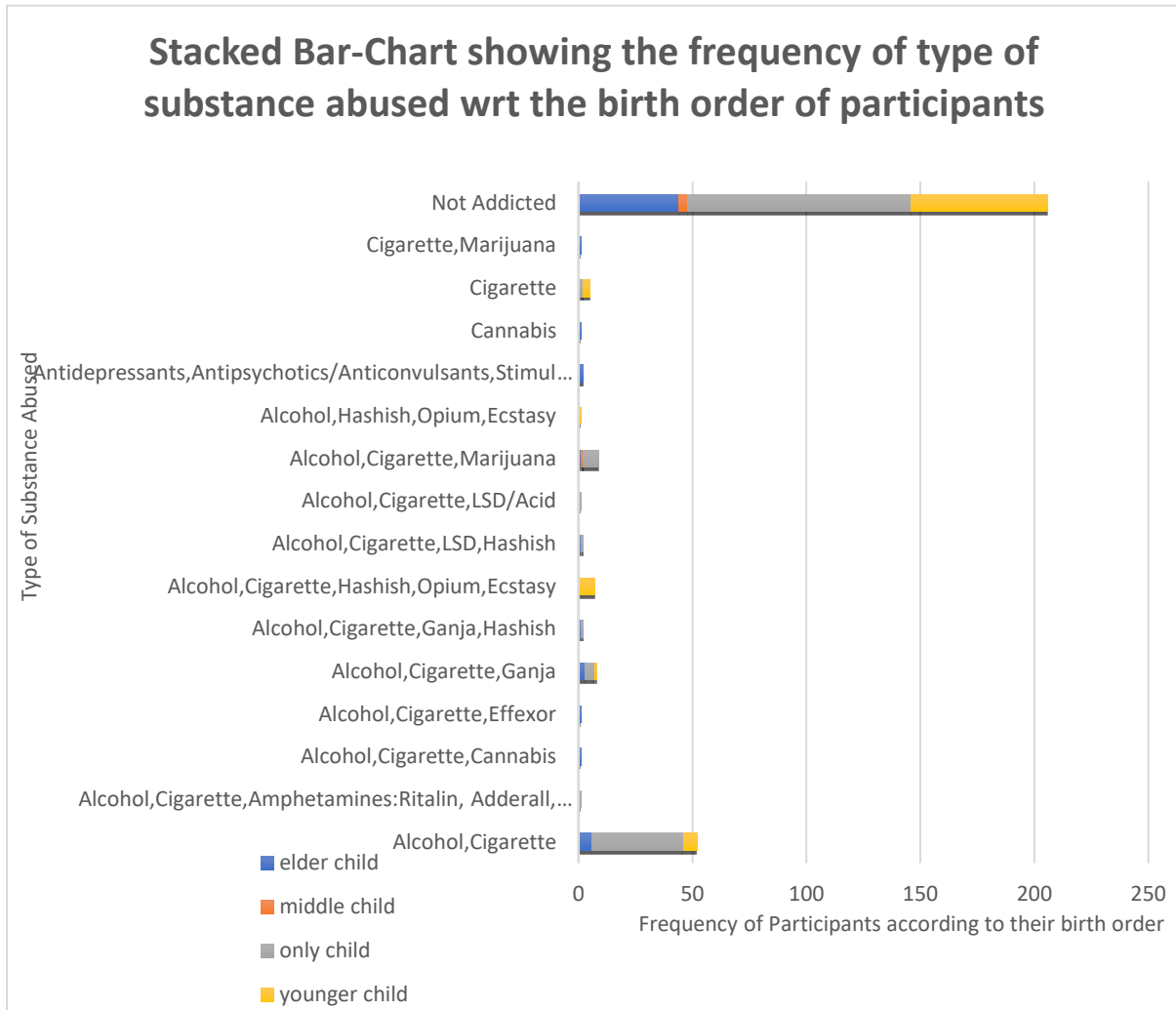


Figure 4.1.25

The above stacked bar chart shows that the respondents who are the younger child majorly abuse alcohol and cigarette. They are also found to abuse other hard drugs like ganja, hashish, opium and ecstasy. Among the respondents who are the only child, they are found to abuse alcohol and cigarette majorly followed by ganja and marijuana. Among the respondents who are the elder child, they are found to abuse alcohol, cigarette, ganja antidepressants and stimulants.

Table showing substance abuse and father’s educational qualification

Substance abuse and Father’s Educational Qualification	Unschool	Formal Schooling	Diploma or Graduation	Higher Education
Alcohol, Cigarette	0	6	44	0
Alcohol, Cigarette, Amphetamines: Ritalin, Adderall, Dexedrine	0	0	1	0
Alcohol, Cigarette, Cannabis	0	1	0	0
Alcohol, Cigarette, Effexor	0	1	0	0
Alcohol, Cigarette, Ganja	0	1	4	3
Alcohol, Cigarette, Ganja, Hashish	0	0	2	0
Alcohol, Cigarette, Hashish, Opium, Ecstasy	0	7	0	7
Alcohol, Cigarette, LSD, Hashish	0	0	2	0
Alcohol, Cigarette, LSD, Acid	0	1	0	0
Alcohol, Cigarette, Marijuana	0	1	8	0
Alcohol, Hashish, Opium, Ecstasy	0	1	0	0
Antidepressants, Antipsychotics	0	0	2	0
Cannabis	0	1	0	0
Cigarette	0	3	2	0
Cigarette, Marijuana	0	0	1	0
Not Addicted	01	50	130	25

Table 4.1.7

Table showing the distribution of the prevalence of abuse of drugs and substances by the undergraduate students according to their father’s educational qualification.

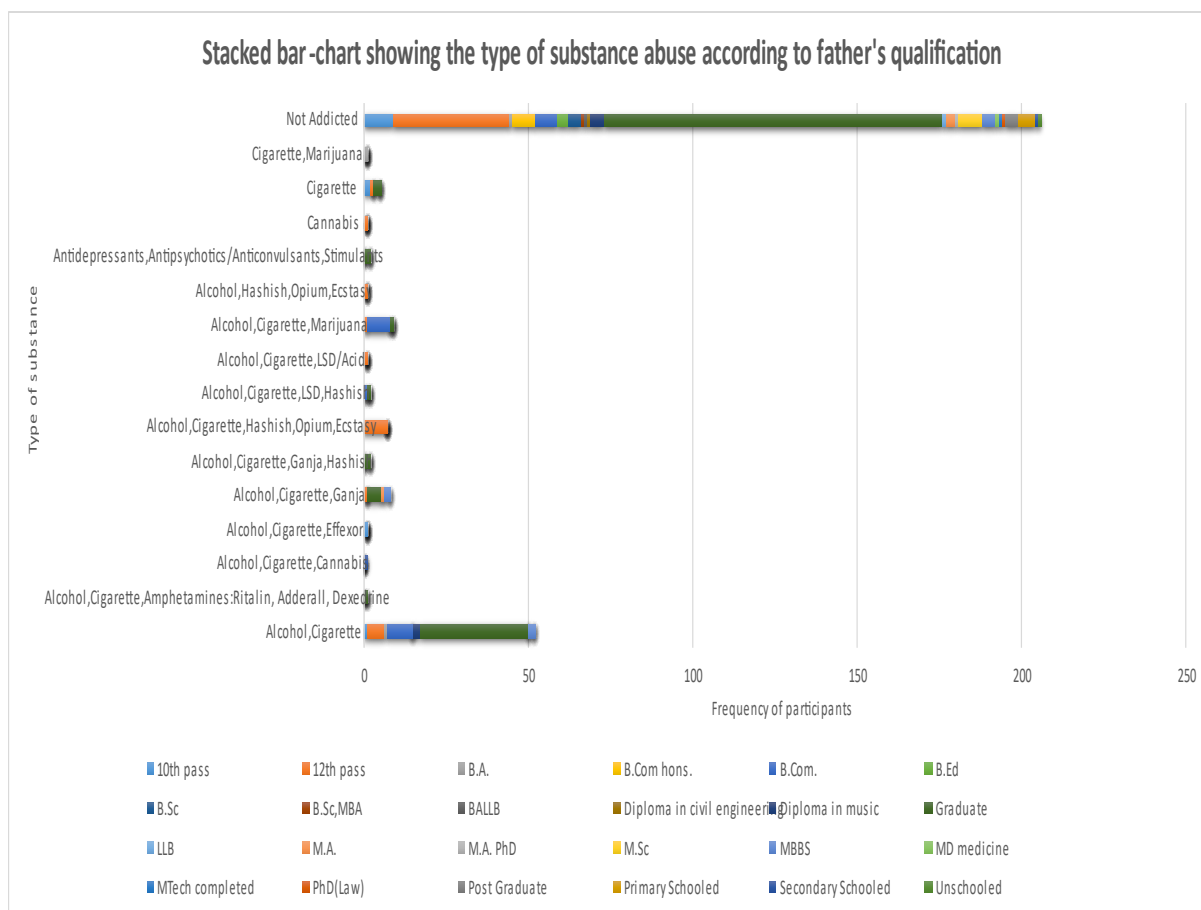


Figure 4.1.26

Table showing substance abuse and mother's educational qualification

Substance abuse and Mother's Educational Qualification	Unschooled	Formal Schooling	Diploma or Graduation	Higher Education
Alcohol, Cigarette	0			0
Alcohol, Cigarette, Amphetamines: Ritalin, Adderall, Dexedrine	0	0		0
Alcohol, Cigarette, Cannabis	0		0	0
Alcohol, Cigarette, Effexor	0		0	0
Alcohol, Cigarette, Ganja	0			
Alcohol, Cigarette, Ganja, Hashish	0	0		0

Alcohol, Cigarette, Hashish, Opium, Ecstasy	0		0	
Alcohol, Cigarette, LSD, Hashish	0	0		0
Alcohol, Cigarette, LSD, Acid	0		0	0
Alcohol, Cigarette, Marijuana	0			0
Alcohol, Hashish, Opium, Ecstasy	0		0	0
Antidepressants, Antipsychotics	0	0		0
Cannabis	0		0	0
Cigarette	0			0
Cigarette, Marijuana	0	0		0
Not Addicted	0			

Table No. 4.1.8

Table showing the distribution of the prevalence of abuse of drugs and substances by the undergraduate students according to their mother's educational qualification.

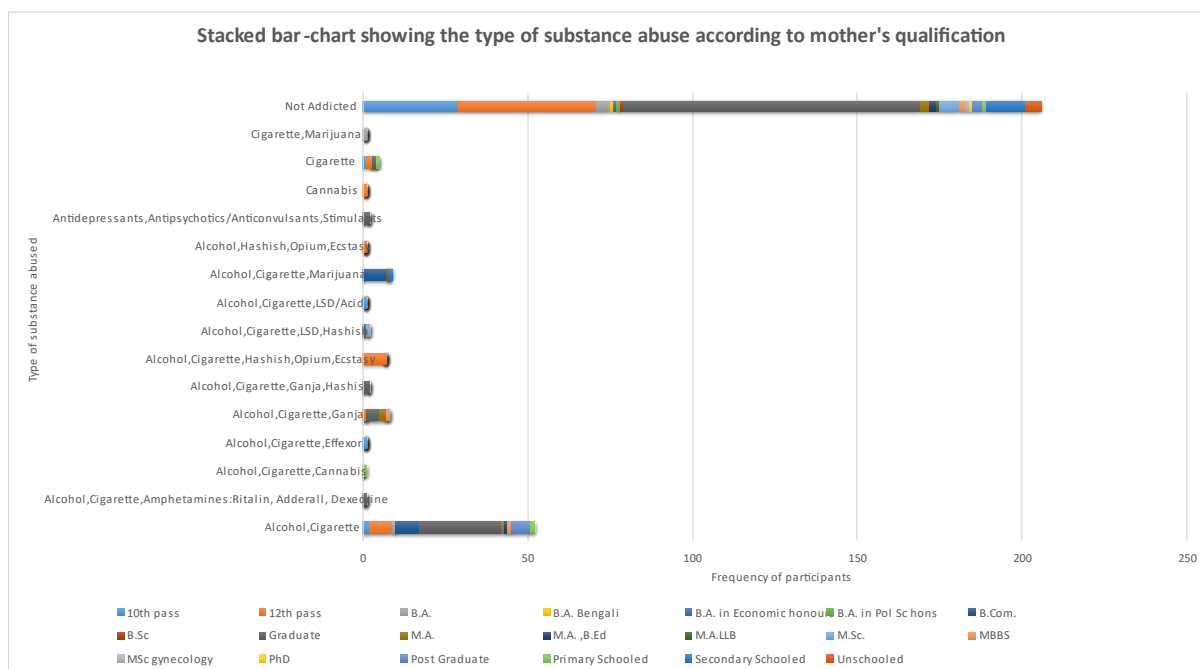


Figure 4.1.27

Table showing substance abuse and father's occupation

Substance abuse and Father's Occupation	Service	Business	Daily Income	Retired
Alcohol, Cigarette	28	20	2	0
Alcohol, Cigarette, Amphetamines: Ritalin, Adderall, Dexedrine	0	1	0	0
Alcohol, Cigarette, Cannabis	0	0	0	0
Alcohol, Cigarette, Effexor	1	0	1	0
Alcohol, Cigarette, Ganja	2	6	5	0
Alcohol, Cigarette, Ganja, Hashish	0	2	0	0
Alcohol, Cigarette, Hashish, Opium, Ecstasy	0	7	0	0
Alcohol, Cigarette, LSD, Hashish	1	1	0	0
Alcohol, Cigarette, LSD, Acid	1	0	0	0
Alcohol, Cigarette, Marijuana	7	0	0	0
Alcohol, Hashish, Opium, Ecstasy	0	1	1	0
Antidepressants, Antipsychotics	1	0	0	0
Cannabis	1	0	0	0
Cigarette	1	2	0	1
Cigarette, Marijuana	0	0	0	1
Not Addicted	81	106	16	03

Table No. 4.1.9

Table showing the distribution of the prevalence of abuse of drugs and substances by the undergraduate students according to their father's occupation.

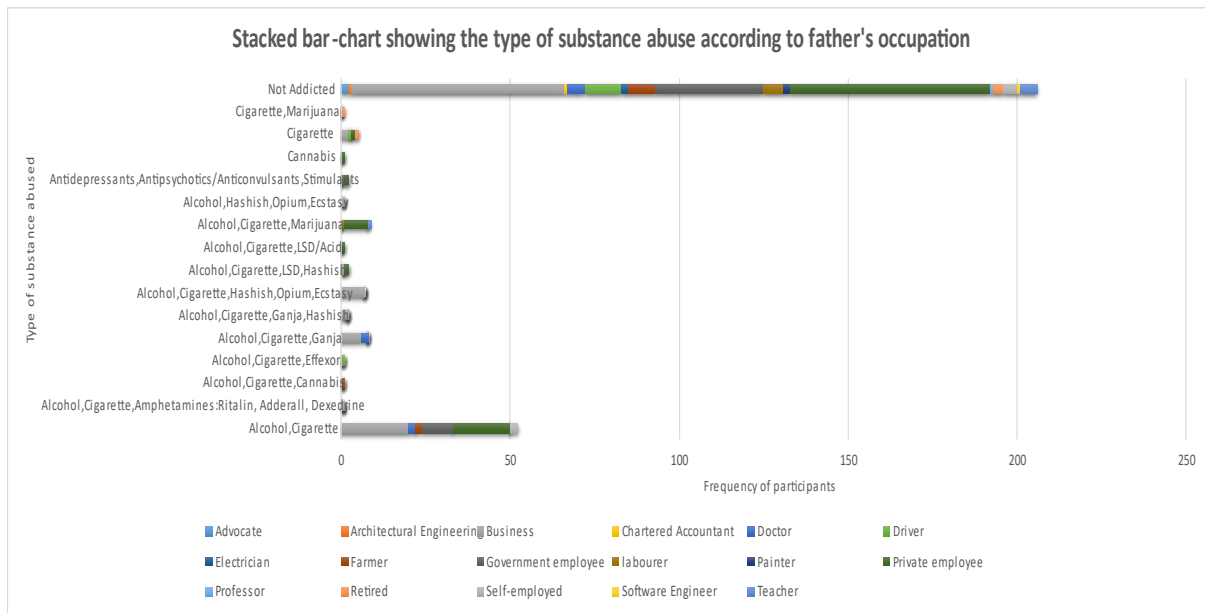


Figure 4.1.28

Table showing substance abuse and mother's occupation

Substance abuse and Mother's Occupation	Service	Business	Homemaker
Alcohol, Cigarette	3	13	36
Alcohol, Cigarette, Amphetamines: Ritalin, Adderall, Dexedrine	0	0	1
Alcohol, Cigarette, Cannabis	0	0	1
Alcohol, Cigarette, Effexor	0	0	1
Alcohol, Cigarette, Ganja	3	0	5
Alcohol, Cigarette, Ganja, Hashish	0	0	2
Alcohol, Cigarette, Hashish, Opium, Ecstasy	0	0	7
Alcohol, Cigarette,	1	0	1

LSD, Hashish			
Alcohol, Cigarette, LSD, Acid	0	1	0
Alcohol, Cigarette, Marijuana	0	0	9
Alcohol, Hashish, Opium, Ecstasy	0	0	1
Antidepressants, Antipsychotics	0	0	2
Cannabis	0	0	1
Cigarette	0	0	5
Cigarette, Marijuana	0	0	1
Not Addicted	22	13	171

Table No. 4.1.10

Table showing the distribution of the prevalence of abuse of drugs and substances by the undergraduate students according to their mother's occupation.

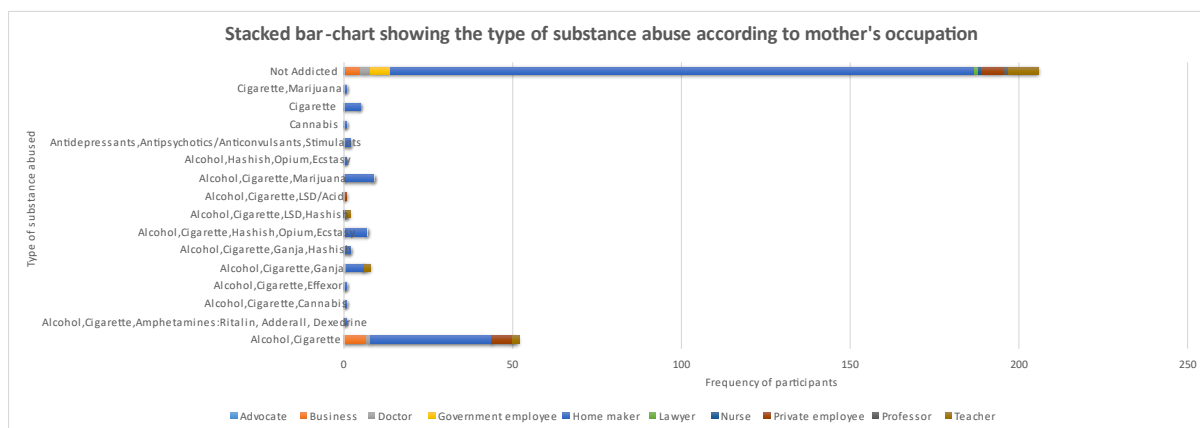


Figure 4.1.29

Table showing substance abuse and family income

Substance abuse and Family Income	Below Rs 10,000	Rs 10,000-Rs 20,000	Rs 20,000 and above
Alcohol, Cigarette	3	4	45
Alcohol, Cigarette, Amphetamines: Ritalin, Adderall, Dexedrine	0	0	1
Alcohol, Cigarette, Cannabis	1	0	0
Alcohol, Cigarette, Effexor	1	0	0
Alcohol, Cigarette, Ganja	0	2	6
Alcohol, Cigarette, Ganja, Hashish	0	0	2
Alcohol, Cigarette, Hashish, Opium, Ecstasy	0	7	0
Alcohol, Cigarette, LSD, Hashish	0	1	1
Alcohol, Cigarette, LSD, Acid	0	0	1
Alcohol, Cigarette, Marijuana	0	1	8
Alcohol, Hashish, Opium, Ecstasy	0	1	0
Antidepressants, Antipsychotics	0	0	2
Cannabis	0	1	0
Cigarette	1	3	1
Cigarette, Marijuana	0	0	1
Not Addicted	30	45	131

Table No. 4.1.11

Table showing the distribution of the prevalence of drugs and substances abused by the undergraduate students according to their family income.

The above table clearly shows that higher “family income group” are found to abuse drugs more. 68 respondents (72.34%) who abuse drugs and substances belong to the “family income group” of Rs 20,000 and above.

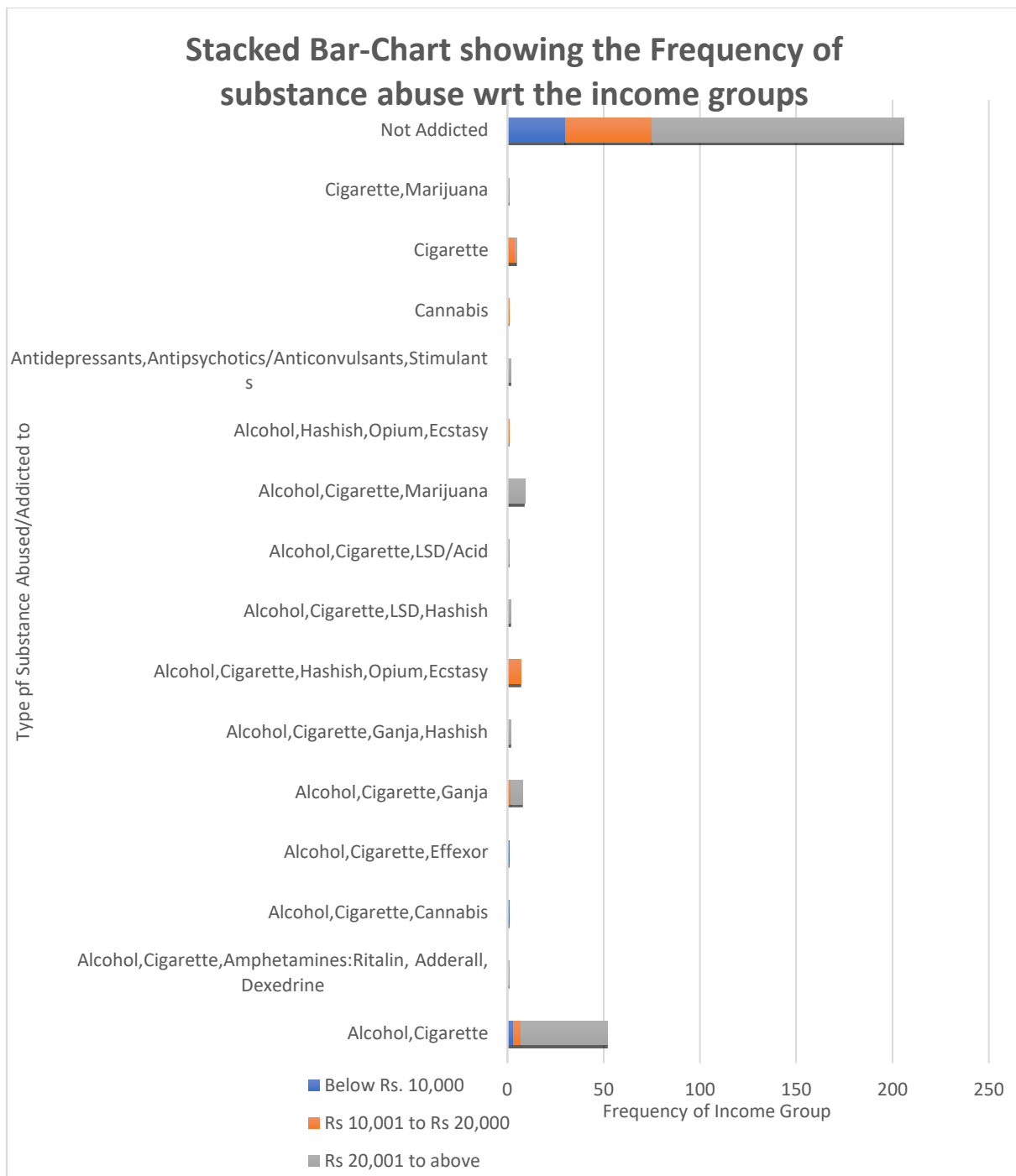


Figure 4.1.30

The above stacked bar chart shows that the respondents belonging to the higher income group are found to abuse alcohol and cigarette majorly followed by hard drugs like marijuana and ganja, hashish, marijuana. The respondents belonging to the “middle income group” abuse alcohol, cigarette, hashish, opium, ecstasy, LSD. The respondents belonging to the “lower income group” are found to abuse alcohol, cigarette, ganja, marijuana, stimulants.

4.2 TESTING THE HYPOTHESES:

H₀₁ “There is no significant mean difference between drug and substance abuse and mental health of undergraduate students in Kolkata”

Substance abuse	N	Total Mental Health Score	Mean	SD	df	t-score	p-value	Significance
Non addicted	206	36153	175.5	8.9	298	1	1.23E-39	Significant at 0.05
Addicted	94	12328	131.148	19.963				

Table No. 4.2.1

The above table shows 206 respondents are not addicted to drugs whereas 94 respondents are addicted to drugs. Consequently, the total mental health score of the non-addicted respondents is more than that of the addicted respondents. “Degree of Freedom” is 298. “t-score” of 1 typically corresponds to a much higher “p-value” but the “p-value” obtained is extremely small. Hence “t-score” and “p-value” are mismatched. Since the “p-value” is below “alpha level” of 0.05, the result is statistically significant. Hence the “null hypothesis” that “*there is no significant mean difference between drug or substance abuse and mental health of undergraduate students in Kolkata*” is rejected. To conclude, there is significant mean difference between drug and substance abuse and mental health of undergraduate students in Kolkata.

H₀₂ “There is no significant mean difference between age and mental health of undergraduate students in Kolkata”

Table showing descriptive analysis of the mean score of Mental Health on the basis of Age of respondents

Age Groups (in years)	Frequency	Mean	Median	Percentage
18-20	272	161.12	175	90.67
21-24	26	165.53	175	8.67
25-28	02	175	175	0.67

Table No. 4.2.2a

The above table shows that 272 respondents belong to the age group 18-20, 26 respondents belong to the age group 21-24 and 2 respondents belong to the age group 25-28. “Mean scores”

suggest that the age group 25-28 has the highest mean mental health score of 175 followed by the age group 21-24 which has a mean mental health score of 165.53 and the age group 18-20 has the mean mental health score of 161.12. The “median value” of 175 suggests that 50% of the respondents score above 175 and the remaining 50% of the respondents score above 175.

Table 4.2.2a one-way Anova Analysis

Source of Variation	SS	df	MS	F	P-value	F crit
Between groups	822.83	2	411.41	0.68	0.50	3.02
Within groups	179447	297	604			
Total	180269.8	299				

Table No. 4.2.2b

“F-statistic” value is 0.68, “p-value” is 0.50 and the critical “F-value” at is 3.02. Since 0.68 is less than 2.63, the null hypothesis cannot be rejected. Since the “p-value” is above the “alpha level” of 0.05 it is statistically not significant. It can be concluded that at the 5% significance level, there is no significant difference between the groups. Hence the “null hypothesis” that *“there is no significant mean difference between age and mental health of undergraduate students in Kolkata”* is accepted. It implies that the age of the students does not have a statistically significant effect on students’ mental health.

Ho3 “There is no significant mean difference between gender and mental health of undergraduate students in Kolkata”

Table showing t-test analysis

Gender	N	Total Mental Health Score	Mean	SD	df	t-score	p-value	Significance
Boys	150	23204	154.693	26.772	298	0.999	6.94E-07	Significant at 0.05
Girls	150	25277	168.513	19.923				

Table No. 4.2.3

The girls scored higher in the mental health dimensions than the boys. The “mean” and “SD value” for boys is 154.693 and 26.772 respectively whereas the “mean” and “SD value” for

girls is 168.513 and 19.923 respectively. The “degree of freedom” is 298. “T-score” is 0.999. The “p-value” is 6.94E-07. Since the “p-value” is much smaller than 0.05, the result is statistically significant. Hence the “null hypothesis” that “*there is no significant mean difference between gender and mental health of undergraduate students in Kolkata*” is rejected. There is significant “mean difference” between gender of the respondents and their mental health score. Mental health of girls is better than that of boys.

Ho4 “There is no significant mean difference between course of study and mental health of undergraduate students in Kolkata”

Table showing t-test analysis

Course of study	N	Total Mental Health Score	Mean	SD	df	t-score	p-value	Significance
General course	146	23648	161.972	24.878	298	0.424	0.800386	Not significant at 0.05
Professional course	54	24833	161.253	24.318				

Table 4.2.4

The “mean” and “SD value” for general course respondents is 161.972 and 24.878 respectively whereas the “mean” and “SD value” for professional course respondents is 161.253 and 24.318 respectively. The “degree of freedom” is 298. “T-score” is 0.424. The “p-value” is 0.800386. Since the “p-value” is above the “alpha level” of 0.05 it is statistically not significant. Hence the “null hypothesis” that “*there is no significant mean difference between course of study and mental health of undergraduate students in Kolkata*” is accepted. It implies that the course of study does not have a statistically significant effect on students’ mental health. In other words, students’ mental health is similar across different courses of study.

Ho5- “There is no significant mean difference between accommodation and mental health of undergraduate students in Kolkata”

Table showing t-test analysis

Accommodation	N	Total Mental Health Score	Mean	SD	df	t-score	p-value	Significance
With family	105	16806	160.057	24.904	298	0.669	0.4276	Not significant at 0.05
Without family	195	31675	162.435	24.387				

Table 4.2.5

The above table shows the “t-test analysis” and it can be observed from the table that the mean mental health of students staying with their family and that of those staying away from their family is nearly the same. The “p-value” is more than the “alpha value” of 0.05 which indicates that the result is statistically not significant at 0.05 level. Hence the “null hypothesis” that *“there is no significant mean difference between accommodation and mental health of undergraduate students in Kolkata”* is accepted.

Ho6- “There is no significant mean difference between Father’s Educational Qualification and mental health of undergraduate students in Kolkata”

TABLE 4.2.6a

Groups	N	Total Mental Health Score	Average	Variance
Unschooling	01	175	175	0
Formal schooling	73	11746	160.90	683.69
Diploma or Graduation	205	32898	160.47	613.51
Higher Education	28	4784	170.85	264.34

Table No. 4.2.6a

The above table shows the total mental health scores of four different groups of the variable, father’s educational qualification of the respondents, the average of the four groups and the variance.

Table showing Anova Analysis

Source of variation	SS	df	MS	F	P-value	F crit
Between groups	2872.19	3	957.39	1.59	0.18	2.63
Within groups	181520.9	303	599.07			

Table 4.2.6b

The calculated “F-statistic” is 1.59, “p-value” is 0.18 and the critical “F-value” at is 2.63. Since 1.59 is less than 2.63, the “null hypothesis” cannot be rejected. Since the “p-value” is above the “alpha level” of 0.05 it is statistically not significant. It can be concluded that at the 5% significance level, there is no significant difference between the groups. Hence the “null hypothesis” that *“there is no significant mean difference between father’s educational qualification and mental health of undergraduate students in Kolkata”* is accepted.

Ho7- “There is no significant mean difference between Mother’s Educational Qualification and mental health of undergraduate students in Kolkata”

Groups	N	Total Mental Health Score	Average	Variance
Unschoolled	05	839	167.8	317.7
Formal schooling	112	18344	163.78	574.33
Diploma or Graduation	151	24233	160.48	629.75
Higher Education	32	5065	158.28	629.56

Table No. 4.2.7a

The above table shows the total mental health scores of four different groups of the variable, father’s educational qualification of the respondents, the average of the four groups and the variance.

TABLE showing Anova Analysis

Source of variation	SS	df	MS	F	P-value	F crit
Between groups	1267.96	3	422.65	0.69	0.55	2.63
Within groups	179001.8	296	604.73			

Table No. 4.2.7b

The calculated “F-statistic” is 0.69, “p-value” is 0.55 and the critical “F-value” at is 2.63. Since 0.69 is less than 2.63, the “null hypothesis” cannot be rejected. Since the “p-value” is above the “alpha level” of 0.05 it is statistically not significant. It can be concluded that at the 5% significance level, there is no significant difference between the groups. Hence the “null hypothesis” that *“there is no significant mean difference between mother’s educational qualification and mental health of undergraduate students in Kolkata”* is accepted.

Ho8- “There is no significant mean difference between Father’s Occupation and mental health of undergraduate students in Kolkata”

Groups	N	Total Mental Health Score	Average	Variance
Service	137	22357	163.189	553.37
Business	138	22165	160.61	634.93
Daily Income	20	3185	159.25	755.25
Retired	5	774	154.8	713.20

Table No. 4.2.8a

The above table shows the total mental health scores of four different groups of the variable, father’s educational qualification of the respondents, the average of the four groups and the variance.

TABLE showing ANOVA ANALYSIS

Source of variation	SS	df	MS	F	P-value	F crit
Between groups	821.53	3	273.84	0.45	0.71	2.63
Within groups	179448.3	299	606.24			

Table No. 4.2.8b

The calculated “F-statistic” is 0.45, “p-value” is 0.71 and the critical “F-value” at is 2.63. Since 0.45 is less than 2.63, the “null hypothesis” cannot be rejected. Since the “p-value” is above the “alpha level” of 0.05 it is statistically not significant. It can be concluded that at the 5% significance level, there is no significant difference between the groups. Hence the “null hypothesis” that *“there is no significant mean difference between father’s occupation and mental health of undergraduate students in Kolkata”* is accepted.

Ho9- “There is no significant mean difference between Mother’s Occupation and mental health of undergraduate students in Kolkata”

Groups	N	Total Mental Health Score	Average	Variance
Service	36	5722	158.94	588.39
Business	18	2796	155.34	674.47
Homemaker	246	39963	162.45	600.28

Table No. 4.2.9a

The table provides that the total mental health scores of four different groups of the variable, father’s educational qualification of the respondents, the average of the four groups and the variance.

Table showing ANOVA ANALYSIS

Source of variation	SS	df	MS	F	P-value	F crit
Between groups	1138.99	2	569.49	0.94	0.39	3.02
Within groups	179130.8	297	603.13			

Table No. 4.2.9b

The calculated “F-statistic” is 0.94, “p-value” is 0.39 and the “critical F-value” at is 3.02. Since 0.94 is less than 3.02, the “null hypothesis” cannot be rejected. Since the “p-value” is above the “alpha level” of 0.05 it is statistically not significant. It can be concluded that at the 5% significance level, there is no significant difference between the groups. Hence the “null hypothesis” that *“there is no significant mean difference between mother’s occupation and mental health of undergraduate students in Kolkata”* is accepted.

H₀10- “There is no significant mean difference between family income and mental health of undergraduate students in Kolkata”

Groups	N	Total Mental Health Score	Average	Variance
Below Rs 10,000	16	2756	172.25	189.8
Rs 10,000-Rs 20,000	65	10463	160.96	680.37
Rs 20,000 to above	199	32070	161.15	609.37

Table No. 4.2.10a

The above table shows the total mental health scores of four different groups of the variable, father’s educational qualification of the respondents, the average of the four groups and the variance.

Table showing ANOVA ANALYSIS

Source of variation	SS	df	MS	F	P-value	F crit
Between groups	1873.88	2	936.94	1.55	0.21	3.02
Within groups	167047.1	277	603.05			

Table No. 4.2.10b

The calculated “F-statistic” is 1.55, “p-value” is 0.21 and the critical “F-value” at is 3.02. Since 1.55 is less than 3.02, the “null hypothesis” cannot be rejected. Since the “p-value” is above the “alpha level” of 0.05 it is statistically not significant. It can be concluded that at the 5% significance level, there is no significant difference between the groups. Hence the “null hypothesis *that at there is no significant mean difference between family income and mental health of undergraduate students in Kolkata*” is accepted.

Ho11- “There is no significant mean difference between gender and drug or substance abuse of undergraduate students in Kolkata”

Variable	Chi Square Value	df	p-value
Gender	1	15	7.97E-12

Table No. 4.2.11

A “p-value” of 7.97E-12 is extremely small. It means the result is highly “statistically significant”. Hence the “null hypothesis” that “*there is no significant mean difference between gender and drug or substance abuse among the undergraduate students in Kolkata*” is rejected. This suggests an extremely strong association between the variables.

Ho12- “There is no significant mean difference between age and drug or substance abuse of undergraduate students in Kolkata”

Variable	Chi Square Value	df	p-value
Gender	1	15	7.97E-12

Table No. 4.2.12

A “p-value” of 7.97E-12 is extremely small. It means the result is highly “statistically significant”. Hence the “null hypothesis” that “*there is no significant mean difference between*

age and drug or substance abuse among the undergraduate students in Kolkata” is rejected. This suggests an extremely strong association between the variables.

Ho13- “There is no significant mean difference between birth order and drug or substance abuse of undergraduate students in Kolkata”

Variable	Chi Square Value	df	p-value
Gender	1	45	0.00E

Table No. 4.2.13

The “p-value” is small which suggests a “statistically significant” association or difference between the variables being examined, however the “chi-square” value itself is relatively low. This is because the “large degrees of freedom” (45) allow for a small “chi-square value” to still be significant. Hence the “null hypothesis” that “*there is no significant mean difference between birth order and drug or substance abuse among the undergraduate students in Kolkata*” is rejected.

Ho14- “There is no significant mean difference between course of study and drug or substance abuse of undergraduate students in Kolkata”

Variable	Chi Square Value	df	p-value
Accommodation	1	345	1.60E-296

Table No. 4.2.14

A “p-value” of 1.60E-296 is extremely small. It means the result is highly “statistically significant”. Hence the “null hypothesis” that “*there is no significant mean difference between course of study and drug or substance abuse among the undergraduate students in Kolkata*” is rejected. This suggests an extremely strong association between the variables.

Ho15- “There is no significant mean difference between Father’s Educational Qualification and drug or substance abuse of undergraduate students in Kolkata”

Variable	Chi Square Value	df	p-value
Accommodation	1	345	1.42E-18

Table No. 4.2.15

A “p-value” of 1.42E-18 is extremely small. It means the result is highly “statistically significant”. Hence the “null hypothesis” that “*there is no significant mean difference between*

father's educational qualification and drug or substance abuse among the undergraduate students in Kolkata” is rejected. This suggests an extremely strong association between the variables.

Ho16- “There is no significant mean difference between Mother’s Educational Qualification and drug or substance abuse of undergraduate students in Kolkata”

Variable	Chi Square Value	df	p-value
Accommodation	1	285	4.97E-37

Table No. 4.2.16

A “p-value” of 4.97E-37 is extremely small. It means the result is highly statistically significant. Hence the “null hypothesis” that “*there is no significant mean difference between mother’s educational qualification and drug or substance abuse among the undergraduate students in Kolkata*” is rejected. This suggests an extremely strong association between the variables.

Ho17- “There is no significant mean difference between Father’s Occupation and drug or substance abuse of undergraduate students in Kolkata”

Variable	Chi Square Value	df	p-value
Accommodation	1	240	0.94

Table No. 4.2.17

A “p-value” of 0.94 is much higher than the “significance level” of 0.05 hence, the “null hypothesis” should not be rejected. It means the result is statistically not significant. Hence the null hypothesis that “*there is no significant mean difference between father’s occupation and drug or substance abuse among the undergraduate students in Kolkata*” is accepted. This suggests there is no significant association between the variables.

Ho18- “There is no significant mean difference between Mother’s Occupation and drug or substance abuse of undergraduate students in Kolkata”

Variable	Chi Square Value	df	p-value
Accommodation	1	135	0.99

Table No. 4.2.18

A “p-value” of 0.99 is much higher than the “significance level” of 0.05. It means the result is statistically not significant. Hence the “null hypothesis” that “*there is no significant mean*

difference between mother's occupation and drug or substance abuse among the undergraduate students in Kolkata” is accepted. This suggests there is “no significant association” between the variables.

Ho19- “There is no significant mean difference between accommodation and drug or substance abuse of undergraduate students in Kolkata”

Variable	Chi Square Value	df	p-value
Accommodation	1	75	8.09E-25

Table No. 4.2.19

A “p-value” of 8.09E-25 is extremely small. It means the result is highly “statistically significant”. Hence the “null hypothesis” that “*there is no significant mean difference between accommodation and drug or substance abuse among the undergraduate students in Kolkata*” is rejected. This suggests an extremely strong association between the variables.

Ho20- “There is no significant mean difference between family income and drug or substance abuse of undergraduate students in Kolkata”

Variable	Chi Square Value	df	p-value
Family income	1	30	3.19E-05

Table No. 4.2.20

A “p-value” of 3.19E-05 is extremely small. It means the result is highly “statistically significant”. Hence the “null hypothesis” that “*there is no significant mean difference between family income and drug or substance abuse among the undergraduate students in Kolkata*” is rejected. This suggests an extremely strong association between the variables.

4.3 ITEM ANALYSIS

Item wise analysis according to the responses of the undergraduate college students to the items of the “Mental Health Inventory”.

N=300	Response	ALWAYS	MOST OF THE TIME	SOMETIMES	NEVER
	SCORE	4	3	2	1
ITEMS					
01	N	65	06	159	70
	%	21.67	2	53	23.34
02	N	65	02	159	74
	%	21.67	0.67	53	24.67
03	N	69	03	154	74
	%	23	1	51.34	24.67
04	N	131	01	156	12
	%	43.67	0.34	52	4
05	N	65	05	221	09
	%	21.67	1.67	73.67	3
06	N	132	04	54	10
	%	44	1.34	51.34	24.67
07	N	65	68	13	154
	%	21.67	22.67	4.34	51.34
08	N	132	02	21	145
	%	44	0.67	7	48.34
09	N	283	03	08	08
	%	94.34	1	2.67	2.67
10	N	67	05	219	09
	%	23.34	1.67	73	3
11	N	130	147	16	07
	%	43.34	49	5.34	2.34
12	N	67	05	151	71
	%	22.34	1.67	50.34	25.67
13	N	70	01	158	71

	%	23.34	0.34	52.67	23.67
14	N	132	07	153	08
	%	44	2.34	51	2.67
15	N	215	06	75	04
	%	71.67	2	25	1.34
16	N	284	08	07	01
	%	94.67	2.67	2.34	0.34
17	N	66	211	19	04
	%	22	70.34	6.34	1.34
18	N	214	08	09	69
	%	71.34	2.67	3	23
19	N	214	08	76	02
	%	71.34	2.67	25.34	0.67
20	N	04	07	283	06
	%	1.34	2.34	94.34	2
21	N	02	07	18	273
	%	0.67	2.34	6	91
22	N	150	63	15	72
	%	50	21	5	24
23	N	214	08	10	68
	%	71.34	2.67	3.34	22.67
24	N	214	09	09	68
	%	71.34	3	3	22.67
25	N	01	145	88	66
	%	0.34	48.34	29.34	22
26	N	72	147	12	69
	%	24	49	4	23
27	N	214	06	77	03
	%	71.34	2	25.67	1
28	N	152	06	140	02
	%	50.67	2	46.67	0.67
29	N	154	69	76	01

	%	51.34	23	25.34	0.34
30	N	214	07	78	01
	%	71.34	2.34	26	0.34
31	N	152	70	77	01
	%	50.67	23.34	25.67	0.34
32	N	147	68	82	03
	%	49	22.67	27.34	1
33	N	207	09	82	02
	%	69	3	27.34	0.67
34	N	62	144	24	70
	%	20.67	48	8	23.34
35	N	220	07	72	01
	%	73.34	2.34	24	0.34
36	N	149	70	09	72
	%	49.67	23.34	3	24
37	N	79	147	74	0
	%	26.34	49	24.67	0
38	N	03	151	143	03
	%	1	50.34	47.67	1
39	N	0	74	223	03
	%	0	24.67	74.34	1
40	N	07	14	207	72
	%	2.34	4.67	69	24
41	N	12	208	79	01
	%	4	69.34	26.34	0.34
42	N	76	141	81	02
	%	25.34	47	27	0.67
43	N	80	133	84	03
	%	26.67	44.34	28	1
44	N	151	14	134	01
	%	50.34	4.67	44.67	0.34
45	N	210	10	09	71

	%	70	3.34	3	23.67
46	N	11	212	74	03
	%	3.67	70.67	24.67	1
47	N	148	78	69	05
	%	49.34	26	23	1.67
48	N	145	82	67	06
	%	48.34	27.34	22.34	2
49	N	143	13	86	58
	%	47.67	4.34	28.67	19.34
50	N	210	12	09	69
	%	70	4	3	23
51	N	204	10	17	69
	%	68	3.34	5.67	23
52	N	89	130	22	59
	%	29.67	43.34	7.34	19.67
53	N	124	97	26	53
	%	41.34	32.34	8.67	17.67
54	N	156	61	33	50
	%	52	20.34	11	16.67
55	N	174	76	45	05
	%	58	25.34	15	1.67
56	N	109	151	36	04
	%	36.34	50.34	12	1.34

Table No. 4.3.1

Item 1. From the item number 1, it was concluded that 21.67% (N=65) respondents said always, 2% (N=06) said most of the time, 53% (N=159) respondents said sometimes, 23.34% (N=70) respondents said never.

Item 2. From the item number 2, it was concluded that 21.67% (N=65) respondents said always, 0.67% (N=02) said most of the time, 53% (N=159) respondents said sometimes, 24.67% (N=74) respondents said never.

Item 3. From the item number 3, it was concluded that 23%(N=69) respondents said always, 1%(N=03) said most of the time, 51.34%(N=154) respondents said sometimes, 24.67%(N=74) respondents said never.

Item 4. From the item number 4, it was concluded that 43.67%(N=131) respondents said always, 0.34%(N=01) said most of the time, 52%(N=156) respondents said sometimes, 4%(N=12) respondents said never.

Item 5. From the item number 5, it was concluded that 21.67%(N=65) respondents said always, 1.67%(N=05) said most of the time, 73.67%(N=221) respondents said sometimes, 3%(N=09) respondents said never.

Item 6. From the item number 6, it was concluded that 44%(N=132) respondents said always, 1.34%(N=04) said most of the time, 51.34%(N=154) respondents said sometimes, 3.34%(N=10) respondents said never.

Item 7. From the item number 7, it was concluded that 21.67%(N=65) respondents said always, 22.67%(N=68) said most of the time, 4.34%(N=13) respondents said sometimes, 51.34%(N=154) respondents said never.

Item 8. From the item number 8, it was concluded that 44%(N=132) respondents said always, 0.67%(N=02) said most of the time, 7%(N=21) respondents said sometimes, 48.34%(N=145) respondents said never.

Item 9. From the item number 9, it was concluded that 94.34%(N=283) respondents said always, 1%(N=03) said most of the time, 2.67%(N=08) respondents said sometimes, 2.67%(N=08) respondents said never.

Item 10. From the item number 10, it was concluded that 22.34%(N=67) respondents said always, 49%(N=147) said most of the time, 5.34%(N=16) respondents said sometimes, 3%(N=09) respondents said never.

Item 11. From the item number 11, it was concluded that 43.34%(N=130) respondents said always, 2%(N=06) said most of the time, 53%(N=159) respondents said sometimes, 2.34%(N=7) respondents said never.

Item 12. From the item number 12, it was concluded that 22.34%(N=67) respondents said always, 1.67%(N=05) said most of the time, 50.34%(N=151) respondents said sometimes, 25.67%(N=77) respondents said never.

Item 13. From the item number 13, it was concluded that 21.67%(N=70) respondents said always, 0.34%(N=01) said most of the time, 52.67%(N=158) respondents said sometimes, 23.67%(N=71) respondents said never.

Item 14. From the item number 14, it was concluded that 44%(N=132) respondents said always, 2.34%(N=07) said most of the time, 51%(N=153) respondents said sometimes, 2.67%(N=08) respondents said never.

Item 15. From the item number 15, it was concluded that 71.67%(N=215) respondents said always, 2%(N=06) said most of the time, 25%(N=75) respondents said sometimes, 1.34%(N=04) respondents said never.

Item 16. From the item number 16, it was concluded that 94.67%(N=284) respondents said always, 2.67%(N=08) said most of the time, 2.34%(N=07) respondents said sometimes, 0.34%(N=01) respondents said never.

Item 17. From the item number 17, it was concluded that 22%(N=66) respondents said always, 70.34%(N=211) said most of the time, 6.34%(N=19) respondents said sometimes, 1.34%(N=04) respondents said never.

Item 18. From the item number 18, it was concluded that 71.34%(N=214) respondents said always, 2.67%(N=08) said most of the time, 3%(N=09) respondents said sometimes, 23%(N=69) respondents said never.

Item 19. From the item number 19, it was concluded that 71.34%(N=214) respondents said always, 2.67%(N=08) said most of the time, 25.34%(N=76) respondents said sometimes, 0.67%(N=02) respondents said never.

Item 20. From the item number 20, it was concluded that 1.34%(N=04) respondents said always, 2.34%(N=07) said most of the time, 94.34%(N=283) respondents said sometimes, 2%(N=06) respondents said never.

Item 21. From the item number 21, it was concluded that 0.67%(N=02) respondents said always, 2.34%(N=07) said most of the time, 6%(N=18) respondents said sometimes, 91%(N=273) respondents said never.

Item 22. From the item number 22, it was concluded that 50%(N=150) respondents said always, 21%(N=63) said most of the time, 5%(N=15) respondents said sometimes, 24%(N=72) respondents said never.

Item 23. From the item number 23, it was concluded that 71.34%(N=214) respondents said always, 2.67%(N=08) said most of the time, 3.34%(N=10) respondents said sometimes, 22.67%(N=68) respondents said never.

Item 24. From the item number 24, it was concluded that 71.34%(N=214) respondents said always, 3%(N=09) said most of the time, 3%(N=09) respondents said sometimes, 22.67%(N=68) respondents said never.

Item 25. From the item number 25, it was concluded that 0.34%(N=01) respondents said always, 48.34%(N=145) said most of the time, 29.34%(N=88) respondents said sometimes, 22%(N=66) respondents said never.

Item 26. From the item number 26, it was concluded that 24%(N=72) respondents said always, 49%(N=147) said most of the time, 4%(N=12) respondents said sometimes, 23%(N=69) respondents said never.

Item 27. From the item number 27, it was concluded that 71.34%(N=214) respondents said always, 2%(N=06) said most of the time, 25.67%(N=77) respondents said sometimes, 1%(N=03) respondents said never.

Item 28. From the item number 28, it was concluded that 50.67%(N=152) respondents said always, 2%(N=06) said most of the time, 46.67%(N=140) respondents said sometimes, 0.67%(N=02) respondents said never.

Item 29. From the item number 29, it was concluded that 51.34%(N=154) respondents said always, 23%(N=69) said most of the time, 25.34%(N=76) respondents said sometimes, 0.34%(N=01) respondents said never.

Item 30. From the item number 30, it was concluded that 71.34%(N=214) respondents said always, 2.34%(N=07) said most of the time, 26%(N=78) respondents said sometimes, 0.34%(N=01) respondents said never.

Item 31. From the item number 31, it was concluded that 50.67%(N=152) respondents said always, 23.34%(N=70) said most of the time, 25.67%(N=77) respondents said sometimes, 0.34%(N=01) respondents said never.

Item 32. From the item number 32, it was concluded that 49%(N=147) respondents said always, 22.67%(N=68) said most of the time, 27.34%(N=82) respondents said sometimes, 1%(N=03) respondents said never.

Item 33. From the item number 33, it was concluded that 69%(N=207) respondents said always, 3%(N=09) said most of the time, 27.34%(N=82) respondents said sometimes, 0.67%(N=02) respondents said never.

Item 34. From the item number 34, it was concluded that 20.67%(N=62) respondents said always, 48%(N=144) said most of the time, 8%(N=24) respondents said sometimes, 23.34%(N=70) respondents said never.

Item 35. From the item number 35, it was concluded that 73.34%(N=220) respondents said always, 2.34%(N=7) said most of the time, 24%(N=72) respondents said sometimes, 0.34%(N=01) respondents said never.

Item 36. From the item number 36, it was concluded that 49.67%(N=149) respondents said always, 23.34%(N=70) said most of the time, 3%(N=09) respondents said sometimes, 24%(N=72) respondents said never.

Item 37. From the item number 37, it was concluded that 26.34%(N=79) respondents said always, 49%(N=147) said most of the time, 24.67%(N=74) respondents said sometimes, 0%(N=0) respondents said never.

Item 38. From the item number 38, it was concluded that 1%(N=03) respondents said always, 50.34%(N=151) said most of the time, 47.67%(N=143) respondents said sometimes, 1%(N=03) respondents said never.

Item 39. From the item number 39, it was concluded that 0%(N=0) respondents said always, 24.67%(N=74) said most of the time, 74.34%(N=223) respondents said sometimes, 1%(N=03) respondents said never.

Item 40. From the item number 40, it was concluded that 2.34%(N=07) respondents said always, 4.67%(N=14) said most of the time, 69%(N=207) respondents said sometimes, 72%(N=24) respondents said never.

Item 41. From the item number 41, it was concluded that 4%(N=12) respondents said always, 69.34%(N=208) said most of the time, 26.34%(N=79) respondents said sometimes, 0.34%(N=01) respondents said never.

Item 42. From the item number 42, it was concluded that 25.34%(N=76) respondents said always, 47%(N=141) said most of the time, 27%(N=81) respondents said sometimes, 0.67%(N=02) respondents said never.

Item 43. From the item number 43, it was concluded that 26.67%(N=80) respondents said always, 44.34%(N=133) said most of the time, 28%(N=84) respondents said sometimes, 1%(N=03) respondents said never.

Item 44. From the item number 44, it was concluded that 50.34%(N=151) respondents said always, 4.67%(N=14) said most of the time, 44.67%(N=134) respondents said sometimes, 0.34%(N=01) respondents said never.

Item 45. From the item number 45, it was concluded that 70%(N=210) respondents said always, 3.34%(N=10) said most of the time, 3%(N=09) respondents said sometimes, 23.67%(N=71) respondents said never.

Item 46. From the item number 46, it was concluded that 3.67%(N=11) respondents said always, 70.67%(N=212) said most of the time, 24.67%(N=74) respondents said sometimes, 1%(N=03) respondents said never.

Item 47. From the item number 47, it was concluded that 49.34%(N=148) respondents said always, 26%(N=78) said most of the time, 23%(N=69) respondents said sometimes, 1.67%(N=05) respondents said never.

Item 48. From the item number 48, it was concluded that 48.34%(N=145) respondents said always, 27.34%(N=82) said most of the time, 22.34%(N=67) respondents said sometimes, 2%(N=06) respondents said never.

Item 49. From the item number 49, it was concluded that 47.67%(N=143) respondents said always, 4.34%(N=13) said most of the time, 28.67%(N=86) respondents said sometimes, 19.34%(N=58) respondents said never.

Item 50. From the item number 50, it was concluded that 70%(N=210) respondents said always, 4%(N=12) said most of the time, 3%(N=9) respondents said sometimes, 23%(N=69) respondents said never.

Item 51. From the item number 51, it was concluded that 68%(N=204) respondents said always, 3.34%(N=10) said most of the time, 5.67%(N=17) respondents said sometimes, 23%(N=69) respondents said never.

Item 53. From the item number 52, it was concluded that 29.67%(N=89) respondents said always, 43.34%(N=130) said most of the time, 7.34%(N=22) respondents said sometimes, 19.67%(N=59) respondents said never.

Item 53. From the item number 53, it was concluded that 41.34%(N=124) respondents said always, 32.34%(N=97) said most of the time, 8.67%(N=26) respondents said sometimes, 17.67%(N=53) respondents said never.

Item 54. From the item number 54, it was concluded that 52%(N=156) respondents said always, 20.34%(N=61) said most of the time, 11%(N=33) respondents said sometimes, 16.67%(N=50) respondents said never.

Item 55. From the item number 55, it was concluded that 52%(N=174) respondents said always, 20.34%(N=76) said most of the time, 11%(N=45) respondents said sometimes, 1.67%(N=05) respondents said never.

Item 56. From the item number 56, it was concluded that 36.34%(N=109) respondents said always, 50.34%(N=151) said most of the time, 36%(N=12) respondents said sometimes, 1.34%(N=04) respondents said never.

4.4 GRAPHICAL REPRESENTATION OF MENTAL HEALTH SCORES

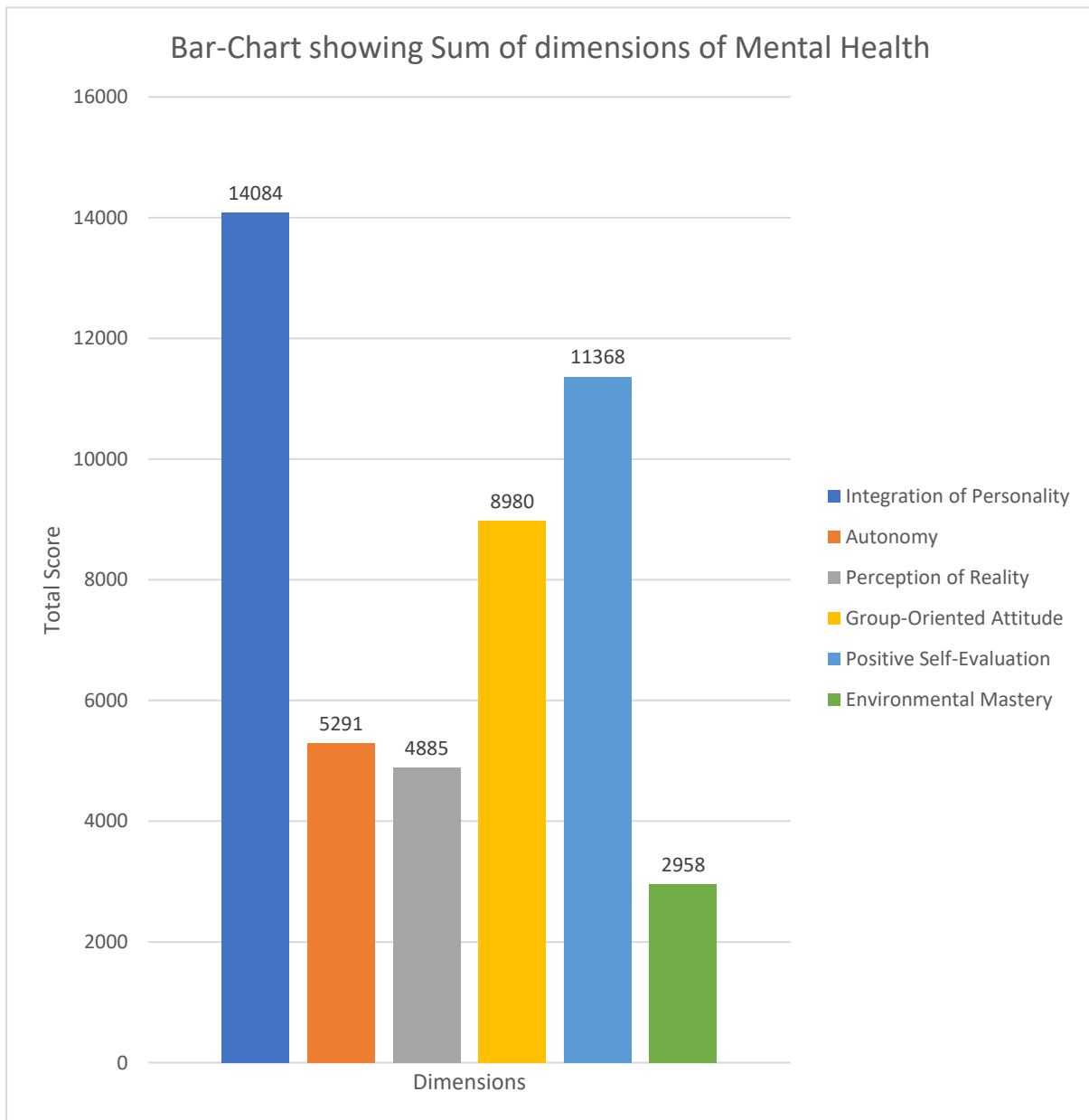


Figure 4.4.1

The above bar chart shows that the respondents have scored the highest in the mental health dimension of “Integration of Personality” followed by “Positive Self-Evaluation”, “Group-Oriented Attitude”, “Autonomy”, “Perception of Reality” and “Environmental Mastery”.

**4.5 ANALYSIS AND INTERPRETATIONS OF MENTAL HEALTH DIMENSIONS
V/S GENDER BY USING MANN-WHITNEY TEST**

Gender	Mean	SD	N	Mean Rank	Sum of Ranks	U	Z Score	P-value	Significance
Male	36.40	6.17	150	22575	45150	11250	3.60	0.00034	Significant
Female	39.38	4.72	150						

Table No. 4.5.1

The “mean” and “SD value” obtained by the undergraduate boys are 36.40 and 6.17 respectively whereas that obtained by the undergraduate girls are 39.38 and 4.72 respectively. Since the “value of Z score” (3.60) is greater than the “critical value of Z score” both at the 0.01(2.23) and 0.05(1.96) significance level, the “null hypothesis” is rejected. There is “significant difference” between the undergraduate boys and girls in their mental health dimension of “Positive Self-Evaluation” in Kolkata. Girls have higher Positive Self-Evaluation than the boys.

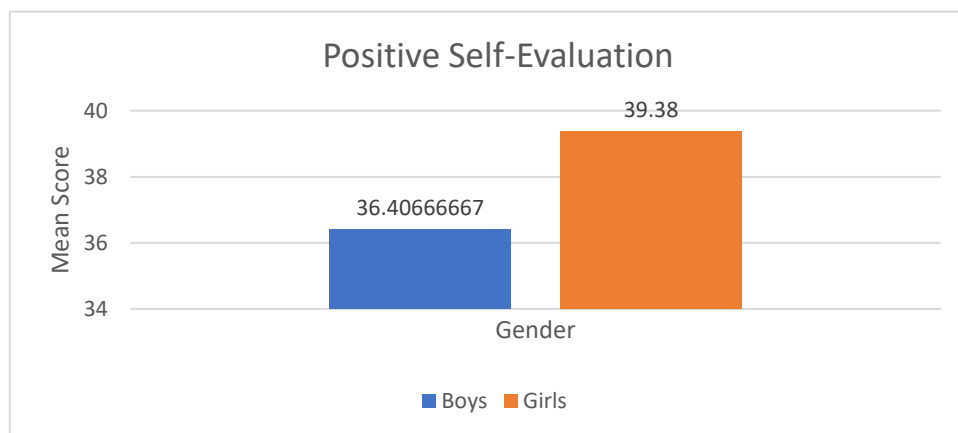


Figure 4.5.1

Gender	Mean	SD	N	Mean Rank	Sum of Ranks	U	Z Score	P-value	Significance
Male	15.86	1.93	150	22575	45150	11250	4.33	0.00001	Significant
Female	16.7	1.72	150						

Table No. 4.5.2

The above table shows that the “mean” and “SD value” obtained by the undergraduate boys are 15.86 and 1.93 respectively whereas that obtained by the undergraduate girls are 16.7 and 1.72 respectively. Since the “value of Z score” (4.33) is greater than the “critical value of Z score” both at the 0.01(2.23) and 0.05(1.96) significance level, the “null hypothesis” is rejected. There is “significant difference” between the undergraduate boys and girls in their mental health dimension of “Perception of Reality” in Kolkata. Girls have higher Perception of Reality than the boys.

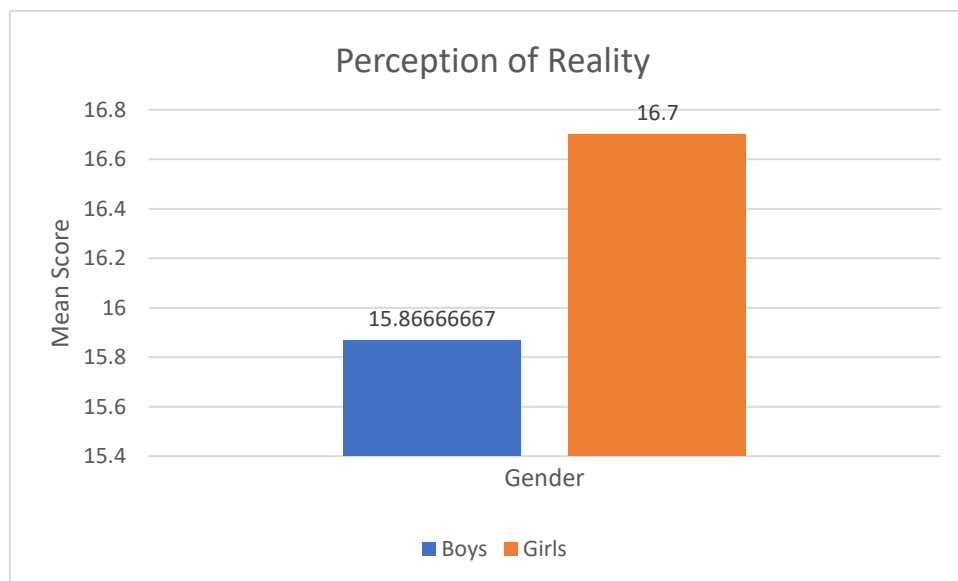


Figure 4.5.2

Gender	Mean	SD	N	Mean Rank	Sum of Ranks	U	Z Score	P-value	Significance
Male	45.77	4.74	150	22575	45150	11250	5.17	0	Significant
Female	48.12	3.72	150						

Table No. 4.5.3

The above table shows that the “mean” and “SD value” obtained by the undergraduate boys are 45.77 and 4.74 respectively whereas that obtained by the undergraduate girls are 48.12 and 3.72 respectively. Since the “value of Z score” (5.17) is greater than the “critical value of Z score” both at the 0.01(2.23) and 0.05(1.96) significance level, the “null hypothesis” is rejected. There is “significant difference” between the undergraduate boys and girls in their mental health dimension of Integration of Personality in Kolkata. Girls have higher Integration of Personality than the boys.

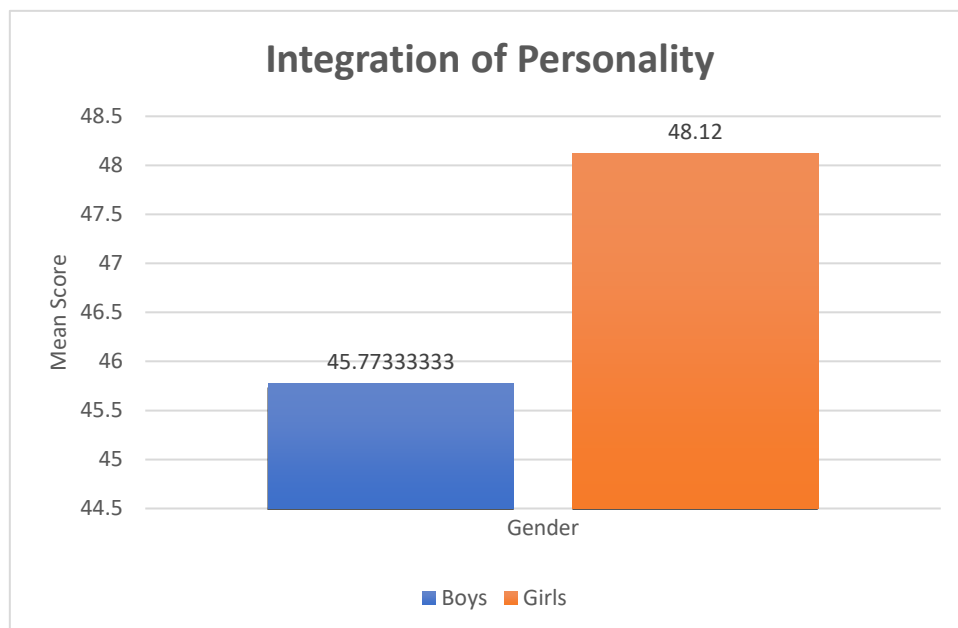


Figure 4.5.3

Gender	Mean	SD	N	Mean Rank	Sum of Ranks	U	Z Score	P-value	Significance
Male	16.83	3.24	150	22575	45150	11250	4.93	0	Significant
Female	18.44	2.62	150						

Table No. 4.5.4

The above table shows that the “mean” and “SD value” obtained by the undergraduate boys are 16.83 and 3.24 respectively whereas that obtained by the undergraduate girls are 18.44 and 2.62 respectively. Since the value of Z score (4.93) is greater than the critical value of Z score both at the 0.01(2.23) and 0.05(1.96) significance level, the “null hypothesis” is rejected. There is “significant difference” between the undergraduate boys and girls in their mental health dimension of Autonomy in Kolkata. Girls have higher “Autonomy” than the boys.

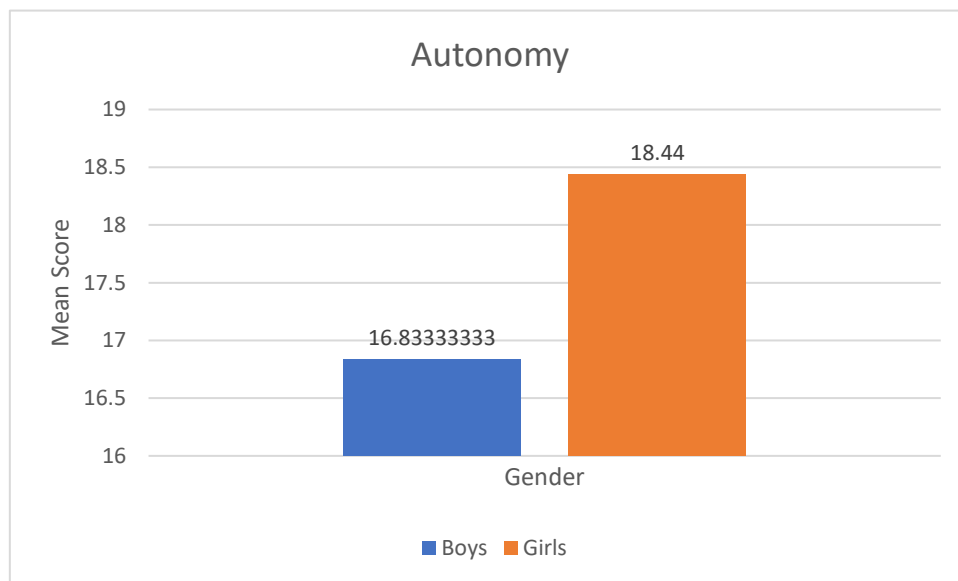


Figure 4.5.4

Gender	Mean	SD	N	Mean Rank	Sum of Ranks	U	Z Score	P-value	Significance
Male	30.84	8.91	150	22575	45150	11250	2.53	0.01137	Significant
Female	35.12	6.39	150						

Table No. 4.5.5

The above table shows that the “mean” and “SD value” obtained by the undergraduate boys are 30.84 and 8.91 respectively whereas that obtained by the undergraduate girls are 35.12 and 6.39 respectively. Since the “value of Z score” (2.53) is greater than the “critical value of Z” score both at the 0.01(2.23) and 0.05(1.96) significance level, the “null hypothesis” is rejected. There is “significant difference” between the undergraduate boys and girls in their mental health dimension of Group Oriented Attitude in Kolkata. The girls have higher “Group Oriented Attitude” than the boys.

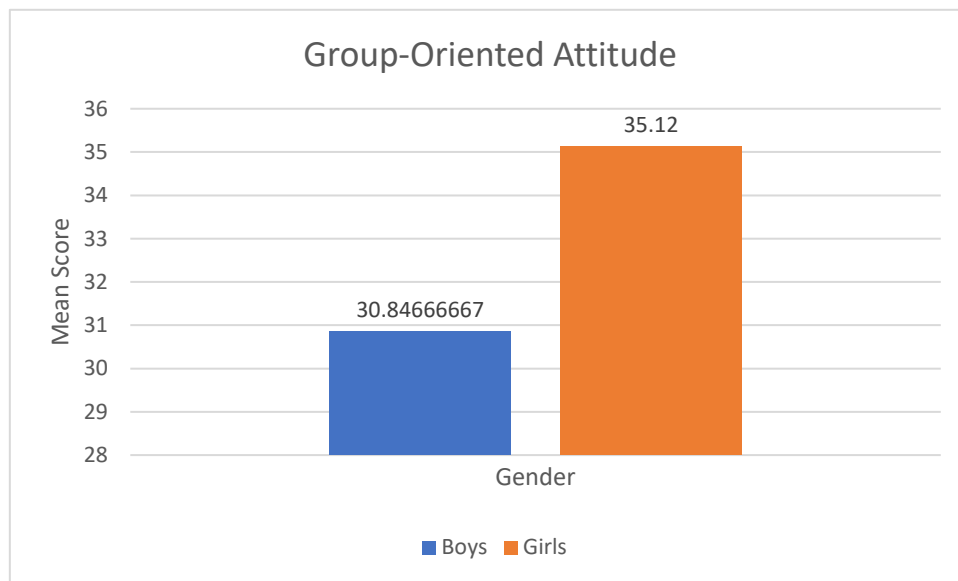


Figure 4.5.5

Gender	Mean	SD	N	Mean Rank	Sum of Ranks	U	Z Score	P-value	Significance
Male	8.96	3.73	150	22575	45150	11250	3.71	0.0002	Significant
Female	10.75	2.71	150						

Table No. 4.5.6

The above table shows that the “mean” and “SD value” obtained by the undergraduate boys are 8.96 and 3.73 respectively whereas that obtained by the undergraduate girls are 10.75 and 2.71 respectively. Since the value of Z score (3.71) is greater than the “critical value of Z” score both at the 0.01(2.23) and 0.05(1.96) significance level, the “null hypothesis” is rejected. There is found to be “significant difference” between the undergraduate boys and girls in their mental health dimension of Environmental Mastery in Kolkata. The girls have higher Environmental Mastery than the boys.

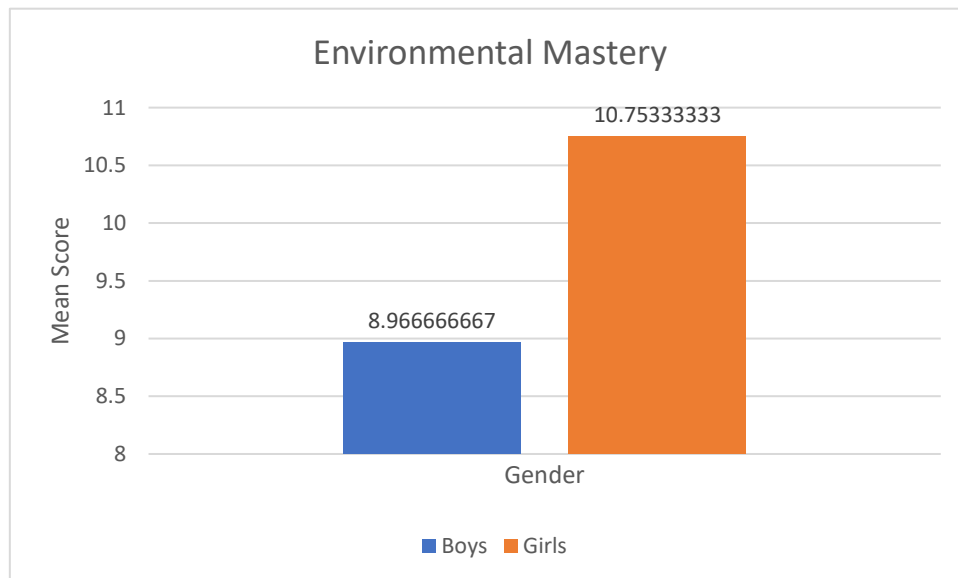


Figure 4.5.6

CHAPTER V

FINDINGS AND DISCUSSION

5.1 THE FINDINGS

(a) Findings based on Socio-demographic variables

- 1.50% of the respondents are boys and 50% are girls. Majority of the respondents, i.e. 272 (90.67%) in the sample size of 300 (100%) part of the age group of 18-20 yrs, 26 (8.67%) respondents in the age group of 21-23 yrs and 2 respondents (0.67%) in the age group of 24-28 years.
- 2146 (48.67%) respondents belong to the general stream and 154 (51.34%) respondents belong to the professional stream.
- 193 (64.34%) respondents live with their parents, 70 (23.34%) respondents live in the college hostel, 9 (3%) of them live on their own, 21 respondents (7%) live in a rented house, 2 (0.67%) of them live with relatives and 5 (1.67%) respondents live in PG.
- With respect to the birth order of the respondents, 62 (20.67%) respondents are the elder child, 5 (1.67%) respondents are the middle child, 78 (26%) respondents are the younger child and 155 (51.67%) respondents are the only child.
- Fathers of 5 (1.67%) respondents have studied till Primary. Fathers of 16 (5.34%) respondents have studied till Madhyamik, 53 (17.67%) of them have studied till Higher Secondary, 187 (62.34%) are Graduates, 16 (5.34%) have studied till their Master's Degree, 2 (0.67%) of the respondents' father have done PhD, 20 (6.67%) of them have Professional Degree and one (0.34%) of the respondent's father is unschooled.
- Mothers of 4 (1.34%) respondents have studied till Primary, fathers of 47 (15.67%) respondents have studied till Madhyamik, 61 (20.34%) of them have studied till Higher Secondary, 151 (50.34%) are Graduates, 22 (7.34%) have studied till their Master's Degree, 1 (0.34%) of the respondents' father have done PhD, 9 (3%) of them have Professional Degree and 5 (1.67%) of the respondent's mothers are unschooled.

- Fathers of 137 (45.67%) of the respondents are in service. 138 (46%) of them are in business. 20 (6.67%) of them have daily income. 5 (1.67%) of them are retired.
- Mothers of 36 (12%) of the respondents are in service. 18 (6%) of them are in business. 246 (82%) of them are homemakers.
- The family income of 36 (12%) respondents is below Rs 10,000. The family income of 65 (21.67%) respondents is between Rs 10,000-Rs 20,000. The family income of 199 (66.34%) respondents is Rs 20,000 and above.
- 13 (4.34%) respondents have had a family history of substance abuse.

(b) Findings based on the abuse of Drugs and Substances

Major findings of the proportion of students using various addictive substances.

- Out of the 300 respondents, 94 (31.33%) students abuse drugs and substances.
- The students are found to abuse a combination of soft and hard drugs. This finding is supported by the study of Dutta and Mahanti (2023) who found that soft drugs are psychologically less addictive compared to the hard drugs. A combination of soft and hard drugs are used as the use of drugs releases dopamine which creates an emotional high among the users thereby leading to addiction.
- Alcohol and Cigarettes are the most commonly abused substances among the addicted UG students (17.34%). According to a Government Survey (2019), 14.6% of the population, in the age group 10-75 yrs, uses alcohol. Gupta et al (2013) found in their study that alcohol was most commonly used followed by smoking.
- 5 (1.67%) respondents are addicted to cigarettes only. Datta and Naskar (2015) found in their study that tobacco was the most commonly abused substance (57.4%) among medical students.
- 2 (0.67%) respondents abuse cannabis. Arora et al (2016) in their study on medical students in North India found approximately 5% of the students abuse cannabis.

- 8 (2.67%) respondents abuse substances like alcohol, cigarette and Ganja. Arora et al (2016) found in their study that the most commonly abused substances were alcohol(19.13%), cigarettes (10%) and cannabis.
- 1 (0.34%) respondent abuses cigarette and marijuana. According to the “National Survey on Drug Use and Health” (2002-2016), U.S., 46.8% of college students used marijuana and smoked tobacco products.
- 1 (0.34%) respondent abuses Effexor along with alcohol and cigarettes.
- 1 (0.34%) respondent abuses amphetamines along with alcohol and cigarettes.
- 2 (0.67%) respondents abuse drugs like Ganja and hashish along with alcohol and cigarettes.
- 2 (0.67%) respondents abuse hard drugs like LSD and hashish along with alcohol and cigarettes. Naskar and Bhattacharya (1999) found in their study that 12.7% of the students abuse a combination of alcohol, tobacco and other drugs.
- 1 (0.34%) respondent abuses LSD along with alcohol and cigarettes.
- (2.34%) respondents abuse a combination of hard drugs like hashish, **opium** and **ecstasy** along with alcohol and cigarettes. Halder and Majumdar (2018) reported in their study that medical students in a Kolkata medical college abuse a combination of hard drugs along with alcohol and cigarettes.
- 1 (0.34%) respondent admitted to have abused hashish, opium and ecstasy along with alcohol.
- 2 (0.67%) respondents confessed to abuse **antidepressants** and **stimulants**.
- 18 yrs of age was found to be the most vulnerable age for the initial exposure of drugs and substance abuse of the participants surveyed in this study.
- The first substance that the majority of the respondents i.e. 83 (88.29%) respondents, were exposed to was cigarettes. 9 respondents said that the first substance they were exposed to was alcohol.

- Among the triggering factors of exposure to substance abuse, 84 (89.36%) respondents said that friends were the triggering factor. The other triggering factors were tension, grief, curiosity. Arora et al (2016) found that stress was the main reason for substance abuse.
- Majority of the respondents considered the feel good, confident, relaxing and tension releasing feeling associated with substance abuse as the reinforcing factor for their continued addiction.
- 55 (58.51%) respondents recalled relaxation as the primary feeling experienced on their first exposure to substance abuse. 14 (14.89%) respondents said that they felt ecstatic. 12 (12.76%) respondents said that they felt nice when first exposed to substance abuse. 6 respondents said that they did not feel good on their first exposure to substance.
- 40 (42.55%) respondents said that they got the supply from their friends, 34 respondents (36.17%) said that they bought the substances from the pan shops near their institutes, 10 (10.63%) respondents got it from some local shops and 9 (9.57%) respondents admitted to getting their supply from drug peddlers.
- The duration of regular substance intake ranges from 3 months to 5 years as reported by the respondents in the present study.
- The frequency of substance intake varies from once daily, thrice daily, twice a week to once in a month.
- 86 (91.48%) respondents have regularly abused substances since their first exposure to substance abuse whereas 12 (12.76%) respondents said that they do not abuse substances on a regular basis.

(c) Findings based on association between the abuse of drugs and substances and socio-demographic variables

- Among the addicted respondents, girls (70.21%) were found to abuse drugs and substances more than the boys (29.78%). Gordon (2021) reported in their study that males abuse substances more than the girls. Naskar and Bhattacharya (1999) found in their study that the prevalence of drug abuse among boys (58.4%) was significantly more than that among girls (25.9%).

- Among the addicted respondents, the age group of 18-20 yrs was found to be the most prevalent age group abusing drugs and substances.
- 42 (44.68%) respondents belonging to the general degree courses were found to abuse drugs and substances whereas 52 (55.31%) respondents pursuing professional degree courses were found to abuse drugs abuse drugs and substances.
- 52 (55.31%) respondents who stayed with their parents are found to abuse drugs and substances. 24 (25.53%) respondents who are hostellers are found to abuse drugs and substances. Sarkar et al (2018) found that students staying at hostels exhibit high level of substance abuse behaviour. 10 (10.63%) respondents living in a rented house abuse drugs and substances.
- 57 (60.63%) respondents who are the single child are found to abuse drugs and substances. 18 (19.14%) respondents who are the elder child and 18 (19.14%) respondents who are the younger child abuse drugs and substances.
- 61 (64.89%) respondents have a graduate father, 23 (24.46%) respondents have fathers who have completed their schooling and 10 (10.63%) respondents have fathers who have completed their higher education.
- 53 (56.38%) respondents have a graduate mother, 28 (29.78%) respondents have mothers who have completed their schooling and 13 (13.82%) respondents have mothers who have completed their higher education.
- 43 (45.74%) respondents have fathers who are in service, 40 respondents (42.55%) have fathers who are in business, 9 (9.57%) respondents have fathers who are daily wage earners and 2 (2.12%) respondents have fathers who are retired.
- 73 (77.65%) respondents have mothers who are homemakers, 14 respondents (14.89%) have mothers who are in business and 7 (7.44%) respondents have mothers who are in service.
- 68 respondents belong to the “higher family income group”, 20 respondents belong to the “middle income group” and 6 respondents belong to the “lower income group”.

(d) Findings based on the Analyses of Hypotheses

- There is significant mean difference between drug and substance abuse and mental health of undergraduate students in Kolkata. Singh et al (2017) found in their study an association between alcohol use disorders and psychiatric disorders. Kim et al (2020) found in their study that there is a prevalence of mental health disorders among the people abusing substances. Richert et al (2020) found in their research study that there is a strong association between drug abuse and anxiety and related mental health issues. Smith et al (2017) also found a strong association between mental health and substance abuse.
- Findings implies that the age of the students does not have a statistically significant effect on students' mental well-being.
- Findings indicate that female students reported significantly higher mental health scores compared to their male counterparts. Mohammad Amin Wani (2016) reported that female addicts display better mental well-being than the male addicts.
- Findings suggest that the course of study does not significantly impact the mental well-being of the undergraduate students.
- Findings suggest that the type of accommodation does not significantly impact the mental well-being of the undergraduate students.
- Findings suggest that the father's educational qualification does not significantly impact the mental well-being of the undergraduate students.
- Findings suggest that the mother's educational qualification does not significantly impact the mental well-being of the undergraduate students.
- Findings suggest that the father's educational qualification does not significantly impact the mental well-being of the undergraduate students.
- Findings suggest that the mother's occupation does not significantly impact the mental well-being of the undergraduate students.

- Family income of the respondents does not have a significant impact on their mental well-being.
- Female respondents abuse more drugs and substances than the male respondents.
- The age group of 18-20 years engage in the addictive and harmful usage drugs and substances more than the other age groups. In other words, drug and substance abuse was more prevalent among the respondents who belong to the age group of 18-20 yrs. Ghosh, Dr G (2013) found in his study that teens in West Bengal are using gateway drugs.
- The addictive and harmful usage of drugs and substances is higher among the respondents who are the single child of their parents.
- Respondents pursuing professional degree courses abuse more drugs and substances than the respondents pursuing general degree students. Datta et al (2015) reported that substance abuse was common among the medical students.
- The addictive and harmful usage of drugs and substances is higher among the respondents having graduate fathers compared to the other groups.
- The addictive and harmful usage of drugs and substances is higher among the respondents having mothers compared to the other groups.
- The addictive and harmful usage of drugs and substances of the respondents is not affected by their father's occupation.
- The addictive and harmful usage of drugs and substances is not affected by their mother's occupation.
- The addictive and harmful usage of drugs and substances is higher among the respondents living with their parents followed by those living in a rented house or hostel.
- The addictive and harmful usage of drugs and substances is higher among the respondents having higher family income.

(e) Findings based on the Mental Health Inventory

The overall data of the mental health scale, administered on the students studying in various UG level colleges in Kolkata, reflect the mental health status of the students. 300 respondents gave their response to a set of 56 statements. Each statement represented their mental state of being, their feelings, their belief system, their response to situations, their coping strategies in everyday life, their social relationships, social interactions, their hopes, their aspirations. Non-drug users showed positive mental health with adequate feelings of self-evaluation, emotionality, security and efficient emotional intelligence.

- Girls show higher Positive Self-Evaluation than the boys.
- Girls show higher Perception of Reality than the boys.
- Girls show higher Integration of Personality than the boys. Jaya and Vishala Patnam (2014) found that female students have significantly higher percentage of integration of personality compared to the male students.
- Girls show higher Autonomy than the boys.
- Girls show higher Group Oriented Attitude than the boys. Jaya and Vishala Patnam (2014) found that the group oriented attitude was higher among the female students than the male students.
- Girls have higher Environmental Mastery than the boys.

5.2 DISCUSSIONS

5.2.1 Based on Drug and Substance abuse and association with the “Socio-Demographic Variables”

- In the present study by the researcher, it was discovered that alcohol and cigarettes are the most widely abused substances among the addicted UG students. According to a Government Survey (2019), 14.6% of the population, in the age group 10-75 yrs, uses alcohol. In the current study, cigarette was found to be the first soft drug abused by the respondents.

- In the study, it was found that female students (70.21%) abused more substances than the males (29.78%). Gordon et al (2021) findings suggest that substance abuse was more among the male adolescents compared to the female adolescents.
- Banerjee (2023) in her study on the impact of family size on the pattern of drinking habit and drug abuse among college students in West Bengal found that drinking habit of college students, who are the single child, is significantly higher than those who come from families with several children. This supports the finding in the present study, students coming from homes with just one child abuse drugs and substances more than those who came from families with several children.
- Sarkar et al (2018) reported that tobacco and cannabis were found to be the most widespreadly abused substances among the students of engineering college.
- Drug and substance abuse was found to be higher among the respondents who belong in the ages of 18-20 yrs. Datta and Naskar (2015) found in their study that second year students (76%) were found to abuse more drugs than the other years. Ghosh, Dr G (2013) found in his study that 40% of the high risk substance abusers are below 18yrs of age.
- Naskar and Bhattacharya (1999) reported that hostellers were found to abuse drugs more frequently as compared to the non-hostellers.
- Gupta, Singh, Kumar, Kaur, and Arora (2013) found in their study that the usage of substance abuse was higher among the law students and the most common reason was to get relief from psychological stress. The present study found that 25.53% medical students, 17.02% law students and 13.82% engineering students abuse drugs and substances. Halidar et al (2018), Ramachandran et al (2024) found high prevalence of substance abuse among the medical students.
- Ghosh (2013) found in his study that children from low economic background take up smoking every year. Patrick et al (2012) found that young adults belonging to higher family socio-economic status abuse alcohol and marijuana. In the present study, the researcher found that majority of the students belonging to the higher income group (21.67%) abused drugs and substances.

- Majority of the addicted respondents (42.55%) got their supply of drugs and substances from their friends. This is corroborated with the finding of Esteban and Boyd (2005) who found in their study that undergraduate students obtained abusable prescription medications from peer sources.

5.2.2 Based on the Analysis of the Hypotheses

- The non-addicted undergraduate learners possess good mental health than the addicted learners. As per the analysis, it can be said that drug and substance abuse and mental health are closely linked. This suggests a strong overlap in mental health issues and drug/substance use.
- As per the analysis, it can be said that age is not a major factor in mental health variability. Mental health issues are relatively consistent across the age group under study (18-28). For example, an 18 yr old fresher and a 25 yr old senior may experience similar levels of anxiety, depression or stress. Interventions to improve mental health should be broadly applied.
- As per the analysis, gender plays a significant role in the mental health experiences of the undergraduate students. The observed gender differences in mental health may due to a range of factors including societal expectations, willingness to seek help, coping mechanisms and differential exposure to stressors. Female students, for example, may be more likely to report psychological distress and seek help while male students might under report symptoms due to stigma or social norms around masculinity. These findings highlight the relevancy of gender sensitive mental health policies in higher educational settings. Mental health services should be such that they are tuned to the specific needs of different gender groups and reduce stigma around seeking support.
- The lack of significant difference implies that mental health challenges are not confined to or determined by a specific field of study. This may indicate that college students across all disciplines face similar levels of academic pressure, social challenges, financial stress or personal issues that influences their mental health.
- The findings suggest that mental health challenges are experienced relatively equally regardless of where students live. It may reflect that stressors related to academic

workload, personal relationships or financial concerns affect students similarly whether they live on-campus, at home or independently.

- The lack of significant difference suggests that a father's educational background may not directly impact a student's psychological well being during their time in college. This could imply that other factors such as personal experiences, academic pressures, peer relationships or immediate socio-economic conditions play a more dominant role in influencing mental health.
- The lack of significant difference suggests that a mother's educational background may not directly impact a student's psychological well being during their time in college. This could imply that other factors such as personal experiences, academic pressures, peer relationships or immediate socio-economic conditions play a more dominant role in influencing mental health.
- The lack of significant difference suggests that a father's occupation may not directly impact a student's psychological well being during their time in college. This could imply that other factors such as personal experiences, academic pressures, peer relationships or immediate socio-economic conditions play a more dominant role in influencing mental health.
- The lack of significant difference suggests that a mother's occupation may not directly impact a student's psychological well being during their time in college. This could imply that other factors such as personal experiences, academic pressures, peer relationships or immediate socio-economic conditions play a more dominant role in influencing mental health.
- The significant difference between family income and drug and substance abuse suggests that respondents belonging to the higher family income group abuse drugs and substances more than those belonging to the lower and middle income groups. This finding is in contrast to the finding by Baptiste-Roberts and Hossain (2018) who reported that participants belonging to the lower socio-economic status overuse illicit drugs.

5.2.3 Based on the Mental Health Inventory

The present study's findings suggest that among the undergraduate students in Kolkata, girls possess more Positive Self-Evaluation than the boys. In a study on self-esteem among the college students in the Bengaluru area by Abraham (2023) girls were found to have higher self-esteem than the boys. As the girls score higher than the boys in this mental health dimension, it can be said that girls are more confident in their approach towards life in general as they cope with the problems of academic, social and peer pressure. Abraham (2023) found that the girls internalize their emotions whereas the boys externalize their emotions. More (2019) found no significant difference in the mental health dimension of Positive Self-Evaluation between boys and girls.

According to the present study by the researcher, the girls have higher Perception of Reality than the boys. They seem to have an eye for detail as they are good in their observational skills compared to the boys. The girls have a holistic approach as they process and integrate information coming from various sources. The girls have a better ability to perceive subtle cues compared to the boys thereby having higher Perception of Reality than the boys. There are differences in the manner girls and boys perceive the world around them. This study found that girls are more in tune with the challenges of the real world. Having higher perception of reality indicates higher emotional intelligence or problem solving ability. Girl students have a clearer understanding of situations than the boys. Girls score higher in empathy compared to the boys, having a better understanding of the social reality. This indicates the cognitive differences between girls and boys as they interpret the world around them.

The girls have higher Integration of Personality than the boys. The finding of the study refers to the concept that girls have a more balanced and well rounded personality compared to the boys. Girls tend to have a higher stable sense of self compared to the boys. Girls have a greater ability to integrate their traits and behaviour and align them in a balanced manner. Girls are better at harmonizing their emotions, thoughts and behaviours. This allows better management of conflicting feelings leading to a stable personality. Having higher Integration of Personality means girls have more adaptive personality than the boys. The findings of the study indicate that girls have a higher level of psychological maturity in terms of personality integration compared to the boys.

According to the study, girls have higher autonomy than the boys. Girls have scored higher in emotional and social autonomy. Higher autonomy among the girls indicate the step towards gender equality. In the context of the findings of the study, it can be said that girls are more independent in their decision making. Girls are likely to make decisions based on their own values, preferences and goals compared to the boys. Girls are more independent in choosing their academic paths and career aspirations compared to the boys who may be influenced by external factors like peer influence or societal norms when making decisions. Waghmare (2019) found that the male adolescents have higher autonomy than the female adolescents. Bhatand and Majeed (2015) and Sharma (2006) found no contrast between the autonomy of young men and women. to

According to the study, girls have higher Group Oriented Attitude than the boys which means that they are more likely to value and prioritize group harmony, cooperation and collaboration, focusing on group goals compared the boys. Girls are more likely to avoid conflicts within groups compared to the boys. It can be said that girls are more likely to prefer collaborative behaviour compared to the boys.

According to the study, girls have higher Environmental Mastery than the boys which means that girls tend to have a greater ability to manage and control their surroundings in ways that help them achieve their goals. Girls are more likely to show a greater sense of competence in managing the challenges of daily life. Girls are better at organizing their space, managing time effectively and balancing multiple tasks. They have a greater sense of self efficacy w. r. t. the environmental challenges like academic responsibilities and personal goals.

Nandana (2001) found in a study that the female undergraduate students have better mental health than male students. However, “Bangale and Patnam” (2013) found no critical distinction in the mental health status among male and female undergraduate students. Richert et al (2020) found significantly higher levels of mental health problems among the girls. Guleria (2022) found in a study that female students suffer from depression and the percentage of female students suffering from mental health issues is higher than that of the male students.

5.3 CONCLUSION

In the present study, the prevalence of abuse of substances was found to be 31.33% which calls for stringent measures to be taken to curb the menace. In their research on substance abuse among the college students in India, Dube et al (1977) concluded that the menace of drug use

needs to be curbed with stringent measures. But the problem persists as is reflected in studies henceforth. Parmar et al (2023) reported a lack of regular monitoring related to the prevalence of substance abuse. Gupta et al (2013) suggested that there is need to educate and counsel young students to raise their awareness of the ill-effects of substance abuse. In the 21st Century, we find that the undergraduate girl students in the urban colleges in Kolkata have better mental health than the boys as the findings of the study show that they score higher than the boys in the mental health dimensions of “Positive Self-Evaluation”, “Perception of Reality”, “Integration of Personality”, “Autonomy”, “Group Oriented Attitudes” and “Environmental Mastery”. The present study found a significant relationship between substance abuse and mental health of the undergraduate students. Meghrajani et al (2023) reported that in India, mental disorders have a high prevalence and highlighted the need for intervention and support systems to cater to the mental well being of the people. They also emphasized the issue of mental healthcare shortage in India. Dhyani et al (2022) suggested that effort should be made to integrate mental health programs into primary care. Mental Health crisis among the students can be triggered by academic pressure, peer pressure, financial burden of parents, high parental expectations and other social pressures. Exam pressure and performance anxiety are factors that trigger mental health issues like suicidal tendencies among the students. Eg suicides in IITs, in Kota, Rajasthan. A recent event is related to the suicide of a student in a renowned engineering college in Bhubaneswar, Orissa. A British study in 2018 found that increased use of social media leads to disrupted, decreased and delayed sleep. This is associated with mental health issues like depression, memory loss and poor academic performance. Hormonal changes and gender identity are factors that cause mental health issues among the students starting with adolescence. The stigmatization of seeking mental health care and lack of awareness also adds to the woes of the students suffering from mental health issues. There are certain issues related to mental health care in India starting with the fragmented approach to mental healthcare as its integration with primary healthcare is insufficient. Lack of mental healthcare infrastructure and shortage of mental health professionals in general especially in campuses is an area the Government needs to be worked on. According to the Economic Survey (2023-2024) there are only 0.75 psychiatrists per lakh population in India.

5.4 SUGGESTIONS BY THE RESEARCHER

The findings indicate the need for integrated interventions in college health services towards addressing substance use and mental health together. There is a need to integrate mental health

and substance abuse services so that co-occurring disorders can be addressed effectively. Community based awareness programs educating the students about the link between drug abuse and mental health should be launched in educational institutions. There is a need for tailor-made mental health support and interventions in college campuses. Mental health services should be designed to address the specific needs of different gender groups and reduce stigma around seeking support. Early intervention strategies should be employed to identify and support the vulnerable pupils. The Government agencies should be approached by the institutions for financial assistance and a collaborative effort should be made to combat the dual menace of drug abuse and mental illness effectively. The healthcare system needs to be more organized with thrust on training the mental health professionals and addiction specialists on recognizing and treating co-occurring disorders.

The way forward is to implement regular training programs for the stakeholders including the faculty members. Sensitization of front line health workers and teachers regarding mental health challenges of the students to equip them to identify at-risk individuals at an early stage. Mental healthcare of children especially adolescents requires special attention as mental health issues start by the age of fourteen years. Most importantly, students should be encouraged to practice mindfulness, self-awareness, regular exercise, healthy sleep and eating habits to keep mental health issues at bay, reduce anxiety and and build emotional resilience.

5.5 EDUCATIONAL IMPLICATIONS OF THE STUDY

The educational implications of the present study are significant and multifaceted that can inform policies, interventions, and support systems within higher education institutions. A detailed lay out of the potential educational implications are as follows:

1. Curriculum Development and Integration: The findings could lead to the integration of mental health and substance abuse education into general education curricula or orientation programs. Schools may introduce or expand life skills courses that cover stress management, decision-making, coping strategies, and healthy lifestyles.

2. Student Support Services: Results may justify the expansion of mental health services in the campus, hiring more counsellors or offering substance abuse treatment and recovery programs. Universities might implement peer mentoring or support groups for students struggling with addiction or mental health issues.

3. Policy and Administrative Changes: Depended on the findings of the study, institutions could adopt early detection and intervention strategies, including regular screenings or check-ins. Institutions may revise campus drug policies to balance enforcement with a focus on rehabilitation and education rather than punishment alone.

4. Awareness and Prevention Campaigns: If stigma around mental health is found to be a barrier, the study may prompt awareness campaigns that normalize help-seeking behaviour. Regular seminars and workshops may be developed to educate students and staff on the signs of drug abuse and mental health challenges.

5. Academic Performance and Retention: Since drug abuse and mental health issues can impair academic performance, institutions might create tailored academic support services or flexible study options for affected students. With higher dropout risks among students facing these issues, colleges may adopt retention strategies that include mental health support.

6. Faculty and Staff Training: Faculty and staff might be trained to recognize signs of distress or substance abuse and refer students to appropriate resources. Teaching staff may be encouraged to foster environments that reduce academic stress and promote well-being.

7. Collaboration with External Stakeholders: The institution could collaborate with local health organizations or rehab centres for consultation, training, and outreach. Findings emphasize the need for community-wide initiatives involving parents, local authorities, and NGOs.

8. Research and Monitoring: Institutions may establish mechanisms for ongoing monitoring of student mental health and substance use trends. Universities could invest in research-based interventions and continually adapt based on updated findings.

5.6 SCOPE FOR FURTHER RESEARCH

The scope for further research on drug abuse and mental health among urban undergraduate students is essential for developing effective interventions. The following areas are recommended for further research in the future.

1. Longitudinal Studies: Track students over several years to examine how drug use and mental health issues evolve and affect academic, social, and occupational outcomes. Understand the long-term impacts of early interventions.

2. Comparative Studies: Compare the prevalence, causes, and outcomes of drug abuse and mental health issues across different settings. Analyze differences in support structures, student behaviour, and institutional responses.

3. Effectiveness of Interventions: Evaluate the impact of counselling, peer support groups, awareness campaigns, or digital mental health tools in reducing drug use or improving mental well-being. Study the outcomes of rehabilitation and recovery programs initiated within academic settings.

4. Sociocultural and Demographic Factors: Explore how gender, socioeconomic status, ethnicity, religion, or family background influence drug use and mental health patterns. Examine cultural attitudes towards mental health and substance use in diverse student populations.

5. Role of Technology and Social Media: Assess how social media use contributes to stress, anxiety, or substance use among students. Explore the potential of mobile apps and online platforms for mental health monitoring and intervention.

6. Academic Pressure and Performance: Research the link between academic expectations, performance anxiety, and increased risk of substance use or depression. Study the role of exam stress, competitive environments, or lack of academic support.

7. Substance-Specific Analysis: Conduct in-depth studies on the impact of specific substances (e.g., cannabis, alcohol, prescription drugs, stimulants) on cognitive function and mental health. Examine trends in polydrug use and its effects.

8. Gender and Identity-Based Mental Health Experiences: Investigate how mental health and drug abuse affect LGBTQ+ students or those with non-binary gender identities. Explore targeted interventions for these often underrepresented groups.

9. Policy Evaluation: Study the effectiveness of existing university policies related to mental health and substance use. Assess whether punitive measures or support-focused approaches yield better student outcomes.

5.7 LIMITATIONS

1. Self-Reporting Bias: Students may underreport drug use or mental health issues due to stigma, fear of judgment, or legal concerns. Conversely, some may exaggerate their responses, especially in anonymous surveys, affecting data accuracy.

2. Social Desirability Bias: It is found that the participants usually give responses that they opine are more “socially acceptable”, instead of being being honest. This can skew results, especially regarding illegal drug use or sensitive mental health topics.

3. Sampling Limitations: As the sample is limited to a few institutions in a city, the findings may not be representative of all undergraduates. Certain subgroups (e.g., students from marginalized communities) may be underrepresented.

4. Contextual Variability: Factors like local culture, university policies, and urban stressors can influence results, making it hard to generalize findings to other cities or countries. The availability and types of drugs may vary significantly by location.

5. Measurement Tools and Validity: Use of non-standardized or poorly validated questionnaires can reduce the reliability of the data. Mental health conditions are complex and may not be accurately captured through brief survey instruments.

6. Ethical Concerns: Research involving substance use and mental health must navigate complex ethical considerations like ensuring anonymity and confidentiality. These concerns may limit the depth of questioning or the sample size.

7. Temporal and Situational Factors: Extraneous factors such as exams, social unrest, or pandemics (e.g., COVID-19) can temporarily influence both drug use and mental health, confounding the data. The results might reflect short-term trends rather than long-term issues.

8. Lack of Follow-Up: Without follow-up studies, it’s hard to determine whether students improve, worsen, or recover over time. This can lead to a gap in understanding long-term educational or psychological outcomes.

9. Limited Institutional Cooperation: Colleges/Universities may be reluctant to participate due to reputational concerns or fear of negative publicity. This can limit access to data or reduce the number of participating institutions.

CHAPTER VI

SUMMARY

CHAPTER I

Substance abuse is a global concern. The necessity of robust international cooperation to address substance use and addictive behaviour as significant determinants of mental health and well-being has become more apparent as the world emerges from the COVID-19 pandemic, which profoundly affected our lives and public health priorities. The fourth forum on drugs, alcohol, and addictive behaviour was held by the World Health Organisation in Geneva, Switzerland, in June 2023. According to WHO estimates, there are around 2 billion alcohol users, 1.3 billion smokers, and 185 million drug users across the globe who use psychoactive substances.

The drug menace in India is a rising concern that threatens our public and social health. Drug abuse and addiction have increased steadily owing to factors like modern lifestyle, family problems, nuclear family, economic challenges, unemployment, academic pressure. Youngsters experiment with drugs mostly to deal with psychological stress and to experience the feel-good factor despite knowing their harmful effects. The civil society and academia need to come forward to address and remedy this issue of drug and substance abuse, mental health and well-being of the vulnerable young individuals.

Drugs have been used by the human civilisation from time immemorial. Alcoholic beverages were used in the treatment of many mental and physical illnesses in ancient times. Alcohol and other psychotropic drugs have been used for centuries for generating a sense of well-being among the people (Taylor, 1966 & Andrews, 1975). Cannabis has medicinal qualities as has been recorded by ancient sacred books like the Atharva Veda.

Somras has been defined as an elixir containing hallucinogens. We find mention of soma in Vedic mythology which could be *Cannabis sativa*, commonly called bhang (Swamy, 1974). Many believe somras is simply milk or honey. The God Indra used somras to strengthen himself before battle. In the Rig Veda, Somras is utilised in many different ways and is associated with light, daybreak, the sun's cause, and even the king. Additionally, it is thought that Hindu gods ingested somras to become immortal. It was referred to as Soma Mandala in

the Rigveda. Soma is considered a ceremonial beverage in the Vedic culture. In Chapter 9, verse 20 of the Bhagavad Gita, it is referenced as a beverage.

The availability of illegal drugs and over-the-counter medications has led to an increase in drug usage in India, which is a source, transit, and destination for precursor chemicals and illegal drugs. India is the world's biggest producer of generic medications, which are also used to make illegal synthetic substances like MDMA, heroin, methamphetamine, and prescription opioids. In 2004 and 2019, the Ministry of Social Justice and Empowerment released the results of two nationwide drug surveys. These polls' findings imply that drug use in India is still increasing unchecked. From 0.7% to just over 2%, the number of people using opioids has grown from two million to over 22 million. Worse, heroin is now the most misused opioid, surpassing even the natural opioids, opium and poppy husk. Cocaine and other synthetic drug use have also dramatically grown. The survey's findings point to the necessity of strengthening our current system, putting in more effort, and closing any gaps. The investigator focussed on studying the drug scenario in Kolkata in the recent years. She came across newspaper articles which highlighted the prevalence of drug menace in Kolkata. Another key revelation was the involvement of college students in the various drug rackets going on in the city of Kolkata.

India is predominantly a youth centric nation. India's population is 1.38 billion of which 22% are the youth (18-29 years). Of these, 34.3 million are college going students according to the Annual Status of Higher Education (ASHE). Statistics show that there is an addiction problem in India. According to a report in 2016, 2 million college students have used an illicit drug. The students fall prey to drug and substance abuse in the college as they are vulnerable. The prevalence of drug related problems gets reflected in the data of death due to substance abuse and it is alarming to note that the students make up a considerable part of it. There is a need for educational research on the drug menace prevalent in Kolkata. Geographical vulnerability is a contributor to Kolkata being a drug hotspot though national surveys do not reflect the scenario. The post pandemic academic world is undergoing major upheavals which is taking a toll on the psychological wellbeing of the students thereby adding to the pressure. So it becomes more imperative to study the problem of drug and substance abuse prevalent in students and how it affects their mental health. Another dimension that calls for attention is the relationship between substance abuse and mental health.

The Global Burden of Disease Study estimates that in 2017 alone, illegal substances killed around 7.5 lakh people worldwide. It was believed that 22,000 people died in India. In 2018,

there were 2.3 crore opioid users in India, with heroin usage being the highest, according to government data. More than twice as many people used opium as heroin in 2004. Awareness about the growing drug menace is the need of the hour. We, the educators cannot turn a blind eye to this social problem as it affects the health of the youth who are the human resource of the country. A collaborative partnership between the administration, teachers, parents, community and the students is required to tackle the issue of drug menace. The drug and substance abuse which occurs so rampantly in the campus needs to be addressed in the context of health education as proposed by NEP-2020 as it impacts the students' life in a detrimental manner. Knowledge, skills and values need to be cultivated in a dynamic manner in order to promote personal and academic growth.

One of the leading cities in India for the sale of illegal substances like hashish and LSD is Kolkata. The city's advantageous location close to the borders of Bangladesh and Nepal makes it simple for drug dealers to enter (NCB). According to NCB, college students in the city are roped in to sell drugs. Kolkata has turned into a drug hotspot as is evident from the series of recent raids conducted by the NCB which busted international cannabis smuggling ring in Kolkata in 2021 seizing a huge amount of the world's strongest marijuana. It is important to find out the extent and pattern of drug menace in Kolkata, especially its reach among the college students at the UG level in the post-pandemic time period. The students had to face a lot of uncertainty during the pandemic period. The drug menace used to exist in the pre pandemic era so it becomes imperative that extensive research is carried out to find out the challenges of drug abuse that the college students faced as they had to cope up with the pressure of online and blended classes.

In India, drug addiction is an issue since the country is surrounded by 2 of the world's largest opium-producing regions. The Golden Triangle is on one side and the Golden Crescent is on the other. Golden Triangle is made up of Iran, Afghanistan, and Pakistan.

India's location between the Golden Crescent and Golden Triangle makes it a prime site for the transportation of heroin. With the western international border along Pakistan serving as a focal point, it enters the nation through the land, sea, and international boundaries. The region where the borders of Thailand, Laos, and Myanmar converge at the meeting point of the Ruak and Mekong rivers is known as the "Golden Triangle." Myanmar produces 80% of the world's heroin and is the second-largest illegal supplier of both morphine and heroin worldwide. Golden Crescent: In contrast, the Golden Crescent is a significant global location for the

manufacturing of opium in Afghanistan, Iran, and Pakistan. From there, drugs are trafficked into India via Gujarat, Punjab, Rajasthan, and Jammu & Kashmir.

Closeness to the sea: Afghanistan, Myanmar, and other nations that are important drug producing and transit hubs are next to India. Drug traffickers find it to be a desirable transit location due to its extensive and porous borders. Approximately 70% of all illegal drugs imported into India are thought to be trafficked via marine routes in the Bay of Bengal and the Arabian marine.

The Ministry of Home Affairs oversees the Narcotics Control Bureau (NCB), which is in charge of organising efforts to combat illegal drugs and gathering information on drug trafficking cases in the nation that are submitted to it by other agencies like the Ministry of Empowerment and Social Justice. Through a multifaceted approach that includes education, drug addiction treatment, and rehabilitation for impacted individuals and their families, the National Action Plan for Drug Demand Reduction (NAPDDR) for 2018–2025 seeks to lessen the negative effects of drug abuse.

The Prevention of Alcoholism and Substance (Drug) Abuse Scheme provides funding to eligible organisations and voluntary organisations to establish and operate an Integrated Rehabilitation Centre for Addicts.

Sound mental health is necessary for people to learn and work efficiently, manage the challenges of life, realise their full potential, and provide service to their communities.

Mental wellness encompasses more than just the absence of mental illnesses. Each person experiences it in a unique way along a complex continuum. "A variety of individual, social, and situational factors may interact to affect our mental health" (WHO). Characteristics like heredity, substance abuse, and EQ, can make a person susceptible to mental health problems. Protective influences help to build resilience which include our personal, social, and emotional qualities, as well as constructive social relationships, high-quality education, respectable employment and communal togetherness, among other things.

Many people get a mental health disorder even if they have no known risk factors. On the other hand, people may not undergo a mental health issue even when exposed to a risk factor. However, the interaction of mental health variables either strengthens or weakens mental health.

DELIMITATIONS OF THE STUDY

1. The investigator collected data only from 300 college going respondents
2. To study UG students' mental health, the investigator used only one standardized test available from the market. She did not develop any mental health scale.
3. She collected data only from the Kolkata based college going respondents and not from the rural and semi-urban based colleges.

CHAPTER II

LITERATURE REVIEW

REVIEW MATRIX

Sl. No.	Name, Year	Publication	Topic	Description	Findings
1.	Dixit, S., Sharma, S., Sharma, N., & Patel, M. (2024)	www.researchgate.net	“A Quantitative Study to Assess the Effect of a Community-Academy Partnership Event on Knowledge, Awareness and Engagement against Substance Abuse.”	Objective: The objective is to study the effects (quantitative) of the partnership between the community and the academy. An event named ‘Chaitanya Utsav’ was organized to understand the extent of knowledge, engagement and awareness regarding the	Findings: The sample was of 150 participants. Low engagement and incomplete knowledge of substance abuse was found to be prevalent among a significant number of students (n=45). 55.5% had low knowledge scores, whereas 66.6% reported zero community involvement. 44.4% reported that they were not aware of

				<p>drug misuse in local community, and additionally to evaluate the participant's awareness and understanding regarding substance usage and indulgence in preventive efforts.</p> <p>Method: Participants at the Chaitanya Utsav comprising of scholars and students were surveyed. The program included lectures, seminar that aimed at interacting with the students creating awareness about the hazards and potential threats of use of drugs and most</p>	<p>prevention programs, thereby indicating low awareness levels.</p>
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				importantly to recommend preventive policies. A pre-event survey had been carried out before the start of the Chaitanya Utsav in order to collect the preliminary data.	
2.	Venkatesh, U., Aparnavi, P., Mogan, K.A., Durga, R., Pearson, J., Kishore, S., Joshi, H.S., Nair, N.S., Nisha, B., & Agarwal, R. (2024)	<i>National Library of Medicine.</i>	“Determinants of substance use among young people attending primary centres in India.”	Objective: To evaluate the pattern of use of substances among individuals attending healthcare centres in India and to find out the determinants of use of substances. Method: 15 states in India were surveyed. Sample size was 1630 young individuals belonging to	Findings: Substance use was found to be prevalent at 32.8%. 75.5% users had started substance use around adolescence. Tobacco, alcohol and cannabis were commonly abused. Substance using individuals mostly belonged to the lower socio-economic status.

				the age category of 10-24 yrs. The ASSIST questionnaire was administered on individuals attending primary healthcare centres.	
3.	Dogra, A., Tiwari, J.K., & Bhardwaj, O.P. (2023)	<i>International Journal of All Research Education and Scientific Methods.</i>	“Awareness of Drug Addiction among law students in Himachal Pradesh.”	<p>Objective: To assess the awareness of law students about drug addiction in Himachal Pradesh, to study the differences in their awareness levels with regard to their gender, area and type.</p> <p>Method: Technique of random sampling was employed for collection of data. 50 law students from four law</p>	<p>Findings: No significant difference in awareness about drug abuse was found among the law students as far as their area and type of college was concerned. However, significant difference in drug abuse awareness was found with respect to gender with boys having mean score than the girls.</p>

				colleges of Himachal Pradesh made up the sample.	
4.	Parmar, A., Bhatia, G., Sharma, P., & Pal, A. (2023)	<i>Indian Journal of Psychiatry</i>	“Understanding the epidemiology of substance use in India: A review of nationwide surveys.”	<p>Objective: The objective is to explore the epidemiological studies undertaken to provide data on use of substances in India.</p> <p>Method: Review of literature of nationally conducted surveys on substance use across India.</p>	<p>Findings: A lack of regular monitoring on the prevalence of substances was reported. The study indicated the need for upscaling prevention programs and treatment services. Relevant data that emerged highlighted that the trend of abuse of drugs and substances. Tobacco use by men was 57% and 11% among women (2005-2006). Licit cannabis use was 2% compared to illicit cannabis use which was reported at 1.2% (2019). Opioid use was found to be 0.7% and</p>

					heroin use was reported at 0.2%. Substance abuse was found to be lesser in females than in males.
5.	Dutta, D. K., Sen, D. J., & Mahanti, B. (2023)	<i>World Journal of Pharmaceutical and Medical Research.</i>	“The role of hard drugs and soft drugs in Pharmaceutical Sciences.”	<p>Objectives: To have a clear understanding of the pharmaceutical concept of hard and soft drugs, their concepts, effect of drug addiction on the brain.</p> <p>Method: A quantitative analysis of published literature on pharmaceutical sciences.</p>	<p>Findings: Soft drugs are considered to be physically or psychologically less addictive as compared to hard drugs, however, they are equally unsafe. E.g. Cannabis. The brain’s reward circuit is affected by all drugs which is the seat of instinct and mood. Use of drugs causes release of dopamine that has effect on our emotions and feelings of pleasure. Release of dopamine causes a feeling of high among the users and this</p>

					leads to addiction.
6.	Banerjee, T. (2023)	<i>Research Review International Journal of Multidisciplinary.</i>	“Comparative study of Drug Addiction, Alcoholism between single child and more than one child in college level students in West Bengal.”	<p>Objective: To evaluate the impact of family size on the frequency and pattern of drinking habit and abuse of substances among the college going students of West Bengal and to understand how being a single child or having siblings contributes towards the substance misuse among young adults.</p> <p>Method: A mixed method approach was employed to collect information from students studying in colleges in West Bengal with the help of</p>	<p>Findings: Peer pressure, familial ties, demographic and socio-economic factors are connected to addiction among the young adults examined in the study. The drinking habits of college students who are single child is significantly higher than those who come from families with several children. Similarly students coming from homes with just one child have significantly higher drug use compared to students who came from families with several children</p>

				surveys and in-depth interviews.	
7.	Srivastava, S., Kumar, P., Ronak Paul, R., & Dhillon, P. (2021)	<i>BMC Public Health.</i>	“Does substance use by family members and community affect the substance use among adolescent boys? Evidence from UDAYA study, India.”	<p>Objective: To examine whether there is any correlation between substance use among members of the family and the community with the adolescent boys’ use of substances.</p> <p>Method: Around 6000 adolescent boys of the age group of 10-19 yrs from UDAYA were surveyed. An effort was made to understand the association between substance use behaviour of adolescents and their family history.</p>	<p>Findings: 16% adolescent boys were abusing substances. Substance abuse was higher among the school drop outs (40%). 28% of them came from families with family history of tobacco, alcohol abuse and abuse of drugs.</p> <p>Adolescents were more likely to abuse substances to come from substance abusing communities.</p>

8.	<p>Gupta, H., Gupta, S., & Rozatkar, A.R. (2021)</p>	<p><i>International Journal of Forensic Mental Health.</i></p>	<p>“Magnitude of Substance Use and its Associated Factors Among the Medical Students in India and Implications for Medical Education: A Narrative Review.”</p>	<p>Objective: To review literature on the extent of use of substances and related problems among the UG students of India. Method: Online databases were reviewed to study the relevant literature.</p>	<p>Findings: 39 relevant reviews were found. Medical students were found to abuse alcohol (43.8%), tobacco (28.8%) and cannabis (15%). Use of sedatives among the females was higher than the males. Family history and peer pressure were the responsible factors.</p>
9.	<p>Kovilveetil, A.N. (2021)</p>	<p><i>Medical Science and Discovery</i></p>	<p>“A study on substance abuse among young people (10-24 yrs) in urban slums of Jorhat, Assam.”</p>	<p>Objective: To evaluate the trend of substance abuse by urban slum dwellers, to assess the contributing factors and recommend suggestion. Method: An Interviewers Proforma by the Institutional Ethics Committee was employed. Data</p>	<p>Findings: 22-24 yrs old males predominantly abused substances compared to the females. Tobacco and alcohol were the most most commonly abused substances. Peer influence was the major reason the initial exposure to substance abuse.</p>

				<p>was collected using the Proforma which was administered on 174 slum dwellers. Only those in the age category of 10-24 yrs were included. Also, those who wished to participate willingly were made a part of the survey.</p>	<p>The frequency of substance abuse ranged from multiple times daily to weekly. The substances were obtained from local peddlers. Hallucination and euphoria were the feelings experienced by the substance abusers. The side effects of substance abuse were ulcers and malignancy.</p>
10.	<p>Saikia, N., & Debbarma, B. (March, 2020)</p>	<p><i>Clinical Epidemiology and Global Health.</i></p>	<p>“Study on the socio-economic correlates of substance use among male adults in North East India.”</p>	<p>Objective: To evaluate the correlates, which are of socio-economic nature, substance consumption among adult men of North East India.</p> <p>Method: They analyzed the data from the ‘National Family Health Survey’ (2015-</p>	<p>Findings: Substance use was found to be higher among the male adults of NEI (70.83%) while the rest of the country was reported at 50.03%. Smoking and consumption of alcohol was also found to be higher. There are more than ten million</p>

				<p>2016). They studied the prevalence of smoking and alcohol consumption. The sample consisted of 14,555 men in the age group of 15 to 54 years.</p>	<p>substance users approximately, 6.7 million from Assam. 44.38% of adolescents (aged 15-19yrs) consumed at least one type of substance. The pattern of indulgence in substances rises in the 25-49 age category. The probability of substance use lowers with higher education and family income. ST adults are most likely to use substance.</p>
11.	<p>Prajapati, B.B., Dedun, M.R., Jalfava, H.S., & Shukla, A.A. (2019)</p>	<p><i>International Journal of Community Medicine and Public Health.</i></p>	<p>“A study of socio-demographic profile and pattern of drug use among substance abusers attending mind care de-addiction center in Ahmedabad.”</p>	<p>Objective: To study the socio-demographic pattern of drug use among substance abusers. Method: The survey was carried out on one-hundred participants at a de-addiction</p>	<p>Findings: Males were the major substance abusers (98%). 46% of the substance abusers belonged to the age category of 31-45 yrs.</p>

				centre, Ahmedabad who were administered a semi-structured questionnaire	
12.	Arlappa, P., Jha, S., & Jayaseeli, S. (2019)	<i>Current Research Journal of Social Sciences and Humanities.</i>	“Impact of Addiction on Family: an Exploratory Study with reference to slums in Kolkata.”	Objective: The paper studies the respondents’ socio-economic background, sociological effect of addiction in a family and the strategies of intervention to tackle the challenge of addiction. Method: Interaction with the women and young members of the affected families living in the slums of Tangra, Kolkata was carried out. The method of snowball sampling was employed in collaboration	Findings: The study identified stressors-like physical abuse, conflict, economic problems within the family which give rise to addiction which leads to family dysfunction dynamics leading to mental health issues.

				with an NGO working in the area.	
13.	Haldar, D., Majumdar, K. K., & Roy, S. (2018)	<i>International Journal of Research and Review.</i>	“Substance Abuse among the Undergraduate students of a Medical College of Kolkata.”	<p>Objective: The objective was to find out the socio-demographic pattern and kind of substances abused by the UG medical students of a South Kolkata Medical College.</p> <p>Method: The method of “stratified random sampling” was adopted, whereby 452 students were selected. A standardized questionnaire was used to collect data. Data was analyzed using suitable statistical tests.</p>	<p>Findings: Substance abuse was prevalent at 60.26% among the students. Alcohol was the most commonly abused after cigarettes.</p> <p>Conclusion: Lack of health consciousness was noted among the medical students as they indulged in substance abuse despite knowing their health hazards. This was due to an increased academic and peer pressure.</p>
14.	Sarkar, K., Roy,	<i>International Journal of</i>	“A Study of substance abuse	Objective: The objective is to	Results: It was found that 66.0%

	S.K., & Singh, R. (2018)	<i>Community Medicine and Public Health.</i>	among male engineering students staying at hostels in a township near Kolkata.”	realise the prevalence of substance abuse among the male engineering students who stay in hostels. Methodology: A two-part questionnaire proposed by WHO (WHO-ASSIST) was administered, one part covering screening tests (8 items) on alcohol, smoking and substance involvement. The second part was on socio demographic details.	and 22.0%, were the respective percentage of use of tobacco and alcohol. Students also abused cannabis. Students of government colleges abused more substances than the private colleges. Conclusions: Government male engineering students who resided in the hostels showed higher level of substance abuse.
15.	Arora, A., Kannan, S., Gowri, S., Choudhury, S., Sudarasan, S., & Khosla,	<i>Indian Journal of Medical Research.</i>	“Study on Substance Abuse among the medical students in a developing country.”	Objective: To find out the prevalence of substance abuse among the medical students in a North Indian medical college.	Findings: 110 (47.8%) were male respondents and 120 (52.2%) were female respondents. Majority lived in a hostel. Prevalence rate

	P.P. (2016)			Method: A validated questionnaire was administered on UG and PG medical students of a private medical college to carry out a cross-sectional study.	was 20.43%. Prevalence found to be significantly higher in males. The PG students were observed to abuse more than the UG students.. Stress was the most common reason for substance abuse. Several substances were being abused such as alcohol(19.13%), smoking (4.34%), tobacco (chewing 2.17%) and cannabis. More than one substance was being used by the abusers.
16.	Daniel, D., Shetty, D., Jose, G.J., Haritha, J., Ravi, J., Pillai, L.S., Neghandi	<i>Nitte Journal of Health Science.</i>	“Attitude of college students towards alcohol consumption in Mangalore.”	Objective: To study the attitude of college students about consumption of alcohol. Method: A survey was conducted in	Findings: Out of the 1150 students surveyed, 26.4% students consume alcohol. Of these, 61.84% students thought that it was not a

	, A., Santhosh. , & Kundapur, R. (2015)			the colleges under NITTE University and a questionnaire comprising of questions covering the objectives of the survey was administered on the students present at the time of survey.	risky habit. 72.03% students said that they do not wish to stop their drinking habit. The rest of the students were aware of the harmful effects of alcohol consumption.
17.	Datta, A., Bhattacharya, A., & Naskar, N. N. (2015)	<i>Indian Journal of Hygiene and Public Health, Kolkata.</i>	“Study of substance abuse among medical students of a medical college in Kolkata.”	Objective: To assess the extent of substance abuse and evaluate the associated socio-economic factors. Method: A study, which was cross-sectional in nature, among the medical students of a randomly selected medical college in Kolkata was conducted. It was ensured that students across all	Results: Information was collected from eight hundred students. 57% was the prevalence of substance use. Second year students (76%) were found to use more drugs than the other years. The most commonly used substance was tobacco (57.4%) followed by alcohol and cannabis. The respondents cited tension to be the primary

				semesters are covered in the study. Data was analysed and tabulated.	reason for substance abuse. The major source of drugs were friends.
18.	Gupta, S., Singh, S. S., Kumar, D., Kaur, T., & Arora, S. (2013)	<i>Journal of Clinical and Diagnostic Research.</i>	“Prevalence, Pattern and Familial Effects of Substance Use Among the Male College Students in Chandigarh.”	<p>Objective: A survey was conducted among the college going students of Chandigarh to find out the pattern and prevalence of substance abuse.</p> <p>Method: A community-based study was conducted. The data was collected by ‘stratified random sample’. The WHO questionnaire was consulted. The sample size was 256.</p>	<p>Findings: Prevalence rate was found to be 52.7% among age group 19-21 years. Law students (76.2%) were the highest abusers. Alcohol was most commonly abused substance, smoking secured the second spot and the third spot was occupied by the use of cannabis. 49% were daily users. The most common reason for abuse was to get relief from stress of the psychological kind.</p> <p>Conclusion: The researcher suggests that</p>

					there is a need for education and counselling young students about the ill effects of substance use.
19.	Ghosh, G. (2013)	<i>ICMR-NICD.</i>	“Substance abuse among Young People in India- Approaches at Curbing the Menace.”	<p>Objective: This paper explores the pattern, trends and extent of substance abuse among children in India.</p> <p>Method: Review of research studies and field based observations of the marginalized drug-addicted children in collaboration with an NGO bestowed with the responsibility of carrying out the Ministry supported Drug De-Addiction and Integrated Child Protection</p>	<p>Conclusion: 40% of the high risk substance abusers are below 18 years of age. Teenagers in WB, Andhra Pradesh, U.P. and Haryana are using gateway drugs. Children from Low economic status take up smoking every year.</p> <p>Suggestions: There is a requirement for intervention to manage the substance abuse determinants in the Indian context. There is a need to focus beyond the interventions of the bio-medical</p>

				Scheme. It also addresses challenges of substance abuse.	and behavioural modification approach.
20.	Sahu, K.K., & Sahu, S. (2012)	<i>Bangabasi Academic Journal.</i>	“Study on Substance Abuse: Causes and Consequences.”	<p>Objective: Exploring the menace of substance abuse in the Indian youngsters.</p> <p>Methodology: Systematic literature review of research papers and relevant articles.</p>	<p>Results: Abuse of substances affect all the segments of the Indian society. Use of alcohol, tobacco and other drugs is a wide spread occurrence among the youngsters. Psychoactive drug abuse is an issue of national importance. Substance abuse is a major concern as it is a public health hazard. Substance abuse is rising at an alarming rate globally with worsening health, increased criminal activity, decreased productivity, degrading</p>

					relationships, descending societal and moral values. The biggest target of the threat of substance abuse are the vulnerable youngsters.
21.	Murthy, P., Manjunatha, N., Subodh, B.N., Chand, P. K., & Benegal, V. (2010)	<i>Indian Journal of Psychiatry.</i>	“Study on the substance use and addiction research in India.”	Objective: This paper examines research on substance use and related disorders in India. Method: Online systematic review of the ‘Indian Journal of Psychiatry’ was carried out. It included articles pertaining to reviews of substance use, case studies and reports having significant implications. Review	Results: Relevant publications are found in IJP-200. 537 International journals relating to substance abuse were found. Studies between 1968-2000, primarily focused on alcohol abuse. Prevalence of overall substance use was recorded at 6.9/1000 for urban India and rural rates of 5.8 and 7.3/1000 population. The rate of abuse among men was about 12% and

				includes research sites like Medlar (1992-2009) and Pubmed (1950-2009). Epidemiology and clinical issues like diagnosis, psychopathology and comorbidity were studied.	among women was about 2%.
22.	Ahmad, N., Bano, R., Agarwal, V.K., & Kalakoti, P. (2009)	<i>Pravara Medical Review.</i>	“Study on substance abuse in India.”	<p>Objective: The objective is to analyse the substance abuse epidemic in India which encompasses the youngsters.</p> <p>Method: Qualitative study of literature related to the problem of abuse of drugs in the country.</p>	<p>Findings: Drug abuse among adolescents is at an all-time high. About 50% of boys have abused a substance by the time they reached the 9th grade. Cannabis and heroin are the most frequently abused in India. According to statistics, the most commonly abused substance is alcohol followed by cannabis. Users</p>

					of alcohol include subjects as young as 15 year old. In U.P., the most consumed substance was alcohol (82.5%) followed by cannabis (16.1%). All these have an adverse effect on the socio-cultural and economic conditions as well.
23.	Naskar, N.N., & Bhattacharya, S.K. (Jan,1999)	<i>Journal of Indian Medical Association.</i>	“A Study on Drug Abuse among the undergraduate medical students in Calcutta.”	<p>Objective: To study the prevalence of drug abuse among the undergraduate medical students in Kolkata.</p> <p>Method: The UG students in two medical colleges of Kolkata were surveyed.</p>	<p>Findings: The prevalence rate was 48.9% and 27.9%. One interesting fact that surfaced was that the rate of drug abuse increased with each advancing academic year i.e. 24% in the first year to 74.4% in the final year. The usage among the boys (about 60%) was</p>

					significantly higher than that among the girls (26%). Those living in hostels were found to be more frequently using drugs compared to the non-hostellers.
24.	Das, Indira (1993)	<i>Drugs and Substance Abuse Problems</i>	“Drug cognizance of late adolescent school students in Kolkata.”	Objective: To understand the mentality of those youths who had knowledge of drugs, acquaintance with drug addicts, lived in the social environment with social permissibility for drug taking and with availability of drugs in the market but kept themselves aloof from developing drug habits and comparing them with youths who are	Findings: 39% boys and 36% girls had the experience of different stimulant drugs and narcotic substances. Greater percentage of them had to live with addicts in their primary group life and had acquaintance with drug addict contemporaries and senior youths in the community- comparatively higher in frequency than the low cognizant group. High cognizant

				<p>drug addicts against certain approved indicators like nature of drug cognizance, locus of behaviour control, personality characteristics and values of life.</p> <p>Method: 480 boys and 480 girls were selected randomly from 36 Higher Education schools, equiproportionately scattered over the North, South and Central zones of Calcutta (Kolkata). They were students of H.S. school leaving class and belonged to age-range 18-19 years. Drug Abuse Information</p>	<p>students were found with the following personality characteristics- less participating, less emotionally stable. Only 6% boys and 5% girls of low cognizant group had one or two accidental experience of drug-taking. They were highly sociable and emotional.</p> <p>Conclusion: The student population was inquisitive about the harmful effect and health hazards of drug abuse. 14% were recognized as high cognizant group, 68% were the moderately cognizant group and 18% students were described as the low cognizant</p>
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				Schedule (locally built) and Drug Cognizance Questionnaire (locally constructed and standardized) were used for data collection.	group or risk free group.
25.	Khan, M. Z., & Unnithan, N.P. (1979)	<i>National Library of Medicine.</i>	“Sociocultural differences between former and current users of psychoactive drugs in a sample of college students.”	<p>Objective: To study the sociocultural factors that differentiate previous drug users from drug users who are currently using drugs among the college youth.</p> <p>Method: The sample consisted of both sets of drug using and non-drug using urban college students.</p>	<p>Findings: There was little difference between the two sets as they belonged to a similar social milieu. Drug users who stopped abusing drugs were primarily belonging to the middle/lower socioeconomic status and had drug abstaining family members. They included junior students enrolled in professional courses. It was their personal decision to give up drugs</p>

					prompted by their family members' influence and their own drug experience. This is how former users differed from the current users.
26.	Dube, K.C., Kumar, A., Kumar, N., & Gupta, S.P. (1977)	<i>United Nations Office on Drugs and Crime.</i>	“Study on drug use among college students-an interim report.”	Objective: To analyse the pattern and extent of the non-medical usage of drug which might cause dependence among the PG students of colleges in Agra, Uttar Pradesh. Method: Survey method	Findings: Drug use was found to be the highest at 80.66% among the male medical students. The males were found to use substances like alcohol, barbiturates, Mandrax, Vesparax, Equanil, Librium, pain killers and cannabis. The female students mainly used painkillers. The main reason for drug use cited by majority of the students (50-59%) was to relieve stress and

					<p>feel relaxed. The common effects of drug abuse were sleepiness, sluggishness, giddiness, lack of concentration.</p> <p>Conclusion: A need for stringent measure to curb the menace of drug use was favoured.</p>
27.	<p>Chakrapani, V., & Bharat, S. (2023)</p>	<p><i>SMM-Mental Health.</i></p>	<p>“Mental Health in India: Sociocultural dimenions, policies amd programs- An introduction to the Indian Series.”</p>	<p>Objectives: To assess the mental health scenario in India with respect to the sociocultural dimensions, policies and progams.</p> <p>Method: Review of related literature.</p>	<p>Findings: There has been a rise in mental health issues like depression and anxiety due to socio-cultural transformations and decline in cultural and moral values. Prevalence of mental health disorders was higher among the females. Urbanization and pressure to excel at education were found to be the triggering factors. Stress,</p>

					stigma and discrimination leading to marginalization contribute to occurrence of mental health problems.
28.	Meghrajani, V. R., Marathe, M., Sharma, R., Potdukhe, A., Wanjari, M. B., & Taksande, A. B. (2023)	<i>PMCID.</i>	“Study on A Comprehensive Analysis of Mental Health Problems in India and the Role of Mental Asylums.”	Objective: To study the mental health scenario in India, the roadblocks, initiatives and the future steps to be taken for improving mental healthcare delivery. The study discusses the state of mental asylums and the associated challenges including stigmatisation, human rights concern, quality care and the requirement for alternative approaches to	Findings: Studies report high prevalence rates of 9.5 to 370 per 1000 people in India. This emphasizes the need for intervention to cater to the mental well-being of the population. Mental illness bears social stigma in Indian society resulting to discrimination and social isolation of those with mental health difficulties.

				<p>mental healthcare.</p> <p>Method: A comprehensive study of related literature on problems of mental healthcare in India was carried out. ‘PubMed’ and ‘Google Scholar’ were searched covering a wide range of studies.</p>	
29.	Guleria, P. (2022)	<i>International Journal of Indian Psychology.</i>	“Examining Depression among Male and Female College Students.”	<p>Objective: To study depression among the college students.</p> <p>Method: Hindi version of “Beck’s Depression Inventory” was administered on 80 students belonging to the age range of 20-22 yrs.</p>	<p>Findings: Depression was higher among the female students as the female students scored higher in the dimensions of dejection, worthiness, guilt and apprehension.</p>
30.	Dhyani, A.,	<i>PMCID.</i>	“Study on Strengthening	Objective: To study the	Findings: Emphasis on

	Gaidhane, A., Choudhary, S. G., Dave, S., & Choudhary, S. (2022)		Response Toward Promoting Mental Health in India: A Narrative Review.”	prevalent mental health situation in India. Method: A review of related literature was carried out using digital platforms like Google Scholar and PubMed database.	community mental health requirements. The essential elements for effecting change at the community level include public health initiatives, awareness and information dissemination, and educational and communication activities.
31.	Ransing, R., Kar, S. K., & Menon, V. (2021)	<i>Indian Journal of Psychological Medicine.</i>	“Mental Health Research in India: New Challenges and the Way Forward.”	Objective: The purpose of this paper is to discuss the potential influence of the new legislation on several components of mental health research. The report further dives into the obstacles and barriers related with mental health research in India.	Findings: According to “Mental Health Care Act 2017”, mental health researchers may get informed consent from the caregiver of the patients with psychotic disorder, schizophrenics, manic and severe depression, alcohol withdrawal symptoms and so on in their

				<p>Method: Related Literature Review</p>	<p>pursuit of mental health research. The consent of the “State Mental Health Authority (SMHA)” is required in this regard. The challenges faced comprise lacking adequate mental health practitioners, limited research training opportunities, low priority attributed by the government to mental health.</p> <p>Recommendations: Mental health practitioners should be provided exemption from getting approval from SMHA for research. Necessary support to mental health researchers should be</p>
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					<p>provided in order to clear regulations and procedures to enable them to focus on research. Professional organizations like the Indian Psychiatric Society can set guidelines for mental health researchers and stakeholders of SMHA pertaining to the review and approval of multi-state research proposal.</p>
32.	<p>Sakthivel, A., Kannappan, S., & Panicker, A. S. (2021)</p>	<p><i>Indian Journal of Community Medicine.</i></p>	<p>“Prevalence of Mental Health Problems among High School Students.”</p>	<p>Objective: A study was done to analyse the mental health condition of children in India and to discover the contributing factors affecting mental health.</p>	<p>Results: The study found at least 50% of the pupils had some type of mental illness. Depression (about 60%) and anxiety (about 64%) were prevalent followed by stress (39%).</p>

				<p>Method: A “cross-sectional study” was done among high school students, in the age group of 15-17 years, in a government aided school in Coimbatore over a period of 2 months.</p>	
33.	<p>Waghmare, R.D. (2018)</p>	<p><i>The International Journal of Indian Psychology.</i></p>	<p>“A Study of Mental Health among Male and Female College Students.”</p>	<p>Objective: The purpose of the study was to analyse the mental health of male and female college students and evaluate the gender difference with respect to their mental health.</p> <p>Method: 100 college students, (50 male and 50 female) were administered Jagdish and Srivastav’s “Mental Health Inventory”. The</p>	<p>Findings: Male college students were found to be mentally more healthy than the female students with regards to the mental health dimensions of “Perception of Reality”, “Autonomy”, “Group Oriented Attitudes”.</p>

				sample consists of 50% urban and 50% rural college students.	
34.	Malla, A., Joobar, R., & Garcia, A. (2015)	<i>Journal of Psychiatry and Neuroscience.</i>	“Mental illness is like any other medical illness: a critical examination of the statement and its impact on patient care and society.”	Objective: The first to coin the term “mental health” was Plato. It was defined as a reason controlled by emotion and assisted by temper. Griesinger, 200 years ago, emphasised that mental illness is related to illness of the brain. This paper discusses the causes underlying mental illness and its effects. The term mental illness should be treated like any other medical ailment having a biological basis.	Results: Mental disorders damage the core of an individual as he or she confronts events of different intensity. It transforms the person’s thinking, consciousness and perception of the self, others and the world. It is crucial that the individuality of each individual be appreciated and similarly the awareness of mental disease like any other medical ailment should be shared.

				<p>Method: Thorough study of research on biological psychiatry.</p>	
35.	<p>Kansal, A.K., & Bala, C. (2015)</p>	<p><i>Indian Journal of Applied Research.</i></p>	<p>“Relationship among Mental Health and Emotional Maturity of 10th class adolescents.”</p>	<p>Objective: To evaluate the association of mental health and emotional maturity of class 10 teenagers of Bhatinda District.</p> <p>Method: The sample consisted of 580 adolescents of the 10th class of Bhatinda District. The approach employed to acquire the sample was stratified random sampling. The tools used for data gathering were ‘Mental Health Battery’ (Singh & Gupta, 1983).</p>	<p>Findings: There is a strong negative link between mental health and emotional stability, social adjustment and independent determinants of emotional maturity.</p>

36.	<p>Majeed, T., Hopkins, G., Wang, K., Nepal, S., Votruba, N., Gronholm, P., Gurung, D., Semrau, M., Bagade, T., Farina, N., Musyimi, C., Pingani, L., Breuer, E., Lund, C., Thornicroft, G., & Evans-Lacko, S. (2024)</p>	<p><i>Global Health Research and Practice.</i></p>	<p>“Anti-stigma interventions in low income and middle income countries: a systematic review.”</p>	<p>Objective: To review anti-stigma interventions taken in low and middle income countries across diverse identities and health conditions. Method: 10 online database review of literature.</p>	<p>Findings: Diverse segments of population received intervention which resulted in stigma-related addressal of issues. The positive outcomes, that were reported, clearly highlight the need for interventions to reduce stigma.</p>
37.	<p>Campbell, F., Blank, L., Cantrell, A.,</p>	<p><i>BMC Public Health.</i></p>	<p>“Factors that influence Mental Health of University and College students</p>	<p>Objective: To discover parameters associated to mental health</p>	<p>Findings: From the 31 studies that were examined, the characteristics</p>

	Baxter, S., Blackmore, C., Dixon, J., & Goyder, E. (2022)		in the UK: A Systematic Review.”	of students in higher education in the United Kingdom. Method: A systematic review of observational studies was done for evaluating factors related with student mental well being and bad mental health. Five databases were intensively searched. Studies completed in the UK have been included (2010-2020).	consistently related with higher risk of having poor mental health included pupils with a history of traumatic experiences in childhood. Factors supporting wellbeing included helpful and strong social networks. Students who are well acclimated to the adjustments they encounter while transitioning to higher education report improved mental health.
38.	Schauman, O., Macleod, A.K., Thornicroft, G., & Clement, S. (2019)	<i>Stigma and Health.</i>	“Mental illness related discrimination: The role of self-devaluation and anticipated discrimination for decreased well-being.”	Objective: To study the correlation between the discriminatory behaviour that people with mental illness experience, and	Findings: High degree of discrimination was found to be associated with lower well-being, This was characterized by stigmatization

				<p>their well-being.</p> <p>Method: Data was collected from specialised mental healthcare services in South London, U.K.</p>	<p>and hopelessness. These were again associated with fear of negative stereotypes and demoralization.</p> <p>Suggestions: Discrimination against mental illness is an area which is under researched and needs to be addressed to enhance the state of well-being of individuals having mental health issues.</p>
39.	<p>Wainberg, M.L., Scorza, P., Shultz, J.M., Helpman, L., Mootz, J.J.J., Neria, Y., Bradford, J.M., Oquendo, M.O., &</p>	<p><i>Current Psychiatry Reports.</i></p>	<p>“Challenges and Opportunities in Global Mental Health: a Research to Practice Perspective.”</p>	<p>Objective: To review how accessible mental health services are in low and middle income countries, to evaluate the mental health gap in services being provided, identification of the challenges and scope for</p>	<p>Findings: There exists a treatment gap in the mental health sector. Globally, there is a need to enhance the access to mental health services of high quality. Research capacity needs to be increased and focussed on</p>

	Arbuckle, M.R. (2017)			further research. Method: Review of related literature	mental health issues. Suggestions: The need of the hour is to build the capacity for more research, clinics and policies to overcome barriers.
40.	Pedrelli, P., Nyer, M., Yeung, A., Zulauf, C., & Wilens, T. (2014)	<i>Academic Psychiatry.</i>	“College Students: Mental Health Problems and Treatment Considerations.”	Objective: A study on the concerning problems of mental health among the college students on their psychological health as they cope with academic pressure. An attempt is made to summarize the treatments given to the college students with mental health problems and assessing the age of onset of their psychopathology.	Findings: Eating disorders like bulimia, anorexia and binge eating are a major health issue related with the mental health issue of the youngsters as they cope with academic, social and peer pressures. Depression (36%), anxiety disorders (15%), panic are often the common mental health issues. However the students seeking intervention and treatments are

				<p>Method: An online survey of 2822 college students' mental health.</p>	<p>quite low owing to the social stigma attached with mental health issues. Another important finding was that more women receive treatment compared to men (39% vs 30%).</p> <p>Suggestions: Technology based programs could be employed for screening as well as for treatment of the college students dealing with mental health issues as they shy away from seeking support as they worry about what the others would think.</p>
41.	Srivastava, A. (2024)	<i>International Journal of Educational Research.</i>	“Impact of substance abuse on mental health among students in India.”	<p>Objective: To study the impact of substance abuse on the psychological</p>	<p>Findings: 21.8% students abuse substances with the prevalence higher among the urban students. Male</p>

				<p>well-being of the students.</p> <p>Methodology: Secondary data from databases like PubMed and Science Direct was studied. The time frame of 2015-2023 was selected for carrying out the study.</p>	<p>students abuse substances more than the female students however the gap is found to be closing with each passing year due to cultural and social factors playing a determining role in influencing the behaviour of the young generation. Alcohol and tobacco are the leading substances of abuse. 18-20% students having substance use disorder as well as mental health disorders.</p>
42.	<p>Ali, A., Gujar, N.M., & Deuri, S.K. (2024)</p>	<p><i>Journal of Indian Association for Child and Adolescent Mental Health.</i></p>	<p>“Prevalence of Mental Health Problems and Substance Use among school going Adolescents of Tribal Ethnicity: A Preliminary</p>	<p>Objective: To assess the prevalence of mental health issues and substance abuse among the tribal adolescents.</p>	<p>Findings: Highest prevalence of mental health issues were found among the adolescents of Arunachal Pradesh (41.9%).</p>

			Study from N.E. India.”	Method: A descriptive study design was adopted and was carried out across the 5 N.E. states. Sample was collected from schools based on convenience sampling. Two schools were selected per state from areas with high tribal population. 983 adolescents participated in the study.	Manipur reported lowest prevalence at 14.22%. Substance abuse was highest in Nagaland at 29.44%. 28.04% of the students in Meghalaya abused marijuana and cocaine.
43.	Negi, M. (2023)	<i>Journal of Emerging Technologies and Innovative Research.</i>	“Substance Abuse’s Effect on Mental Health: An Assessment of Himachal Pradesh.”	Objective: To study the relationship between mental health and substance abuse emphasizing the correlation, consequences and significance of addressing them collectively. Method: Himachal	Findings: Substance abuse problems coexist with severe mental illnesses. Environmental factors like stress and unfavourable life events contribute to the dual disorder of substance abuse and mental health. Drug trafficking via

				<p>Pradesh was selected as the area of study. Meta analysis technique was adopted to quantitatively analyze the data. Websites like Google Scholar and Scopus indexed journals were searched for data on substance abuse and mental health in Himachal Pradesh. Meta analysis was carried out to analyze the data obtained from 22 independent studies.</p>	<p>Pakistan occurs at an alarming rate in Himachal Pradesh due to its geographically vulnerable location. LSD, Morphine and Chitta are the common drugs. 3.2% of the population uses charas and Ganja in Himachal Pradesh. Severe mental illness and substance abuse was found to coexist. The stigma associated with the dual disorder leads to marginalization.</p>
44.	<p>Singh, S., Singh B., & Pal, Y. (2017)</p>	<p><i>Indian Journal of Psychological Medicine.</i></p>	<p>“A Review of Indian Research on Co-occurring Psychiatric Disorders and Alcohol Use Disorders.”</p>	<p>Objective: The study is meant to review, in a systematic manner, Indian literature on alcohol use disorders and</p>	<p>Findings: The research put light on the fact that excessive usage of alcohol has been highlighted as a key contributor to the</p>

				<p>psychiatric diseases.</p> <p>Method: Relevant literature on co-occurring psychiatric problems and alcohol problems is investigated systematically utilising several search platforms like Google Scholar, digital archives etc.</p>	<p>worldwide burden of disease.</p> <p>According to statistics, alcohol misuse accounts for 5.9% fatalities globally. Alcohol usage has been connected with increased morbidity and mortality at the worldwide level.</p>
45.	Singh, V. P. (2002)	<i>Substance Abuse and Mental Health Services Administration.</i>	“Study on the personality of drug users in relation to their value and mental health.”	<p>Objective: To study and compare the different personality factors of types of drug users.</p> <p>Method: The Multi-variables personality inventory was administered on 200 heavy, 200 occasional and 200 non-drug users.</p>	<p>Results: Non-drug users showed better social desirability than heavy and occasional users of drugs. The occasional drug users had high extraversion than non-drug users and heavy drug users. The heavy drug users are not conscious of their psychological</p>

					<p>difficulties and have excessive dogmatism.</p> <p>Non-drug users and occasional drug users have high ego-ideal than heavy drug users. Non drug users have great self confidence and high domineering personality.</p> <p>Non-drug users have significantly greater self-confidence, empathy, dominance, have low emotional instability, more autonomy, better mental health, high social maturity than drug users.</p>
46.	Seabra, D.S. (2025)	<i>Interface (Botucatu).</i>	“History of psychotropic drugs: reopening question.”	Objective: To understand the biochemical effects that the psychotropic drugs produce on mental health.	Findings: The study reflects the use and impact of psychotropic drugs on mental health treatment and highlights the multiplicity

				<p>Method: Historical review of psychotropic drugs and its link with psychiatry.</p>	<p>of effects that the psychotropic drugs can have.</p>
47.	<p>Baingana, F., al'Absi, M., Becker, Anna E., & Pringle, B. (2015)</p>	<p><i>Nature.</i></p>	<p>“Global research challenges and opportunities for mental health and substance use disorder.”</p>	<p>Objective: This paper looks at the challenges occurring due to the rising health, economic and social burdens connected with mental health and substance use disorders.</p> <p>Method: PubMed and Google Scholar databases.</p>	<p>Findings: There is focus on research for global mental health and drug use disorders primarily to respond to the unmet requirements in poor and medium income nations.</p> <p>Innovation in service delivery is showing encouraging outcomes and is enhancing the quality of care as well as access.</p> <p>The Social Development Goals established by UN (2015) recognises mental health as an element of</p>

					universal health coverage.
48.	Braslow, J.T., & Marder, S.R. (2019)	<i>Annual Review in Clinical Psychology.</i>	“History of Psychopharmacology.”	<p>Objective: To understand psychiatry’s dependency on psychiatric drugs in the care of patients.</p> <p>Method: Historical review of related literature</p>	<p>Findings: The success of psychopharmacology was not because of the effective pharmaceuticals but a consequence of a complicated combination of political, economic circumstances, pharmaceutical marketing, breakthroughs in basic sciences and changes in the mental health-care system.</p>
49.	Okorie, C., Caroline, O., Ben, O.J., & Johnson, B.O. (2020)	<i>International Journal of Engineering Applied Sciences and Technology.</i>	“Statistical Analysis of the Effect of Drug Abuse on Academic Performance in Wukari.”	<p>Objective: The study tries to establish the relation between poor academic performance and use of drugs. The purpose for this research is because it has</p>	<p>Results: It was observed that drug abuse has effect on student’s academic performance.</p>

				<p>been seen that anytime students begin to involve themselves in drug usage, they start to perform poorly in the academics.</p> <p>Method: Data was collected through distribution of questionnaire in Wukari. The questionnaires given out were 215 and the number realized was 182. Chi-square was used for the analysis.</p>	
50.	Baptiste-Roberts, K., & Hossain, M. (2018)	<i>Journal of Addiction and Health.</i>	“Socioeconomic Disparities and Self-reported Substance Abuse-related Problems.”	<p>Objective: To find whether substance abuse differs with respect to the socioeconomic status.</p> <p>Method: The 2013 ‘National Survey on Drug Use and Health’ was</p>	<p>Findings: Participants belonging to “lower socioeconomic status” were found to be over using illicit drugs.</p>

				administered on participants who abused illicit drugs.	
51.	Hsu, J., Lin, J., & Tsay, W. (2014)	<i>Journal of Food and Drug Analysis.</i>	“Analysis of drug abuse data reported by medical institutions in Taiwan from 2002 to 2011.”	<p>Objective: To review and analyse the data of drug abuse retrieved from the database of the “Taiwan Surveillance System of Drug Abuse and Addiction Treatment” from 2002 to 2011.</p> <p>Method: Review of related literature based on the database of drug abuse cases as provided by the Taiwanese medical institutions.</p>	<p>Findings: The top 5 reported drugs which are abused by medical institutions was found to be heroin and methamphetamine. The abuse of heroin was significant but has thereafter exhibited a declining trend. Ketamine and zolpidem are drugs which are increasingly being abused and have displayed growing tendencies. MDMA abuse has re-emerged and has increased progressively. Factors responsible for drug misuse were substance dependence, peer influence and stress alleviation.</p>

					It should be emphasised that the availability of drugs by means of the Internet has expanded yearly, and the same requires regular monitoring.
52.	Patrick, Megan E., Wightman, Patrick., Schoeni, Robert F., & Schulenberg, Johne. (2012)	<i>PMID.</i>	“Socio-economic status and Substance use among Young Adults: A Comparison Across Constructs and Drugs.”	Objective: To find out if socio-economic status and substance misuse are related. The most important socio-economic status indicator is the family SES, for example income, family wealth and education of parents. The major aim of this study is to find out the correlation between the SES and the usage of substance among the college going adults.	Results: The tendency to smoke in young adults is correlated with lower childhood family “socio-economic status”. The consumption of alcohol and marijuana use in young adults was found to have association with greater childhood household socioeconomic status, even after adjusting for confounders.

				<p>Method: Data was gathered from a study of USA families that contains data from parents and children. The data was gathered from a sample of young adults, in the age group of 18–23 years old in 2005 and 2007. The background on the basis of socioeconomic variables was determined on the basis of education of the parents, income and wealth (birth to age 17 years).</p>	
53.	McCabe, S.E., & Boyd, C. J. (2005)	PMID.	“Sources of prescription drugs for illicit use.”	<p>Objective: This is an exploratory study that studied the sources of 4 types of abusable prescription drugs abused by the</p>	<p>Results: The results suggested that about eighteen sources of prescription medicines can be identified. The students pursuing undergraduate studies had received</p>

				<p>undergraduate students.</p> <p>Method: A web-based survey was administered on a random sample of 9161 UG students, studying at a public research institution in Midwestern.</p>	<p>medicines from peer groups and reported comparatively greater rates of alcohol and drug use than students who did not indulge in prescription drugs in an illegal manner, or students who had acquired medication from family sources.</p> <p>Conclusion: The findings show compelling evidence of undergraduate students receiving prescription medicines, that are susceptible to abuse, from their friends. There is a need to enforce greater preventive measures to limit the unlawful use of prescription drugs.</p>
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CHAPTER III

RESEARCH METHODOLOGY

3.1 INTRODUCTION

The research is based on the study of drug and substance abuse by the college going students at the UG level in urban colleges in the metropolitan city of Kolkata. The research is also aimed at assessing the mental health of the students and find out if there is any correlation between the drug and substance abuse habit of the students and their mental health. The research also aims to find out whether there is an association between the socio-economic correlates of the students and their drug and substance abuse habit. The necessary tools for collecting the relevant data were selected. The relevant details of the study are given as follows:

3.2 RESEARCH DESIGN

Descriptive survey method was used to collect the data. The research design constituted of mixed method of both qualitative and quantitative methods.

3.3 POPULATION OF THE STUDY

The students studying at the UG level in the urban general degree and professional degree colleges in the metropolitan city of Kolkata constituted the population of the study.

3.3a INSTITUTIONS VISITED

Table showing the list of institutions visited for sampling

GENERAL DEGREE COLLEGES	PROFESSIONAL DEGREE COLLEGES
WOMEN'S CHRISTIAN COLLEGE	SURENDRANATH LAW COLLEGE
ASHUTOSH COLLEGE	NUJS
BIDHANNAGAR COLLEGE	IEM
HERITAGE COLLEGE	KOLKATA MEDICAL COLLEGE
SCOTTISH CHURCH COLLEGE	NRS MEDICAL COLLEGE
DESHBANDHU COLLEGE FOR GIRLS'	HERITAGE INSTITUTE OF TECHNOLOGY
BEHALA COLLEGE	JADAVPUR UNIVERSITY
BASANTI DEVI COLLEGE	Dr. R. AHMED DENTAL COLLEGE
ST. XAVIERS COLLEGE	TECHNO INDIA COLLEGE

TABLE No. 3.1**3.4 SAMPLE**

For the present study, the researcher sought responses from 350 undergraduate students studying in general and professional degree courses at the UG level in colleges of Kolkata. 300 samples were finally selected as the others were discarded for reasons like incomplete data or because of their reluctance to participate in the survey or their discomfort towards providing personal information. Out of the 300 respondents, 150 are boys and 150 are girls. 146 were studying in general degree courses and 154 were studying in professional degree courses. The age group of the respondents ranged from 18-28 years.

Socio-Demographic Characteristics of the sample**Table showing the demographic characteristics of the sample**

Independent Variables		Total Number (300)	Percentage %
GENDER	Male	150	50%
	Female	150	50%
AGE	18-20	272	90.67%
	21-23	26	8.67%
	24-28	02	0.67%
COURSE OF STUDY	General	146	48.67%
	Professional/Technical	154	51.34%
ACCOMMODATION	With parents	193	64.34%
	College hostel	70	23.34%
	Self	09	3%
	Rented house	21	7%
	With relatives	02	0.67%
	PG	05	1.67%
BIRTH ORDER OF RESPONDENT	Elder child	62	20.67%
	Middle child	05	1.67%
	Younger child	78	26%

	Only child	155	51.67%
FATHER'S QUALIFICATION	Madhyamik	16	5.34%
	Higher Secondary	53	17.67%
	Graduate	187	62.34%
	Masters	16	5.34%
	PhD	02	0.67%
	Professional Degree	20	6.67%
	Primary	05	1.67%
	Unschoolled	01	0.34%
MOTHER'S QUALIFICATION	Madhyamik	47	15.67%
	Higher Secondary	61	20.34%
	Graduate	151	50.34%
	Masters	22	7.34%
	PhD	01	0.34%
	Professional Degree	09	3%
	Primary	04	1.34%
	Unschoolled	05	1.67%
FATHER'S OCCUPATION	Service	137	45.67%
	Business	138	46%
	Daily income	20	6.67%
	Retired	05	1.67%
MOTHER'S OCCUPATION	Service	36	12%
	Business	18	6%
	Homemaker	246	82%
FAMILY INCOME	Below Rs 10,000	36	12%
	Rs 10,000-Rs 20,000	65	21.67%
	Rs 20,000 and above	199	66.34%

TABLE No.3.2

3.5 SAMPLING TECHNIQUE

Samples were collected using random purposive sampling technique. The sample population of the study consisted of 300 respondents

3.6 VARIABLES

3.6.1 DEPENDENT VARIABLES

- a) Drug and Substance abuse by students studying in the urban based UG colleges in Kolkata
- b) Mental health of students studying in the urban based UG colleges in Kolkata

3.6.2 INDEPENDENT VARIABLES

- i) Gender
- ii) Age
- iii) Course of study
- iv) Accommodation
- v) Birth order of respondent
- vi) Qualification of father
- vii) Qualification of mother
- viii) Occupation of father
- ix) Occupation of mother
- x) Family income

3.7 TOOLS OF DATA COLLECTION

In a research study, the tools or instruments are important elements for quantitative study. For collection of relevant data from the respondents, the researcher used Drug and Substance Abuse Survey Questionnaire recommended by WHO. A standardized socio-demographic questionnaire or demographic data sheet was also administered to collect data related to the socio-demographic attributes of the respondents. The Mental Health Inventory developed by Dr Jagdish and Dr A. K. Srivastav (1983) was used to assess the mental health of the respondents.

3.7.1 Demographic Data Sheet:

Demographic Data Sheet is comprised of items seeking information about the students regarding their gender, age, course of study, accommodation, educational background of father, educational background of mother, occupation of parents, income of family etc.

3.7.2 WHO Questionnaire

A detailed demographic data sheet including the types of drugs used was also used for collection of relevant data.

3.7.3 Mental Health Inventory

The tool used for measuring the mental health of students studying in urban UG colleges in Kolkata was the standardized Mental Health Inventory by Dr Jagdish and Dr A.K. Srivastava (1983). This inventory has been prepared for the psychological investigation of the college students. It consists of a number of statements relating to feelings of oneself in everyday life. This scale consists of 56 items based on 6 dimensions: 1. Positive Self- Evaluation, 2. Perception of Reality, 3. Integration of Personality, 4. Autonomy, 5. Group Oriented Attitude, 6. Environmental Mastery.

The scale has four categories of response viz. always, most of the time, sometimes and never. The reliability and validity coefficients were found significant as the value of split-half reliability coefficient was $r=0.73$ and construct validity was $r=0.54$ which confirm the standardization of the scale. The present investigator established the validity of the tool by taking support from the three expert professors. Reliability of the scale was also tested by using split-half method.

There are four alternative responses for each statement. The respondents had to choose one of the four alternative responses i.e. Always, Most of the time, Sometimes and Never according to their choice and suitability indicating the frequency of their feelings and views. No statement was left unanswered.

The Mental health inventory explores the following dimensions of mental health:

- Positive self-evaluation
- Perception of reality

- Integration of personality
- Autonomy
- Group oriented attitude
- Environmental mastery

Scoring:

The mental health scale’s scoring is straightforward. According to the nature of the items, each item is calculated. The inventory consisted of 56 items, each of which was graded on a four-point scale ranging from always to never, with four being assigned to true keyed (positive) statements and one, two, three and four being assigned to false keyed (negative) claims. Subjects who score well have strong mental health, whereas those who score poorly have poor mental health.

Norms for Mental Health (Level/State) of students

	CATEGORY	MENTAL HEALTH	SCORE
		BOYS	GIRLS
Level or Score	Very Good	195.89 & above	196.02 & above
	Good	176.45-195.89	175.14-196.02
	Average	157.01-176.45	154.26-175.14
	Poor	137.57-157.01	133.38-154.26
	Very poor	Below 137.57	Below 133.38

3.8 DATA COLLECTION PROCEDURE

The Department of Education, Jadavpur University issued an authorization letter to the researcher to collect data. The current research was carried out in the metropolitan city of Kolkata. The samples were randomly selected from the different UG colleges in Kolkata. The researcher went to the colleges, met the Heads of the Institution and informed them about the purpose of the study. After receiving permission, the researcher met the respondents in small groups of 25-30. The questionnaire and the inventory were administered by the researcher personally. The respondents were told about the purpose of the research study. The researcher made the respondents comfortable, advised them to give truthful responses and assured them that their personal information shall be kept strictly confidential. The data will be used solely

for research purpose. Each sampled respondent was given a questionnaire and an inventory and instructed to complete it at their convenient pace. They were given a clear set of instructions and explained about the different parts of the questionnaire for eg the general information, the sociodemographic information, the information about drug and substance abuse. Similarly, they were instructed about the Mental Health Inventory and told about the alternatives of the items. They were reminded that they were needed to respond to all the items of both the questionnaire and the inventory. The researcher constantly monitored and answered the queries of the respondents while they answered the questionnaire. The researcher collected the questionnaires from the respondents.

3.9 STATEMENT OF THE PROBLEM

A knowledge gap exists as far as the trend of drugs and substance abuse in Kolkata is concerned. A substantial percentage of the metropolitan population indulges in drug and substance abuse which is not reflected in the national and international surveys and much needs to be explored and unearthed especially in the post Covid period. There is dearth of research conducted on the relation between substance use disorder (SUD) and mental health among the youth and the present research is aimed at exploring and making up for the paucity on the same and focusing on the drug and substance abuse and consequential mental health problems among the college students at the UG level in Kolkata.

3.10 OBJECTIVES OF THE STUDY

1. To study the trend and prevalence of drug and substance abuse among urban college students in Kolkata at the UG level.
2. To study the probable causes of drug abuse.
3. To study the drugs commonly used by the students in campus.
4. To study the mental health of the undergraduate students.
5. To study the impact of drug and substance abuse on the mental health of the students.
6. To study the socio-economic correlates of substance abuse.

3.11 RESEARCH QUESTIONS

- What is the extent of drug and substance abuse among the college students in Kolkata at the UG level?

- Is there any relationship between the drug and substance abuse by the students with their socio-demographic characteristics?
- What are the commonly used drugs?
- What are the probable causes of drug abuse?
- Is there any difference in the prevalence of drug and substance abuse among the general degree and professional degree students studying at the UG level?
- What is the relation between drug and substance abuse and mental health of the college students at UG level in Kolkata?
- Do students have mental health problems?

CHAPTER IV

RESULTS AND ANALYSIS

Analysis of the data was conducted in the following manner:

- (a) Graphical representations of the sample demographics were arranged according to the variables under study. Using descriptive statistics percentage, the results were organized.
- (b) Overview of the drugs and substances abused by the addicted respondents is represented with the help of tables and bar charts.
- (c) The hypotheses were tested using descriptive statistics, mean, standard deviation (SD) and inferential statistics, independent t-test, one way analysis of variance (ANOVA) and chi-square test.
- (d) Item wise analysis of the responses of the respondents to the Mental Health Inventory items was carried out.
- (e) The test of significance of the variables: mental health dimensions vs gender is carried out by the Mann-Whitney Test.

GRAPHICAL REPRESENTATION OF SAMPLE DEMOGRAPHIC VARIABLES

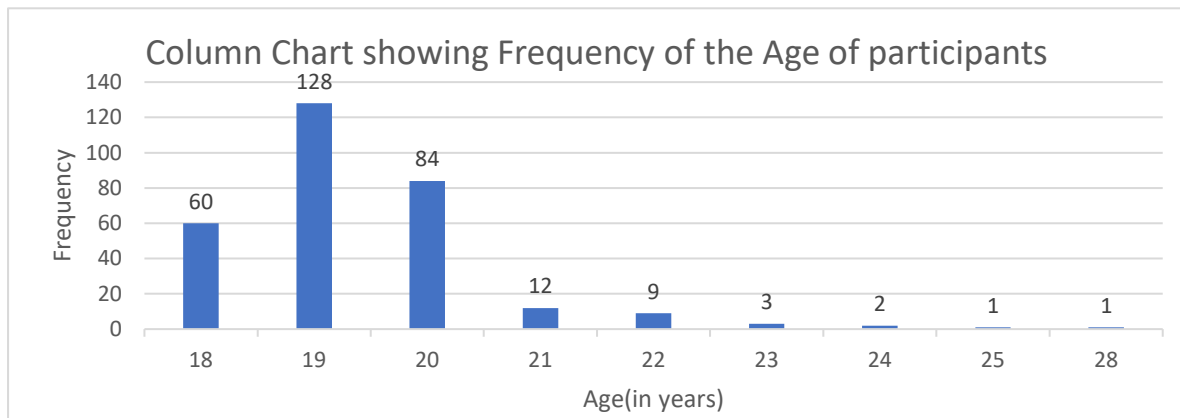


Figure 4.1.1

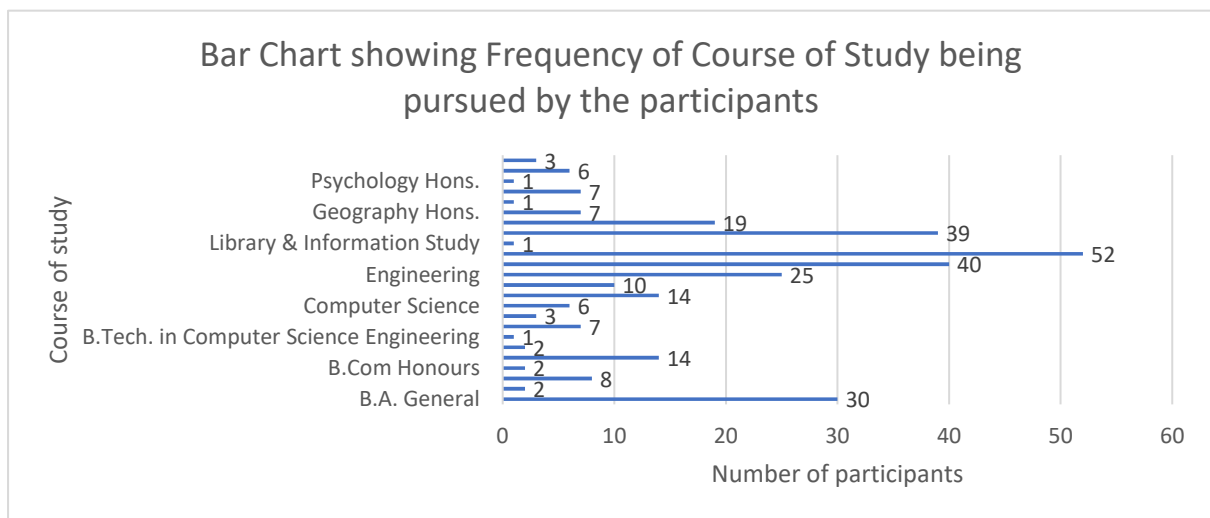


Figure 4.1.2

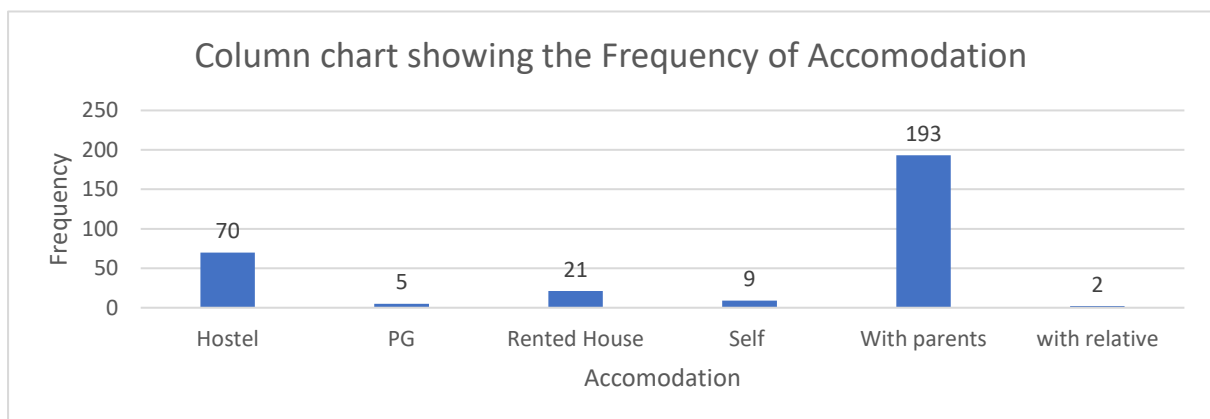


Figure 4.1.3

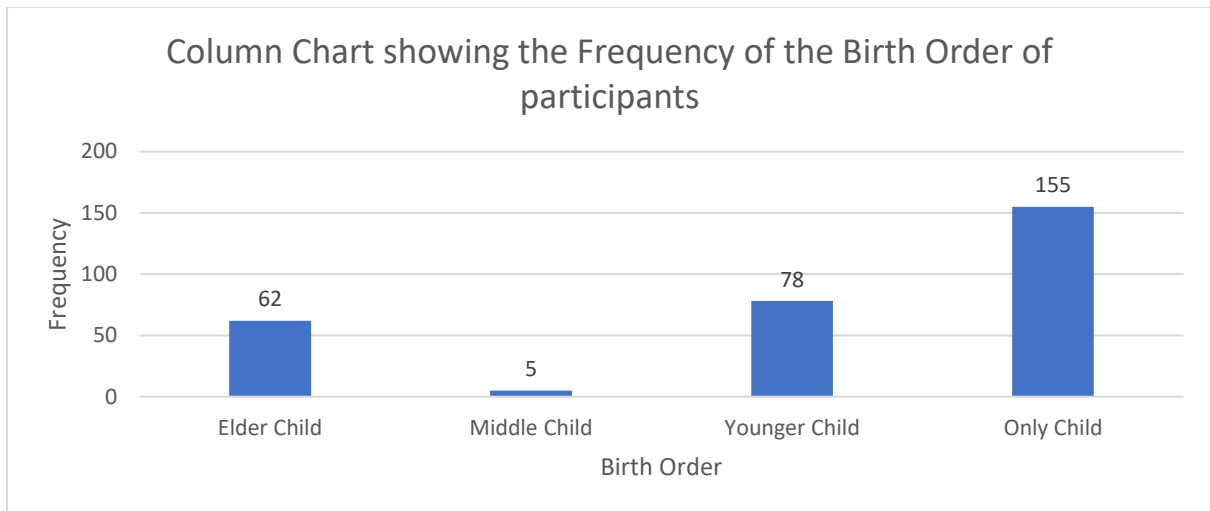


Figure 4.1.4

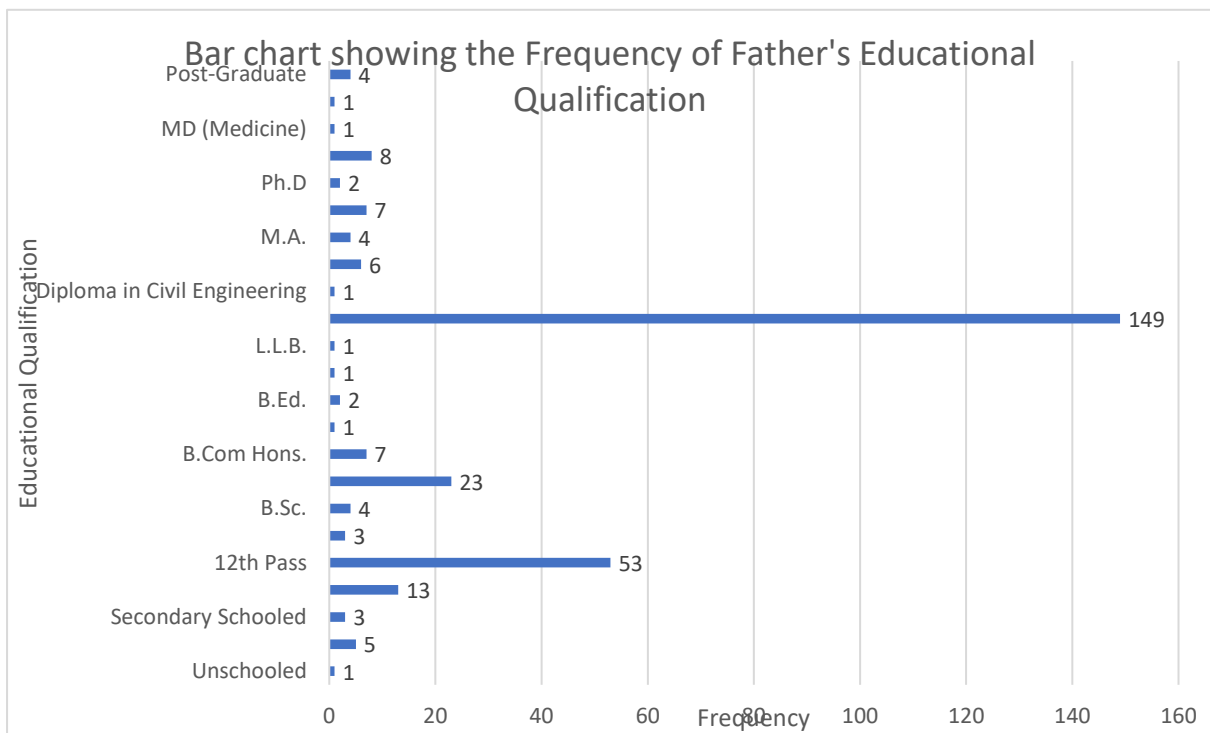


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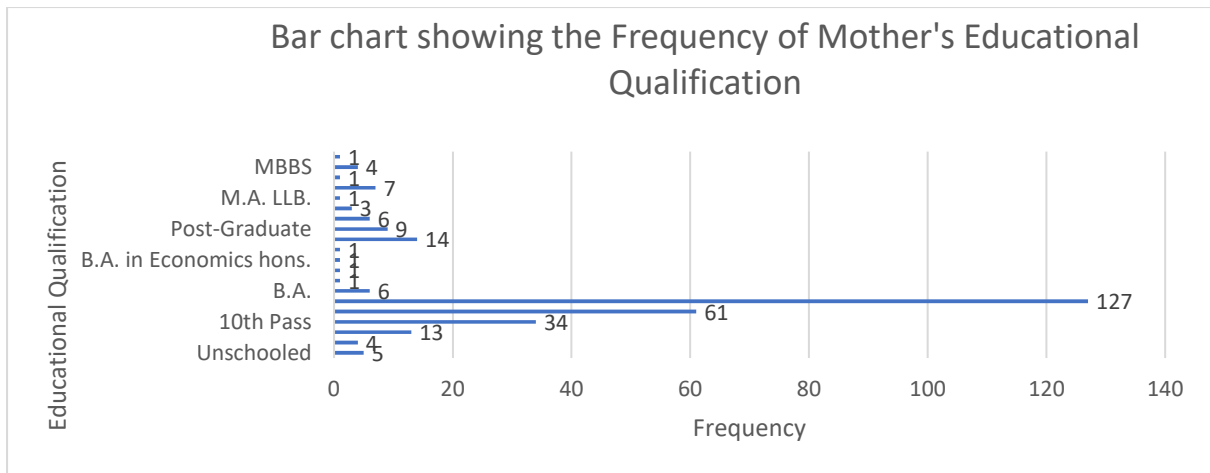


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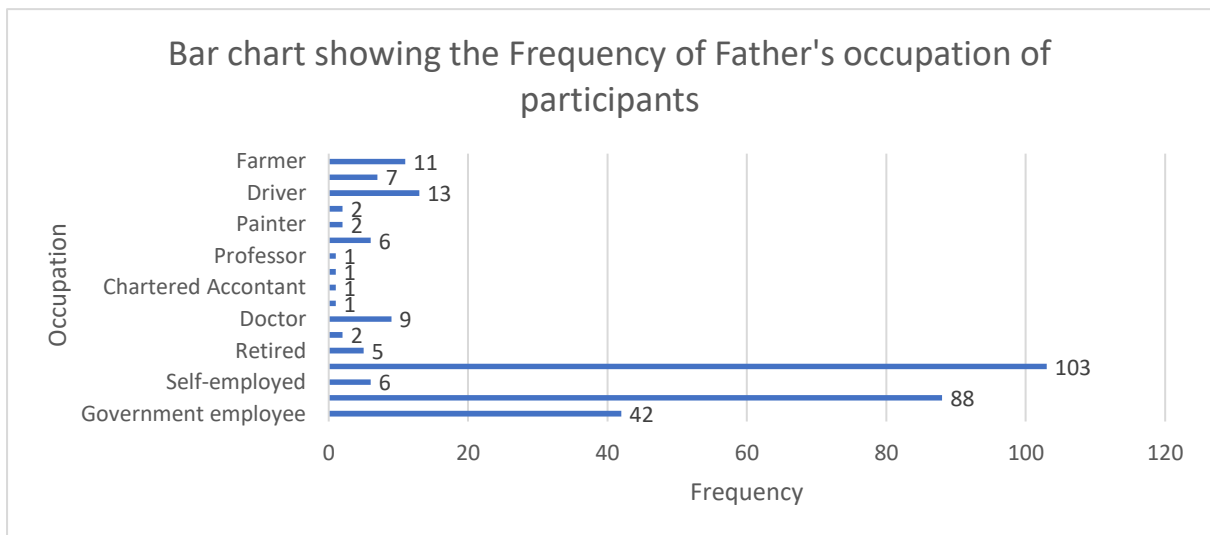


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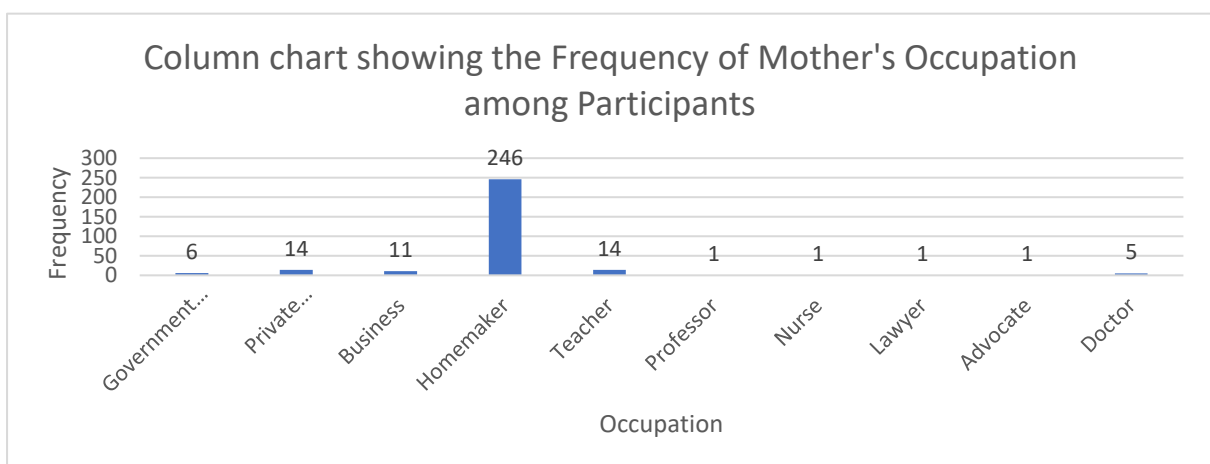


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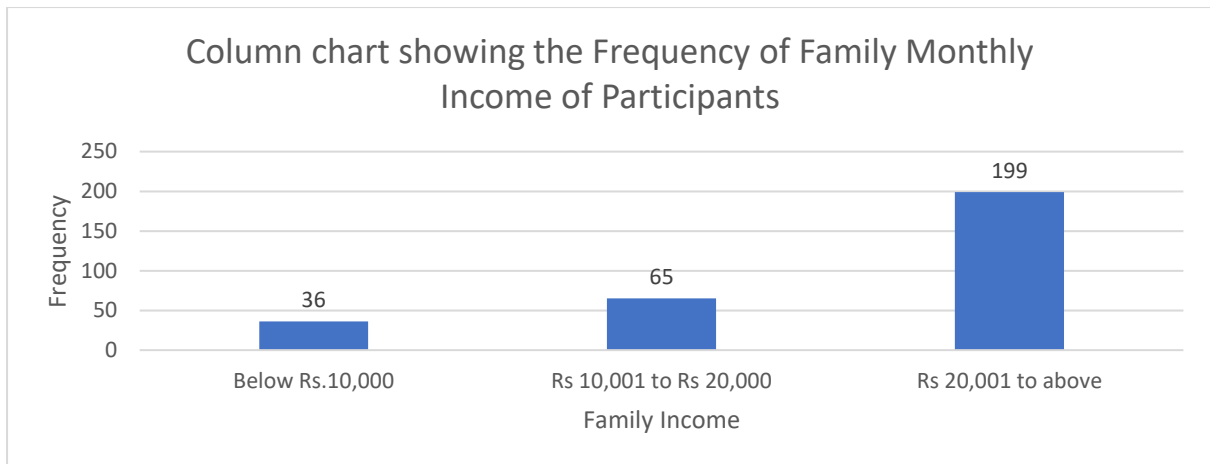


Figure 4.1.9

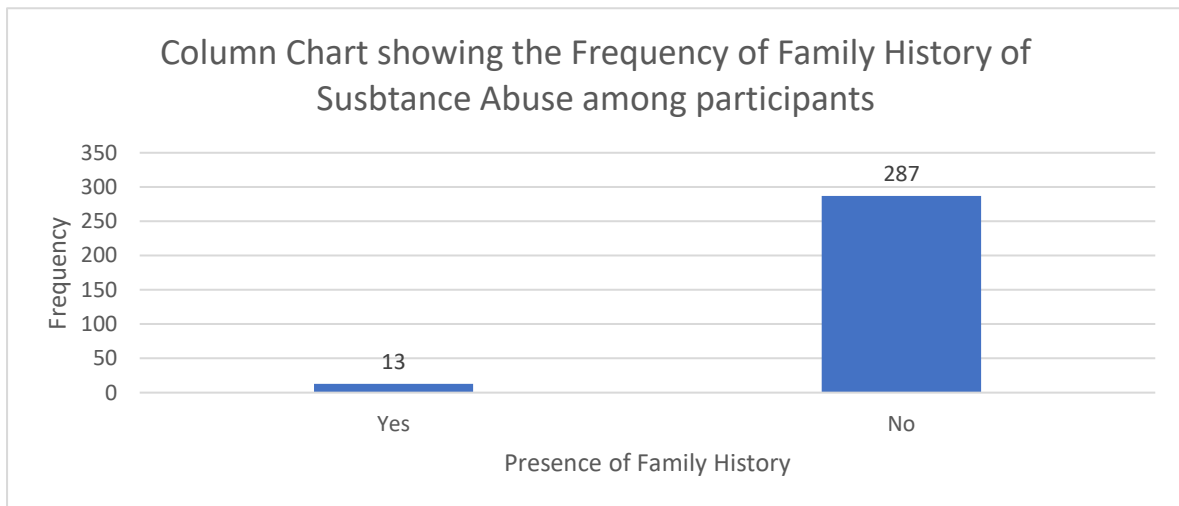


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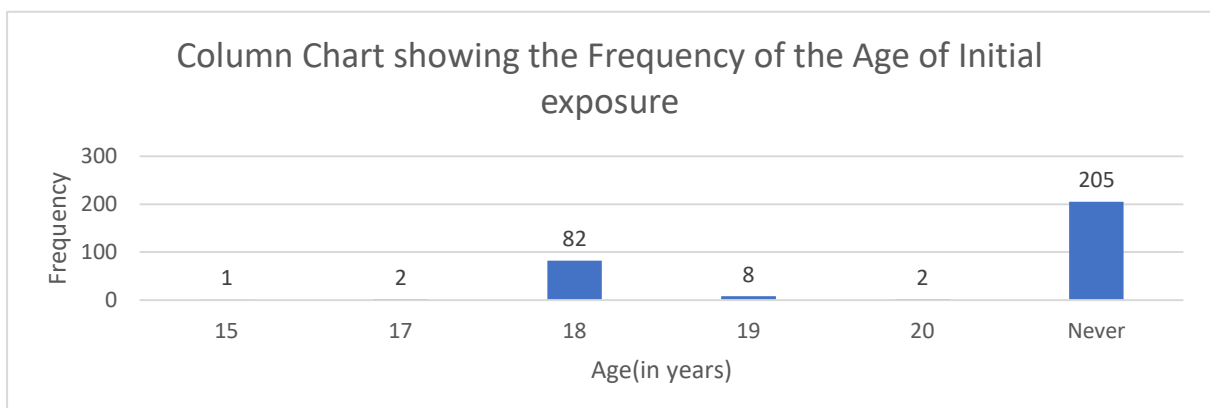


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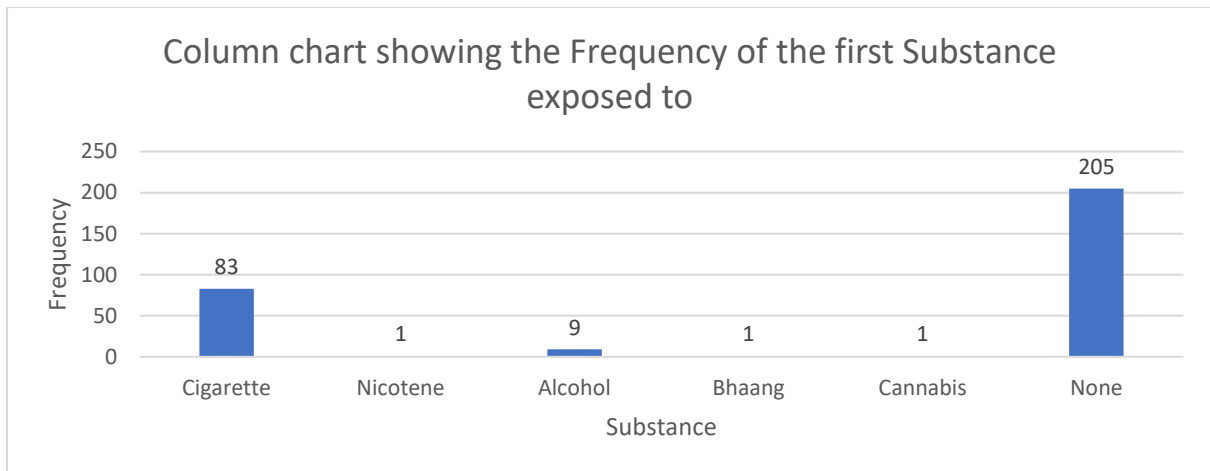


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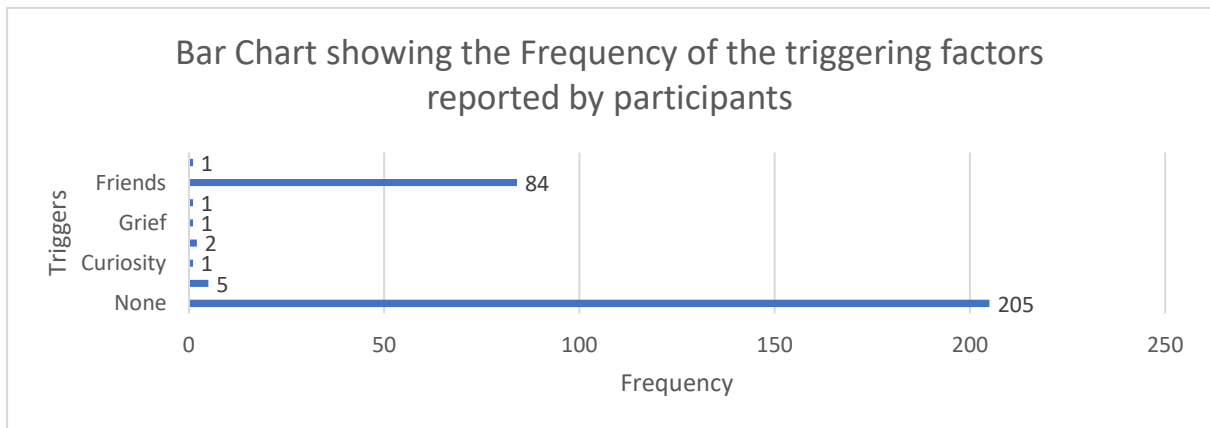


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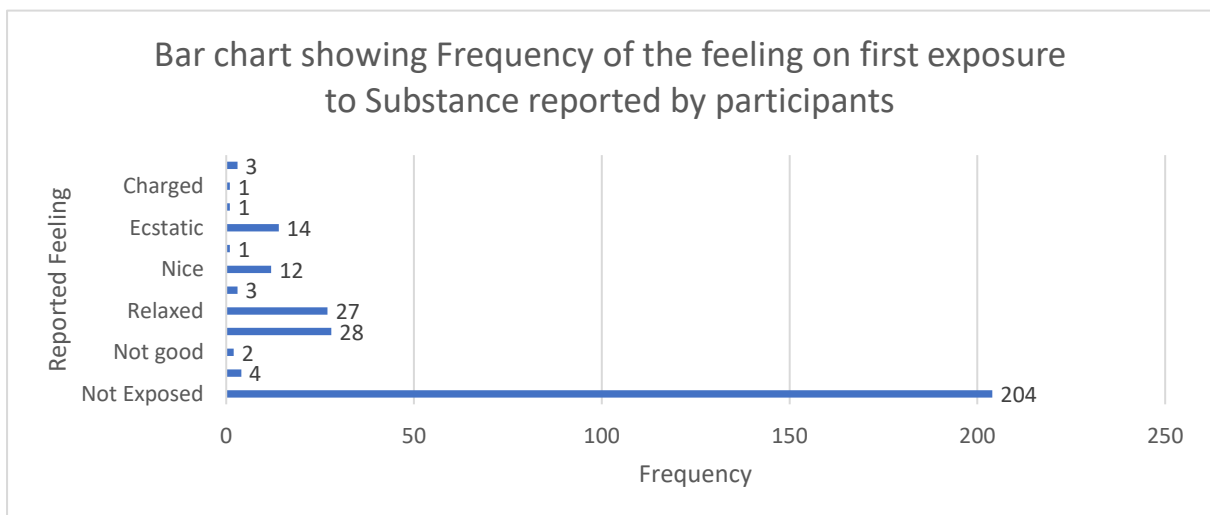


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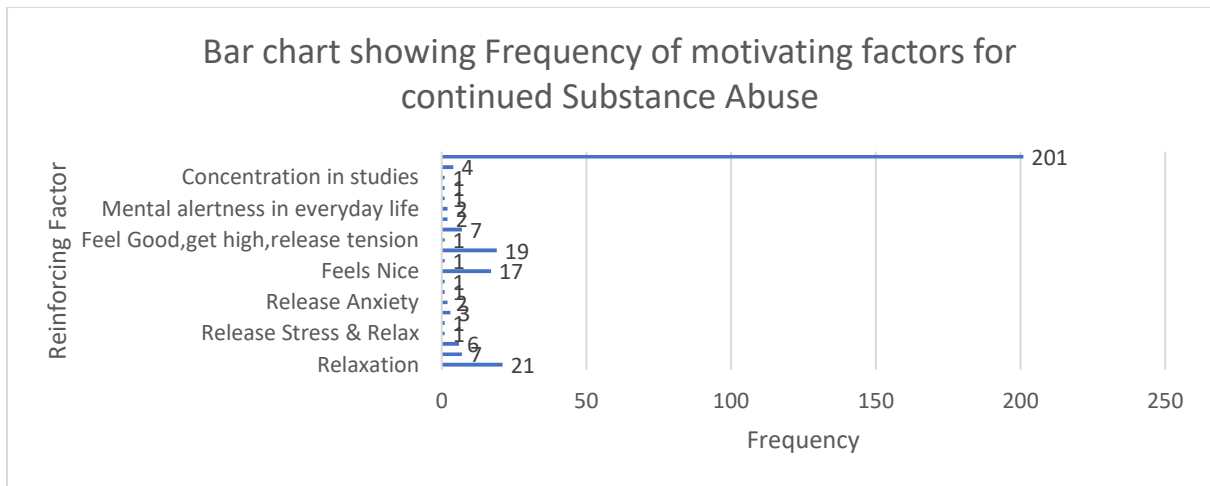


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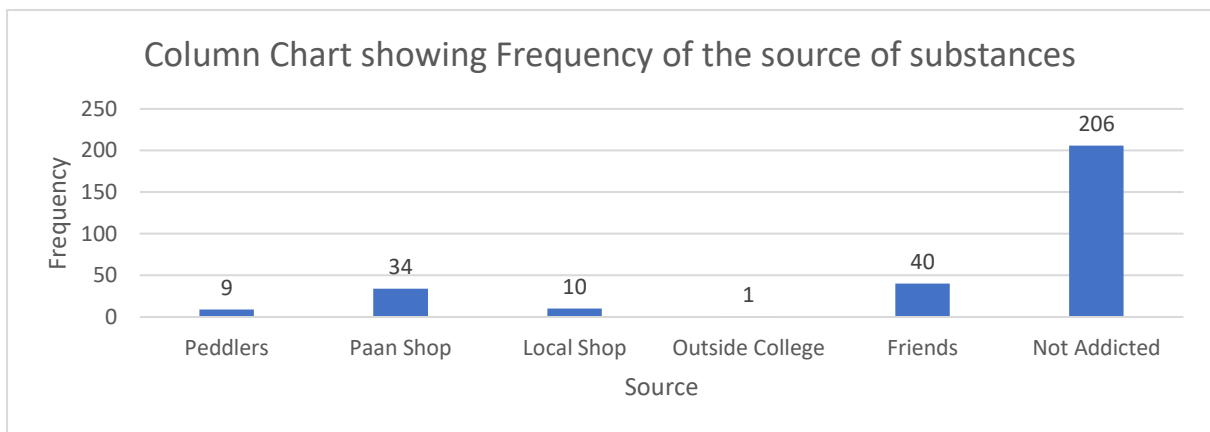


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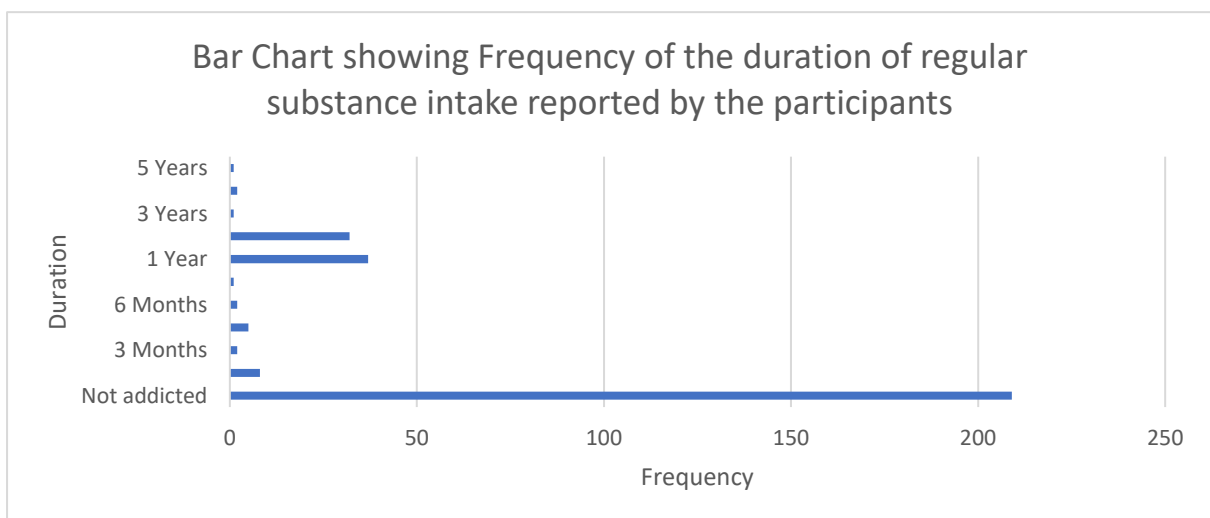


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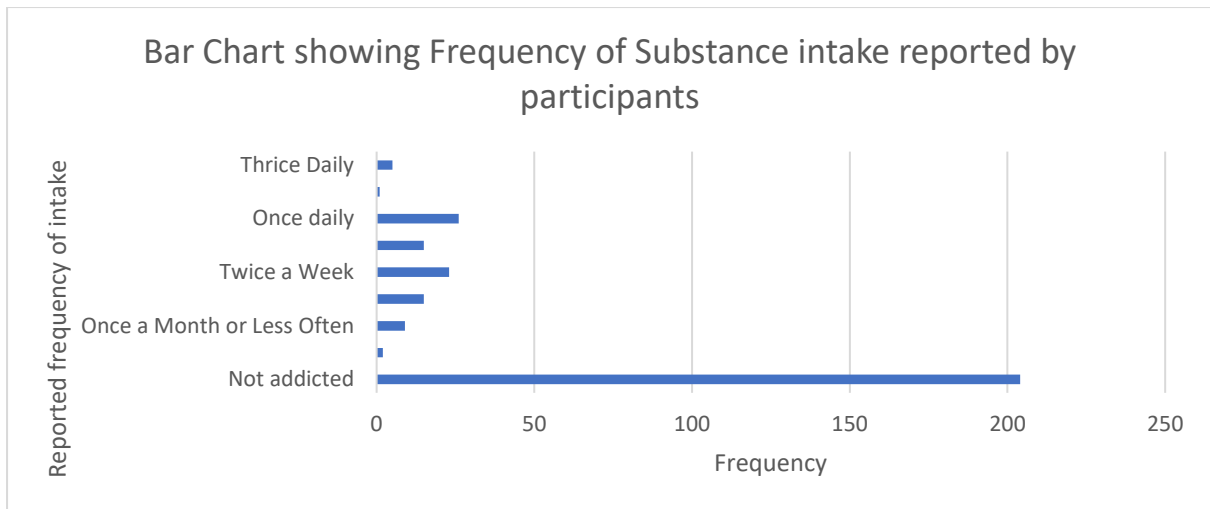


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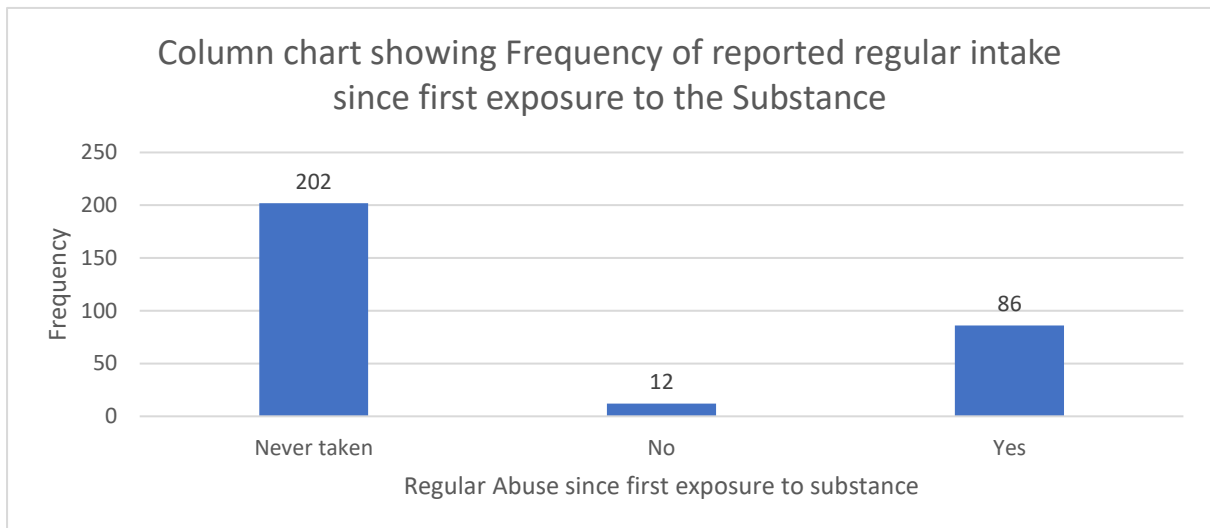


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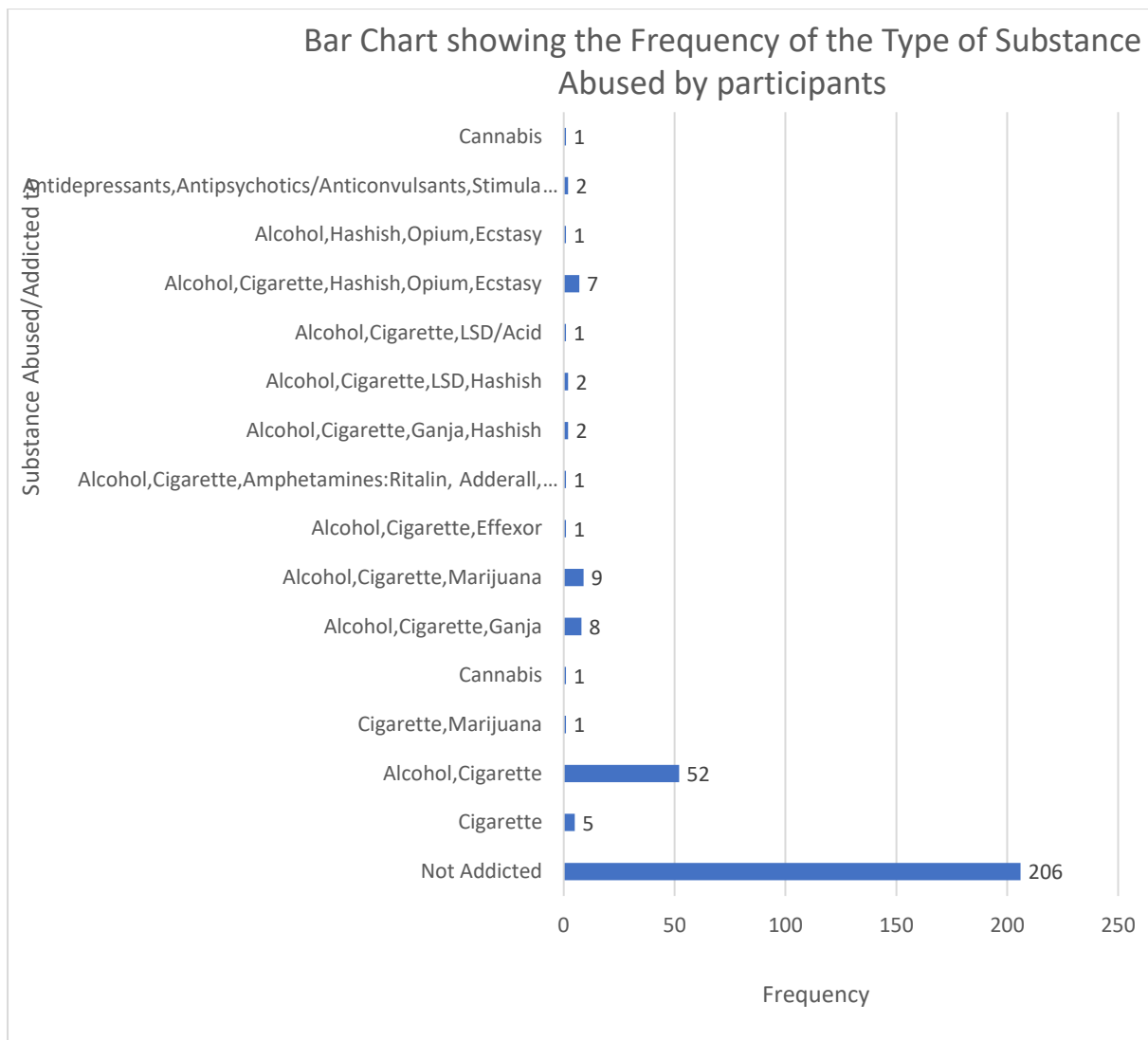


Figure 4.1.20

GRAPHICAL REPRESENTATION SHOWING ASSOCIATION BETWEEN DRUG AND SUBSTANCE ABUSE AND DEMOGRAPHIC VARIABLES

STACKED BAR-CHART SHOWING FREQUENCY OF SUBSTANCE ABUSE WRT THE DEMOGRAPHIC VARIABLES

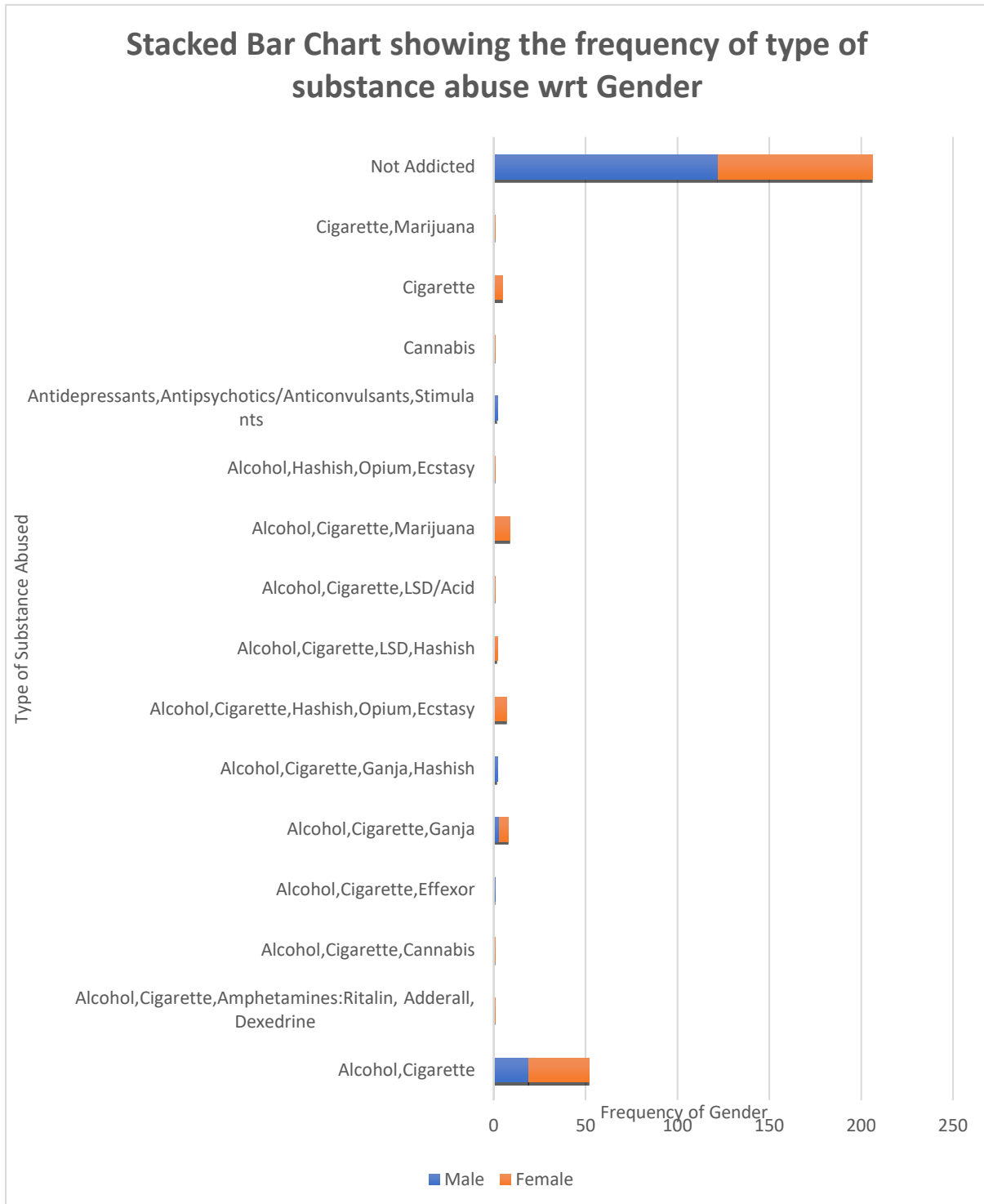


Figure 4.1.21

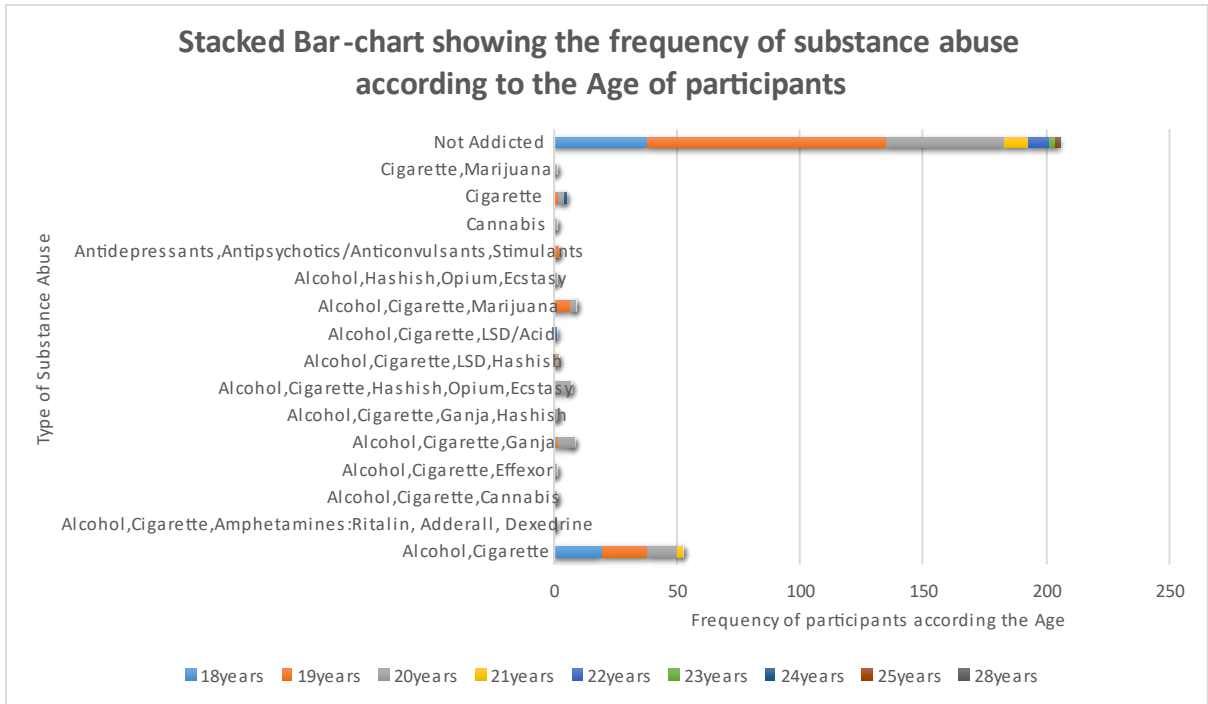


Figure 4.1.22

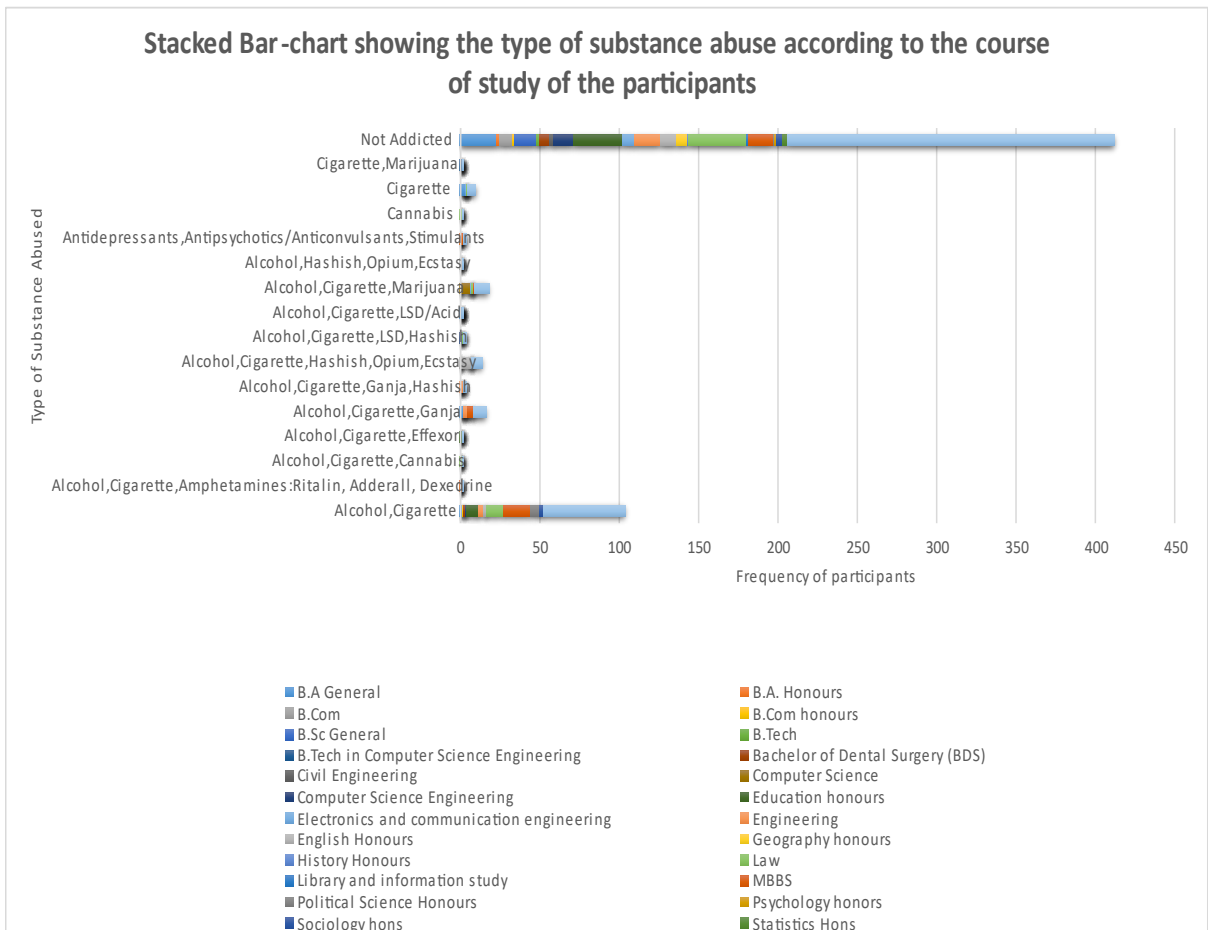


Figure 4.1.23

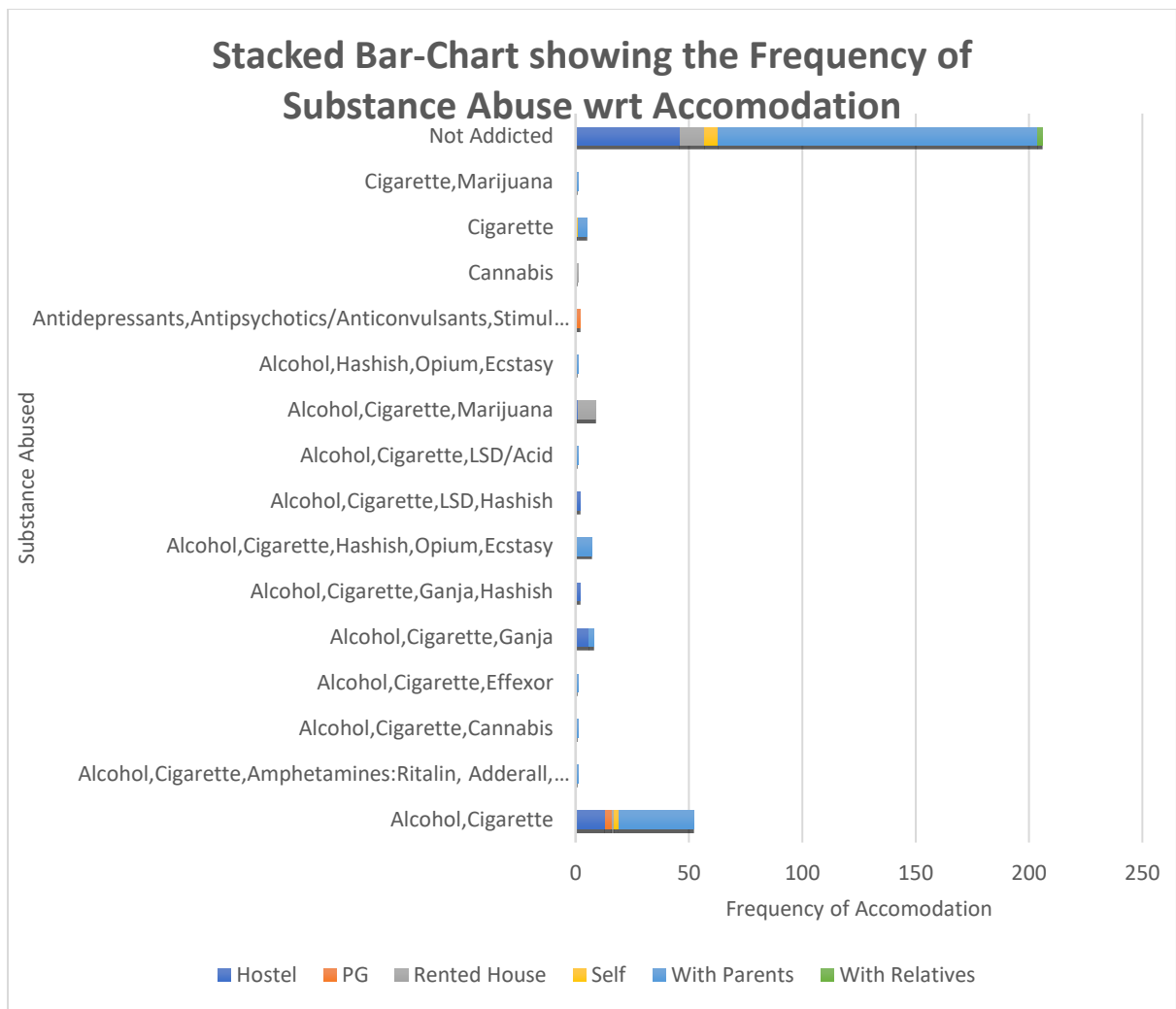


Figure 4.1.2

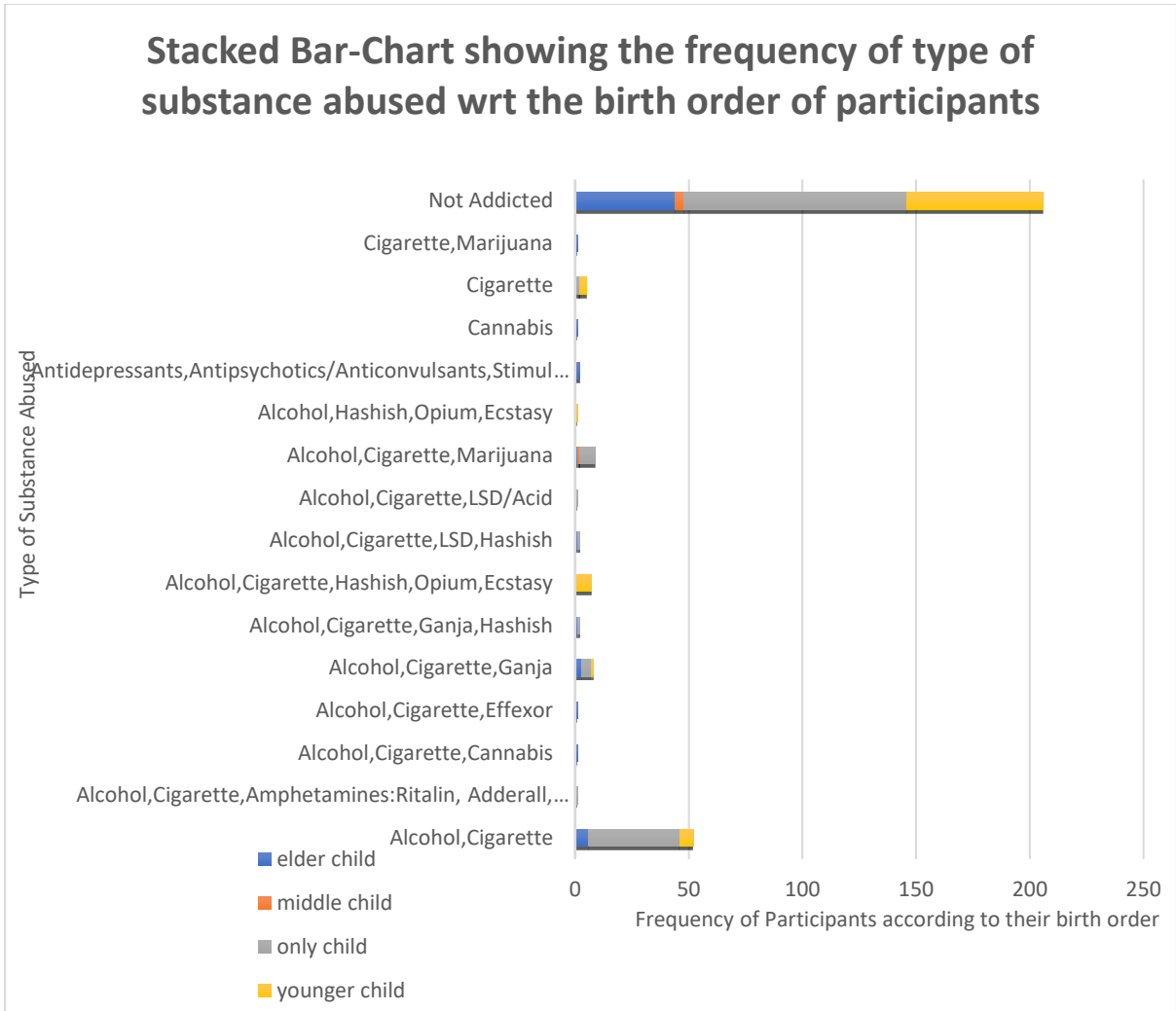


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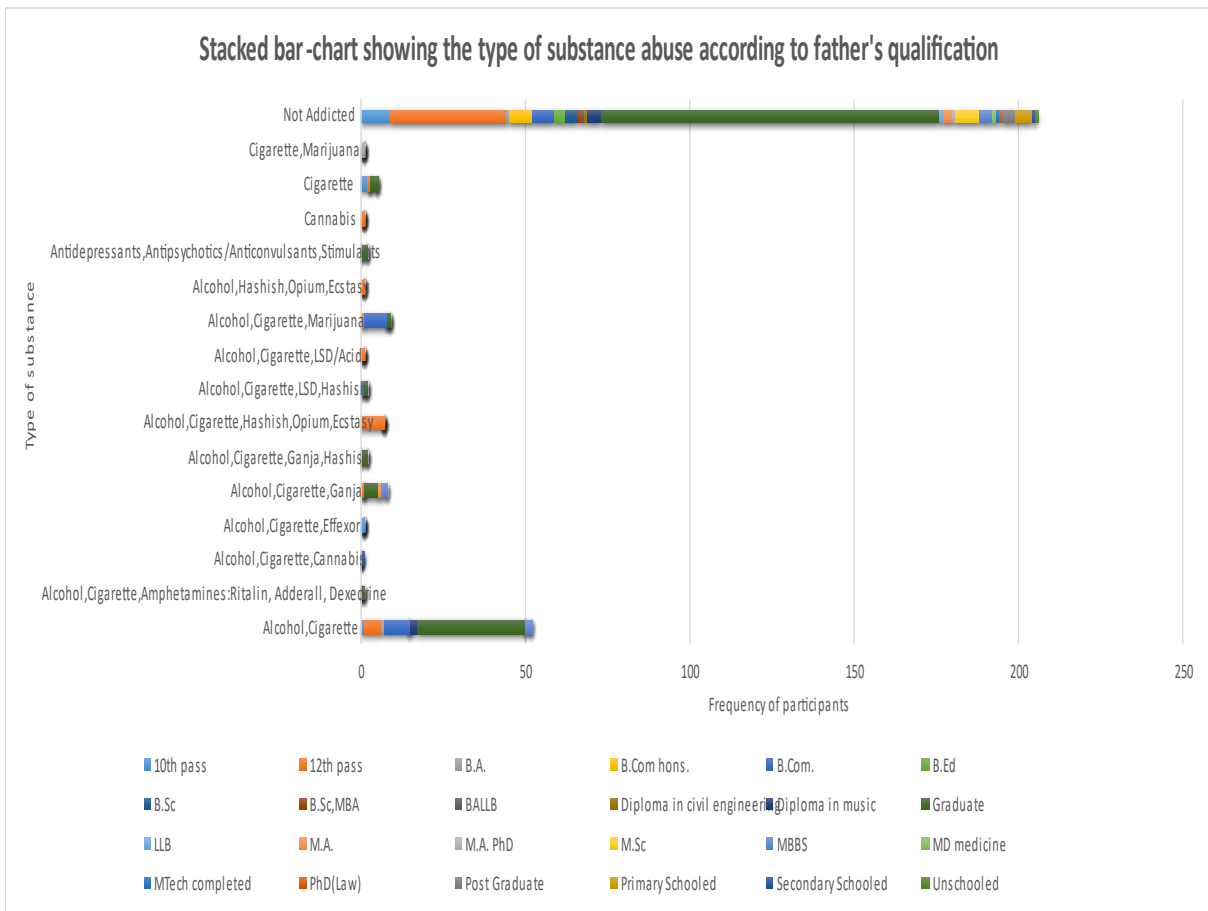


Figure 4.1.26

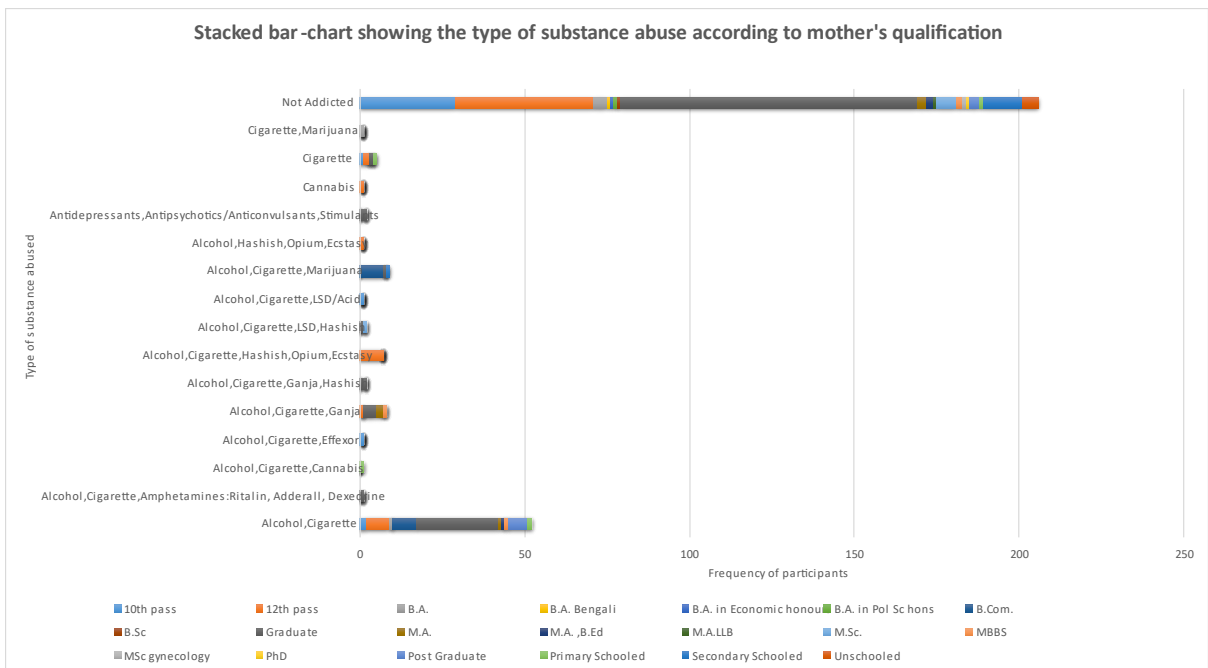


Figure 4.1.27

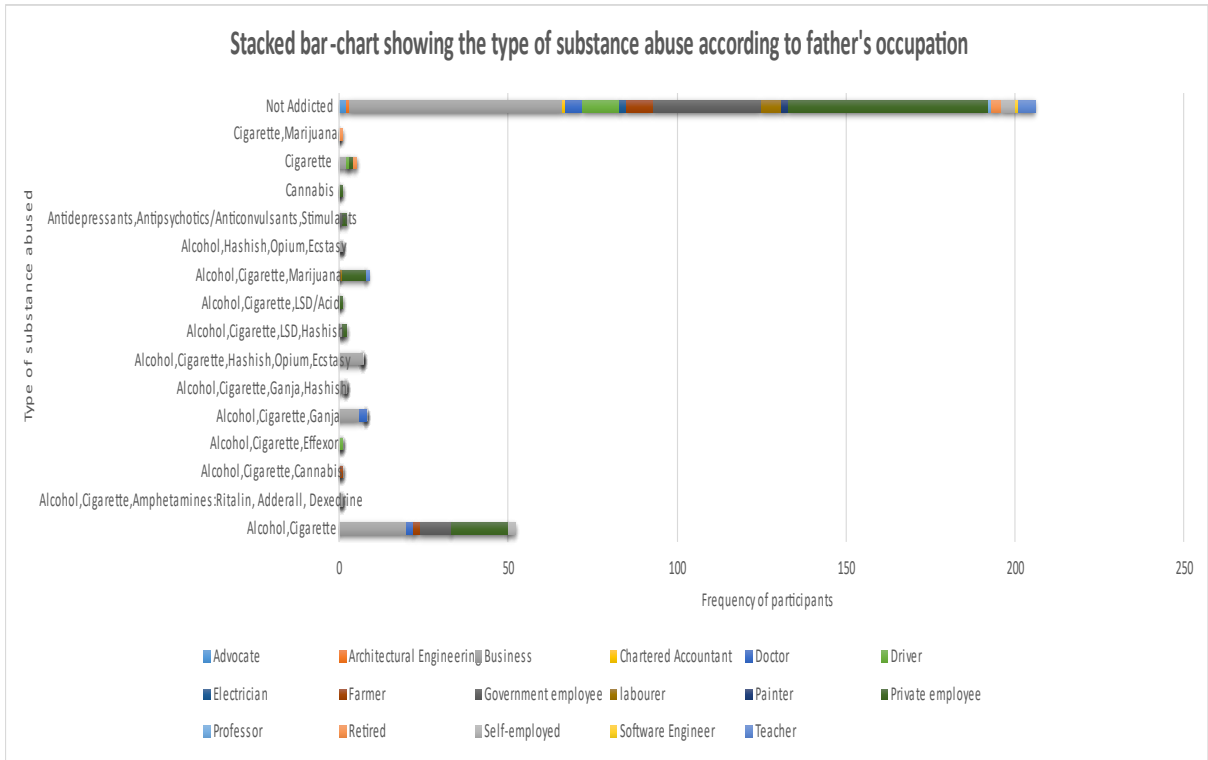


Figure 4.1.28

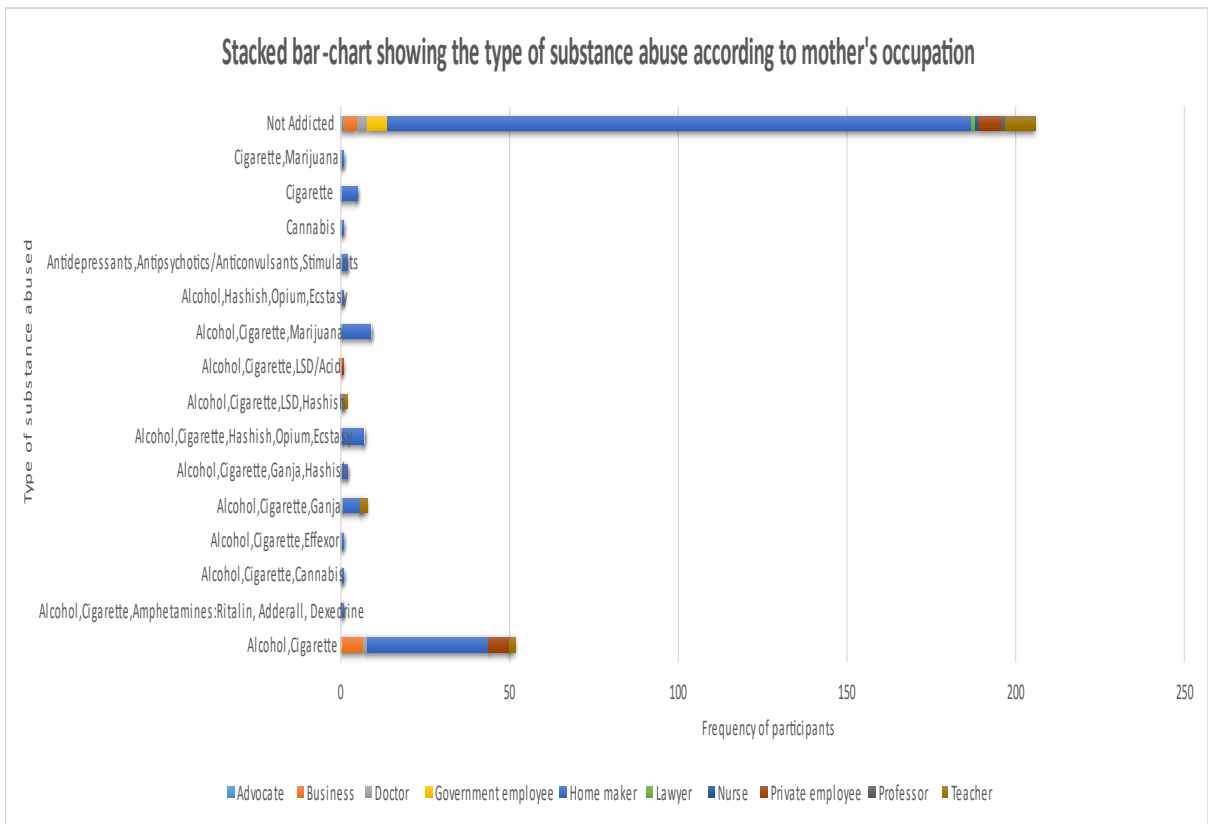


Figure 4.1.29

Stacked Bar-Chart showing the Frequency of substance abuse wrt the income groups

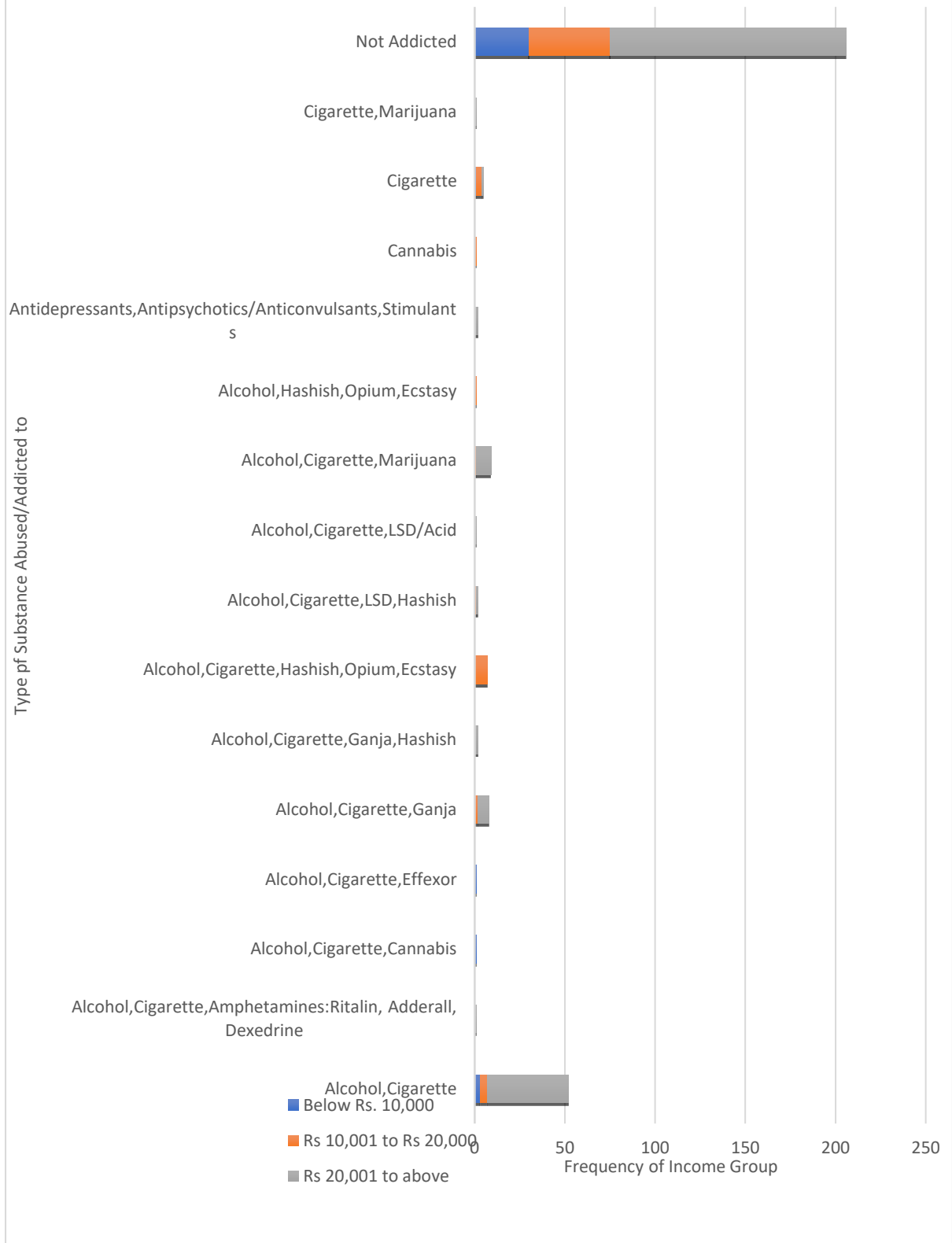
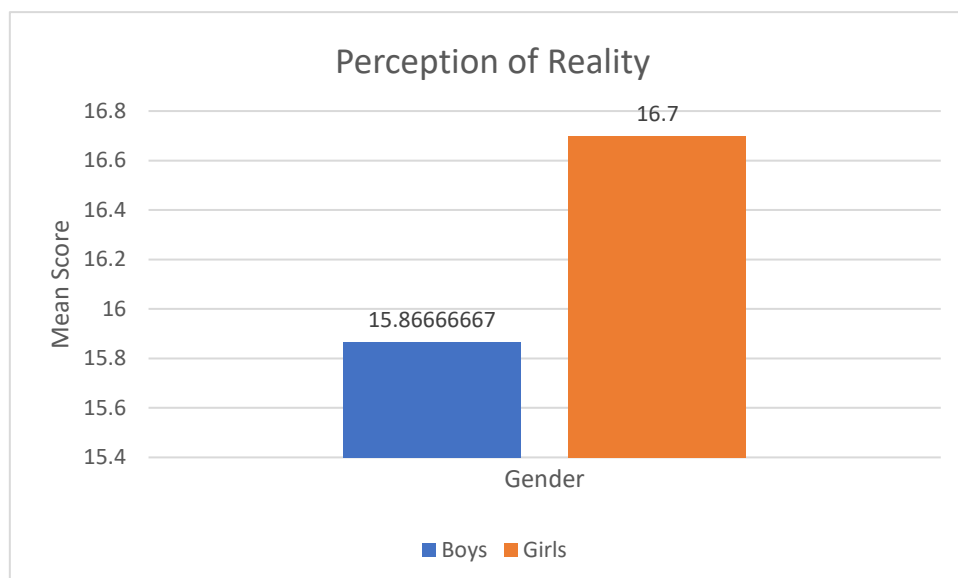
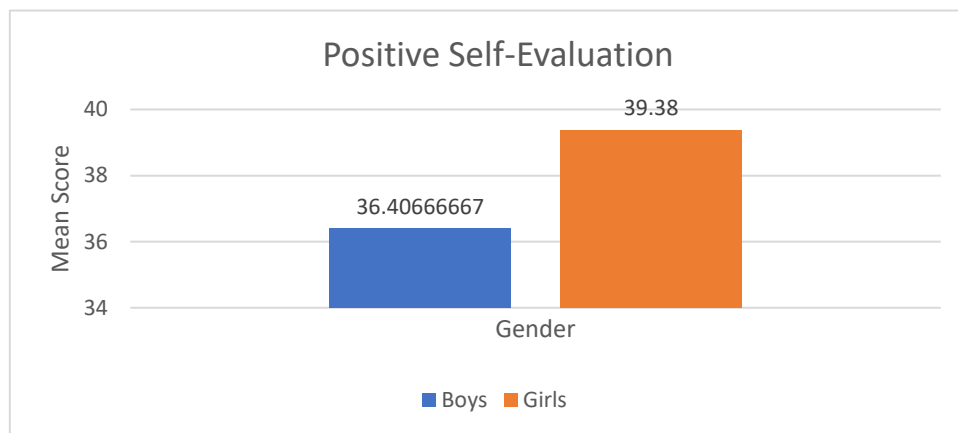
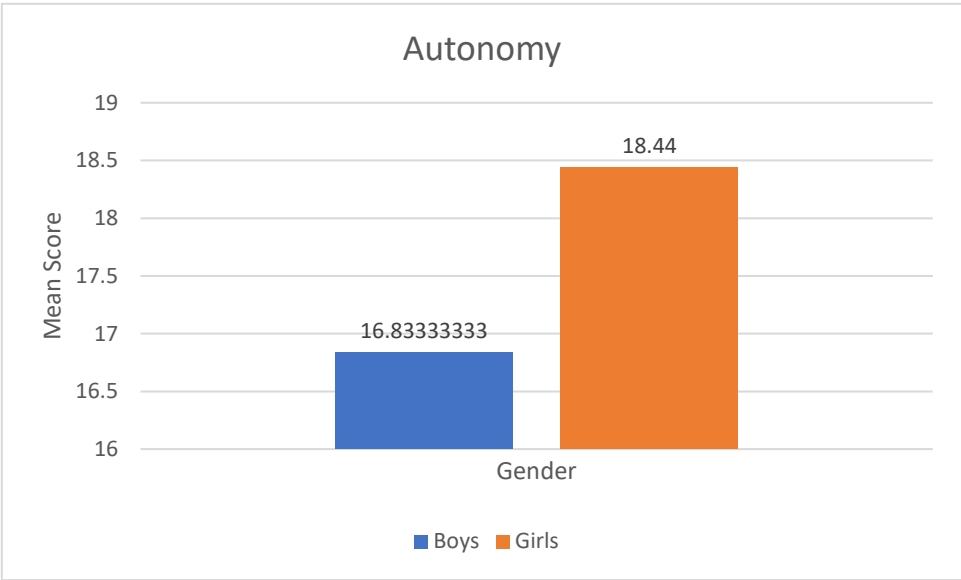
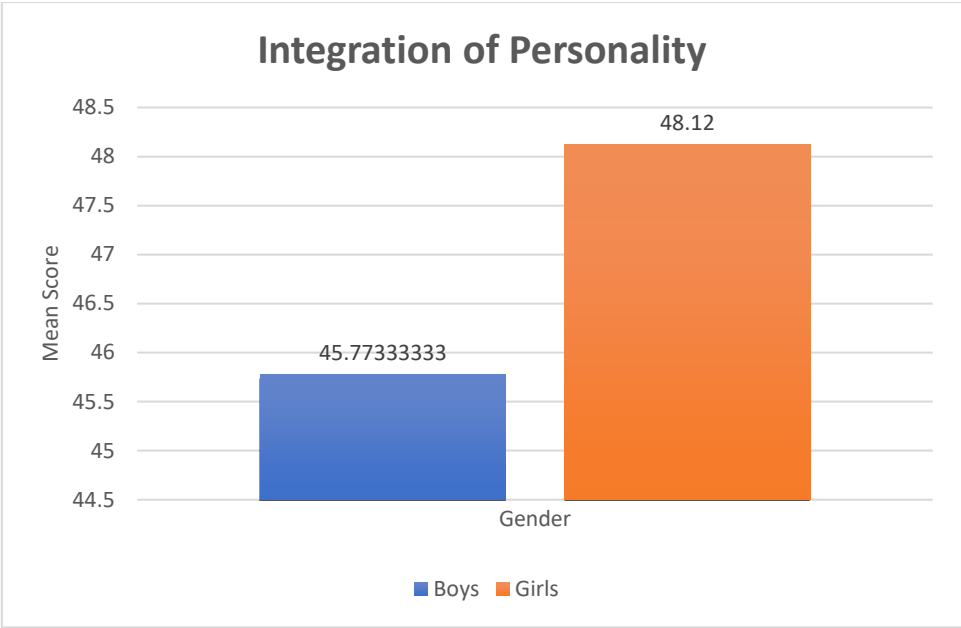


Figure 4.1.30

ANALYSIS AND INTERPRETATIONS OF MENTAL HEALTH DIMENSIONS V/S GENDER BY USING MANN-WHITNEY TEST





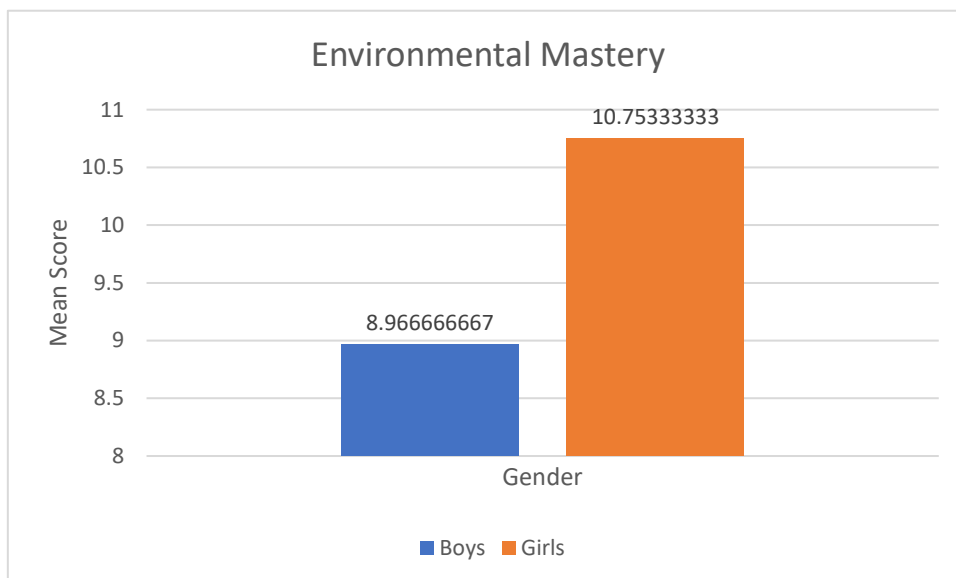
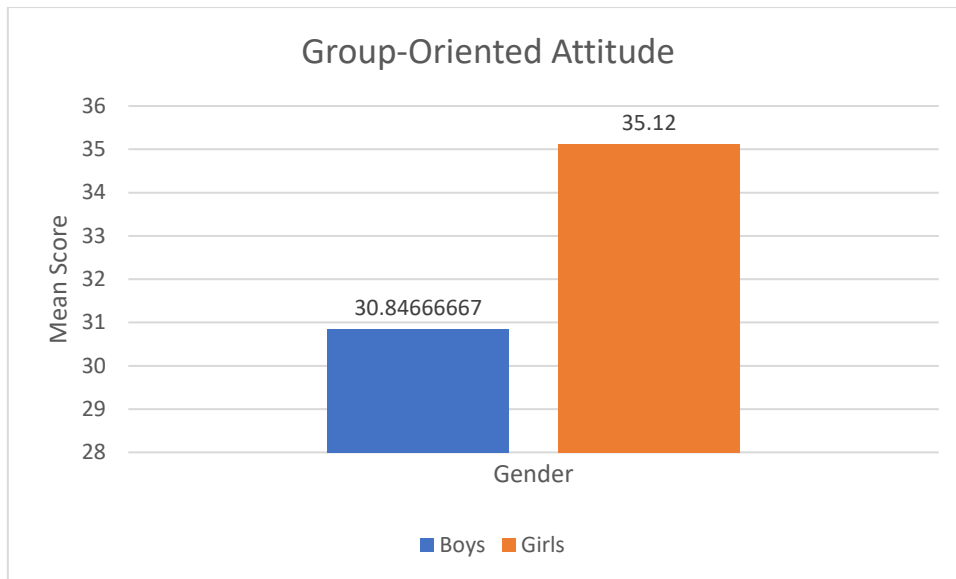


Table Summary of the Hypotheses tested at a glance

Serial No.	Hypotheses	Remarks
1.	H_0^1 There is no significant mean difference between drug and substance abuse and the mental health of undergraduate students in Kolkata.	H_0^1 Rejected
2.	H_0^2 There is no significant mean difference between age and mental health of undergraduate students in Kolkata.	H_0^2 Accepted

3.	H₀³ There is no significant mean difference between gender and the mental health of undergraduate students in Kolkata.	H₀³ Rejected
4.	H₀⁴ There is no significant mean difference between the course of study and mental health of undergraduate students in Kolkata.	H₀⁴ Accepted
5.	H₀⁵ There is no significant mean difference between accommodation and mental health of undergraduate students in Kolkata.	H₀⁵ Accepted
6.	H₀⁶ There is no significant mean difference between Father's Educational Qualification and the mental health of undergraduate students in Kolkata.	H₀⁶ Accepted
7.	H₀⁷ There is no significant mean difference between Mother's Educational Qualification and the mental health of undergraduate students in Kolkata.	H₀⁷ Accepted
8.	H₀⁸ There is no significant mean difference between Father's Occupation and mental health of undergraduate students in Kolkata.	H₀⁸ Accepted
9.	H₀⁹ There is no significant mean difference between Mother's Occupation and mental health of undergraduate students in Kolkata.	H₀⁹ Accepted
10.	H₀¹⁰ There is no significant mean difference between family income and mental health of undergraduate students in Kolkata.	H₀¹⁰ Accepted
11.	H₀¹¹ There is no significant mean difference between gender and drug or substance abuse of undergraduate students in Kolkata.	H₀¹¹ Rejected
12.	H₀¹² There is no significant difference between age and drug or substance abuse of undergraduate students in Kolkata.	H₀¹² Rejected

13.	H₀¹³ There is no significant difference between birth order and drug or substance abuse of undergraduate students in Kolkata.	H₀¹³ Rejected
14.	H₀¹⁴ There is no significant difference between course of study and drug or substance abuse of undergraduate students in Kolkata.	H₀¹⁴ Rejected
15.	H₀¹⁵ There is no significant difference between Father's Educational Qualification and drug or substance abuse of undergraduate students in Kolkata.	H₀¹⁵ Rejected
16.	H₀¹⁶ There is no significant difference between Mother's Educational Qualification and drug or substance abuse of undergraduate students in Kolkata.	H₀¹⁶ Rejected
17.	H₀¹⁷ There is no significant difference between Father's Occupation and drug or substance abuse of undergraduate students in Kolkata.	H₀¹⁷ Rejected
18.	H₀¹⁸ There is no significant difference between Mother's Occupation and drug or substance abuse of undergraduate students in Kolkata.	H₀¹⁸ Accepted
19.	H₀¹⁹ There is no significant mean difference between accommodation and drug or substance abuse of undergraduate students in Kolkata.	H₀¹⁹ Rejected
20.	H₀²⁰ There is no significant mean difference between family income and drug or substance abuse of undergraduate students in Kolkata.	H₀²⁰ Rejected

CHAPTER V

FINDINGS AND DISCUSSION

1.50% of the respondents are boys and 50% are girls. Majority of the respondents, i.e. 272 (90.67%) out of 300 (100%) belong to the age group of 18-20 yrs, 26 (8.67%) respondents belong to the age group of 21-23 yrs and 2 respondents (0.67%) belong to the age group of 24-28 years. The age group of 18-20 yrs abuse drugs and substances more than the other age groups. In other words, drug and substance abuse was found to be higher among the respondents who belong to the age group of 18-20 yrs. The students are found to abuse a combination of soft and hard drugs. Alcohol and Cigarettes are the most commonly abused substances among the addicted UG students (17.34%). 18 yrs of age was found to be the most vulnerable age for the initial exposure of drugs and substance abuse of the participants surveyed in this study. Among the addicted respondents, girls (70.21%) were found to abuse drugs and substances more than the boys (29.78%). Among the triggering factors of exposure to substance abuse, 84 (89.36%) respondents said that friends were the triggering factor. The other triggering factors were tension, grief, curiosity.

There is significant mean difference between drug and substance abuse and mental health of undergraduate students in Kolkata. Respondents pursuing professional degree courses abuse more drugs and substances than the respondents pursuing general degree students. Drug and substance abuse is higher among the respondents having higher family income. Students coming from homes with just one child abuse drugs and substances more than those who came from families with several children. The present study found that majority of the addicted students lived with their parents.

Girls have higher Positive Self-Evaluation than the boys. Girls have higher Perception of Reality than the boys. Girls have higher Integration of Personality than the boys. Girls have higher Autonomy than the boys. Girls have higher Group Oriented Attitude than the boys. Girls have higher Environmental Mastery than the boys.

In the present study, the prevalence of substance abuse was found to be 31.33% which calls for stringent measures to be taken to curb the menace.

CONCLUSION

In the present study, the prevalence of abuse of substances was found to be 31.33% which calls for stringent measures to be taken to curb the menace. In the 21st Century, we find that the undergraduate girl students in the urban colleges in Kolkata have better mental health than the boys as the findings of the study show that they score higher than the boys in the mental health dimensions of “Positive Self-Evaluation”, “Perception of Reality”, “Integration of Personality”, “Autonomy”, “Group Oriented Attitudes” and “Environmental Mastery”. Hypothesis testing emphasized that there is a significant relationship between substance abuse and mental health of the undergraduate students. Further research needs to be carried out in the future to establish the relationship between substance abuse behaviour of the undergraduate students and their mental health.

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JADAVPUR UNIVERSITY
KOLKATA-700 032, INDIA

DEPARTMENT OF EDUCATION

To Whom It May Concern

This is to certify that **MILI MISHRA** is a bona fide Ph.D. research scholar of the Department of Education, under the Faculty of Arts, Jadavpur University, bearing Registration No. - A00ED0100919. She is pursuing her Ph.D. research under the supervision of the undersigned and the proposed title of her thesis is *A Study of Drug, Substance Abuse and Mental Health of Undergraduate Students in Kolkata*.

In order to successfully complete her Ph.D. research, Mili Mishra needs to conduct field survey and collect relevant data from students of Undergraduate Colleges across Kolkata. The undersigned hereby requests the concerned to kindly grant her the necessary permission to conduct her survey in their esteemed institution. Kind cooperation of the concerned is earnestly solicited.

Date: July 5, 2023

Brand
05.07.2023
[Prof. (Dr.) Bishnupada Nanda]
Professor
Department of Education
Jadavpur University

DR. BISHNUPADA NANDA
PROFESSOR
DEPARTMENT OF EDUCATION
JADAVPUR UNIVERSITY

* Established on and from 24th December, 1955 vide Notification No. 10986/1U-42/55 dated 6th December, 1955 under Jadavpur University Act, 1955 (West Bengal Act XXXIII of 1955) followed by Jadavpur University Act, 1981 (West Bengal Act XXIV of 1981)

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Fax : (91) 033 2414-6008

GENERAL INFORMATION OF RESPONDENT

1. Gender :
2. Age:
3. Course of Study:
4. Where do you live when in session:

- With parents
- College hostel
- Self
- Rented house
- With relatives
- other

5. Birth Order of Respondent:

- Elder child
- Middle child
- Younger child
- Only child
-

6. Father's Qualification:

7. Mother's Qualification:

8. Father's Occupation:

10. Mother's Occupation:

11. Family Monthly Income:

- below Rs 10,000
- Rs 10,001 to Rs 20,000
- Rs 20,001 to above

12. Family history of drug addiction:

- Yes
- No

13. If you answered "yes" to the above question, mention who is addicted, by what type of drugs he/she abuses and frequency of taking drugs.

SUBSTANCE ABUSE QUESTIONNAIRE

DATE: _____

~~XXXXXX~~: _____
Please carefully read through the list below of different types of drugs/chemicals. Please put an X by any of the substances that you have used, even if only one time. Please be honest. Thank you.

___ Alcohol

___ Nicotine

- ___ Cigarettes
- ___ Smokeless Tobacco
- ___ Cigar

___ Hallucinogens

- ___ LSD/Acid
- ___ Mescaline/Peyote
- ___ Psilocybin/Magic Mushrooms

___ Antipsychotics/Anticonvulsants

- ___ Tegretol
- ___ Lithium
- ___ Other: _____

___ Over The Counter Medications

- ___ Aspirin
- ___ Ephedrine/Pseudoephedrine
- ___ Antihistamines: Benadryl
- ___ Cough Medicines: Robitussin, Nyquil
- ___ Cold Medicines: Sudafed
- ___ Other: _____

___ Anabolic Steroids

___ Cannabinoids

- ___ Marijuana
- ___ Hashish

___ Inhalants/Whippets/Huffing

- ___ Solvents: Glue
- ___ Gasses: Paint

___ Sedative, Hypnotic or Anxiolytic

- ___ Barbiturates
- ___ Valium

___ Opioids & Derivatives

- ___ Codeine
- ___ Morphine

- Opium
- Heroin
- Methadone

Stimulants

- Amphetamines: Ritalin, Adderall, Dexedrine
- Ecstasy
- Cocaine/Crack
- Methamphetamine/ICE/Crank

Please list any other substances that you have used that are not listed above:

1. When did you first use drug? _____ (at what age)
2. Which drugs did you first use?(please write the name)
3. Who motivated you to take drug first?
4. How did you feel when you first used drug?
5. Have you been taking it regularly since your first trial? Yes/No
6. Since when(for how long) have you been taking drugs regularly?
7. Frequency of use:

- i) Once a month or less often
- ii) Once a week
- iii) Twice a week
- iv) Thrice a week
- v) Once a day(daily)
- vi) More than once a day

8. Please explain the reasons/causes motivating you to continue taking drugs?(we listed below some of the possible reasons/causes you may choose from one or more alternatives, causes may be indicated by ticking in the appropriate boxes. In case some possibilities are not covered by us then please indicate those under the other category.)

- ___ gives physical energy in doing daily work
- ___ gives mental alertness in everyday life
- ___ gives proper sleep and rest to the body at night
- ___ gives good appetite
- ___ gives confidence in interacting with friends
- ___ gives confidence in interacting with friends of the opposite sex
- ___ gives confidence in interacting with family members
- ___ gives confidence to move in public places
- ___ increases concentration in studies
- ___ makes me perform better in examination
- ___ for increased acceptance in the group
- ___ to satisfy curiosity
- ___ feel good, get high

- ___ to remove boredom
- ___ to express the violence upon other(s)
- ___ relieve tension, facilitates relaxation
- ___ makes me forget the miseries of life or uncertainty of the future
- ___ any other (please specify)

9. From where do you generally procure these substances?

- Friends
- Drug Stores
- Medical Practitioners
- Pushers
- Peddlers
- Any Other

11. I feel that my relations with others are not satisfactory.

- ALWAYS -MOST OF THE TIME -SOMETIMES -NEVER

12. My responsibilities are like burdens to me.

- ALWAYS -MOST OF THE TIME -SOMETIMES -NEVER

13. I suffer from inferiority complex.

- ALWAYS -MOST OF THE TIME -SOMETIMES -NEVER

14. I am and used to being lost in the world of imagination.

- ALWAYS -MOST OF THE TIME -SOMETIMES -NEVER

15. I am satisfied with most aspects of my life.

- ALWAYS -MOST OF THE TIME -SOMETIMES -NEVER

16. I solve my problems myself.

- ALWAYS -MOST OF THE TIME -SOMETIMES -NEVER

17. I am not able to continue any task for long.

- ALWAYS -MOST OF THE TIME -SOMETIMES -NEVER

18. I consider myself useful for society.

- ALWAYS -MOST OF THE TIME -SOMETIMES -NEVER

19. I feel full of enthusiasm to think that I will certainly achieve my objectives.

- ALWAYS -MOST OF THE TIME -SOMETIMES -NEVER

20. I feel that situations are going against me.

- ALWAYS -MOST OF THE TIME -SOMETIMES -NEVER

21. I feel lack of confidence.

- ALWAYS -MOST OF THE TIME -SOMETIMES -NEVER

22. I have affection and attachment with my neighbours .

- ALWAYS -MOST OF THE TIME -SOMETIMES -NEVER

23. I mould myself according to my circumstances.

- ALWAYS -MOST OF THE TIME -SOMETIMES -NEVER

24. I do my duty well even in adverse circumstances.

- ALWAYS -MOST OF THE TIME -SOMETIMES -NEVER

25. I feel insecure.

- ALWAYS -MOST OF THE TIME -SOMETIMES -NEVER

26. I play important roles in social circumstances.

- ALWAYS -MOST OF THE TIME -SOMETIMES -NEVER

27. I utilize my reasoning even in difficult times.

- ALWAYS -MOST OF THE TIME -SOMETIMES -NEVER

28. I feel anxious about my future.

- ALWAYS -MOST OF THE TIME -SOMETIMES -NEVER

29. My friends/ relatives remain ready to help me in difficult times.

- ALWAYS -MOST OF THE TIME -SOMETIMES -NEVER

30. I am worried even about trivial matters

- ALWAYS -MOST OF THE TIME -SOMETIMES -NEVER

31. I have definite plans about my future.

- ALWAYS -MOST OF THE TIME -SOMETIMES -NEVER

32. I am enraged even by the slightest unfavorable talks.

- ALWAYS -MOST OF THE TIME -SOMETIMES -NEVER

33. I take decision easily even in difficult circumstances.

- ALWAYS -MOST OF THE TIME -SOMETIMES -NEVER

34. I am not able to behave in ways which are expected by my friends.

- ALWAYS -MOST OF THE TIME -SOMETIMES -NEVER

35. My friends and colleagues have respect for me.

- ALWAYS -MOST OF THE TIME -SOMETIMES -NEVER

36. My confidence varies highly in quality.

- ALWAYS -MOST OF THE TIME -SOMETIMES -NEVER

37. I am always ready to fight my problems.

- ALWAYS -MOST OF THE TIME -SOMETIMES -NEVER

38. I make impressions about people or issues even in absence of facts.

- ALWAYS -MOST OF THE TIME -SOMETIMES -NEVER

39. I am not able to concentrate fully in my work.

- ALWAYS -MOST OF THE TIME -SOMETIMES -NEVER

40. I am inclined towards the opposite sex.

- ALWAYS -MOST OF THE TIME -SOMETIMES -NEVER

41. I fully cooperate in the important functions of my community.

- ALWAYS -MOST OF THE TIME -SOMETIMES -NEVER

42. I am perplexed with my contradictory thoughts.

- ALWAYS -MOST OF THE TIME -SOMETIMES -NEVER

43. I make decisions on the basis of facts even though they are contrary to my wish.

- ALWAYS -MOST OF THE TIME -SOMETIMES -NEVER

44. I feel secured amidst friends/ groups.

- ALWAYS -MOST OF THE TIME -SOMETIMES -NEVER

45. I do not become hopeless even when I fail.

- ALWAYS -MOST OF THE TIME -SOMETIMES -NEVER

46. I aspire for something without having in view my short comings.

- ALWAYS
- MOST OF THE TIME
- SOMETIMES
- NEVER

47. I do not get influenced even by reasonable arguments.

- ALWAYS
- MOST OF THE TIME
- SOMETIMES
- NEVER

48. I am not able to take such decisions as I want to take.

- ALWAYS
- MOST OF THE TIME
- SOMETIMES
- NEVER

49. I am afraid of imaginary calamities.

- ALWAYS
- MOST OF THE TIME
- SOMETIMES
- NEVER

50. I feel that this world is a place good enough for passing life.

- ALWAYS
- MOST OF THE TIME
- SOMETIMES
- NEVER

51. I do not get disappointed with the common worries of daily life.

- ALWAYS
- MOST OF THE TIME
- SOMETIMES
- NEVER

52. My mood changes momentarily.

- ALWAYS
- MOST OF THE TIME
- SOMETIMES
- NEVER

53. I myself decide what and how I should do.

- ALWAYS
- MOST OF THE TIME
- SOMETIMES
- NEVER

54. I feel that my intimacy with my group community is increasing gradually.

- ALWAYS
- MOST OF THE TIME
- SOMETIMES
- NEVER

55. I take pleasure in taking responsibilities.

- ALWAYS
- MOST OF THE TIME
- SOMETIMES
- NEVER

56. I have a wide perception about life.

- ALWAYS
- MOST OF THE TIME
- SOMETIMES
- NEVER

LIST OF INSTITUTIONS VISITED FOR DATA COLLECTION

1. Asutosh College

92, Shyamaprasad Mukherjee Road, Kolkata – 700 026, West Bengal, India

2. Basanti Devi College

147B, Rash Behari Avenue, Kolkata – 700 029, West Bengal, India

3. Behala College

Banamali Naskar Road (Parnashree Palli), Behala, Kolkata – 700 060, West Bengal,

4. Bidhannagar College

EB-2, Sector I, Salt Lake, Kolkata – 700 064, West Bengal, India

5. Deshbandhu College for Girls

45/C, Rash Behari Avenue (Satish Mukherjee Road), Kalighat, Kolkata – 700 026, West Bengal

6. Dr. R Ahmed Dental College

Sealdah, 114, Acharya Jagdish Chandra Bose Rd, Maula Ali, Crossing, Kolkata, West Bengal 700014

7. Heritage College

GC88+HXX The Heritage College, Chak Kalar Khal Rd, Mundapara, Kolkata, West Bengal 700150

8. Heritage Institute of Technology

West Chowbaga Road, Anandapur, Mundapara, Kolkata – 700 107, West Bengal, India

9. IEM

IEM Ashram Building, GN-34/2, Street Number 27, opposite to Nalban Saltlake Electronics Complex, GN Block, Sector V, Bidhannagar, Kolkata, West Bengal 700091

10. Scottish Church College

1 & 3, Urquhart Square, Manicktala (Azad Hind Bag), Kolkata – 700 006, West Bengal

11. St. Xavier's College

30, Mother Teresa Sarani, Kolkata - 700016

12. Surendranath Law College

24/2 Mahatma Gandhi Road, Kolkata - 700009

13. NUJS (National University of Juridical Sciences)

12, LB Block, Sector 3, Bidhannagar, Kolkata, West Bengal 700098

14. NRS Medical College

138, AJC Bose Road, Sealdah, Kolkata – 700 014 (NRS Medical College address)

15. Techno India College

EM-4/1, Sector V, Salt Lake, Kolkata - 700091

16. Women's Christian College

6, Greek Church Row, Kolkata - 700026



TWO DAYS INTERNATIONAL SEMINAR

ON

“IMPLEMENTATION AND EXECUTION OF NEP 2020 IN THE LIGHT OF INCLUSIVE EDUCATION”

Date: 21st February, Tuesday & 22nd February, Wednesday, 2023

Organised by

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This is to certify that.....*Mili Mishra*....., Principal / TIC / Professor / Associate Professor /

Assistant Professor / Lecturer / Teacher / Research Scholar / Student of.....*Department of Education*.....

Jadavpur University.....partook as a participant/ Paper presenter/ Speaker in the TWO DAYS INTERNATIONAL

SEMINAR on 21st & 22nd February, 2023 at VIVEKJYOTI COLLEGE, Mechogram, Purba Medinipur, W.B., India. His/Her engagement

enriched and enlightened us.

Saumen Kumar Mahapatra

Prof. (Dr.) Saumen Kumar Mahapatra
President
Vivek Jyoti College

Prof. (Dr.) M. Tariq Absan

Prof. (Dr.) M. Tariq Absan
Institute of Education & Research (IER)
University of Dhaka

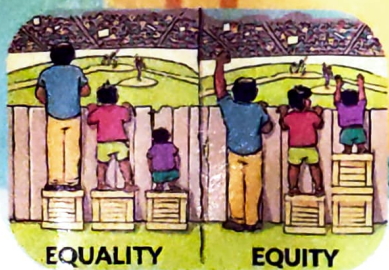
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Mr. Manas Kumar Saha
Teacher-In-Charge
Vivek Jyoti College

Tanmoy Das

Mr. Anilava Jana and Mr. Tanmoy Das
Coordinator & Co-Coordinator
Seminar Organizing Committee
Vivek Jyoti College

IMPLEMENTATION AND EXECUTION OF **NEP** **2020** IN THE LIGHT OF **INCLUSIVE EDUCATION**



Edited by:

Prof (Dr.) Bishnupada Nanda
Asst. Prof. Manas Kumar Sahu

Two Days International Seminar
on

**Implementation and Execution of
NEP 2020 in the Light of Inclusive
Education**

Date: 21st & 22nd February, 2023

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36. বর্তমান ভারতবর্ষের অন্তর্ভুক্তিমূলক সমাজে ভগিনী নিবেদিতার চিন্তার প্রাসঙ্গিকতা এবং জাতীয় শিক্ষানীতি ২০২০ এর নিরিখে তার একটি বিশ্লেষণ।
Payel Giri
37. একীভূত/ অন্তর্ভুক্তিমূলক শিক্ষার বাস্তবায়নে পথশিশু দের শিক্ষার গুরুত্ব - একটি আলোচনা।
Manas Bhunia & Prof. (Dr.) Bishnupada Nanda
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Amrita Mishra
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A Study on Drug and Substance Abuse among the Youth in India

Mili Mishra

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Abstract

According to the Annual Status of Higher Education (ASHE), there is an addiction problem in India. Drugs and substance abuse has been a challenge to a progressive society. Prevalence of drug related problems exists which gets reflected in the data of death due to substance abuse, with students making up a considerable part of it. Geographical vulnerability is a contributor to India being a drug hotspot. This paper is based on qualitative research and discusses the trend of drug and substance abuse among the youth in India based on secondary data review.

Keywords: Drug abuse, substance abuse, drug dependence, addiction, opioids, NMBA

Introduction

Drug and substance abuse has been a challenge to a progressive society. The use of alcohol, tobacco, various drugs is a widespread phenomenon among youth. The use of psychoactive drugs among youth is an issue of national importance. Substance abuse has taken epidemic proportions as it seeps into the nation's socio-cultural fabric affecting the younger generation as they fall prey to the increasing menace of drug and substance abuse. India is a youth centric nation as 15-24 year olds make one-fifth of the population and are our future. Illicit drugs have the potential to thwart the success of India's future. Illicit drug use among the youth presents an impending threat to our nation. There is lack of social responsibility and general apathy surrounding the issue which adds to the failure to check the drug epidemic.

Concept of Drug and Substance Abuse

A **drug** is a term for a habit forming substance or a chemical substance which directly affects the brain, nervous system, bodily function, perception or consciousness which has the potential to misuse. Frequent use of drugs may lead to death. It is immoral, anti-social and against law.

Drug abuse is a general term used to describe the excessive habitual use of some kind of substance like use of an illicit drug or misuse of legitimate drug resulting in physical or psychological harm. It leads to impaired judgement, loss of physical and emotional control and renders the person into a state of intoxication.

Drug abuse is synonymous with substance abuse for example smoking ganja or hashish, taking heroin or cocaine, LSD, injecting morphine, cannabis, opium, marijuana, and crystal meth.

SUBSTANCE ABUSE

Substance abuse is the medical term used to describe a pattern of using a substance (drug) that causes significant problems or distress. This may be missing work or school, using the substance in dangerous situations, such as driving a car. It may lead to substance-related legal problems, or continued substance use that interferes with friendships, family relationships, or both. Substance abuse, as a recognized medical brain disorder, refers to the abuse of illegal substances, such as marijuana, heroin, cocaine, or methamphetamine. Or it may be the abuse of legal substances, such as alcohol, nicotine, or prescription medicines. Alcohol is the most common legal drug of abuse.

SUBSTANCE (DRUG) DEPENDENCE

Substance dependence is the medical term used to describe abuse of drugs or alcohol that continues even when significant problems related to their use have developed. Signs of dependence include:

- Tolerance to or need for increased amounts of the drug to get an effect
- Withdrawal symptoms that happen if you decrease or stop using the drug that you find difficult to cut down or quit
- Spending a lot of time to get, use, and recover from the effects of using drugs
- Withdrawal from social and recreational activities
- Continued use of the drug even though you are aware of the physical, psychological, and family or social problems that are caused by your ongoing drug abuse

GEOGRAPHICAL LOCATION AS A REASON OF INCREASING DRUG MENACE:

The menace of drug addiction has spread fast among the youth in India as supply drives the demand. India is sandwiched between two of the largest opium producing regions of the world. This proximity makes India vulnerable. It has made India both a destination and a transit route for opiates produced in these regions.

GOLDEN TRIANGLE comprising of Thailand, Myanmar, Vietnam and Laos

GOLDEN CRESCENT comprising of Pakistan, Afghanistan and Iran

According to World Drug Report, 2021, prescription drugs and their ingredients or precursors are being increasingly diverted for recreational use in India- largest manufacturer of generic drugs in the world.

OBJECTIVE OF THE STUDY:

- To study the trend of drug and substance abuse among the youth in India based on nationwide surveys.
- To study the factors and consequences of substance abuse based on secondary data review.

METHODOLOGY:

The method employed has been the qualitative study of national and international surveys on drug and substance abuse, review of literature ranging from research papers, newspaper articles and blogs to comprehend the trend of drug and substance in India and the extent of the drug menace in the country.

CAUSES OF SUBSTANCE ABUSE:

Based on the secondary data review, the following factors and consequences of substance abuse has been identified.

1. Social Factors
 - Peer pressure
 - Role Modeling/ Imitation
 - Easy availability
 - Conflicts
 - Cultural/ Religious reasons
 - Lack of social/ familial support
 - Social attitude
2. Psychological Factors
 - Curiosity
 - As a novelty
 - Social rebellion (Disobedience)
 - Early initiation
 - Poor control
 - Sensation seeking (Feeling high)

- Low self-esteem
- Poor stress management
- Childhood loss/trauma
- As a relief from fatigue/ boredom
- To escape reality
- No interest in conventional goals
- Psychological distress

3. Biological Factors

- Family history of drug and substance abuse
- Pre-existing psychiatric or personality disorder
- Re-inforcing effects of drugs
- Withdrawal effects and craving
- Biochemical factors

CONSEQUENCES OF DRUG ABUSE:

The youth is said to be the future of any country, they have the potential to be productive in a way to add to the progress and growth of the country. Unfortunately, a lot of them make some wrong choices, some due to peer pressure because they want to get a validation among their friends, some because of religious purposes, some get depressed due to workload and other because they come across some life crossroads which they don't know how to deal with. These life choices may cost them leaving some serious consequences which adversely impact their peaceful and normal life. The consequences can be classified into four major categories:-

SOCIAL CONSEQUENCES:

When the young and adolescent population of the country indulge themselves into drug or substance use they lose their power of decision making and end up making choices that can cost them their fortune. They do not realise the consequences of their acts, which is going to leave a huge impact on society. Young generation using drugs will increase the crime rate at a great pace; they might want to steal money for buying more drugs, they will not be able to judge their own decisions. Their family members may face difficulties with society and also with handling the drug abuser in a way to make them sober again. The mental trauma felt by them is tremendous. This can also cost them their education by letting them waste their academic opportunities. The drugs once consumed tends to fail the capacity of risk analysis of a person which leads them to commit serious crimes such as violence, car accidents, assaults, STDs while

they exchange injections or tuberculosis in that case, rape etc. It also cost the person his development, learning or social relations. It is beyond our criminal justice system to understand such crimes. Along with the family, the person is working, his work environment gets distorted. The drug overuse by the young generation might cause us to lose the human capital capable of working towards a good societal environment.

ECONOMIC CONSEQUENCES

There are some economic consequences too, when youth are engaged in such drug abuse they are least capable to become a human resource adding up to the GDP or the development or growth of the country. They lead the country to bear losses which could have been a productive addition to the growth. Moreover, the government has to bear the costs of channelizing their funds for establishing the rehabilitation centres for them to sober up, and this not only affects the government but it also lever an economic liability on the shoulders of the family as they have to bear the cost for their admission in the rehabilitation centres. It is the cycle of economic liability getting transferred to one and then the other element of the society be it government, the users family or their friends or guardians. There are huge economic costs involved in disturbing the vicious cycle coordinated by the drug supply sector and the drug demand sector to clean up the country to be as productive as it could have been if the drugs were not used by the abusers in the first place.

LEGAL CONSEQUENCES:

Beyond the socio-economic consequences, there are legal consequences also, once the person is engaged in using drugs on a daily basis they either consume them in very huge quantities or they become dealers. The excessive use may lead them to commit heinous crimes they wouldn't have committed at the first place if they were sober. This makes them liable for the crime after which their whole life becomes miserable. Intoxication is a defence but only if it is involuntary.

The young generation does not realise how serious this all is in the long run. For those who become dealers or consume drugs on a daily basis if they get caught, the Narcotic Drugs and Psychotropic Substances Act (1985) and the Prevention of Illicit Trafficking in Narcotic Drugs and Psychotropic Substances Act (1988) becomes applicable on them. They are charged according to the rules mentioned in the legislation. If the quantity of the drugs found is less than a kilogram he is liable to be punished with rigorous imprisonment for a term which may extend to 6 months, or with fine which may extend to ₹10,000 or with both; and if the quantity lesser than commercial quantity but greater than small quantity, with rigorous imprisonment for a term which may extend to 10 years and with fine which may extend to ₹1 lakh; and is caught with the commercial quantity, with rigorous imprisonment for a term which shall not be less

than 10 years but which may extend to 20 years and shall also be liable to fine which shall not be less than ₹1 lakh but which may extend to ₹2 lakh.

PSYCHOLOGICAL CONSEQUENCES:

When an individual consumes substance that is not identical to the body, the body reacts in its own way to handle such things. Drugs are known for disturbing the physical and intellectual growth among the teenager and the youth. It affects the brain's ability to function in the short run and also degrade the proper growth and development of the user later on in their life. Drugs also interfere with the neurotransmitters which generally reduce the ability of the brain to figure out the experience of pleasure, and create problems with the memory, inhibiting development or perceptual abilities. This affects the psychological state of a person making him or her vulnerable to making wrong choices and decisions as they are not able to put together the facts of a situation and think about it before going for something leading to error of judgement.

TYPES OF SUBSTANCES USED FOR ADDICTION:

Drug Type	Example	Effect
Cannabis		
Ecstasy		
Inhalant		
Hallucinogens		
Alcohol		
Solvents		
Opioids		
Cocaine		

FINDINGS AND DISCUSSION:

According to a study conducted by the National Commission for Protection of Child Rights, the most common form of substance abuse amongst adolescents is tobacco and alcohol followed by inhalants and cannabis. UDAYA study funded by Bill and Melinda Gates Foundation and the Packard Foundation and conducted in U.P. and Bihar shows that substance abuse is high among adolescent boys (15-19 years). The study probed on tobacco use, alcohol consumption and drug use. 20% of adolescent boys aged 15-19 in Bihar and 22% in U.P. consumed tobacco and tobacco products.

The consumption is higher among rural boys in comparison to urban boys (21% Vs 17% in Bihar; 23% Vs 18% in U.P.). 1% boys belonging to 15-19 years age group were reported to use Brown Sugar (a heroin product), cocaine, ganja, charas and bhang. Alcohol consumption was found to be 8% in Bihar and 5% in U.P. Tobacco consumption was found among 0.1% 15-19 year old girls.

From traditional plant-based drugs such as cannabis, cocaine, and heroin to synthetic drugs such as tramadol, consumption of narcotic substances in India has increased manifold in recent years. According to the Global Burden of Disease Study, illicit drugs are estimated to have killed nearly 7.5 lakh people worldwide in 2017 alone. The estimated number of lives lost in India was 22,000. According to some estimates the global drug trafficking trade is worth a staggering \$650 billion.

HIGH ON HEROIN:

According to a government report, India had 2.3 crore opioid users, in 2018, a five-fold jump in 14 years. The maximum growth was reported in the consumption of heroin. In 2004, the number of opium users (20,000) was more than twice that of heroin (9,000). Trends reversed some 12 years later: heroin consumers went up to 2.5 lakh, almost double that of opium consumers, noted the report titled the Magnitude of Substance Use in India. The findings were prepared by AIIMS' National Drug Dependence Treatment Centre.

From traditional plant-based drugs such as cannabis, cocaine, and heroin to synthetic drugs such as tramadol, consumption of narcotic substances in India has increased manifold in recent years. In terms of users, India's illicit drug markets are mostly dominated by cannabis and opioids. Cannabis in the form of bhang is legal in India. Its other forms -- ganja (marijuana) and charas (hashish) -- are illegal. Opioids are sold as opium (doda, phukki or poppy husk), heroin (brown sugar, smack) and pharma opioids. Nearly 3.1 crore people in India are estimated to be cannabis users according to the AIIMS report. Of them, 1.3 crores (1.2 per cent) use ganja and charas while the rest consume bhang.

Uttar Pradesh has the highest number of cannabis users, followed by Punjab, Sikkim, Chhattisgarh and Delhi, according to the AIIMS report. The use of illegal cannabis in India is lower than the global average. However, opioid use is three times higher here. Of the total opioid users, nearly 77 lakh or over one-third are in the harmful or drug-dependent category due to excess use. Roughly one-third of such cases are from Uttar Pradesh, Punjab, Haryana, Maharashtra and Delhi. However, in terms of population percentage, the north-eastern states top the list. Nearly seven per cent of the population in Mizoram, for instance, consume opioids, followed by Nagaland (6.5 per cent), Arunachal Pradesh (5.7 per cent) and Sikkim (5.1 per cent), according to the AIIMS report.

The country has nearly 1.08 crore sedative users, the maximum number being in Uttar Pradesh, followed by Maharashtra, Punjab and Andhra Pradesh. However, the prevalence rate, when compared to the local population, is higher in the north-eastern states of Sikkim (8.6 per cent), Nagaland (5.4 per cent) and Manipur (4.3 per cent). Around 11.8 lakh sedative users in India come under the harmful or dependent category.

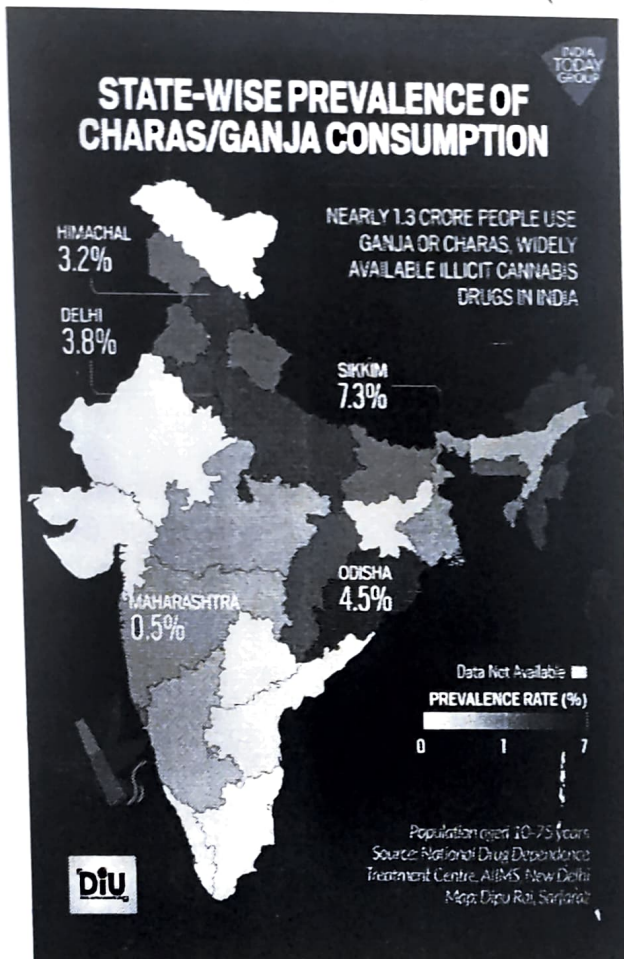
THE INHALERS:

Some drug users, fewer in number, take the inhalational route for psychoactive drugs. Inhalants are the only drug category prevalent among children. Some 1.17 per cent of children consume inhalants, compared to 0.58 per cent of adults.

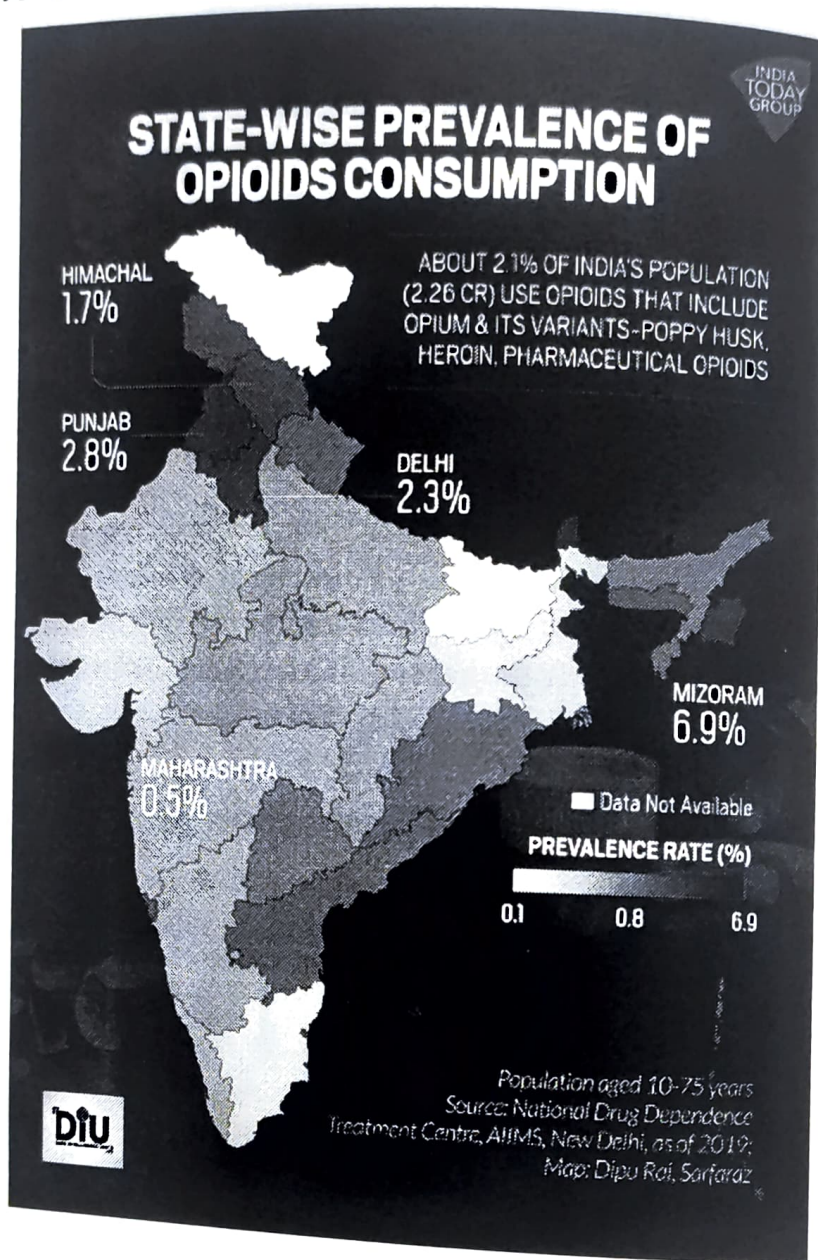
Nearly 18 lakh adults and 4.6 lakh children fall in the badly addicted category, according to the AIIMS report.

Another drug category, hallucinogens, is used in limited circles.

According to the AIIMS report, India has nearly 12.6 lakh users in this category, of which one-third are in the harmful or dependent category. Maharashtra has the maximum (6 lakh) users, followed by Telangana (2 lakh), Kerala (1 lakh) and Delhi (63,000).



FATAL ADDICTION



DRUGS, TYPES, USERS

CONSUMPTION ACROSS STATES

The scale of Drug Addiction problem can be understood by the following piece of information:

The United Nations Office on Drugs and Crime (UNODC)'s World Drug Report 2022 estimates that around 284 million people use drugs worldwide. According to the report, India is one of the world's single largest opiate markets. The youth is among the most impacted by the menace.

Measures taken by the Government

In 1985, the Narcotic Drugs and Psychotropic Substances Act was passed. Under the Act, Narcotics Control Bureau (NCB) was constituted in 1986. NCB is the drug law enforcement and intelligence agency with the prime responsibility of fighting drug trafficking and the abuse of illegal substances.

The **Nasha Mukh Bharat Abhiyaan (NMBA)** was launched by the Indian Govt. in August 2020 in 272 most vulnerable districts of India to address the problem of drug and substance abuse. The **Department of Social Justice and Empowerment** is the Nodal Department in the Government of India for Drug Demand Reduction.

Defence Minister Rajnath Singh addressed an interaction with NCC cadets from across the country in an event under the Nasha Mukh Bharat Abhiyan in New Delhi organized by the Ministry of Social Justice and Empowerment. He said that drug menace impacts the law and order maintenance in the country. The money earned from the illegal drug trade is used to aid terrorist organizations which threatens the defence and security of nations.

Conclusion

There is a role to be played by civil society. June 26, the International Day against Drug Abuse and Illicit Trafficking is celebrated with an aim to sensitise individuals and communities about the challenge of drug abuse and addiction as well as its impact. With the global observance, individuals, communities and numerous organizations aim to raise awareness to fight against substance abuse, strengthen comprehensive action and collaboration to achieve the aim of a global society free of drug abuse. According to UN, around 13% of those involved in drug and substance abuse in India are below 20 years of age. This calls for stepping up community intervention and preventive mechanisms.

According to a report in the Economic Times, October 2022, there has been a 50% rise in the number of youngsters taking mind altering drugs since 2021. The frequency of drug use has also increased. We have to tap them at adolescence. If they are aware, they will hesitate to indulge. They are suffering in silence. Youngsters need guidance, moral education and a healthy environment at home, schools, colleges and the workplace.

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Department of Sociology under the School of Social Sciences,
NSOU in collaboration with the NSOU Centre for Social Studies
on the theme Giving voice to the voiceless?
: The sociology of identity politics in contemporary India.

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Socioeconomic status and substance abuse among college students in India

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Assistant Professor of Sociology
School of Social Sciences
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Date: September 23 (Friday), 2022.
Place: Kolkata

Giving Voice to The Voiceless:

The Sociology of Identity Politics in Contemporary India



Editors :

Dr. Srabanti Choudhuri
Professor Chandan Basu



Netaji Subhas Open University

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&

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A study on the relationship between substance abuse and the Socio-economic status of the Youth in India at the College Level

Mili Mishra

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Abstract

Research has shown that there is a clear relationship between socioeconomic status (SES) and substance abuse. This study aims to study the association of the indicators of family SES - income, wealth and parental education- with the pattern of substance abuse among youth particularly the students studying at the UG level. Along with the socio economic factors, other contextual factors associated with substance abuse were also studied. A qualitative study of the research findings on the use of substances among the college students in India was carried out to explore the reasons for substance use among the college students including family influence, socio-economic, cultural and other contextual factors. Findings based on indicators of family background SES- income, wealth and parental education- converged in describing unique patterns for smoking, alcohol and substance use. Smoking was associated with lower family SES. Alcohol use and drug use were associated with higher family SES. Much remains to be done to address the problems caused by substance use among the college students. Lack of a comprehensive policy has also been highlighted.

Keywords: drug, substance abuse, socio-economic status, golden triangle, golden crescent

Introduction

India is predominantly a youth centric nation. India's population is 1.38 billion of which 22% are the youth (18-29 years). Of these, 34.3 million are college going students according to the Annual Status of Higher Education, ASHE. Statistics show that there is an addiction problem in India. According to a report in 2016, 2 million college students have used an illicit drug. The students fall prey to drug and

substance abuse in the college as they are vulnerable. Prevalence of drug related problems exists which gets reflected in the data of death due to substance abuse, with students making up a considerable part of it. The college going youth is prone to risky behaviour as the phase involves a lot of experimentation related to the physical, social, emotional, mental changes associated with this phase of their life.

Concept of drug and substance abuse

Drug

A drug is a term for a habit forming substance or a chemical substance which directly affects the brain, nervous system, bodily function, perception or consciousness which has the potential to misuse. Frequent use of drugs may lead to death. It is immoral, anti-social and against law.

Drug Abuse

Drug abuse is a general term used to describe the excessive habitual use of some kind of substance like use of an illicit drug or misuse of legitimate drug resulting in physical or psychological harm. It leads to impaired judgement, loss of physical and emotional control and renders the person into a state of intoxication.

Drug abuse is synonymous with substance abuse for example smoking ganja or hashish, taking heroin or cocaine, LSD, injecting morphine, cannabis, opium, marijuana, crystal meth.

Substance Abuse

Substance abuse refers to the harmful or hazardous use of psychoactive substances including alcohol and illicit drugs. The use of psychoactive substances causes significant health and social problems for the people who use them and also for others in their families and communities. Substance of abuse include alcohol, opiates, cocaine, amphetamines, hallucinogens, prescription and over the counter drug abuse. (Psychoactive substances are substances that, when taken in or administered into one's system, affect mental processes.)

Substance abuse has long term consequences in the form of deteriorating health status, violent behaviour, accidental prone behaviour, loss of employment, dropping out of formal education, poor academic performance, stunted career development.

Substance abuse may also be defined as the medical term used to describe a pattern of using a substance (drug) that causes significant problems or distress. This may be missing work or school, using the substance in dangerous situations, such as driving a car. It may lead to substance-related legal problems, or continued substance use that interferes with friendships, family relationships, or both. Substance abuse, as a recognized medical brain disorder, refers to the abuse of illegal substances, such as marijuana, heroin, cocaine, or methamphetamine. Or it may be the abuse of legal substances, such as alcohol, nicotine, or prescription medicines. Alcohol is the most common legal drug of abuse.

What are most often abused?

Substances frequently abused include:

- Alcohol
- Marijuana
- Prescription medicines, such as pain pills, stimulants, or anxiety pills
- Methamphetamine
- Cocaine
- Opiates
- Hallucinogens
- Inhalants

What causes drug abuse or dependence?

Cultural and societal factors determine the acceptable forms of drug use. Public laws determine what kind of drug use is legal or illegal. The question of what type of substance use can be considered normal or acceptable remains controversial. Substance abuse and dependence are caused by multiple factors, including genetic vulnerability, environmental stressors, social pressures, individual personality characteristics, and psychiatric problems. But which of these factors has the biggest influence in any one person cannot be determined in all cases.

Causes of substance abuse in college students

- Transition from high school to college, students feel independent
- Peer pressure of fitting in
- Social Anxiety
- Curiosity
- Academic pressure
- Coping with mental health issues

- Signs need to be noticed early, students should be counselled and treated (MHRD)

Geographical Causes

The menace of drug addiction has spread fast among the youth in India as supply drives the demand. India is sandwiched between two of the largest opium producing regions of the world. This proximity makes India vulnerable. It has made India both a destination and a transit route for opiates produced in these regions.

GOLDEN TRIANGLE comprising of Thailand, Myanmar, Vietnam and Laos

GOLDEN CRESCENT comprising of Pakistan, Afghanistan and Iran

The geographical location of Punjab and North East have to be blamed for them to be worst hit. These are located in border areas and India is surrounded by drug producing countries. In Punjab, drug peddlers have dugged tunnels for the transportation of drugs to India. Drugs are tossed to the fields across the border. Farmers collect it, giving them to couriers who carry it to the local distributor.

According to World Drug Report, 2021, prescription drugs and their ingredients or precursors are being increasingly diverted for recreational use in India- largest manufacturer of generic drugs in the world.

Transit points have become consumption hubs. India has become key hub for illicit drug trade. Lockdown restrictions help narcotics business reach new highs in India. Consumption of narcotic drugs has increased manifold in India. The Indian illicit drug markets are mostly dominated by cannabis and opioids. Cannabis in the form of bhang is legal in India. Its illegal forms are ganja (marijuana) and charas (hashish).

Socio-economic Causes

Socio-economic status is the position of an individual or a group on the socio-economic scale, which is determined by a combination of social and economic factors such as income, educational qualification, occupation, place of residence, family background, social and cultural background. Hence socioeconomic status is the social standing or class of an individual or group (American Psychological Association). SES encompasses not just income but also educational attainment, financial

security and subjective perceptions of social status and social class. SES can encompass quality of life attributes as well as the opportunities and privileges afforded to people within society. SES is a consistent and reliable predictor of a vast array of outcomes across the life span, including physical and psychological health.

Relationship Between SES And Substance Abuse

The following discussion provides insight into the relationship between the socioeconomic status and substance use behaviour of college going youth as has been corroborated by research findings across the country. A qualitative study has been carried out by analysing the research findings exploring the relationship between the drug and substance abuse of the college going youth and their socio-economic status. A noteworthy fact concerns the age of the students and exposure to a new environment, an atmosphere of freedom in college renders them vulnerable to substance abuse. The pattern of substance abuse has been found to be associated with the socioeconomic status of the students. The prevalence of substance abuse was found to be maximum among the students belonging to the middle income group.

Evidence revealed that substance abuse is more frequent among adolescents whose family members (parents, siblings and grandparents) also indulge in such consumption.

Exposure to substance use in the family and community has been found to increase the tendency of substance use and abuse by the college going youth.

Role of the community as an influencer of an individual's behaviour cannot be denied as has been exemplified by the tradition of drinking by a particular North Indian community.

A study conducted on the behaviour of adolescent boys in U.P. and Bihar found that there is an association with the substance abuse behaviour and that of their family members. 16% of young adults were substance abusers (tobacco/ alcohol/ drug). 28% came from families having history of substance abuse.

According to a study (2016) by a Pune based researcher, Anuradha Mascarenhas, students have been found to not only do drugs but are also involved in peddling for easy money. The reasons behind drug and substance abuse ranges from social anxiety, fights with parents, stress, nuclear families and social constructs.

Research findings throw light on the fact that when family members

indulge in tobacco use, it increases the likelihood of the initiation of tobacco use by the college going member of the family.

Existing research has shown that generational continuity and the family's perception of drinking has a positive correlation with the excessive drinking behaviour of the college going youth as they are young adults having the freedom of choice. Due to lack of maturity and awareness, they are vulnerable and give in to their illicit desire.

A systematic review of research papers has indicated that smoking habit of the family members makes the impressionable youth to indulge in smoking behaviour.

A study has shown that substance abuse by older siblings increases the likelihood of substance use among the younger siblings.

The disintegration of the joint family system, absence of parental love and care in modern families especially where both the parents are working individuals, decline of religious, moral and cultural values are responsible for drug abuse.

In a study conducted among the youth drug abusers in Haridwar, majority of drug abusers were from the lower SES. 67.9% belonged to nuclear families. Alcohol abuse was the highest followed by Cannabis abuse. Drug consumption was found to be pursued by the higher SES youth.

Another interesting fact that surfaced was that the youth who indulged in substance abuse were more in urban areas than in rural areas. A study in Guwahati showed that alcohol and heroin were majorly abused among the college going youth. Again, alcohol users belonged to the lower SES mostly compared to heroin users who mostly belonged to the higher SES.

Conclusion

Behaviour inducing effect of familial substance abuse is a stark reality which needs to be taken on a serious note. There is a need to initiate community level programmatic interventions to alleviate the risk of substance use among the college going youth as they are the future torch bearers of the society. It is imperative that the youth especially the college going youth be given effective drug education as they are faced with many influences to use drugs both of the licit and illicit kind. It is only through education that a balancing act can be established to imbibe among the youth the importance of taking safe, moderate and informed decisions and saying a firm no to drugs. It is evident

from the study that the disintegration of the joint family tradition and the absence of parental love and care, decline of the cultural values push the young individual into exploring the dark world of substance abuse where they try to seek some solace and love to experience the short-lived sense of ecstasy. The youth especially the college going youth are vulnerable as they belong to an impressionable age devoid of experience of the real world as they are fresh out of school. Since they are the future of the nation, the torch bearers of the society, it is the collective responsibility of the family, teachers, and seniors, society at large to spread awareness and provide support to the victims of drug abuse. The role of governance and anti-drug policies become imperative to fight the menacing social evil.

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A STUDY OF MENTAL HEALTH DIMENSIONS OF UNDERGRADUATE COLLEGE STUDENTS IN KOLKATA

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ABSTRACT

Mental Health is "the emotional and spiritual resilience which enables us to enjoy life and survive pain, suffering and disappointment. It is a positive sense of well-being and an underlying belief in our and others' dignity and worth. Mental health is a state of mental well-being that enables people to cope with the stresses of life, realize their abilities, learn well and work well, and contribute to their community." This research attempts to analyse the gender difference in the mental health dimensions of the undergraduate college students in Kolkata. A sample of 300 participants, 150 Male & 150 Female were drawn at random from the population. The inventory for mental health has been developed by Dr. Jagdish and Dr. A.K. Srivastava (1983) and is utilized for data collection. Factorial design has been implemented and data was analysed by Mann Whitney U Test using Mean, SD and P values. Results show that 1) *Undergraduate girls have higher Positive Self-Evaluation than the boys* 2) *Undergraduate girls have higher Perception of Reality than the boys.* 3) *Undergraduate girls have higher Integration of Personality than the boys.* 4) *Undergraduate girls have higher Autonomy than the boys.* 5) *Undergraduate girls have higher Group Oriented Attitudes than the boys.* 6) *Undergraduate girls have higher Environmental Mastery than the boys.*

Keywords: Gender, 'Integration of Personality', 'Autonomy', 'Positive Self-Evaluation', 'Perception of Reality', 'Group Oriented Attitudes', 'Environmental Mastery'

INTRODUCTION:

Mental health refers to the mental state in which the well-being of persons is such that they are enabled to keep up with the stresses in life, learn well, realize their potential and capabilities and contribute meaningfully to the community. It proves to be an important part of health and well-being, and contributes to our collective as well as individual abilities to undertake decision-making processes, strengthen relationships and contour the world that we live in. Mental health is a human right and is key for the personal, socio-economic as well as the community development of individuals.

Mental health cannot be reduced to the mere absence of mental disorders. It is measured as a complex continuum and is experienced varyingly by individuals, with differing degrees of distress and difficulty and potentially different clinical and social outcomes. Mental health conditions comprise of mental and psychosocial disabilities and disorders and other mental states which are associated with major distress, risk of self harm or potential impairments in functioning. Persons who have mental health conditions have higher chances of experiencing lower levels of mental well-being, but this might not necessarily hold true.

REVIEW OF LITERATURE:

Vanee R. Meghrajani (2023) found out in her study that mental health disorders have a high degree of prevalence in India. Epidemiological studies report prevalence rates of 9.5 to 370 per 1000 people in India. Mental illness can contribute to social stigma in the Indian society which might culminate in discrimination and potentially socially exclude individuals with mental health problems.

Abhilasha Dhyani (2022) points out in her research that there is the need to focus on creating public awareness regarding community mental health.

Fiona Campbell (2022) highlighted that the factors that are consistently associated with an increased risk of developing poor mental health comprise of students with experiences of trauma in childhood. Factors promoting well-being included supportive and strong social network. The absence of meaningful engagement with leisure as well as learning and poor mental health literacy are some of the behaviours associated with poor mental health.

Ramdas Ransing (2021) has highlighted that the Government needs to give more priority to mental health as lack of adequate mental health professionals and limited research on mental health creates barriers in solving the issues of mental health in India.

Abirami Sakthivel (2021) found out that 50% of high school going students had some degree of mental health problems. Depression (56%) and anxiety (64%) were found to be widespread followed by stress (39%).

Daniel Hernandez-Torrano (2020) points out that there has been a study growth on research in mental health and well-being of university students in the US. The research work emphasizes addressal of issues like mental disorders, counselling, social stigma, positive mental health and stress.

Mohammad Amin Wani (2016) highlighted that age and gender significantly effect mental health of drug addicts. The female addicts display better mental health than male addicts.

Ashok Malla (2015) emphasised that mental disorders affect the core of an individual as he/she experiences situations of varying severity. It alters the person's thinking, 'perception' and 'consciousness of the self', others and the world. It is important that the uniqueness of each individual is understood and accordingly awareness about mental illness should be spread.

Dr A.K. Kansal and Ms. Chanchal Bala (2015) found significant negative correlation between mental health and emotional stability, social adjustment and independent factors of emotional maturity. The overall emotional maturity and mental health of adolescents are negatively and significantly correlated.

Jaya and Vishala Patnam (2014) indicated that female students were assessed to have a significantly higher percentage of good integration of personality and group-oriented attitude than the male students.

STATEMENT OF THE PROBLEM :

'A study of mental health dimensions of undergraduate college students in Kolkata.'

OBJECTIVE:

The main objective of the present study is to examine mental health of male and female undergraduate students in colleges in Kolkata.

HYPOTHESIS :

1. 'There is no significant difference between male and female college going students with mental health dimensions on Positive Self-Evaluation.'
2. 'There is no significant difference between male and female college going students with mental health dimensions on Perception of Reality.'
3. 'There is no significant difference between male and female college going students with mental health dimensions on Integration of Personality.'
4. 'There is no significant difference between male and female college going students with mental health dimensions on Autonomy.'
5. 'There is no significant difference between male and female college going students with mental health dimensions on Group Oriented Attitudes.'
6. 'There is no significant difference between male and female college going students with mental health dimensions on Environmental Mastery.'

PARTICIPANTS:

The present study sample are the undergraduate college students of colleges in Kolkata, West Bengal. Gender was considered as the independent variable. The method of stratified random sampling method was used to select the respondents. The total sample of the present study was 300 college students, of which 150 were Male College Students and 150 Female College Students. The subjects selected in this sample belong to the age group of 18 years to 21 years.

RESEARCH DESIGN:

2x2 Factorial design used in the present study.

VARIABLES OF THE STUDY:

Variable	Type of variable	Sub. Variable	Name of variable
'Gender'	'Independent'	02	1) 'Male' 2) 'Female'
'Mental Health'	'Dependent'	06	1) 'Positive Self-Evaluation' 2) 'Perception of Reality' 3) 'Integration of Personality' 4) 'Autonomy' 5) 'Group Oriented Attitudes' 6) 'Environment Mastery'

INSTRUMENTS USED :

MENTAL HEALTH INVENTORY:

The inventory for mental health has been developed by Dr. Jagdish and Dr. A.K. Srivastava (1983). This scale comprises of 56 items based on 6 dimensions- (1) 'positive self-evaluation', (2) 'realistic perception', (3) 'integration of personality', (4) 'Autonomy', (5) 'group-oriented attitude', (6) 'environmental mastery'. The scale has four response which have been categorized as 'always', 'often', 'rarely' and 'never'. The reliability and validity coefficients were found significant as the value of split-half reliability coefficient was $r=0.73$ and validity, i.e. construct validity, was $r=0.54$, which confirms the standardization of the scale.

OPERATIONAL DEFINITION OF MENTAL HEALTH AND ITS DIMENSIONS:

- **'Mental health'** -Mental health is the ability of an individual to have positive self-evaluations, integration of personality, achieving autonomy, harbour group-oriented attitudes and environmental mastery and to perceive reality.
- **'Positive Self-evaluation (PSE)'**: It comprises various aspects such as self-acceptance, the feeling of worthiness, the realization of one's potentialities, etc.
- **'Perception of Reality (PR)'**: It relates to one's perception freed from distortion, the absence of excessive fantasy and a broad outlook on the world.
- **'Integration of Personality (IP)'**: It strives to achieve a balance of psychic forces in the individual and comprises of the ability to understand and to share emotions, the ability to concentrate at work and interest in several activities.
- **'Autonomy (AUTNY)'**: It comprises a stable set of internal standards for one's action, dependence for one's own development upon one's own potentialities rather than dependence on other people.
- **'Group-oriented Attitude (GOA)'**: It is one's ability to get along with others, work with others and find recreation.
- **'Environmental Mastery (EM)'**: It comprises of efficiency in meeting situational requirements, the ability to work and play, the ability to take responsibilities and capacity for adjustment.

PROCEDURE OF DATA COLLECTION:

The research methodology was used in the present study is the following: The primary information has been gathered by getting the personal information from each student. The students were called in groups comprising of 10 to 15 students. The respondents were given specific instructions to fill up the questionnaires. The students were provided with the mental health inventory by Dr Jagdish and Dr Srivastav.

DATA ANALYSIS:

The Mean and SD with graphical representation for Gender (Male and Female College Students) on Mental Health was analyzed. A Factorial design was selected for the statistical analysis by Mann Whitney U Test in order to assess the undergraduate college student's Mental Health in Kolkata.

RESULTS :

The analysis of data interpretation and discussion of the results are presented below.

Mann-Whitney U Test

Test of Significance

Mental Health Dimensions Vs Gender

TABLE 1 POSITIVE SELF-EVALUATION

Gender	Mean	SD	N	Mean Rank	Sum of Ranks	U	Z Score	P- value	Significance
Male	36.40	6.17	150	22575	45150	11250	3.60	0.00034	Significant
Female	39.38	4.72	150						

The above table shows that in the mental health dimension of Positive Self-Evaluation, the mean and SD value obtained by the undergraduate boys are 36.40 and 6.17 respectively whereas the mean and SD value obtained by the undergraduate girls are 39.38 and 4.72 respectively. Since the value of Z score (3.60) is greater than the critical value of Z score both at the 0.01(2.23) and 0.05(1.96) significance level, the null hypothesis is rejected. There is significant difference between the undergraduate boys and girls in their mental health dimension of Positive Self-Evaluation in Kolkata. Girls have higher Positive Self-Evaluation than the boys.

TABLE 2 PERCEPTION OF REALITY(PIJ)

Gender	Mean	SD	N	Mean Rank	Sum of Ranks	U	Z Score	P- value	Significance
Male	15.86	1.93	150	22575	45150	11250	4.33	0.00001	Significant
Female	16.7	1.72	150						

The above table shows that in the mental health dimension of Perception of Reality, the mean and SD value obtained by the undergraduate boys are 15.86 and 1.93 respectively whereas the mean and SD value obtained by the undergraduate girls are 16.7 and 1.72 respectively. Since the value of Z score (4.33) is greater than the critical value of Z score both at the 0.01(2.23) and 0.05(1.96) significance level, the null hypothesis is rejected. There is significant difference between the undergraduate boys and girls in their mental health dimension of Perception of Reality in Kolkata. Girls have higher Perception of Reality than the boys.

TABLE 3 INTEGRATION OF PERSONALITY(IP)

Gender	Mean	SD	N	Mean Rank	Sum of Ranks	U	Z Score	P- value	Significance
Male	45.77	4.74	150	22575	45150	11250	5.17	0	Significant
Female	48.12	3.72	150						

The above table shows that in the mental health dimension of Integration of Personality, the mean and SD value obtained by the undergraduate boys are 45.77 and 4.74 respectively whereas the mean and SD value obtained by the undergraduate girls are 48.12 and 3.72 respectively. Since the value of Z score (5.17) is greater than the critical value of Z score both at the 0.01(2.23) and 0.05(1.96) significance level, the null hypothesis is rejected. There is significant difference between the undergraduate boys and girls in their mental health dimension of Integration of Personality in Kolkata. Girls have higher Integration of Personality than the boys.

TABLE 4 AUTONOMY(AUTNY)

Gender	Mean	SD	N	Mean Rank	Sum of Ranks	U	Z Score	P- value	Significance
Male	16.83	3.24	150	22575	45150	11250	4.93	0	Significant
Female	18.44	2.62	150						

The above table shows that in the mental health dimension of Autonomy, the mean and SD value obtained by the undergraduate boys are 16.83 and 3.24 respectively whereas the mean and SD value obtained by the undergraduate girls are 18.44 and 2.62 respectively. Since the value of Z score (4.93) is greater than the critical value of Z score both at the 0.01(2.23) and 0.05(1.96) significance level, the null hypothesis is rejected. There is significant difference between the undergraduate boys and girls in their mental health dimension of Autonomy in Kolkata. Girls have higher Autonomy than the boys.

TABLE 5 GROUP ORIENTED ATTITUDES(GOA)

Gender	Mean	SD	N	Mean Rank	Sum of Ranks	U	Z Score	P- value	Significance
Male	30.84	8.91	150	22575	45150	11250	2.53	0.01137	Significant
Female	35.12	6.39	150						

The above table shows that in the mental health dimension of Group Oriented Attitude, the mean and SD value obtained by the undergraduate boys are 30.84 and 8.91 respectively whereas the mean and SD value obtained by the undergraduate girls are 35.12 and 6.39 respectively. Since the value of Z score (2.53) is greater than the critical value of Z score both at the 0.01(2.23) and 0.05(1.96) significance level, the null hypothesis is rejected. There is significant difference between the undergraduate boys and girls in their mental health dimension of Group Oriented Attitude in Kolkata. The girls have higher Group Oriented Attitude than the boys.

TABLE 6 ENVIRONMENTAL MASTERY(EM):

Gender	Mean	SD	N	Mean Rank	Sum of Ranks	U	Z Score	P- value	Significance
Male	8.96	3.73	150	22575	45150	11250	3.71	0.0002	Significant
Female	10.75	2.71	150						

The above table shows that in the mental health dimension of Environmental Mastery, the mean and SD value obtained by the undergraduate boys are 8.96 and 3.73 respectively whereas the mean and SD value obtained by the undergraduate girls are 10.75 and 2.71 respectively. Since the value of Z score (3.71) is greater than the critical value of Z score both at the 0.01(2.23) and 0.05(1.96) significance level, the null hypothesis is rejected. There is significant difference between the undergraduate boys and girls in their mental health dimension of Environmental Mastery in Kolkata. The girls have higher Environmental Mastery than the boys

FINDINGS AND DISCUSSION:

In the present study, it was found that among the undergraduate students in Kolkata, girls possess more Positive Self-Evaluation than the boys. In a study on self-esteem among the college students in the Bengaluru area by **Abraham, J.J. (2023)**, girls were found to have higher self esteem than the boys. As the girls score higher than the boys in this mental health dimension, it can be said that girls are more confident in their approach towards life in general as they cope with the problems of academic, social and peer pressure. **Abraham, J.J. (2023)** found that the girl students develop emotions related to internalizing problems whereas the boys develop emotions related to externalizing them. **More, T.S. (2019)** found no significant difference in the mental health dimension of Positive Self-Evaluation. Perhaps due to the changing social norms and increased focus on female empowerment, we find that the undergraduate girl students have more positive self-evaluation than the boys.

According to the study, the girls have higher Perception of Reality than the boys. They seem to have an eye for detail as they are good in their observational skills compared to the boys. The girls have a holistic approach as they process and integrate information coming from various sources. The girls have a better ability to perceive subtle cues compared to the boys thereby having higher Perception of Reality than the boys. There are differences in the manner girls and boys perceive the world around them. This study found that girls are more in tune with the challenges of the real world. Having higher perception of reality indicates higher emotional intelligence or problem solving ability. Girl students have a clearer understanding of situations than the boys. Girls score higher in empathy compared to the boys, having a better understanding of the social reality. This indicates the cognitive differences between girls and boys as they interpret the world around them. **Panda, Y. (2022)** found in his study that there is no significant difference between male and female college students w.r.t. Positive Self-Evaluation and Perception of Reality.

The girls have higher Integration of Personality than the boys. The finding of the study refers to the concept that girls have a more balanced and well rounded personality compared to the boys. Girls tend to have a higher stable sense of self compared to the boys. Girls have a greater ability to integrate their traits and behaviour and align them in a balanced manner. Girls are better at harmonizing their emotions, thoughts and behaviours. This allows better management of conflicting feelings leading to a stable personality. Having higher Integration of Personality means girls have more adaptive personality than the boys. The findings of the study indicate that girls have a higher level of psychological maturity in terms of personality integration compared to the boys.

According to the study, girls have higher autonomy than the boys. Girls have scored higher in emotional and social autonomy. Higher autonomy among the girls indicate the step towards gender equality. In the context of the findings of the study, it can be said that girls are more independent in their decision making. Girls are likely to make decisions based on their own values, preferences and goals compared to the boys. Girls are more independent in choosing their academic paths and career aspirations compared to the boys who may be influenced by external factors like peer influence or societal norms when making decisions. **Waghmare, R.D. (2019)** found that the male adolescents have higher autonomy than the female adolescents. **Bhatand, R. and Majeed, J. (2015)** and **Sharma (2006)** found no contrast between the autonomy of young men and women.

According to the study, girls have higher Group Oriented Attitude than the boys which means that they are more likely to value and prioritize group harmony, cooperation and collaboration, focusing on group goals compared to the boys. Girls are more likely to avoid conflicts within groups compared to the boys. It can be said that girls are more likely to prefer collaborative behaviour compared to the boys.

According to the study, girls have higher Environmental Mastery than the boys which means that girls tend to have a greater ability to manage and control their surroundings in ways that help them achieve their goals. Girls are more likely to show a greater sense of competence in managing the challenges of daily life. Girls are better at organizing their space, managing time effectively and balancing multiple

tasks. They have a greater sense of self efficacy w. r. t. the environmental challenges like academic responsibilities and personal goals

CONCLUSION:

In the 21st Century, we find that the undergraduate girl students in the urban colleges in Kolkata have better mental health than the boys as the findings of the study show that they score higher than the boys in the mental health dimensions of 'Positive Self-Evaluation', 'Perception of Reality', 'Integration of Personality', 'Autonomy', 'Group Oriented Attitudes' and 'Environmental Mastery'. **Nandana (2001), Chawla (2012), Pathak and Rai (1993)** found in their study that the female undergraduate students have better mental health than their male counterparts. However **Bangale and Patnam (2013), Vyas (2007), Aghara (1995), Taak (1999) and Singh (2011)** found no critical distinction in the mental health status among male and female undergraduate students. It is a known fact that students suffer from mental health issues as this fact is supported by the literature based on research carried out on the mental health of the students starting from high school to the University. A study which had been conducted by the Schizophrenia Research Foundation (SCARF) in Chennai had the finding that over 30% of students have anxiety and depression. **National Mental Health Survey (2015-2016)** found that a 7% prevalence of psychiatric disorders in the age group of thirteen to seventeen years and was nearly equal among both the genders. Mental Health crisis among the students can be triggered by academic pressure, peer pressure, financial burden of parents, high parental expectations and other social pressures. Exam pressure and performance anxiety are factors that trigger mental health issues like suicidal tendencies among the students. Eg suicides in IITs, in Kota, Rajasthan. A recent event is related to the suicide of a student in a renowned engineering college in Bhubaneswar, Orissa. A **British study in 2018** found that increased use of social media leads to decreased, disrupted and delayed sleep. This is associated with mental health issues like depression, memory loss and poor academic performance. Hormonal changes and gender identity are factors that cause mental health issues among the students starting with adolescence. The stigmatization of seeking mental health care and lack of awareness also adds to the woes of the students suffering from mental health issues. There are certain issues related to mental health care in India starting with the fragmented approach to mental healthcare as its integration with primary healthcare is insufficient. Lack of mental healthcare infrastructure and shortage of mental health professionals in general especially in campuses is an area the Government needs to be worked on. According to the **Economic Survey, 2023-2024**, there are only 0.75 psychiatrists per lakh population in India.

SUGGESTIONS:

The way forward is to implement regular training programs for the stakeholders including the faculty members so that they identify and support students at risk. A support system needs to be established across various schools and colleges. Front line health workers and teachers should receive sensitization regarding the mental health challenges of the students to equip them to identify individuals who are at risk at an early stage. Mental healthcare of children, particularly adolescents, requires special attention as mental health issues start by the age of fourteen years. There is an urgent need to prioritize mental healthcare agenda by adopting an integrated approach that addresses the biological, social as well as psychological determinants. Students need to be encouraged to balance digital engagements with physical exercises, hobbies and offline social interactions to counter balance the negative effects of excessive digital use. Most importantly, students should be encouraged to practice mindfulness, self-awareness, regular exercise, healthy sleep and eating habits to keep mental health issues at bay, reduce anxiety and and build emotional resilience.

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News / India / Kolkata's biggest LSD-Ecstasy racket bust: 5 colleges named in having active drug market

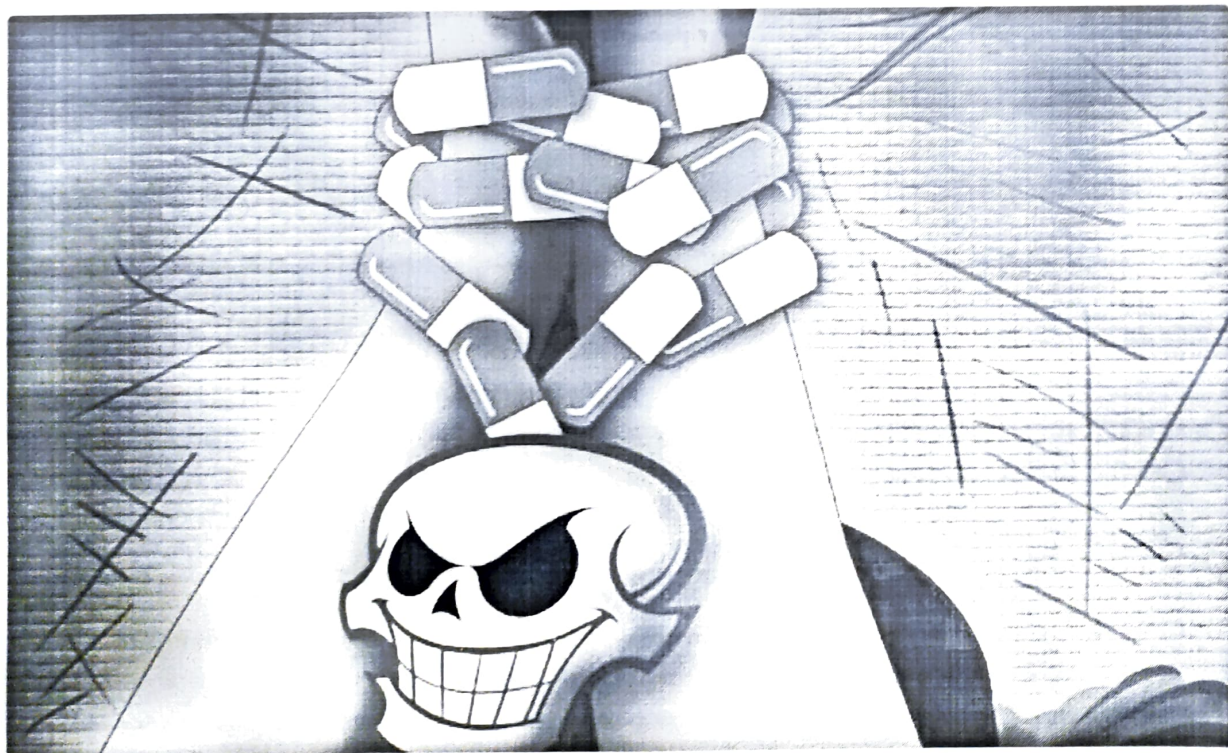
Kolkata's biggest LSD-Ecstasy racket bust: 5 colleges named in having active drug market

The Narcotics Control Bureau recently busted an LSD-Ecstasy racket in Kolkata, and further probe revealed that there is an active market of LSD blots in at least five colleges across the city.

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Kolkata: In a first, magic mushroom recovered by NCB in eastern India; DJ among three held

India

Updated Mar 05, 2018 | 14:11 IST | Times Now Digital

Magic mushroom, mostly grown in South America, Mexico, and Indonesia, is a hallucinogenic drug and is bitter in taste.

Representational image

Kolkata: The Kolkata unit of the Narcotics Control Bureau on Sunday confiscated a huge quantity of psychotropic substances, inclusive of Ecstasy, LSD blots, and magic mushrooms, from a house in the city and arrested three persons, including a disc jockey, a BBA graduate, in connection with it, a senior NCB official said. Acting on a tip-off, the NCB officials on Sunday raided the house of Vivek Sharma in south Kolkata and seized the drugs and hallucinogenic substances. This was the first time that a contraband like Psilocybin mushroom, popularly known as magic mushroom, was

recovered in eastern India, the officials said.

Magic mushroom, mostly grown in South America, Mexico, and Indonesia, is a hallucinogenic drug and is bitter in taste. It is either taken with food or coated with chocolate. The hallucinogenic effects of magic mushrooms can last for approximately eight hours and are stronger than MDMA or LSD blots.

"13.5 grams of Ecstasy like substance, 2.49 grams of Magic mushrooms, 20 LSD blots and nine pink, star-shaped pills believed to be MDMA, were recovered from the house," NCB Kolkata Zonal Head Dilip Kumar Srivastava said in a release.

NCB conducts massive crackdown in top Delhi universities; four students arrested

"Three people named Vivek Sharma, Rishab Sharma and a disc jockey (DJ) named Deep Chakraborty have been arrested. They were involved in supplying the drugs to college students and some elite people of the city at various parties," he explained.

According to NCB officials, the prime accused Vivek Sharma, along with his cousin Rishab, used to buy the psychotropic substances through dark webs using bitcoins while the DJ arranged the potential customers.

"The three accused have been produced before the special NDPS court in Kolkata's Alipore. Further investigation about the other members of the racket is on," Srivastava added.

(With IANS inputs)

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HOME » NEWS » INDIA » INTERNATIONAL DRUG RACKET: FOUR PEOPLE, INCLUDING TWO TEENAGE GIRLS, ARRESTED IN KOLKATA (3 MIN READ)

International Drug Racket: Four People, Including Two Teenage Girls, Arrested in Kolkata

Curated By [Sujit Nath](#) Edited By [Huma Tabassum](#) News18.com Last Updated: APRIL 17, 2018, 20:43 IST



Initial probe suggests international links because most of the consignment is coming from Malaysia and other neighbouring countries, said Narcotics Control Bureau (NCB) in Kolkata.

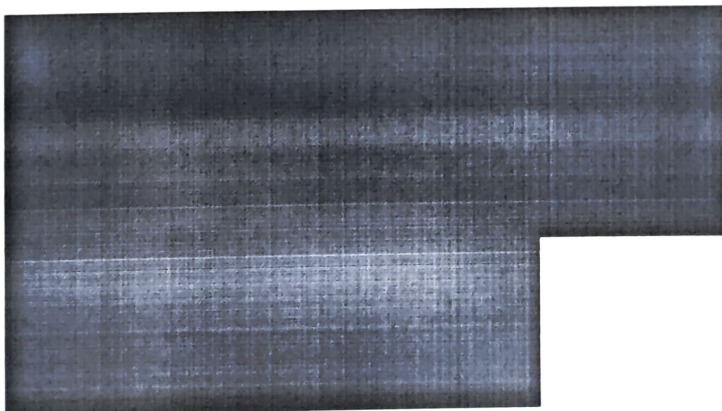
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Kolkata: The Narcotics Control Bureau busted an international drug racket in Kolkata on Saturday arresting four persons, including two teenage girls. This was the second such haul from the city within a short interval.



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2 ex-convent schoolgirls held, LSD racket busted

TNN / Apr 18, 2018, 06:57 IST

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2 ex-convent schoolgirls held, LSD racket busted
<https://timesofindia.indiatimes.com/ex-convent-schoolgirls-held-lsd-racket-busted/articleshow/63807898.cms>



KOLKATA: Sophisticated and dangerous drugs have spread their tentacles in not only colleges, but school campuses as well. On Monday, the Narcotics Control Bureau (NCB) (<https://timesofindia.indiatimes.com/topic/ncb>) arrested four persons — including two former students of a central Kolkata convent school and an IT professional — for running an LSD-supply racket.

"We had inputs that one of the former convent school student (who's 19) was peddling LSD in party circuits," said Dilip Srivastava, zonal director of NCB. "An officer contacted her through and placed an order. A place in Alipore (<https://timesofindia.indiatimes.com/topic/alipore>)



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HOME / NEWS / CITIES / KOLKATA

Two arrested for sourcing narcotics over dark web in Kolkata

The arrested youth were produced before a city court and sent to police custody till September 13

September 09, 2023 10:22 pm | Updated 10:22 pm IST - Kolkata

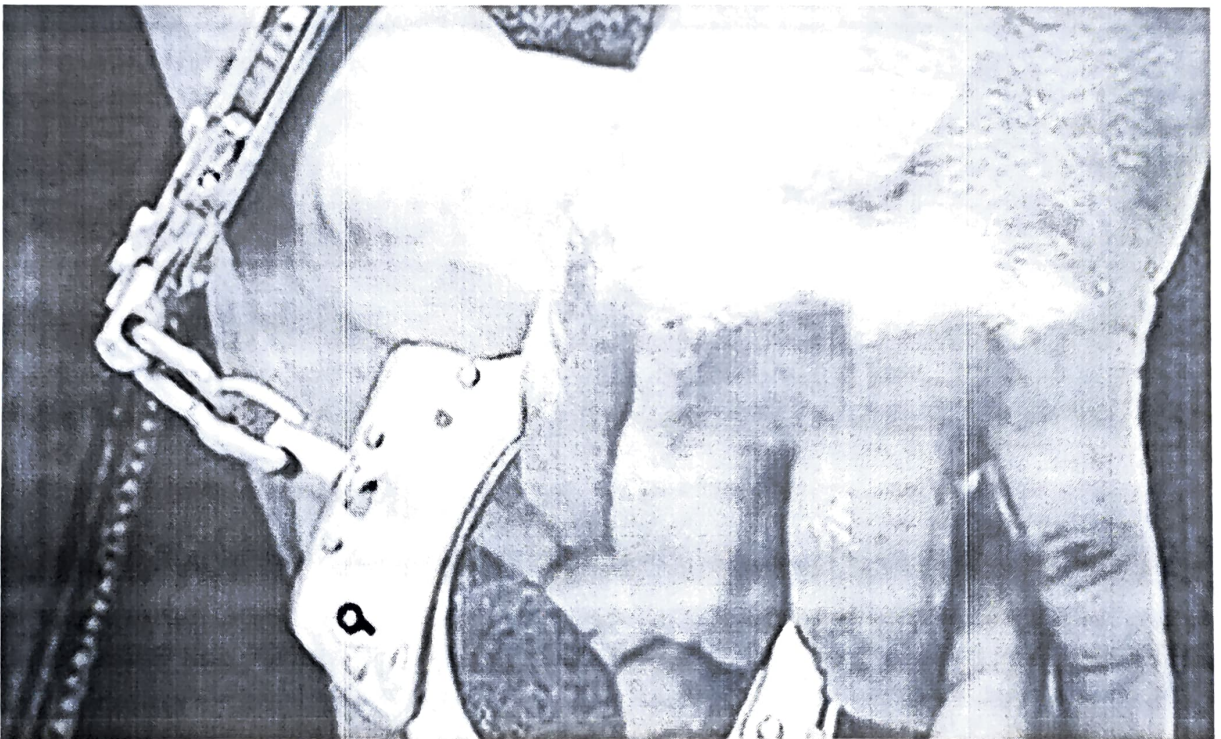


SHIV SAHAY SINGH

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The accused have been booked under sections of NDPS ACT. Representational image | Photo Credit: SUBRAMANIUM S

The Special Task Force (STF) of Kolkata Police has arrested two 21-year-old youth from Kolkata's Jadavpur area for allegedly possessing imported weed (cannabis). The narcotics weighing about 851 gm were allegedly ordered over dark net.



GPS Map Camera

Kolkata, West Bengal, India

3, Greek Church Row, near Women's Christian College, Manoharpukur, Kalighat, Kolkata, West Bengal 700029, India

Lat 22.520084°

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PHARMACOLOGY OF DRUGS

HEROIN

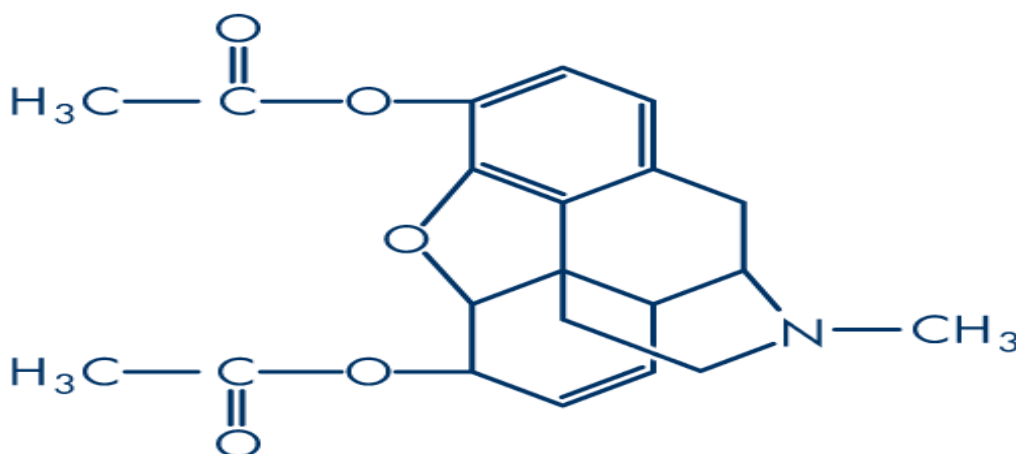
A crude preparation of diamorphine is heroin. It is obtained by the acetylation of morphine. Morphine occurs as a natural product and is the dried latex of certain poppy species (e.g. *Papaver somniferum* L.). Diamorphine is a narcotic analgesic. It is used medically in the treatment of severe pain. Illicit heroin may be smoked or injected.

Pharmacology

Diamorphine produces analgesia, that are acted upon by endorphins. Diamorphine produces a sense of detachment, drowsiness. Ill effects include respiratory distress, nausea and vomiting, affects functioning of the gastrointestinal tract, lowers cough reflex and causes hypothermia. Repeated use causes physical dependence and builds tolerance to the drug. If the drug is ceased to be used by the tolerant subject, it leads to withdrawal symptoms. When injected, the addicts feel 'the rush' along with feelings of warmth and pleasure.

South-west Asia is the place of origin of heroin, specifically Afghanistan and Pakistan. Common names of the drug includes horse, smack, shit and brown.

Molecular structure ⁽¹⁾



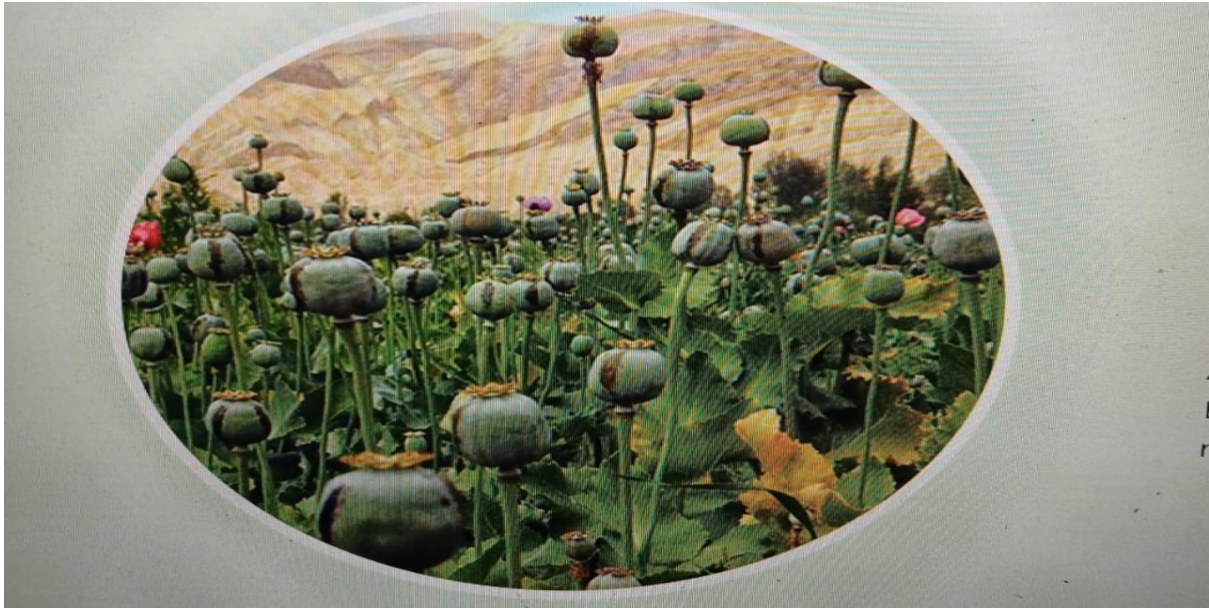
Molecular formula: $C_{21}H_{23}NO_5$

Molecular weight: 369.4 g/mol

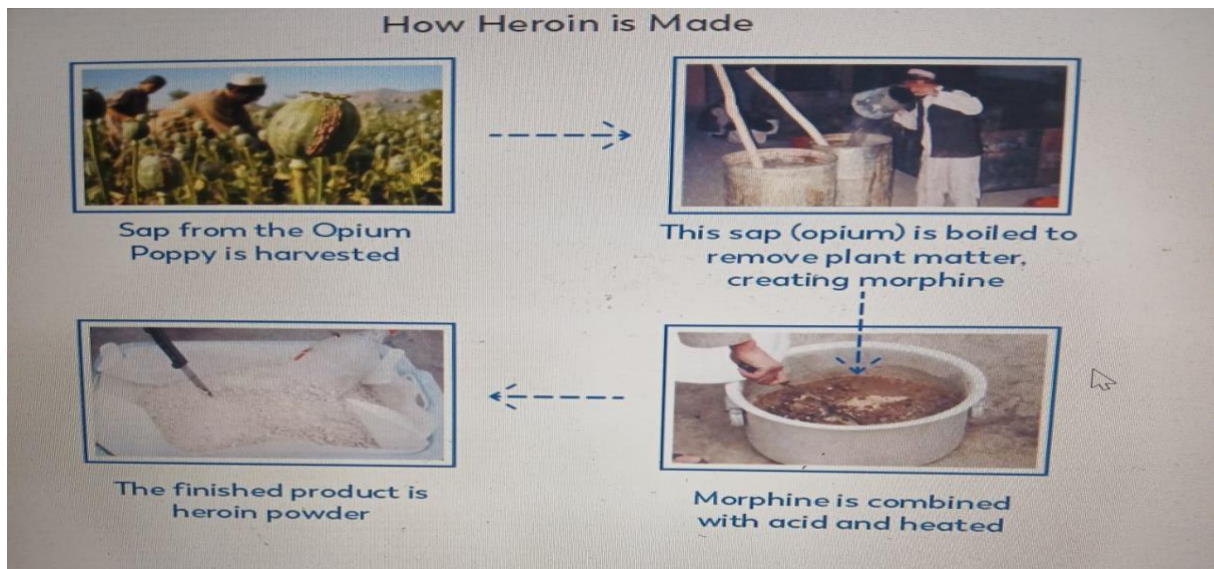
Diamorphine (diacetylmorphine) is produced by the acetylation of crude morphine. The systematic name (IUPAC) is (5 α ,6 α)-7,8-didehydro-4,5-epoxy-17-methylmorphinan-3,6-diol acetate.

Physical form

Heroin is a brown powder, insoluble in water but soluble in organic solvents. The less common variant is usually a white powder (hydrated hydrochloride salt), soluble in water but insoluble in organic solvents.



Source: EUDA



Source: Journeypure

Source plant: *Papaver somniferum*

Family: Papaveraceae

Parts of plant: Seed capsules

Geographic origin: Temperate and cold regions of Eurasia, Africa and North America

Active ingredient: Morphine, heroin

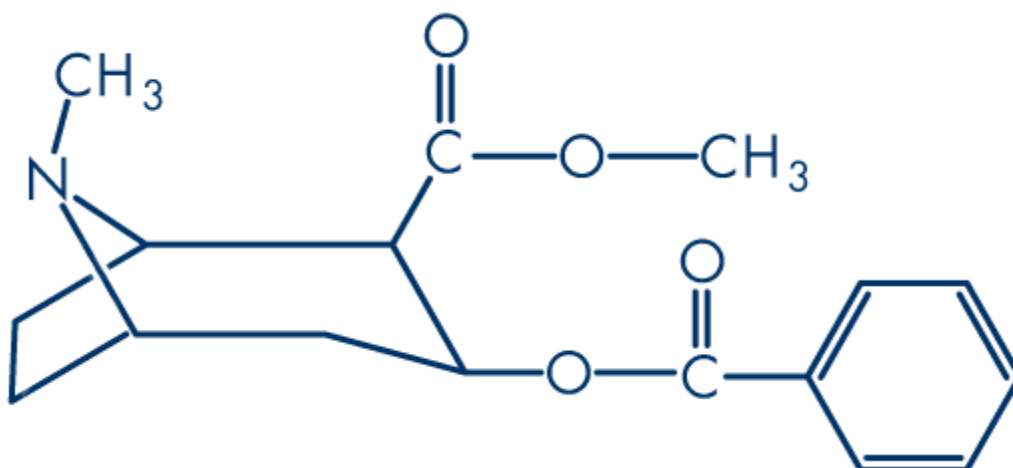
COCAINE

Cocaine is a natural product extracted from the leaves of *Erythroxylon coca* Lam (coca leaves). The only natural source of cocaine is the Coca shrub, widely cultivated in South America. It is produced as a hydrochloride salt and the free base is known as crack. Crack is a smokable form of cocaine. Indigenous people of South America have used coca leaves as a stimulant.

Pharmacology

Cocaine has a psychomotor stimulant effect similar to that of amphetamine. It acts as an anaesthetic agent. It produces euphoria, hypertension and reduces appetite. Cocaine has a causes psychological dependence. Dried coca leaves have 1 % cocaine. Cocaine is commonly known as coke, snow and Charlie.

Molecular structure



Molecular formula: C₁₇H₂₁NO₄

Molecular weight: 303.4 g/mol

The systematic name (IUPAC) is [1*R*-(exo,exo)] -3-(benzyloxy)-8-methyl-8-azabicyclo[3.2.1]octane-2-carboxylic acid methyl ester. Cocaine is the methyl ester of benzoylecgonine and is also known as 3β-hydroxy-1αH,5α-H-tropane-2β-carboxylic acid methyl ester benzoate. Although four pairs of enantiomers are theoretically possible, only one (commonly termed *l*-cocaine) occurs naturally.



Source: Wikipedia

Source plant: *Erythroxylum coca*

Parts of plant: Leaves, fruits

Geographic origin: Andes

Active ingredient: Cocaine

LSD

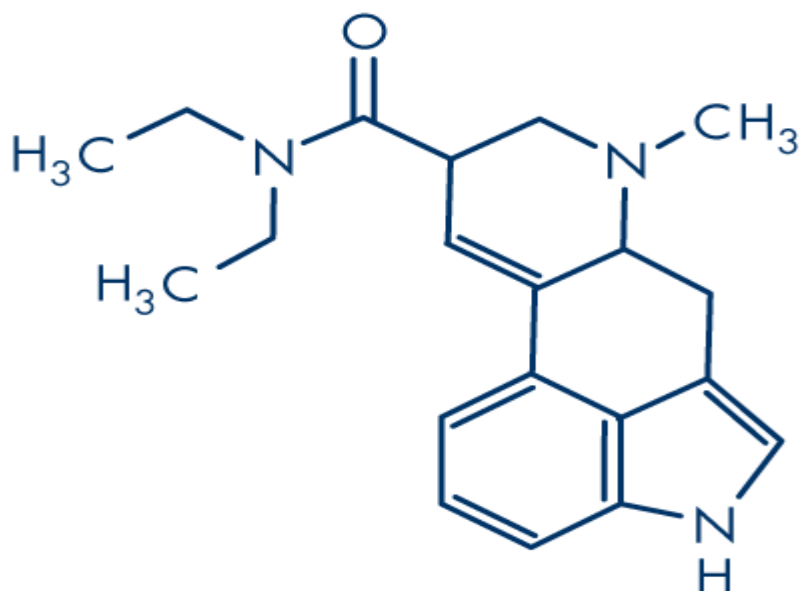
LSD (Lysergide) is a hallucinogen, and is a potent drug.

Pharmacology

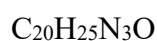
Albert Hoffman first synthesised LSD while working for Sandoz Laboratories in Basel in 1938. Sandoz evaluated the drug for therapeutic purposes and marketed it under the name Delysid®. It was used for research in mental illness. Recreational use started in the 1960s and is associated with the 'psychedelic period'. Dilated pupils, mild hypertension and raised body temperature are the physical effects. Visual disturbances and flashes of intense colour are seen and are characteristic of LSD drug effect. Panic reactions may be severe requiring medical support. Hallucinations last up to 48 hours. The effects are greatly affected by an individual's mental state and the surroundings in which the drug is taken. Sometimes sensory disturbances known as 'flashbacks' occur. Serious side effects include suicide or accidental deaths but are rare.

The source plant for LSD is the ergot fungus which produces lysergic acid. Lysergic acid is a precursor to many ergoline alkaloids including LSD. Ergot is used to treat migraines and is a common drug for patients with long lasting headaches. It is also being explored as a treatment for dementia and Parkinson's disease. Ergot alkaloids are mycotoxins produced by fungi that parasitize the seed heads of grasses and small grains. The toxicity of ergot kernels is extreme.

Molecular structure



Molecular formula:



Molecular weight: 323.4

Physical form

LSD is light sensitive in solution, but more stable in dosage units.



Source: Dreamstime.com

Source plant: *Claviceps purpurea*

Family: Clavicipitaceae

Parts of plant: Ergot fungus (hallucinogenic fungi) growing on rye grass

Geographical origin: Found in Germany, France, Spain, Hungary, Russia. In India, ergot is cultivated in Kodaikanal, Tamil Nadu.

Active ingredient: Ergotamine (alkaloid)

MDMA

MDMA is commonly known as ecstasy. It is primarily used as an aid to psychiatric counselling. Illicit MDMA is in the form of tablets, mostly manufactured in Europe. It acts as a central nervous system stimulant, produces increased sensory awareness. A derivative of amphetamine, MDMA is a member of the phenethylamine family. MDMA is an abbreviation for methylenedioxy-methylamphamine.

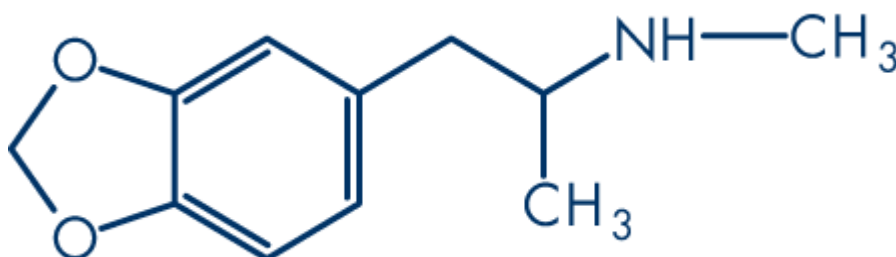
Pharmacology: MDMA, when ingested causes euphoria, increased sensory awareness and mild stimulation of the CNS. Toxicity depends on individual susceptibility.

Mode of use: In tablet form, MDMA is ingested orally, the powdered form is snorted, inhaled or injected.

Medical use: MDMA had limited use in psychiatric counselling.

Chemistry

Molecular structure



Molecular

formula:

$C_{11}H_{15}NO_2$

Molecular weight: 193.2

Physical form

The most common salt is the hydrochloride which occurs as a white or off-white powder or as crystals soluble in water. MDMA base is a colourless oil insoluble in water.



Source: Wikipedia

Source plant: *Sassafras albidum*

Family: Lauraceae

Parts of plant: Root bark and fruit

Geographical origin: Native to eastern North America and eastern Asia

Active ingredient: Safrole, a compound found in the root bark and fruit of the Sassafras tree, is a precursor to MDMA.



Source: Western Carolina Botanical Club

Fruit of *Sassafras albidum*

AMPHETAMINES

Amphetamine is a white powder, stimulates the central nervous system (CNS). Amphetamine has limited therapeutic use.

Pharmacology

Amphetamine is a CNS stimulant that causes hypertension with feelings of increased confidence, makes the user socially amicable and energetic. It subdues appetite and fatigue and causes insomnia. Users may feel restless, anxious, irritable, depressed and lethargic. Serious cardiovascular issues and behavioural problems that include agitation, confusion and paranoia are caused by intoxication. Dependence leads to memory lapses, problem in decision-making and verbal reasoning. Sometimes symptoms may resemble paranoid schizophrenia.

Mode of use

Amphetamine may be ingested, snorted and injected.

Medical use

Amphetamine may be therapeutically used in the treatment of narcolepsy and ADHD.

Chemistry

According to IUPAC, the fully systematic name is α -methylbenzeneethanamine. The asymmetric α -carbon atom gives rise to two enantiomers.

Molecular structure

Molecular formula: $C_9H_{13}N$

Molecular weight: 135.2

Physical form

Amphetamine is a colourless volatile oil insoluble in water.



Source: Wikipedia

Source plant: *Catha edulis*

Family: Ephedraceae

Parts of plant: Leaves contain some of amphetamine's substituted derivatives that occur in nature

Geographical origin: Desert regions of Asia and North America

Active ingredient: Pseudoephedrine and ephedrine

CANNABIS

Cannabis is a natural product, the main psychoactive constituent of which is tetrahydrocannabinol (Δ^9 -THC). The cannabis plant (*Cannabis sativa* L.) is broadly distributed and grows in temperate and tropical areas. Together with tobacco, alcohol and caffeine, it is one of the most widely consumed drugs throughout the world, and has been used as a drug and a source of fibre since historical times. Herbal cannabis consists of the leaves and dried flowering tops. As an analgesic, cannabis has certain therapeutic benefit.

Pharmacology

Cannabis has a wide range of cannabinoids. When consumed in small doses, Cannabis produces sensation of euphoria, relief of anxiety, sedation and drowsiness.

Mode of use

Cannabis is usually smoked, often mixed with tobacco.

Other names

Cannabis is known as marijuana and hashish or just 'hash'. Cannabis cigarettes are termed as joints. Common names for cannabis/cannabis resin are bhang, charas, pot, dope, ganja, hemp, weed and grass.

Medical use

Herbal cannabis (known as 'cannabis flos'), with a nominal THC content of 18 %, is available as a prescription medicine in The Netherlands. It is indicated for multiple sclerosis, certain types of pain and other neurological conditions. An extract of cannabis (Sativex) has been licensed in Canada.

Molecular structure

Molecular formula: $C_{21}H_{30}O_2$

Molecular weight: 314.4 g/mol

Physical form

Cannabis sativa is dioecious: there are separate male and female plants. Cannabis oil is a dark viscous liquid.



Source: Wikipedia

Source plant: *Cannabis sativa*

Family: Cannabaceae

Parts of plant: Buds, leaves, resin, oil

Raw cannabis leaves are not psychoactive because the cannabinoids are in the form of carboxylic acids.

Geographical origin: Tibetan plateau

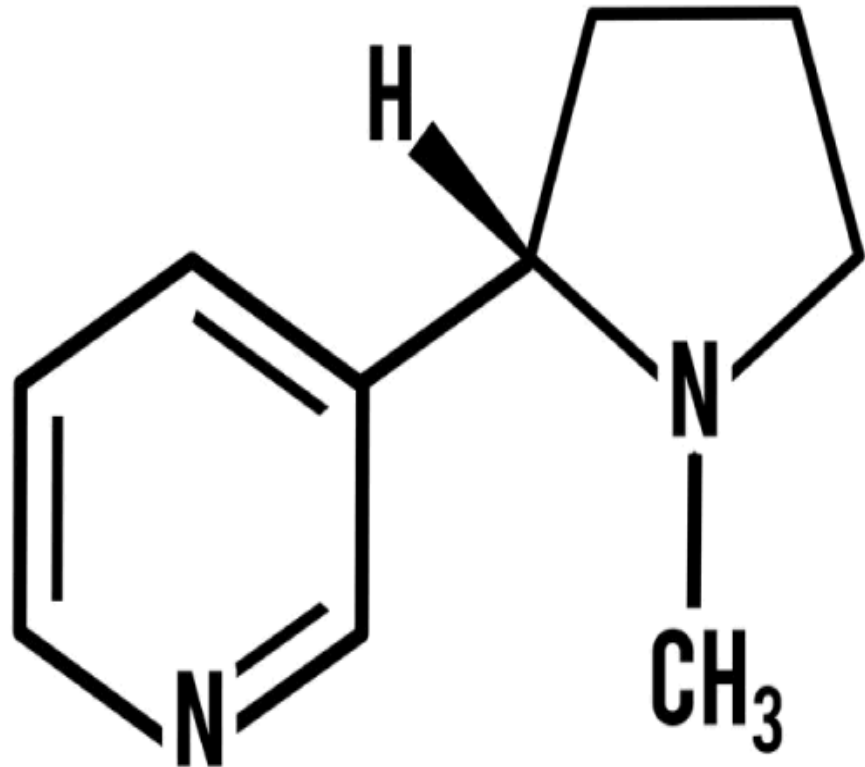
Active ingredient: Tetrahydrocannabinol (THC)

NICOTINE

The dried leaves of the tobacco plant (*Nicotiana tabacum*) contain up to 3% of the dinitrogen alkaloid L-(–)-nicotine. The lesser-known "Aztec tobacco" (*N. rustica*) has it in even greater amounts (up to 14%).

Because it contains the nitrogen-containing heterocycles pyridine and pyrrolidine, nicotine is a unique alkaloid. Naturally, the tobacco component is what makes smoking so addicting and contributes to the long-term cancer risk associated with smoking. Nowadays, a lot of nicotine is given through e-cigarettes. The nicotine in e-cigarettes is less harsh to inhale than that in tobacco, according to smokers.

David H. Peyton and colleagues at Portland State University (Oregon) have released a paper that explains why this is the case: Instead of being the free base seen in tobacco, nicotine in e-cigarettes is mostly in its protonated form. Protonated nicotine is simpler to inhale, according to the authors. E-cigarettes are therefore likely to worsen nicotine addiction, if anything.



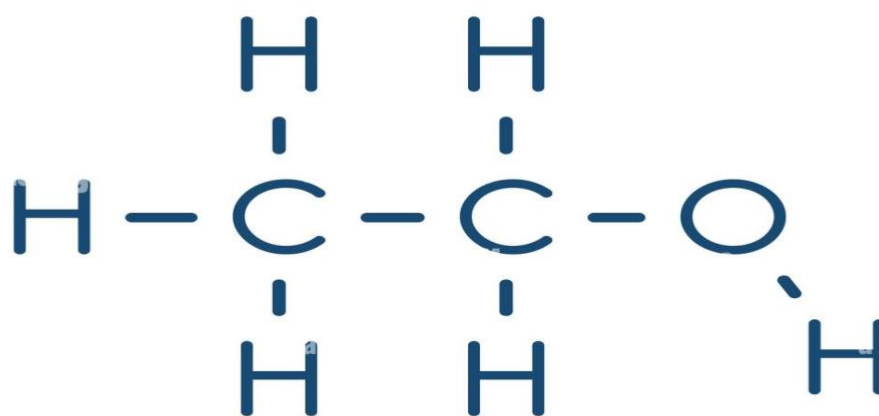
ALCOHOL

Ethanol is the alcohol found in alcoholic drinks. According to science, the term "alcohol" refers to a broad class of compounds that are created when hydrogen and oxygen atoms combine with a carbon atom. However, ethanol is a particular tiny molecule that makes up all of the alcohol in alcoholic beverages, and it has an impact on your body each time you consume it. Fermentation is the process used to turn grains, fruits, or vegetables into alcohol. Ethanol, the drink's alcohol, and carbon dioxide, which may indicate bubbles in the beverage, are the products of a chemical reaction between yeast or bacteria and the carbohydrates in the other ingredients.

Ten millilitres (ml) or eight grammes (g) of pure alcohol make up one unit of alcohol. An average adult needs around an hour to metabolise one unit so that their bloodstream is completely empty; the more alcohol you consume, the longer it takes. While fermented cereals like barley and rye serve as the foundation for beer and spirits, fruit is fermented to make wine and cider. Additionally, spirits undergo a process known as distillation, in which a portion of the water is eliminated, resulting in a finished product with a higher concentration of alcohol. The length of time a drink is allowed to ferment determines how much alcohol it contains.

Additionally, a greater variety of low-alcohol and alcohol-free beer, wine, and spirits are now available than ever before. These drinks are frequently prepared similarly to traditional alcoholic ones, but an extra step in the production process removes the alcohol while keeping as much of the components that give the drink its flavour and appearance as possible.

Alcohol causes ethanol molecules to be absorbed into your bloodstream, where they travel to almost every region of your body, including your brain, due to their small size. Your brain undergoes chemical changes when you drink alcohol, which suppresses normal activity in the region that regulates inhibition. One As the alcohol wears off (after it has been metabolised, or broken down by your body's systems), the brain must then re-adjust to the depressant impact. Alcohol can therefore exacerbate anxiety symptoms. Because alcohol is toxic², each time you consume it, your body must try to eliminate it from your system. Drinking excessively for months or years raises your risk of seven distinct types of cancer and other major health issues, and consuming multiple drinks in a short period of time puts you at risk for acute alcohol poisoning. The World Health Organisation recognises alcohol as a "psychoactive substance" since it can alter one's thoughts and emotions, placing it in the same general category as other drugs, including many prohibited ones. 3.



ethanol

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Molecular Structure of Ethanol

Molecular formula: C₂H₅OH

Molecular weight: 46.07 g/mol