RELATIONSHIP BETWEEN PERSONALITY AND SUBSTANCE USE

A Dissertation submitted

In the partial fulfilment of the requirement for the degree of

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Submitted By:

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CERTIFICATE

This is to certify that the dissertation entitled **"Relationship between Personality and Substance use"** being submitted in partial fulfillment of requirements for the degree of Masters of Arts in Psychology, Submitted in the Thapar School of Liberal Arts & Psychology, Thapar Institute of Engineering & Technology, Patiala is a bonafide work carried out under the supervision of Dr. Sohinee Ganguly, Professor, School of Humanities and Social Sciences, Thapar Institute of Engineering and Technology, Patiala and that no part of this project has been submitted for the award of other degree.

(Danish Siddiqui)

This is to certify that the above statement by the student concerned is correct and true, accurate and the best of my knowledge.

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CANDIDATE'S DECLARATION

I hereby declare that the work presented in this dissertation entitled, **"Relationship between Personality and Substance Use"** in partial fulfilment of the requirement for the award of Degree of **Master of Arts in Psychology,** submitted to the **Thapar School of Liberal Arts & Sciences, Thapar Institute of Engineering and Technology, Patiala**, is an authentic record of my own work carried out under the supervision and Guidance of Dr. Sohinee Ganguly, Professor, School of Humanities and Social Sciences, Thapar Institute of Engineering and Technology, Patiala, and refers other researcher's work which is duly listed in the reference section.

The matter embodied in this dissertation has not formed the basis for the award of any other degree at this or any other university.

Date – 19/05/2024

Place – Patiala

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ABSTRACT

The study aimed to investigate the relationship between Personality trait (dependent variable) and Substance Use (independent variable) in young adults aged (18-25).
The initial sample consisted of 213 students (101 males and 112 females).
Big 5 Inventory (BFI) by Goldberg (1993) was used to assess Personality traits, Alcohol Smoking Substance Involvement Screening Test (ASSIST) by WHO was used to assess risky substance use.
The findings of the study indicate that the correlations found between personality traits and substance use, it is evident that there are consistent patterns across various substances. There was Positive correlation between Extraversion and Alcohol use, there was negative relationship between conscientiousness and Substance Use, there was negative relationship between Openness and Agreeableness and Substance Use. There was no Significant relationship between Neuroticism and substance use.

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Keywords: Personality trait, Substance Use, Big Five Personality Inventory, Alcohol, Cannabis, Hallucinogens, Opioids.

Table of Contents

CHAPTER 1

INTRODUCTION

Research on addictive behavior has demonstrated that individual differences in some personality traits, particularly those conceptualized in five-factor models, play a significant role in family influences for early-onset drug use and lifetime drug use. Moreover, transversal research has evidence that personality traits can be used to classify subgroups of individuals who will multiple-use of licit and illicit substance across lifetime and may present different profiles of polysubstance use across substance. There are different classifications of "personality disorder" that may be associated with increased risk of developing substances use disorders. Among adults, research indicates that people in treatment for substance use disorders have higher rates of personality disorders than those in the general population. Substance use is most frequently endorsed to improve social or internal experience. Factors associated with the onset of regular intoxication including emotions-related factors, risk-seeking to obtain experiment and sensation seeking for experience effect use.

Personality is a complex and multifaceted individual characteristic that makes up the signature of who we are as humans. Substance use remains a worldwide concern for public health in young adults and adults (Fehrman et al., 2020). Despite the numerous factors influenced the onset and the development of substance use, and not with standing its impacts, most of the persons drank a small amount in life. Some people consume substances because they like the effect and/or the taste, some to enhance positive feelings like relaxation, excitement or sociability, and some do it to escape to present negative situation or life stressors. Additionally, drunk and heavy drinking have been associated with social or conduct problems respect to develop strategies for tension reduction or self-manage emotions in a positive and healthful way, lowered mental and behavior control and enhance person's unique risk to ultimately use substances more frequently, to abuse, to derive craving and to develop addiction. High impulsivity is been proven to predict aggressive and heavy drinking, potentially due to deficits in social problem-solving skills. As a result, the investigation of both personality aspect must form the focus of addiction prevention, harm reduction and intervention work on a personal basis respect to one-size theory cannot fit the entire.

1.1 Personality Types

Some of the more general personality factors, negative emotional symptom indicator of substance use propensity, are anxious individuals more inclined to alcohol dependence and increased alcohol use propensity. Evidence in line with the pre-adolescent onset of behavior disorders has been demonstrated for depressive symptoms, with both adults and adolescents linking negative emotional symptoms with alcohol use. Other studies have shown positive links between impulsive signs and persuasive substance use. The use of substances in old studies was linked to uncertainty. Particularly, the surveys found vital tests illustrative of subjective disarray in their community, including other illicit use variables. In support of extensive reviews of the above-associations, if scales indicative of behavior are reduced to gamble or make hazardous decisions, a common dependant substance disorder falls inside a wide classification, except for use of THC.

The personality and substance abuse relationships have been extensively studied, and a consistent finding for the risk of substance abuse for some personality traits has been noted. Relationships between sensation-seeking and substance abuse have been widely studied and confirmed. Sensation-seeking was found to be positively associated with smoking, heavy alcohol use variables which predicted the cocaine dependence of nicotine, and moderate levels of cocaine use prior to smoking, while no sign of predicting heroin dependence. Impulsivity was positively linked with cigarette smoking and stimulant drug use. The use of alcohol use has been demonstrated by more than 35-40 research reviews, and analyses of different behavior disorders (Chen et al., 2019).

Personality Type represents all of the general aspects and tendencies in a person’s behavior and thinking. The primary objective of personality is to increase the scope for explaining the individual differences and behavior of substance abuse, which are very important to understand in psycho-social theories (Fehrman et al., 2020). People who are abusing are more affected by psychological distresses, and have more associated problems with personality disorders. People who have a definite personality disorder are at increased risk of substance abuse. The dimensional and categorical models are described by traditional psychiatrists with five factors of personality disorder, each of which is an individual instead of the clearly separated groups (Malmberg et al., 2012).

Relationship between Personality Type and Substance Use

I) Type A

Personality traits are determined mainly by the interaction of genes and the environment in which a person grows. The role of genes is emphasized in twin, family, and adoption-based large studies, while the impact of the environment is expressed especially in individual- based, family, and small groups. The role of the mother in genetic and social effects cannot be ignored in personality formation. It has been found that these behaviors reflecting the Type A subdimension are more commonly observed in the people who live in large families, whose all family memebers work together, who have characteristics of conflictive communication, who show the rebellious behaviors against family rules, and who have adult relatives who consume drugs or drink alcohol. It is seen that life-style A types live with the persons who consume more alcohol or drink alcohol in the four rooms or flats in a family house. One of the main sources of environmental factor is the person who first consititutes the environment that a person grows up that is the mother and Type A subdimensions are affected by them considerably. A significant correlation was found between Personality and Lifestyle Types (Jenkins/Jorgensen) and the Kobasa's HOPE characteristics, Health Promoting Lifestyle and the perception of illness and Health Locus of Control.

High level of impulsivity is considered a part of Type A behavior pattern. Thorough research of the effect of the subdimensions of Type A behavior pattern to the consumption of substances did not reveal any research works that directly assess the role of Type A personality itself to the substance use. However, the Personality and Lifestyle Type-behaviors is assessed in many research works that deal with the effect of the personality traits on the substance use. Norris has found that Type A personality exhibits more sensation seeking behavior than Type B (Fehrman et al., 2020). Sensation seeking people tend to exhibit a preference of using substances more likely steroids among young people (Athletes and Non-athletes) than other subdimensions of Type A personality. Moreover, there were significant differences reported in between Type A and Type B people in terms of number of cigarettes smoked in a day, people who never smoked, people who never consumed alcohol, frequency of alcoholic drinks, and the people who never consume hard-volatile substances.

Type A personality is characterized by being assertive, ambitious, competitive, dominant, energetic, hard-driving, focused, and perfectionistic. Several personality questionnaires have been used for assessing Type A personality since the early 1950s but the Bortner Rating Scale (BRS) and the Jenkins Activity Survey (JAS) are widely recognized for measuring it (Steca et al., 2022). BRS was developed by J. R. Bortner for assessing Type A behavior specifically. This scale was widely used until the 1970s. JAS was designed by Jenkins, Zyzanski, and Rosenman in 1971. This scale measures Type A personality according to eight specific behaviors.

II) Type B

The thing of fighting people is also raised. Hones dismiss baby combat by stating that the person cares less than this simple baby. Previously, expressing the notion that a show of simplicity ultimately exhibited a sense of passivity. The advantages of the review of the B-type quality may therefore be unique. LaVan et al. Lifelong, and short-lived, addicts were observed to adapt, to adjust well with all the conflicts, to practise greater behaviourism, and to satisfy their interactions, such as autonomy, rather than responding to carefully. Additionally, B-type qualities will have a protected and preventive impact in the medicine domain. According to Meskó et al. endure stress and tension without using addictive drugs. Lately, almost 90% of sort B persons live under loads of strain and described enduring using stress-reduction strategies rather than consuming slender goods such as regular food or consuming (Shahini et al., 2021).

However, the part will concentrate on certain subject areas implicated in well-being, weakling tendencies or substance usage. Certain Studies including Dickey et al. reported that subjects classified as Aggression have a poor stimulus, a lower source of enthusiasm to prevent completing the project, and minimal imaginative creativity, a model linked to increasing the propensity for bulky habits. Carlstedt et al. confirmed in a recent research that the addition of aggression decreased productivity (C. Fortenberry & J. Esposito, 2024).

Personality is characterized as an inherent model of sentiments, considerations, and practices that frequently influences the parties involved (A. Pilin et al., 2022). Psychologists call these unobservable factors a mystery, but everyone has their own particular thoughts on their individual personalities and those of their loved ones. (McCrae et al., 1991) accepted a functional approach to characterize personality variables and were efficiently effective in delineating functional character combinations in the classification of an individual. Characteristic A and Characteristic B were used until Rosenman et al. accepted a popular method to clarify the theory. The Type A individual is officially used to represent a person who is strong and can manage stress, while the Type B individual represents a person who is passive and relaxed. Nowadays, task conflict has emerged as a key element in the scientific literature investigating the relationship between personality sort and nudity.

III) Type C

Criticisms regard the methodology and analyze of research and whether it is adjusted for individual personality and individual feeling considering the impact of self-efficacy, resilience, and irritability on substance abuse or not, and one of the main complaints about similar studies is a lack of indigenous subjects. It is worth conducting similar studies with residents of different cities and rural areas, which can then be compared for differences. Future research should use new methods such as big data and modern machine learning algorithms as tools to study personality and other predictors of double-digit indicators of substance abuse. Dual-process models should be used to divorce motivation and economical usage. Examine anti-narcotic intervention and its impact on intellectual and conscientious nations and their subcultures seeking substances.

Intelligence, relatively high conscientious trait, and C-type personality are three factors causative to low rate of substance abuse. The first factor may result from the relation between intelligence and general life satisfaction, a characteristic of low potential for substance misuse. The relation between intelligence and low rate of substance misuse can be due to the specific capability of cognition. At adolescence, those with low intelligence may fail to understand some mental problems, e.g., anxiety sensitivity and sensation seeking. Sensitivity intelligence, a kind of social intelligence, has also been found to have an inverse relation with substance abuse. The second element of low rate of substance use based on the results may be the relation between conscientious and aversion to substance use(A. Pilin et al., 2022). The obtained Pearson's correlation coefficient between conscientiousness and agreeableness emphasizes their co-occurrence which is consistent with the fact that these traits are two sub-traits of one super trait called responsibility. Cocnientiousness is the most meaningful factor predictive of low substance abuse among these two themselves. Interestingly, high conscientiousness in parents affects formation of high conscientiousness in children indirectly.

Extraversion and agreeableness were significant predictors of C-type personality(Mazzarolo et al., 2021). It means that people with C-type personality are less narcissistic and needy, not socially dominant but reserved and stoic. Unlike high extraverts who are ever ready to be the life of the party and to attract people's attention, C-type People are not impulsive and can be very moderate, even diffident. The relatively high Openness score of C-type individuals implies a good appreciation of unique appearances, new experiences, new ideas, and a readiness to undertake intellectual or artistic efforts. It's not evident if a C-type person is more creative or intelligent compared to other personality types, but they tend to be the most attracted to every art and intellectual activity, because it's new and unsettling, unlike the status-quo(H. Stewart et al., 2021).

IV) Type D

Our aim and preliminary hypothesis was that substance use has an impact on Type D personality, but data do not support this preliminary assumption. There appears to be no significant difference between levels of distress in these groups. However, our study is not without limitations. We tried to rule out mediating and moderating factors but it is impossible to do this in an entire aspect. There has been a need for more research projects aimed at uncovering the pathways running from personality factors to addiction and mental problems. There is an invitation for psychologists and clinicians.

There have been lately intention to examine clinical populations such as cardiac patients, mental health care seekers, nursing home residents, cancer survivors, and other outpatients. There have not been research projects directed at distress in the buprenorphine or methadone-substituted individuals. From a mental health prospective, they are under a huge pressure, filled with superlatives of treatment response. Systematic research projects are needed to unravel multifaceted interactions between Type D personality in this patient group (Fehrman et al., 2020).

There are few studies providing information on a specific personality type in addiction. Only a handful of publications have mentioned individuals with the Type D personality in the general population (Mols & Denollet, 2010). Type D, also known as distress, is a combination of two personality traits: Negative Affectivity and Social Inhibition (MC Mommersteeg et al., 2010). Negative Affectivity refers to the tendency to experience negative emotions (e.g. irritability, anxiousness, depressive moods) and social isolation is characteristic as individuals are often shy, uneasy, or reserved.

V) Type E

Although these subjects typically exhibit a degree of impulsivity, anxiety - especially agoraphobic fear - weights heavier in the estimated utilities of the naïve cost-benefit analysis. Consistently with these analyses, the study of these addicts revealed that they used to try many different drugs, GSM was not severe in terms of addiction severity, and, of course, none of the subjects met diagnostic criteria for opiate dependence. This seems to confirm that this schizophrenic attitude in their estimated utility of substances allows them to use many different drugs, even those considered more harmful by the “common sense” in terms of actual addictive potential. However, the low level of motivation by Type E addicts for a quitting program seems to suggest that substance dependence could become severe much later than for other types, after the disorder became unmanageable because of extreme consequences.

The purpose of this study was to evaluate the predictive relationship between problematic drinking and impulsivity, hopelessness and sensation seeking with a panel of 347 adolescents over two time

points using structural equation modeling (A. Pilin et al., 2022). Sensation seeking was significantly associated with subsequent problematic drinking. A tentative Type E profile emerges from these studies: high suicidal ideation and hopelessness seem to be determining factors of why certain individuals prefer ‘downer’ substances. However, based on the present evidences, the effect of type E patterns on the hypothesis of future addiction disorder, seems fairly minor.

Type E term is proposed by authors to describe the phenomenon of mak- ing risky choices based on subjective estimates of the expected utility of a given substance (Fehrman et al., 2020). According to this view, the last step in the sequence leading to the abuse of psychoactive substances is the averaging of two criteria: utilitarian gains and the attractiveness of the drug experience. Data obtained from the study seem to support this conception. Differently from traditional surveys on drugs that used explicit questions, the Item Response Theory (IRT) model of the Short Inventory of Problems (SIP-2R) – a standardized self-report instrument for assessing substance-related problems – allowed for the identification of a more homogeneous population.

1.2 Substance Use

Personality traits can have both an indirect and a direct influence on psychopathology and the development of substance reliance. Big Five personality traits are often expressed in the appearance of consistent behavioral patterns over time, which are seen as social and occupational functioning as well as in psychological well-being. Traits are also predictive of the presumable ways in which individuals can react to life stressors and challenges (Ding et al., 2017). There is abundant evidence that traits also predict pre-existing personal levels of psychopathology. Research reliably shows that a high level of neuroticism negatively correlates with many different measurements of subjective well-being, subjective mental well-being and self-esteem.

Various studies recorded that individual who ever consumed illicit drugs recorded significantly higher score on the extraversion trait and lower score on the Agreeableness and Conscientiousness traits, which is in alignment with findings by Windle et al., 1988(Terracciano et al., 2008). Personality traits can be both direct biological correlates of substance use and can indirectly represent factors such as social attitudes and values that make people more or less likely to use drugs. It should be noted that substance use could function as a short- term way of changing emotions, reducing anxiety levels, depression and improving mood.

Substance use is found to be strongly associated with specific personality traits. Openness to experience and Low Conscientiousness are strong predictors of illicit drug use. Extraversion and low Agreeableness are strong predictors of tobacco, Methamphetamine, and binge drinking, and alcohol-

related issues. Low Openness to Experience, Low Conscientiousness, Low Extraversion, Low Agreeableness, and high Neuroticism are considered as risk factors associated with various use of substance (Fehrman et al., 2015).

1.2.1. Alcohol

Likewise, social elements, costs, ease of accessibility and family patterns are commonly linked to pronounced alcohol instability, erratic and harmful practices. Certain personality characteristics affect the inclination towards the reliance on alcohol, especially in teenagers. In the realm of temperamental research and commandment argument, five-factor concepts of traits are a standard method for the representation of human individuality. According to the "constraint" section of the characteristic approach, those that are utmost in "openness to involvement" and "neuroticism" and those that are least in "benevolence" and "persistence" are most inclined to demand alcohol to neutralize the anguish from having emotions. Alcoholism primes to self-affinity for artefacts alcohol in arrears to the psychological and physiological consequences of personality features, this may be experienced by extravagant alcohol utilization. The stressed and anxious adult has a riskier behaviour.

Alcohol is a legal intoxicating agent that is routinely used as a stress-reliever, a social lubricant and a perturbation deterrer(Bezalwar & S Patil, 2024). Nevertheless, alcohol consumption, if not kept within safe limits, can have significant consequences on the individual and the community. For instance, the likelihood of physical injury, crime and violence, as well as marijuana use is directly proportional to the blood alcohol concentration. When intoxicated, even modest amounts of alcohol can have an adverse impact on coordination, attention, mood and psycho-path proliferation. Adolescents and university students are especially susceptible to recklessness tendencies and solitary indulgence, particularly in the form of traditional binge drinking(Fehrman et al., 2015). These activities exacerbate the complications arising from hazardous alcohol consumption and alcohol-related damages are an essential national concern. Nonetheless, excessive consumption of alcohol is correlated with societal changes, financial instability, sexual harassment, communicable infections, lingering age, clinical and neurological issues such as life-threatening liver problems. There are many influencing factors on the propensity to drink hazardously including age, gender, psychological health and temperament attributes(Chen et al., 2019).

1.2.2. Tobacco

Substance users are compared to non-users of each of the substances through the five-factor model of personality. There is not an agreeing result on which and how many of the personality traits have opportunities to diagnose the addict. There are some researchers that formulate that one or more of

personality traits are diagnosable, and some policymakers believe that addiction originates from one mental malfunctioning. As a conclusion, the personality traits associated with substance use and their personality traits are understood generally over anxiety, depression or other symptoms, narcissism, instability, irascibility, coercion, proneness to guilt and guilt feeling moderates are not otherwise.

According to an investigation, only two personality traits of the big five factorial model, namely 'agreeableness' and 'openness to experience', significantly are associated with substance use (Amirabadi et al., 2015). Intrusion and individuals' intensity of psychoactive substances usage harm, apparently is due to the positive correlation between these two traits and anxiety and depression symptoms. Neuroticism, anxiety and depression are symptoms of produced guilt, the other facet of consider personal morality. Accordingly, it can be said that such symptom reductions are a boundary to substance use and personality trait, particularly in young adults. Aggression and disinhibition and older age correlates with high levels of trauma and nicotine usage in dependence to alcohol and neuroticism-introversion has significantly been associated with cardiovascular and mood disorders in higher ages.

Multiple studies have shown that personality is the most consistent factor associated with substance use, and is suggested as a common cause for different substance use disorders (Fehrman et al., 2020). The type or the profile of a person's personality can at least predict which drug he/she will get dependent to (Terracciano et al., 2008). Personality types and temperamental traits of drug abusers are different from the general population. Sensation seeking, gambling sensation seeking, impulsivity are significantly higher in alcoholics, heroin addicts and opium dependants and tobacco is the most commonly used drug with opiates dependents.

1.2.3. Cannabis

In our study, in total, 39–45% of the variance can be predicted using these models, although these results need to be interpreted with caution as failed assumptions might have led to an overestimation of the actual amount of explained variance. According to our results, males have higher propensities than females, with the largest gap regarding illegal drugs. For age, the strongest prediction is for lower agreeableness. Similar to past findings, our analysis indicates that neuroticism is related to usage of all substance categories. Another consistent finding is that lower openness is related to usage of every substance category except for cannabis.

In our study, our aim was to analyze the relationships between personality dimensions, gender, age, substance use and possible interactions among them with linear models. Among gender, age, and each of the four big five measures, the strongest correlation occurred between gender and neuroticism, with males averaging 0.63 SD lower on neuroticism compared to females. For age, it is

most correlated with decreasing openness to experience. Among the correlations between the big five personality measures, the strongest are those between neuroticism and both openness and agreeableness.

Various personality traits have been found to be associated with different substance use problems (Cohen et al., 2020). Particularly, cannabis users have been described as having lower conscientiousness and agreeableness and higher neuroticism while being high in openness to experience (Fehrman et al., 2015). Some prior research found no association between marijuana use and the five-factor model of personality while others found distinct effects between use levels (light to heavy) and personality dimensions (A. Pilin et al., 2022).

1.2.4. Stimulants

Most of the data from the literature on stimulant substances is focused on two: cocaine and amphetamines (including methamphetamines). This is likely because both stimulants work in similar ways by increasing dopamine in the brain with cocaine doing this by blocking reuptake of dopamine and amphetamines by fostering the release of more dopamine. There are fewer data on personality correlates for methamphetamine and substances such as methylphenidate. It is important to understand the similarities and differences in correlates. For example, Roman and DeAngelo found social desirability to be negatively correlated with MA users, but did not look specifically at Type A traits. Few studies have looked at different stages of use and the personality correlates or predictors of progression to problem use, with a particular dearth of data on regular users of prescription stimulants not obtained through medical channels.

Personality traits have long been known to influence substance use and associated behaviors (Tsai et al., 2022) and are considered important determinants of behavior in different contexts and patient groups (A. Pilin et al., 2022). The potential for significant predictors to be identified that can aid in triaging patients who are at particular risk is considerable.

According to the Diagnostic and Statistical Manual of Mental Disorders-5 (DSM-5), stimulants are classified as substances with abuse potential based on their psychostimulant effects including cocaine, methamphetamine, and amphetamine (D. Ersche et al., 2010). Stimulants particularly increase the amount of dopamine in the brain which is associated with feelings of euphoria.

1.2.5. Opioids

Characteristics of problematic use of opioid include the following: taking opioids in increased amounts or for longer periods of time than intended; persistent with desire to reduce the number of opioids being taken or desire to stop taking them even though unsuccessful at achieving this goal; excessive time spent obtaining or using opioids or recovering from their effects; giving up or

reducing participation in professional, social, and recreational activities due to opioid use; continued opioid use despite incurring adverse effects which have a physical or psychological origin. In the United States, 128 individuals per day succumb to opioid overdose, and for each of these incidents, there are approximately 38 visits for drug mistreatment as well as 21 additional occurrences of opioid misuse or abuse. Opioids are highly addictive and come with the greater potential for abuse than many illegal substances. This is likely due to the strength of the high generated by opioids, which is also accompanied by greater feelings of euphoria and relaxation than are commonly produced by other drugs.

Opioids refer to a category of drugs that include illegal substances such as heroin, synthetic opioids such as fentanyl, and pain relievers available legally by prescription, such as oxycodone, hydrocodone, codeine, morphine, and many others. Users of illegal opioids often rely on the black market to secure their drug of choice, whereas users of legal opioids often rely on physicians to supply the drug (Fehrman et al., 2020). In addition to dependence, opioids are characterized by a wide abuse liability, acting on the opiate receptors and causing euphoria and pain relief (Psederska et al., 2019). In the United States, demographics of prescription opioid users differ significantly than those seeking illegal opioids. Misuse of painkillers is more common among adults than adolescents, affecting individuals with chronic conditions such as chronic pain and muscle/joint pain (Ding et al., 2017).

1.3. Interlinking of Personality Types and Substance Use

The connection between personality traits and substance misuse can be detected in three primary theories: “social influence model”, “stress-coping model” and “two-dimensional pathway model”. These models announce the discussion of stress and emotional answers to stress, anxiety, and depressive symptomatology all have a part in those discussions. Lamentably, in such explanations, attention is not placed on the dialogue of the relational features of personality traits.

Researches have shown the existence of proactive behavioural approaches and high boldness level, yet connected to gambling as a measure of sensation seeking; and puedenal metı-subscales of pleasure and reward dependence character traits were detected to stand for psychological features of the substance use disorder patients. Those suffering from substance use disorder had higher hurt-avoidance levels and spenosed themselves to have less motivation (Gómez-Bujedo et al., 2020). It has been reported that those candidate found at veteran centres, they employed cannabis for relaxation and for eliminating the pain and were prejudiced with the social environment for man which could not cover the sexual relationship, those were referred to the employment of heroin and

stimulants. In the given scenario, personality traits are assumed to present different impacts on engaging in substance use, often based on individuals' social experiences.

To date, substance use is considered as an integral aspect of society and can exert enormous negative influences on health, socio-economic development and quality of life. Studies stipulate a variety of psychosocial aspects for the relationship between personality traits and substance use (Shahini et al., 2021). Personality traits have been found to be associated with the different levels of perceived severity of substance use, push factors of substance use, refusal self-efficacy, external and internal attribution of responsibility, the acceptance of substance use and greater tolerance toward substance users (A. Pilin et al., 2022). A variety of empirically accepted researches specify the causative relationship amid less environmental influence and more familial influence for substance use.

1.3.1. Type A and Alcohol Use

Type II alcoholics have main problems with implementing task-oriented personal goals. Instead of them, they initiate excessive consummatory excesses without concrete goals, for example, drinking as much alcohol as possible upon any opportunity, including solitary tremens. Alcoholism was characterized as 'social' in 5 type I alcoholics, and as 'asocial' in 53 type II alcoholics, assumed from comorbid personality traits. Less than 10% of type I alcoholics married their spouses in order to gain more money or another more pragmatic advantage. The prevailing, primary, selfish psychiatric aim, in habitual advanced drunkards, is the positive affect, induced by the rapid, intoxicating, dosage of ETOH. Rather the asocial, solitary type of alcoholism bears only eristic, selfish, primary, personal, consummatory motives. Such a drinker believes that "the boom of the bottle" is a firm touchstone for the sociability level and engagement in social intercourse. Both concurrently and thereby, the drinker, whose primary aim is to induce anxiety relief, rebels against the social circles defined by the adversaries. Therefore, the type of 'circle drinkings' and personal relationships are different but the significance of them is large in the management of this illness. In drinking, social situations occur when there are certain reasons and occasions.

An original typology of alcoholism, presented first 40 years ago, was based on personality traits(Robert Cloninger et al., 1996). Type I alcoholics had extreme and stable traits of extroversion, sensation-seeking, and negative thinking. Type II alcoholics demonstrated significant traits of neuroticism, introversion, anxiety, and anankastia, with a high harm avoidance tendency and very low risky sensation-seeking. Type I alcoholics started regular drinking and established it as early as 19 years old, but they were able to remain abstinent for 13 years and only then had their first serious trouble with the law and the first major actor's treatment seeking for intoxication so severe that it required a hospital admission. The length of the alcohol career does not differ significantly between

type I and type II alcoholics, but type II alcoholics were diagnosed with alcoholism the same year as type I alcoholics commenced drinking 10 years earlier. Moreover, type II alcoholics had markedly increased severity of the previous 10-year psychiatric treatment for anxiety, depression, and suicidal tendencies(A. Pilin et al., 2022).

1.3.2. Type B and Tobacco Use

The relationship between personality and smoking behavior has been an area of interest and debate in social science, psychological, and medical fields for many years. The article by Friedman, Rosenman and Byers entitled Differences in coronary heart disease and activity of certain enzymes were published in 1962. Coronary Heart Disease is one of the most common causes of morbidity and mortality throughout the world. There were no significant differences by personality type in early Parkinson's disease (PD) (all P's>.05), though there was a trend towards more addictive behaviors in PD. Nicotine and alcohol were the most commonly reported addictive behaviors. Park et al. did not find robust evidence for a link between anxiety (a more specific version of psychological distress) with risk of drug initiation and addiction. Both alpha-synuclein and dopamine have key roles in the mediation of substance addiction and impulsivity related to such behaviors. Predominantly dopaminergic ventral tegmental pathway may also facilitate such reward dependent behaviors through the release of dopamine into the nucleus accumbens connected to the ventral pallidum, and medial aspects of the amygdala among other locations.

Nonetheless, recent evidence suggests that, while Type A personality scores may relate to health factors, extraneous variables such as age, sex, SES and time all contribute to which health measures will be predicted [PLoS ONE. 13(3): e0192034] 3. Similarly, an expanded 20-question version of the Jenkins Activity Survey, which reliably sorts phenomena characteristic of Type As (e.g., competitive, time-urgent) personality from Phenomena characteristic of Type Bs (e.g., relaxed, patient) and from neutral phenomena, has a high reliability and three week stability. It appears to be a valid instrument for assessment of type A behavion (Fehrman et al., 2020) (Shahini et al., 2021).

1.3.3. Type C and Cannabis Use

Results are consistent with the ideation that each Five-Factor personality trait may have a single or fewer aspects driving distinct motives for cannabis use. A congeries of the two core temperaments of introversion and hopelessness act as type-C full personality trait predicting a Coping use motive for cannabis. It appears to offer these humans a reduction from their inner-twisting and torturous world of self-recrimination and fret levels. In the study of Tyburski, Melby, Galanter, and Jackson (2018), SUDs are only described among all self-medicating psychiatric disorders. No reference to conduct disorders or personality disorders was made. Conversely, as other scholars have shown, type-C

personalities foster Worrying use motives, to the extent that their reliance on synthetic cannabinoids maintains and reinforces their worrying traits. For type-C persons, their worrying is adjacent to CUD indication Worse COPUD severity showed to be predicted only by their greater worrying about the self.

Data set 1 identified a group of starters who were more neurotic, open, and extroverted, more impulsive, and more reckless compared with abstainers (Fehrman et al., 2015). In dataset 3, all users had lower levels of conscientiousness but higher levels of openness when compared with nonusers (Fehrman et al., 2020). Consistently users also scored higher on the impulsivity and sensation seeking traits. The inclusion of mediational processes between the two personalities, traits and cannabis use motives, distinguishes this study from others in the field. Cannabis might be an exuberance intoxication which could stimulate response reactivity, sensuousness or mis inhibited dispositions, yet type-C persons are consonantly dictated by the need to secure belonging through social ties and human connection. Once defined on more stable values (self-affiliation and unions) motivations become mediate.

1.3.4. Type D and Stimulant Use

Elekes, Neumann, Simon, and Czigler (2018) drew attention to the prediction of cognitive distortions with the Type D personality in the case of cocaine use. Subjects (a community-based sample of individuals with certain behavioral addictions, like gambling or shopping ticks) had significantly higher Type D scores in case of cocaine use compared to those who do not use it. While among the cocaine used propensity to cognitive distortion moderate several associations between the Type D trait and the response on the COGDIS scale, among the non-cocaine users, the associations were weak and disappeared with the removal of the cognitive distortion from the model (DS14: -0.18 and -0.19; all $P < 0.05$). In the Zawilska and Andrzejczak (2018), personality was examined as a parameter for periods of abstinence from the use of drugs such as amphetamines or MDMA. It was contributed to on the longer abstinence periods by the depressive or other low effects of Type D behavior on abstinence. Beck (2015) found that the pattern of substance use appears to be different in young adult and adolescents with a Type D personality profile. In case of young adults which use cocaine regardless of the retrospective impulse control measures (the ABSS and DDQ), under more severe and emotionally stable characterizations preferred experiences that are rewarding likely to share the designation of Type D personality called physical annoyance(McCarthy et al., 2021). The measures should be filled with caution, the DDQ is aimed for more usage of alcohol, cigarette, or cannabis and are mostly addiction measures.

In the case of stimulant substances, there are some interesting results. In one study where a subscale

of the DS14 scale (Type D personality) was used, Type D individuals were found to have stronger tendencies to use amphetamines and methamphetamines, even for those who experienced less somatization(Bejda et al., 2021). The use of Type D personality profile led to the inclusion of comorbidity with past use of stimulants such as amphetamines and abuse of sleeping drugs. It could also predict the likelihood of using an opioid or a dose of amphetamine(Fehrman et al., 2015). They conclude that drug users are prone to common mental disorder and broadly non-specific distress, such personality types are medicated more frequently in GP health care. Several experiments were set up on methamphetamine-seeking responses by rodents and testing and altercating methamphetamine self-administration by nonhuman primates to model human subjective distress and non-specific distress. In these experiments, the phenotypic expression of distress behaviors were used as a predictor of meth abuse liability.

1.3.5. Type E and Opioid Use

During opioid use, the use of opioids and resulting death due to overdose increase as the amount of opioids increases. During opioid use, the person mainly has depressive effects such as he feels of detachment, euphoria, and invulnerability occurred. It is likely that having a type E personality plays a significant risk factor in developing an opioid use disorder. Using more, a significant amount of opioids and developing tolerance to opioids, optionality for avoiding withdrawal bring a type E to opioid overdose and its life-threatening consequences. Additionally, in the questionnaire, type P was not statistically significant when it is examined independently from age, education, and being offered opioid use. People with a type P personality, high blood pressure, acute pain, diabetes, and blue-collar occupation were significant on receiving opioid prescriptions. Therefore, having these conditions some ways for acknowledging health problems. It is not likely that having a type P personality worsens the condition, using indirect pain relief with opioids in the long term.

The typology of personality has been studied for decades to understand the relationship between various aspects of personality and dysfunctional thoughts or beliefs (Chen et al., 2019). The relationships between some types of personality and substance use have been recently studied and argued (Psederska et al., 2019). Two types of personality assessed in Eysenck Personality Type Questionnaire are extraversion (Type E) and psychoticism (Type P). Extraversion is defined as sociable, lively, active, assertive, talkative, sensation-seeking, carefree, and easygoing, whereas psychoticism is described as tough-minded, solitary, inflexible, hostile, non-empathetic, independent, or self-centered (Gómez-Bujedo et al., 2020). The use of type A personality as a CPS or PPS has been criticized. Eysenck claimed type A and type C personalities, which have been studied in several studies, are less replicable and valid than type E and type P.

1.4 Factors Influencing the Relationship

From a broader epidemiological perspective, it's a well-established fact that sociodemographic factors including age, sex, socioeconomic factors, lack of employment, exposure to violence and so on also modulate the strength of personality substance use relationship. Albert Bandura emphasized the social-learning approach and showed that personality is largely molded by social environment and that substance use, as a product of personality, is also controlled by social and environmental factors. Peer influence is another important social factor influencing an individual behavior, drug abuse, and addiction. Researchers have found that individuals who have friends or significant others, who are drug addicts, are much more susceptible to try drugs than those who do not engage in similar a drug use (Ding et al., 2017).

The relationship between personality and substance use as well as the mechanisms by which personality affects substance use have been widely studied in existing research (Fehrman et al., 2020). In these studies, researchers have tried to understand the substance use patterns through the lens of big five personality dimensions keeping in mind the fundamental claim that these dimensions of personality are related to an individual's propensity of engaging in certain behaviors including substance use. There are different factors that influence the relationship between personality and substance use including social and environmental factors, peer influence, substance availability, minority stress, parenting, childhood trauma, early experiences and many more. For instance, Giddens's concept of risk society suggest that in late modern societies the personality risk factors (sensation seeking and impulsivity) become more significant determinants of drug use because there are more opportunities for potential users to behave in accordance with their temperament.

1.4.1. Genetic Predisposition

The analysis of publically available Dutch data demonstrated substantial genetic and shared environmental correlations between personality and substance use behavior. The levels of alcohol and cannabis use were largely discrepant in the Netherlands, which appeared to make a difference in its associations with personality types. The associations between alcohol and cannabis use appeared to be determined by overlapping genetic rather than shared environmental factors. In the classic twin study design, genetic and shared environmental treatment is assumed to be additive and indistinguishable to any non-additive epistatic effects. It could be an explanation why the differences among the findings of our study and others are inconclusive. Findings of a higher in a classic twin study compared to the ARSMA data. These data concern participants in general and compare our findings for subjects reporting regular smoking, being at least 20 years old, and who are smokers. Related data issues can lead to under- or overestimation: 1) the substance use measures including

questions trying to establish harm 2) short time frame for the ARMHA sample compared to substance use measures that relate to 1 year.

Research demonstrates that genetic factors and shared environmental experiences largely determine the relationship between personality and substance use (Fehrman et al., 2020). Most studies estimating the four personality type genetic correlations and personality-general substance use indicated that there were no significant differences. Impulsivity and extraversion were more relevant to alcohol use. There were fewer moderate differences among dimensions of cannabis use, but significant differences in the genetic and environmental correlations associated with the four personality types (Chmielowiec et al., 2022). Openness was less relevant to cannabis use than neuroticism, as was extraversion in our analysis. Openness was negatively genetically correlated with cannabis use. Two patterns of association were unsurprising. Age explained the substantial environmental and genetic general personality-substance use correlations (Malmberg et al., 2012). A consistent finding from our study was that personality was related to substance use mostly because of genetics not shared environment.

1.4.2. Environmental Factors

In general, environmental influences, which are quite durable over time, are correlating with antisocial behaviour and substance use. An important addition to the exploration of environmental factors is genetics and physiological susceptibility. For example, both gender and genetic make-up are related to the unique influences of environmental context on substance use. Boys and men who have high genetic risk have higher levels of antisocial behaviour if they also have conflict with their mothers or low family income. Girls and women are more influenced by availability of substances than by genetic risk, although both play a role. In a broad sense, availability is a concept that is related to opportunity.

Environmental factors play a significant role in the relationship between personality type and substance use(C. Fortenberry & J. Esposito, 2024). Longitudinal studies have revealed that various social-contextual and environmental factors are related to onset, persistence, and aggravation of substance use behaviours(Kaswa, 2021). Delinquent or using peers, family and neighbourhood practices and norms, community poverty, and economic vulnerabilities are linked with substance use(Chen et al., 2019). Different patterns are noted for illicit drugs compared to alcohol and tobacco. Also, environmental factors consistently have a larger role in substance use vulnerability for girls and women than boys and men.

1.4.3. Psychological Factors

McDougal (1951) identified three personality types: extravert students who engage in high partying,

low drug usage, and low cigarette smoking, neurotic students who engage in low partying, high drug usage, and moderate cigarette smoking, and patients who used low engagement in high partying but engaged in high drug usage and high cigarette smoking. It could be concluded that extraverts had a lower risk of using addictive substances than individuals with high neuroticism. People who score low in neuroticism show low stress and high resistance to substance use. McCrae and Costa (1980) have developed a five-factor model consisting of neuroticism, extraversion, openness to experience, agreeableness and conscientiousness. McCrae and John (1992) have collected the psycINFO records and conducted a meta-analysis (Saladino et al., 2021). Data analysis showed a fair degree of overlap between the major dimensions of the five-factor model and Cattell's 16PF and Eysenck's three-factor model of personality. McCrae and Costa (1997) have noted that the five-factor model has become the leading trait theory for personality.

A number of psychological factors have been associated with substance use, with personality playing a central role . Understanding the relationship between personality type and substance behaviour is crucial for developing preventive and intervention strategies (Gómez-Bujedo et al., 2020). Individuals with a "Type A personality" are said to be ambitious, competitive, hard-working, and are often perfectionists. Individuals with a "Type B personality" are relaxed, easy-going, patient, and uncompetitive.

1.4.4. Social Influence

The influence of children also plays an essential role in adopting a series of traits and behaviors from their parents. Studies conducted directly and indirectly support the impact of positive parenting behavior on children's academic performance and risk behaviors, and they form part of the powerful processes that explain children's social behavior. If children are unsupervised for long periods of time in the home, or if they do not perform well in school and care about school, they are more encouraged to tend towards deviant and risk behaviors. These barrier statements were thought to consist of more protective factors due to sustainable and productive activities that can be created for children in the family environment. The behavior of individuals, especially peers and friends of individuals, who are seen as part of social networks, has a significant impact on the development of risk behaviors. This effect has been attributed to the emotional support, relationship, and normative behavior of these individuals, and it is pointed that individuals are affected by the risk perceptions of the closest friends. Strong interpersonal relationships and friendships in the individual's social network and high-quality friendships can hinder the development of risky behaviors. Peers of substance use are known to be the most influential effect on the initiation phase of use. Underlining that substance use often means taking the motivator away from peer use, Palmer et al., found that

friends' use of alcohol, cigarettes, and hookah was correlated with the use of students, and friends' attraction towards cigarettes and hookah was related to the intention of students to use these substances.

It has been reported that parents who are warm and sensitive will use effective parenting mechanisms, communicate effectively with their children, and manage their affairs effectively. Parents play a vital role in prohibiting their children from engaging in advancements of age-appropriate behavior, socializing them, and demonstrating normal moral behavior. Here, the personality trait openness to experience, stimulating social behavior in parents, reducing fundamentalist and dogmatic attitudes and increasing a democratically cooperative attitude, and fostering liberal views in parental schools and accreditation programs can function as an effective protective factor for the substance use of adolescents, including cigarettes (Fehrman et al., 2020). Similarly, the result of this research indicated that the low positive correlation between openness to experience and cigarette use indicated that an increase in this trait would lead to a decrease in cigarette use. Besides, open– down-trait increases would decrease of 4%.

Social influence is one of the most frequently found determinants of various substance use behaviors (Ding et al., 2017). Parental, family, and peer group norms and behaviors on different substances have a noticeable influence on an individual's substance use habits (Terracciano et al., 2008). Friends can influence a person to use substances through direct pressure, modeling, and encouragement. There exists a body of research that examines the relationship between big-five personality traits and factors of social influence on substance use, having utilized factors of social influence such as parent's education, friends using drugs, and friend's encouragement to use drugs as measures of social influence on substance use. Nevertheless, we want to take into consideration only direct pressure as an indicator of social influence on substance use.

1.4.5. Coping Mechanisms

There was no association between distraction which is part of the avoidant coping mechanism in this study and the use of drugs. This supports the hypothesis that it is a non-specific avoidant coping mechanism. Given that risk-taking attitudes are also associated with substances use and substances disorders, this should be closely monitored. Only young adults endorsed reward seeking as a coping mechanism and young adults have higher levels of behavioral approach system activation; this may suggest that reward seeking was really a proxy for risk-taking attitudes in this younger sample(Fehrman et al., 2015).

Overall, the use of the coping mechanism of reward seeking is more predictive of substance use disorder risk than any other types of coping mechanisms in the study. The use of this coping

mechanism may be more representative of a maladaptive coping mechanism than the others types investigated in this study. While reward seeking can be adaptive if it motivates an individual to continue onward in the face of obstacles, it is inherently maladaptive if it fuels the development of addiction. While intent of reward seeking subsumes broad range of behaviors, it may be possible that the intention of reward seeking in the context of coping mechanisms is more closely related to utilizing drugs or alcohol to generate pleasure and/or avoid withdrawal symptoms. Future studies may want to examine all possible ways that these items about coping mechanisms could be interpreted with a more diverse array of participants(Saladino et al., 2021).

There were a total of 119 (35.4%) participants who endorsed using substances to cope. Due to skewness in the coping mechanism item responses, a Fisher's exact test of association was used to determine if the presence of a coping mechanism was associated with substance use disorder risk. The associations between substance use and the coping mechanisms of avoidance ($p<.05$) and reward seeking ($p<.001$) were statistically significant at $p <.05$. The association for distraction was also found to be approaching statistical significance & sensitive attachment ($p=.067$) (Morini et al., 2023).

CHAPTER 2.

REVIEW OF LITERATURE

Fehrman et al., 2020, Personality type and related behavioral problems and disorders do not usually occur in isolation. Thus, at a time when the investigation was conducted into the link between personality and another problem or disorder, it was more important to control for the influence of the other to reach more sure results. Therefore, in the analysis of the differences in the level of p-value significance (Bonferroni correction was implemented in the test), co-morbid personality types was taken into consideration and an investigation was conducted in different groups. The value of the Kendall's tau-b was calculated as 0.05 for extraversion, -0.11 for conscientiousness, 0.06 for agreeableness, -0.03 for neuroticism, -0.20 for openness to experience personality type in the people that were diagnosed with alcohol-addiction in the internal diseases and psychiatry services . Also, the p value was calculated as $p < 0.001$. On the other hand, the value of the Kendall's tau-b was calculated as -0.09 for extraversion, 0.08 for conscientiousness, -0.10 for agreeableness, 0.01 for neuroticism, 0.20 for openness to experience personality type in the people that were diagnosed with alcohol-addiction in the internal diseases and psychiatry services. The p-value was calculated as $p < 0.001$. As to the people that were under treatment for alcohol-addiction in the psychiatry services, the value of the Kendall's tau-b was calculated as 0.02 for extraversion, -0.13 for conscientiousness, -0.01 for agreeableness, -0.01 for neuroticism, -0.17 for openness to experience personality type. The value of the p-values was calculated as $p < 0.001$.

Evidence consistently suggests a relationship exists between personality factors and alcohol consumption, and more broadly other forms of substance use. Researchers in mood and anxiety disorders have extensively researched this relationship (e.g., Appleton, 2009; Brady & Randall, 1999; Cloninger et al., 1988; Engin & Ugurlu, 2012). The results of previous studies suggest that introversion personalities are effective predictors for alcoholism (Fehrman et al., 2020). As well as this, the experimental literature has demonstrated that the subjective effects of alcohol (i.e., mood induction) vary as a function of personality type, where anxious individuals are more likely to drink to correct their mood or enhance social effects. Further, individuals with higher levels of impulsivity (a behavioural trait associated with anxiety) are subsequently more likely to engage in other key aspects of substance use related disorders (e.g., Craving, relapse, etc.). Despite this cumulative evidence base, little research has empirically investigated these relationships in broader contexts, particularly realworld behaviors that are associated with distance from alcohol use disorder diagnosis (Bezalwar & S Patil, 2024).

Malmberg et al., 2012, Personality by itself may be a very important vulnerability factoring the development of addictive disorders. A variety of methods have been used to generate personality types, so that there exists an enormous variety in the shapes of the extracted structures. A typical strategy in studies of type and conduct has been to index alcohol, drug, and smoking conduct and symptoms and then examine personality. Devalue and Swem (Proudfoot, et al., 1998) used cluster analytic procedures. Eighty-eight adults, mostly male, entering a alcohol program were administered a battery of measures including the Multi-506. Drug frequency and smoking PAL ADIS and BATs were obtained during admission. Clusters were formed based on the personality dimensions of Multi-506 and examined for frequency of drug and tobacco use values. The sixteen cluster mixtures in that study have also been interpreted in terms of alcohol syndrome 517. These mixtures were also found to differ as a suggestive set from each other and from non-diagnosed subjects in their age of drinking onset, amount drunk at a single sitting, and number of alcohol-related social and physical problems. Other studies, have examined multi-occasional smoking or PAL in the context of Marijuana or underworld streak, Mance Cullum, Rush, and Braun 512. These analyses have more of a multi-factorial actitudinal clustering surveillance of alpha-liquefaction.

Several models of personality related to substance use patterns have been advanced by researchers (Fehrman et al., 2020). But a topic of substance addition is complex and multifaceted. There is no unvelling explanation of the relation of personality and drug addiction and using various approaches to one problem may help to produce overlapping validity. Personality types have been treated variously by as psychiatric conditions, by psychoanalytically, and in terms of trait models (Kawahata, 2023). The relationship between substance abuse, dependency, and personality have been investigated in a plethora of studies (Malmberg et al., 2012). Much research has confirmed the association between antisocial behavior of small and large magnitude and the history of substance abuse.

As in Study 2, the Personality Types derived from Costa and McCrae’s Five Factor Model as assessed, are determined by two kinds of indicators: the prototypical levels of personality across the five factors are computed as the latent means in a latent growth curve (latent change score) analysis. The prototypical profile for each team is then created by matching an individual specific value with the nearest z-scored prototypical level. The majority of the sample, 61%, were classified as Integrative and 29% as Regulative Types. Only few cases were classified into the two Vulnerable Types. Concurring with the results of Study 2, Vulnerable Types had lower levels of prototypical

average factor scores, that is, were more likely typical (-.70 and -.55) than those classified into Integrated or Regulative Types.

Study 3 tested whether Personality Types would show patterns of differences when individuals with Substance Use Disorders compared to the underlying structure and prevalence as found in Study 2 (Amirabadi et al., 2015). Personality Types were generated according to the auxiliary classes and Prototypical Team Profile Analysis and estimated utilizing latent profile analysis (Malmberg et al., 2012). Latent profile analysis is a branch of structural equation modeling (SEM) that compares the latent class and latent profile models and gives the identification indices according to Akaike information criterion (AIC) and adjusted Bayesian information criterion (ABIC). Four Personality Types resulted from the analysis of the personality types in the group of Substance Use and non-Use disorders (see Figure 1). The most likely class membership was used as the indicator for substance use.

Kawahata, 2023 A slower, more strategic response, however, is to ensure that addiction prevention activity works to stimulate dormant, natural, adaptive traits. As Major Greenwood indicated, this requires targeting multiple high-risk groups. The personality profiles of lifetime users and abstainers may in time itself transform past profiles of substance use rather than vice versa. Key to this consideration is the premise that it is understanding the risk and protective factors is key.

There is already some evidence that personality types are relevant to addiction. Although the analysis is ecological, individuals whose personality types involve high levels of dependency (including Haste in the Cloninger model) appear disproportionately likely to attend clinics for smoking cessation or alcohol issues. And(Fehrman et al., 2020) Although substance use is historically understood partly as a response to those traits that are troubling (or different) whether in the Type A/B or Type C/D models of the 20th century or the transtheoretical (Stage) pre-model developed in the early phase of the addiction recovery movement, it is not universally apparent that young people are attracted to particular substances, to any great extent, by anything other than curiosity. Cloninger explicitly identified interaction of personality and substance use that foster visibility of adapted traits; “People who drink until they become drunk have adaptive traits”. Other designated personality types in typologies draw similar associations. In common with Cloninger, there is the implicit recommendation of ‘rebuilding’ the individual who misuses/abuses substances to develop more adaptive traits (Malmberg et al., 2012). This implies not so much an evolution in personality traits through the life course; rather it implies learning and applying strategies that are different. For clarity: this is not an argument or even a recommendation to avoid service provision. For crisis

intervention of either substance use or personality disorder it is necessary: to help and to avoid further potential harm.

Recent research has identified relationships between dependency and substance use in critically important ways (Kawahata, 2023). Each is likely to influence the development and expression of the other. Person-centred models of personality types have informed substance use tobacco to develop precision models that will enable new preventative and clinical interventions. These fall broadly into two categories: those framed by cloninger's]

In a qualitative study with emotional materials, open Processing increased from 27% of 7 patients in treatment weeks 2-4 to 37% in weeks 5-10 and after relapse in week 12-24 with 9 impairment incidents and 4 relapses. After "prescription of personality type", processing increased further to 47% with only 2 impairment incidents and 2 relapses in the next 38 weeks. It seems to be good especially for adolescents if it happens very early in their processed emotion. This leaves the possibility that only the therapeutic alliance with the young patients is increased and not any other dependent variable although, other dependent variables besides processing and proneness could be relevant. Objectivity would be enhanced by similar administration of both the World Health Organization Quality of Life index and the assessment instead of the begetter-associated patient placement criteria or someone else completing both instruments. An instruction not to complete an assessment by the patient until finishing the assessment for him or her is recommended.

Personality-targeted interventions have been recommended as "best practice" for substance use disorder (SUD) (J. Conrod, 2016). While SUD treatment outcomes are typically low, good spirit, good outcome and good fit processes outcomes are often achieved with personality-targeted interventions (Terracciano et al., 2008). Outpatients (192) at a SUD clinic at a Moderate-Sized Public University Health Center completed the Neo-PI-3 and either the 5-item World Health Organization Quality of Life assessment in Weeks 1, 5, and 12 and the ASAM Patient Placement Criteria in week 1 or these were completed by a reliable informant close to the patient. A misplaced sample and conflicting consistent involuntarily assigned process selection resulted in failure to replicate some aspects of prior research. On the first visit, in general, the temperaments are correlated (M r = .57) while the characters are not correlated (M r = .15). Those least perceptive of the "good fit" process were adolescents and those reduced in processing by SUD which includes those who were least interested in minimizing processing such as those low in openness. Not only did personality types fit the treatment groups formed within the clinic but the types predicted outcomes within each treatment group suggesting that for in both volunteer and involuntary settings the instrument with its structured administration might serve as a clinical roadmap (Shahini et al., 2021).

CHAPTER 3

OBJECTIVES AND HYPOTHESIS

3.1 Objective

I. To study the relationship between Personality type and Alcohol Use

II. To study the relationship between Personality type and Tobacco Use

III. To study the relationship between Personality type and Cannabis Use

IV. To study the relationship between Personality type and Opioid Use

V. To study the relationship between Personality type and Stimulant Use

3.2 Hypothesis

H1 There will be a positive relationship between extraversion and substance use
H2 There will be a negative relationship between agreeableness and substance use
H3 There will be a negative relationship between conscientiousness and substance use
H4 There will be a positive relationship between openness and substance use
H5 There will be negative relationship between neuroticism and substance use

CHAPTER 4

METHODOLOGY

4.1 Sample

A total of 213 students in the age groups ranging from 18 years to 25 years participated in the study, in which 112 were females and 101 were males.

4.2 Design

Independent variable: Personality Type
Dependent variable: Substance Use
Correlational Design was used.

4.3 Statistical analyses

Descriptive statistics (mean and standard deviation), correlation, and stepwise regression were computed using the statistical package for social sciences (SPSS version 20)

4.4 Instruments

The Big Five Inventory (BFI) was used for an assessment of the Big Five traits. It asks for respondents to indicate their agreement to each item on a five-point scale. The BFI consists of 45 items. Assuming a response style of about five seconds per item, the BFI-K survey of the Big Five traits can be administered with participants with limited demands on their time.

The ASSIST (*The Alcohol, Smoking and Substance Involvement Screening Test)* is used to identify people who are using substances, so that a brief intervention can be provided, as appropriate. It was developed by World Health Organization (WHO) in response to the overwhelming public health burden associated with psychoactive substance use worldwide. The ASSIST is an 8-item questionnaire designed to be administered using pencil and paper and takes about 5 minutes to administer. It can identify range of problems associated with substance use including acute intoxication, regular use, dependent or 'high risk' use and injecting behavior.

4.5 Procedure

Participants were informed about the study protocols in detail and their consent was obtained. The questionnaires were distributed in an engineering college and subjects were informed about the procedure and then some verbal and written instructions were given:

"You will be provided with five questionnaires. For all the questions, kindly choose the response you think describes your answer the best. Please answer all the questions honestly and carefully. Information collected from you will be kept strictly confidential." Participants were seated comfortably and external disturbances were avoid.

CHAPTER 5

RESULTS

Table 1. Descriptive Statistics of Personality traits and Substances.

Descriptive Statistics

	N	Mean	Std. Deviation
Extraversion	213	23.52	6.260
Agreeableness	213	34.36	4.940
CONSCIENTIOUSNESS	213	31.45	4.925
NEUROTICISM	213	25.42	6.511
OPENNESS	213	34.27	4.489
TOBACCCO	213	4.41	8.030
ALCOHOL	213	6.58	8.696
CANNABIS	213	2.04	5.619
AMPHETAMINES	213	1.31	5.047
INHALANTS	213	1.59	6.347
SEDATIVES	213	1.66	6.091
HALLUCINOGEN	213	1.40	5.417
OPIODIS	213	1.35	5.232
COCAINE	213	2.14	6.245
Valid N (listwise)	213		

Table 2. Correlation table for Big 5 and Tobacco

Variables	1	2	3	4	5	6
1.Extraversion	—					
2.Agreeableness	.135*	—				
3.Conscientiousness	.270**	.499**	—			
4.Neuroticism	-.595**	-.251**	-.419**	—		
5.Openness	.053	.396**	.224	-.132	—	
6.Tobacco	-.076	-.193**	-.307**	.021	-.186**	-

p<0.01**, p<0.05*

Table 3. Correlation table for Big 5 and Alcohol

Variables	1	2	3	4	5	6
1.Extraversion	—					
2.Agreeableness	.135*	—				
3.Conscientiousness	.270**	.499**	—			
4.Neuroticism	-.595**	-.251**	-.419**	—		
5.Openness	.053	.396**	.224	-.132	—	
6.Alcohol	.170*	-.102	-.344**	.020	-.247**	-

p<0.01**, p<0.05*

Table 4. Correlation table for Big 5 and Cannabis

Variables	1	2	3	4	5	6
1.Extraversion	—					
2.Agreeableness	.135*	—				
3.Conscientiousness	.270**	.499**	—			
4.Neuroticism	-.595**	-.251**	-.419**	—		
5.Openness	.053	.396**	.224	-.132	—	
6.Cannabis	-.069	-.127	-.113	.034	-.388**	-

p<0.01, p<0.05***

Table 5. Correlation table for Big 5 and Amphetamines

Variables	1	2	3	4	5	6
1.Extraversion	—					
2.Agreeableness	.135*	—				
3.Conscientiousness	.270**	.499**	—			
4.Neuroticism	-.595**	-.251**	-.419**	—		
5.Openness	.053	.396**	.224	-.132	—	
6.Amphetamines	.009	-.216**	-.053	.009	-.541**	-

p<0.01, p<0.05***

Table 6. Correlation table for Big 5 and Inhalants

Variables	1	2	3	4	5	6
1.Extraversion	—					
2.Agreeableness	.135*	—				
3.Conscientiousness	.270**	.499**	—			
4.Neuroticism	-.595**	-.251**	-.419**	—		
5.Openness	.053	.396**	.224	-.132	—	
6.Inhalants	.010	-.220**	-.063	.004	-.546**	-

p<0.01, p<0.05***

Table 7. Correlation table for Big 5 and Sedatives

Variables	1	2	3	4	5	6
1.Extraversion	—					
2.Agreeableness	.135*	—				
3.Conscientiousness	.270**	.499**	—			
4.Neuroticism	-.595**	-.251**	-.419**	—		
5.Openness	.053	.396**	.224	-.132	—	
6.Seditives	.011	-.206**	-.061	.026	-.540**	-

p<0.01, p<0.05***

Table 8. Correlation table for Big 5 and Halucinogen

Variables	1	2	3	4	5	6
1.Extraversion	—					
2.Agreeableness	.135*	—				
3.Conscientiousness	.270**	.499**	—			
4.Neuroticism	-.595**	-.251**	-.419**	—		
5.Openness	.053	.396**	.224	-.132	—	
6.Halucinogen	.008	-.220**	-.055	-.006	-.538**	-

p<0.01, p<0.05***

Table 9. Correlation table for Big 5 and Opioids

Variables	1	2	3	4	5	6
1.Extraversion	—					
2.Agreeableness	.135*	—				
3.Conscientiousness	.270**	.499**	—			
4.Neuroticism	-.595**	-.251**	-.419**	—		
5.Openness	.053	.396**	.224	-.132	—	
6.Opioids	.009	-.216**	-.054	-.007	-.541**	-

p<0.01, p<0.05***

Table 10. Correlation table for Big 5 and Cocaine use

Variables	1	2	3	4	5	6
1.Extraversion	—					
2.Agreeableness	.135*	—				
3.Conscientiousness	.270**	.499**	—			
4.Neuroticism	-.595**	-.251**	-.419**	—		
5.Openness	.053	.396**	.224	-.132	—	
6.Cocaine	.060	-.164*	-.006	.059	-.414**	-

p<0.01, p<0.05***

Table No.11 Linear regression analysis of Big 5 and Tobacco use

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.		
		B	Std. Error	Beta			Adjusted R Square	F
1	(Constant)	15.175	3.812		3.981	.000		
	Agreeableness	-.313	.110	-.193	-2.854	.005	0.33	8.143
2	(Constant)	21.743	4.104		5.298	.000		
	Agreeableness	-.086	.123	-.053	-.699	.485		
	CONSCIENTIOUSNESS	-.457	.123	-.280	-3.706	.000		
3	(Constant)	29.046	5.659		5.133	.000	0.88	11.183
	Agreeableness	-.098	.123	-.060	-.803	.423		
	CONSCIENTIOUSNESS	-.543	.131	-.333	-4.143	.000	0.098	8.699
	NEUROTICISM	-.165	.089	-.134	-1.862	.064		

9.8% variance in Tobacco use was explained by conscientiousness.

Every 1 unit increase in conscientiousness led to a .543 unit decrease in tobacco use

Table No.12 Linear regression analysis of Big 5 and Alcohol Use.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.		
		B	Std. Error	Beta			Adjusted R Square	F
1	(Constant)	25.704	3.632		7.078	.000		
	CONSCIENTIOUSNESS	-.608	.114	-.344	-5.330	.000	.119	28.414
2	(Constant)	20.686	3.664		5.646	.000		
	CONSCIENTIOUSNESS	-.744	.114	-.421	-6.543	.000		
	Extraversion	.394	.089	.284	4.410	.000	.193	25.173
3	(Constant)	34.666	5.122		6.767	.000		
	CONSCIENTIOUSNESS	-.713	.110	-.404	-6.457	.000		
	Extraversion	.405	.087	.291	4.666	.000	.245	22.633
	OPENNESS	-.443	.117	-.229	-3.788	.000		

Every 1 unit increase in conscientiousness led to a 0.713 unit decrease in alcohol use.
Every 1 unit increase in extraversion led to a 0.405 unit increase in alcohol use.
Every 1 unit increase in openness led to a 0.443 decrease in alcohol use.

24.5% variance in alcohol use was explained by extraversion, openness, conscientiousness.

Table No.13 Linear regression analysis of Big 5 and Cannabis use.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.		
		B	Std. Error	Beta			Adjusted R Square	F
1	(Constant)	18.701	2.745		6.814	.000		
	OPENNESS	-.486	.079	-.288	-6.123	.000	.147	.37.492

Every 1 unit increase in Openness led to a 0.486 unit decrease in Cannabis use.

14.7% variance in Cannabis use was explained by Openness.

Table No.14 Linear regression analysis of Big 5 and Amphetamine use.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.		
		B	Std. Error	Beta			Adjusted R Square	F
1	(Constant)	22.142	2.251		9.838	.000		
	OPENNESS	-.608	.065	-.541	-9.333	.000	.289	87.099
2	(Constant)	22.181	2.581		8.592	.000		
	OPENNESS	-.607	.071	-.540	-8.537	.000		
	Agreeableness	-.002	.065	-.002	-.031	.975	.285	43.344

Every 1 unit increase in Openness led to a 0.607 unit decrease in Amphetamine use.

28.5% variance in amphetamine use was explained by openness

Table No.15 Linear regression analysis of Big 5 and Sedative Use.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.		
		B	Std. Error	Beta			Adjusted R Square	F
1	(Constant)	26.760	2.717		9.847	.000		
	OPENNESS	-.732	.079	-.540	-9.316	.000	.288	86.787
2	(Constant)	26.540	3.117		8.515	.000		
	OPENNESS	-.737	.086	-.543	-8.592	.000		
	Agreeableness	.011	.078	.009	.145	.885	.285	43.203

28.5% variance in sedative use was caused by openness

Every 1 unit increase in openness led to a .737 unit decrease in sedative use.

Table No.16 Linear regression analysis of Big 5 and Hallucinogen use.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.		
		B	Std. Error	Beta			Adjusted R Square	F
1	(Constant)	23.645	2.421		9.767	.000		
	OPENNESS	-.649	.070	-.538	-9.265	.000	.286	85.845
2	(Constant)	23.822	2.777		8.580	.000		
	OPENNESS	-.645	.076	-.534	-8.436	.000		
	Agreeableness	-.009	.069	-.008	-.131	.896	.282	42.731

28.6% variance in hallucinogen use was explained by openness.

Every 1 unit increase in Openness led to a 0.645 unit decrease in Hallucinogen use.

Table No.17 Linear regression analysis of Big 5 and Opioid Use.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.		
		B	Std. Error	Beta			Adjusted R Square	
1	(Constant)	22.967	2.332		9.849	.000		
	OPENNESS	-.631	.067	-.541	-9.348	.000	.290	87.384
2	(Constant)	23.007	2.675		8.602	.000		
	OPENNESS	-.630	.074	-.540	-8.552	.000		
	Agreeableness	-.002	.067	-.002	-.030	.976	.286	43.486

28.6% variance in opioid use was explained by openness.
Every 1 unit increase in openness led to a .630 unit decrease in opioid use.

Table No.18 Linear regression analysis of Big 5 and Cocaine Use.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.		
		B	Std. Error	Beta			Adjusted R Square	F
1	(Constant)	21.862	3.014		7.254	.000		
	OPENNESS	-.576	.087	-.414	-6.601	.000	.167	43.569
2	(Constant)	21.880	3.457		6.329	.000		
	OPENNESS	-.575	.095	-.413	-6.043	.000		
	Agreeableness	-.001	.086	-.001	-.011	.991	.163	21.681

16.3% variance in cocaine use was explained by openness.
Every 1 unit increase in openness led to a 0.575 unit decrease in cocaine use. cocaine use.

CHAPTER 6

DISCUSSION

The present work focused on understanding the relationship between The Big 5 Personality type and Substance Use.

6.1 Extraversion and Substance Use.

Hypothesis 1 stated that there will be positive relationship between extraversion and Substance use.

Our results suggested that those who scored high on extraversion showed more indulgence towards Alcohol, Therefore Hypothesis 1 was partially accepted.

Alexander,S. (2018) conducted a study *Personality and Daily Alcohol use across university: Interactions with Academically Intense Events Predicting Alcohol use problems.* A longitudinal study of 4 years and seven-wave with 14-day daily survey bursts every semester on undergraduate students. He found that students higher in Extraversion have heavier alcohol use and problems while neuroticism was not associated with drinking outcomes.

6.2 Agreeableness and Substance use.

Hypothesis 2 stated that there will be negative relationship between agreeableness and substance use.

Our results suggested that those who are high on Agreeableness are less likely to use Cocaine. Therefore, the Hypothesis 2 was partially accepted.

Kang,W. (2022) conducted a study on *Big five personality traits predict illegal drug use in young people*. His took sample between 16 to 21 years old, the study was analyzed using binary and ordinal logistic regression to analyze from 775 young drug users and 2757 young non-

drug users from UKHLS. The result showed that Agreeableness, and Conscientiousness are negatively associated to illegal drug use.

6.3 Conscientiousness and Substance Use.

Hypothesis 3 stated that there will be negative relationship between conscientiousness and substance use.

Our result suggested that those who are high on conscientiousness are less likely to involve in risky behaviors such as Alcohol use and Tobacco use . Therefore, our hypothesis 3 was partially accepted.

Kang,W. (2022) conducted a study on *Big five personality traits predict illegal drug use in young people*. His took sample between 16 to 21 years old, the study was analyzed using binary and ordinal logistic regression to analyze from 775 young drug users and 2757 young non-drug users from UKHLS. The result showed that Agreeableness, and Conscientiousness are negatively associated to illegal drug use.

6.4 Openness and Substance Use.

Hypothesis 4 stated that there will be positive relationship between openness and substance use.

Our result suggested that individual who are high on openness are less likely to involve in behaviors such as Alcohol use, Amphetamine use, Inhalant use, Sedatives use, Hallucinogens use, Opioids use and Cocaine use. Therefore, the hypothesis 4 was rejected.

Kang,W. (2022) conducted a study on *Big five personality traits predict illegal drug use in young people*. His took sample between 16 to 21 years old, the study was analyzed using binary and ordinal logistic regression to analyze from 775 young drug users and 2757 young non-drug users from UKHLS. The result showed that Agreeableness, and Conscientiousness are negatively associated to illegal drug use while

Neuroticism, Openness and Extraversion are positively associated with illegal drug use.

6.5 Neuroticism and Substance use.

Hypothesis 5 stated that there will be positive relationship between neuroticism and substance use.

Our result could not state any significant relationship between Neuroticism and Substance use. Therefore, the hypothesis 5 was Rejected.

Kang,W. (2022) conducted a study on *Big five personality traits predict illegal drug use in young people*. His took sample between 16 to 21 years old, the study was analyzed using binary and ordinal logistic regression to analyze from 775 young drug users and 2757 young non-drug users from UKHLS. The result showed that Agreeableness, and Conscientiousness are negatively associated to illegal drug use while Neuroticism, Openness and Extraversion are positively associated with illegal drug use.

CHAPTER 7

CONCLUSION, IMPLICATIONS, LIMITATIONS AND SCOPE FOR FUTURERESEARCH

7.1 Conclusion

The findings of the study indicate that the correlations found between personality traits and substance use, it is evident that there are consistent patterns across various substances. Specifically, individuals who score higher in agreeableness tend to be less likely to engage in substance use across the board This aligns with previous research suggesting that agreeable individuals are more cooperative, considerate, and compliant with social norms, which may serve as protective factors against substance use. Moreover, the specific substances show unique associations with certain personality traits. For instance, extraversion positively corelates with alcohol use, indicating that individuals who are more outgoing and sociable are more likely to consume alcohol Conversely. conscientiousness negatively correlates with cannabis use, suggesting that individuals who are more responsible, organized, and self-disciplined are least likely to use cannabis. These findings underscore the importance of considering personality traits ln understanding substance use behaviors- Tailoring prevention and intervention efforts to target personality-specific vulnerabilities and strengths may enhance their effectiveness in mitigating substance use disorders. Additionally, further research exploring the mechanisms underlying these associations could provide valuable

insights into the etiology and prevention of substance use disorders.

7.2 Implication

Since we are exposed to stressors in our daily lives, from major life transitional events to minor stresses can affect an individual negatively. The finding of the study suggests that hopeful individual experience less stress and increased cognitive flexibility help them to adapt to new and unusual situations with little trouble. This also helps them in being resilient and increases their immune functioning. Also, the important implication is in hospitals where people with stress and lower immune functions may be taught to indulge in activities that improve their hope, resilience, and cognitive flexibility.

7.3 Limitation

There were some limitations of the study. The sample size is 213 in the present study, is one of the limitations of this study. Another limitation is the age group. The age group considered for the present study was 18-25 years. Also, the number of males and females taken in this study was not equal, which could be one of the limitations.

7.4 Scope for future research

There are several areas that require greater attention if we are to understand the reasons behind the observed personality type and substance use and abuse relationship. Investigations using international samples would be invaluable in ascertaining whether the substance use and abuse relationship differs across cultural groups. Particular emphasis should be placed on examining the strengths of other personality type and substance use and abuse relationships as a greater understanding of these non-type related relationships enables better explanation of the type related relationships. Additionally, this research is limited to studying young adults and the substance use and abuse relationship. Whether other personality dimensions are related to cannabis use or other drugs and in other developmental stages (e.g., how personality relates to nicotine and alcohol use in older adults) also need to be established. A more thorough understanding of these relationships will enable the development of more targeted programs and initiatives that work to reduce harm and promote healthier coping behaviors.

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