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MASTER'S THESIS

MENTAL STATE CHARACTERISTICS PATIENTS SUFFERING FROM PSYCHOACTIVE SUBSTANCE ADDICTION DURING REMISSION

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MAGİSTR DİSSERTASİYA İŞİ

PSİXOAKTİV MADDƏ ASILILIĞINDAN ƏZİYYƏT ÇƏKƏN XƏSTƏLƏRDƏ REMİSSİYA DÖVRÜNDƏ PSİXİ VƏZİYYƏTİN XÜSUSİYYƏTLƏRİ

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INTRODUCTION

Relevance of the topic. Psychoactive drugs are drugs that act on the central nervous system and affect brain function. They affect mood, perception, consciousness, behavior and cognitive functions. According to the World Health Organization (WHO), more than 35 million people across the globe are affected by substance matters. The examination of mental state characteristics in patients with mental disorders in remission from psychoactive substance addiction is very relevant because of the close relationship between addictive disorders and mental disorders. To help contribute to effective treatment and support strategies, it is important to understand these dynamics. Individuals with substance use disorders (SUDs) also have high rates of co-occurring mental health disorders, according to research. For example, a study of the United States found that 47% of people with schizophrenia had a substance use disorder at any point in their lives. Mental health challenges remain during remission. The study analyzed data from the National Survey on Drug Use and Health (2018-2020) and found that, among individuals in remission from SUDs, 27.2% had received mental health treatment in the last year and 9.8% perceived that they had an unmet need for such treatment. This highlights the persistent mental health requirements during remission (Bridget B. Hayes 2023). According to the 2020 National Survey on Drug Use and Health, 22.0% of adults reported experiencing a mental illness over the course of their lifetime, and of those, 65.9% viewed themselves as being in recovery. This prominence shows the need for addressing mental health problems in addition to SUDs for sustained recovery (Douglas Richesson, Jennifer M. Hoenig 2020). Psychoactive drugs are chemical substances that, when ingested or otherwise entering the body, alter the function of the brain, leading to changes in perception, mood, consciousness, cognition or behaviour. These chemicals act on the central nervous system and affect neurotransmitter activity, leading to their effects. According to the American Psychiatric Association (2013), psychoactive drugs fall into five different classes: Depressants, stimulants, opioids, hallucinogens, and cannabinoids. Depressants lower neural activity and may cause relaxation or sedation. Examples of common substance types are alcohol, benzodiazepines (e.g. Xanax, Valium) and barbiturates. Stimulants increase neural activity, resulting in heightened alertness, attention and energy (e.g. caffeine, nicotine, cocaine and amphetamines). Opioids that are used for pain relief and can also produce euphoria (morphine, heroin and prescription painkillers like Oxycodone). Hallucinogens, which induce perceptual distortion and altered sensory experiences, are Kimberly howls at the moon. Cannabinoids —

chemical derivatives of the cannabis plant — these can have depressant, stimulant and hallucinogenic effects. Tetrahydrocannabinol (THC) is the principal psychoactive ingredient. Remission is a major concept in the treatment of addiction to psychoactive substances and denotes a situation where an individual who at some point was addicted to a psychoactive drug has reduced or stopped using the substance and does not meet diagnostic criteria for addiction. Remission doesn't mean total recovery and the risk of relapses is still present. Remission means the person no longer meets the diagnostic criteria for using the drug or drugs and experiences improved mental and emotional state. People in recovery from psychoactive substances have a huge number of stressor factors including anxiety and depression caused by the chronic and unpredictable nature of their disease. They can weigh a family down with a burden of emotion, often carrying with them the stigma associated with drug and alcohol addiction, guilt, and helplessness. In addition, substance use can have major consequences (Yule et al., 2017; Young et al., 2015) that may include social isolation, incarceration, death, and reduced capability to assume family roles, including being a responsible parent or sibling. For this purpose, we proposed to assess anxiety and depression levels in patients undergoing remission from psychoactive substance addiction.

The object of the research. 16-60 ages male patients suffer from psychoactive substance addiction during remission.

The subject of the research. The subject of this research is the investigation of the mental state characteristics of individuals suffering from psychoactive substance addiction during the remission period. The study aims to explore the psychological and emotional profiles of patients in remission, focusing on symptoms of depression, anxiety, and manic tendencies.

The purpose of the study. This study examines the mental state characteristics of individuals suffering from psychoactive substance addiction during the remission period. By assessing levels of depression, anxiety, and manic symptoms, the study aims to gain a deeper understanding of the psychological challenges faced by these individuals.

Hypothesis of the study:

H_0: There is no significant correlation between the duration of remission and the severity of mental states – rejected.

H_1: There is a significant correlation between the duration of remission and the severity of depressive symptoms – accepted.

$H_{2:}$ There is no significant correlation between the duration of remission and the severity of anxiety symptoms – rejected.

H_3: There is positive correlation between the duration of remission and the severity of anxiety symptoms – rejected.

H_4: There is a significant correlation between the duration of remission and the severity of manic symptoms – accepted.

Task of the research. The task of the research is specified as follows:

- Examine the psychological effects.
- Determine the underlying factors.
- Assess and analyze the results.
- Investigate coping strategies.
- Increase public awareness.

Methods of the research. Hamilton Depression Scale (HAM-D), Young Mania Rating Scale (YMRS) and Zung Self-Rating Anxiety Scale (SAS) were used, social demographic questionary which based on the requirements of the study by the Professor and the master student.

Scientific significance of research. The novelty of this thesis work is seen in its clarification of the properties of the mental state of individuals in remission from addiction to psychoactive substances. This study explores the emotional, cognitive and behavioral aspects that accompany the remission time frame to fill the gap in psychological literature on long-term recovery. This data will enable a better grasp of the psychological categories and neurobiological adaptations underlying remission. In addition, it will help to find key factors that affect emotional stability, reduce the risk of fallout and improve the quality of life of patients.

Scientific novelty of the research. The scientific novelty of the thesis research is determined by the unexplored clinical psychology characteristics of the mental state of individuals with remission of psychoactive substance addiction. This research does not focus on causes and treatment of addiction as previous studies do but rather the psychological and behavioral transitions that take place during the remission stage. Additionally, the present study will fill an important gap in the scientific literature regarding the dynamics of the mental state during remission and may thus facilitate the implementation of more effective rehabilitation strategies and improve the provision of psychological support for people recovering from addiction to psychoactive substances.

Structure of the research. The dissertation consists of an introduction, three chapters, results, conclusion, references and a list of appendices.

CHAPTER I. LITERATURE REVIEW

1.1. Concept of Psychoactive Substance Addiction

Addiction is a complex condition that is both a mental illness and a drug problem. It manifests in an individual's uncontrollable want for drugs and a total absence of inhibition when misusing the drug even when it leads to serious issues. Addiction also has a history of an individual's medicines sociocultural environment, biological makeup and upbringing that Touches into difference facets of neural networks relating to the reception of rewards, motives, and decision control. Other important brain systems in addiction are the mesolimbic dopaminergic system, prefrontal cortex, amygdala, and hippocampus (Koob & Volkow, 2016).

Addiction to pharmacologically active substances is an enduring disorder marked by drug-seeking behavior. It is characterized by an uncontrollable use of drug, substance, or any behavior that is harmful inflicting negative consequences. This disorder causes irreversible damage to the brain's functionality due to persistent psychological and physiological changes inflicted on the reward, motivation, and decision-making centers of the brain. The term "psychoactive" refers to chemical compounds that after being consumed change an organism's behavior, or subjective perceptions of the external environment. There are many species which actively consume psychoactive substances. It is possible that an animal's ability to retrospectively alter its behavior may lead to self-administering a drug which consequently causes behavioral changes. Considering the active pursuits of human beings to acquire and utilize psychoactive substances, these recollections are their logic circuits. Addiction involves several interrelated elements: a powerful motivational stimulus that drives a behavior, an obsession with the behavior, short-lived satisfaction, lack of control, and long-lasting negative outcomes (Volkow, Michaelides, & Baler, 2019). The most frequently used psychoactive substances are alcohol, tobacco and marijuana whose use represents serious public health and social concern. These medications have a severe negative impact on one's health, premature mortality, and missed academic potential in addition to financial costs (Manyike PC, Chinawa JM, 2021).

There are generally four categories of psychoactive substance addiction based on the type of psychoactive substances involved. Stimulants, including cocaine and caffeine, are known to increase wakefulness and energy. Depressants cause sleep and may calm mental activity, but it also causes unwanted side effects. Opioids are pain-relieving substances that increase euphoria. Abusers of hallucinogens will hallucinate, causing them to see things that aren't there (Fletcher,

2023). Psychoactive drugs are substances that the federal government defines as altering the function of the nervous system to change perception, emotion, awareness, cognition and behavior, including sexual behavior. They include substances that are used legally (licit) and illegally (illicit) and they can be used for medicinal and recreational purposes within this diverse class of drugs (American Psychiatric Association, 2013) (Table 1.1.1).

Table 1.1.1. Classification of Psychoactive Drugs

Stimulants	Depressants	Opioids (narcotics)	Hallucinogens
Cocaine	Benzodiazepines (e.g. Rohypnol)	Heroine	Lysergic acid diethylamide (LSD)
Amphetamine	Diazepine	Codeine	Mescaline
Methamphetamine	Alcohol	Morphine	Psilocybin
Nicotine	Barbiturates	Opium	Ketamine
Caffeine	Gamma-hydroxybutyrate	Oxycodone	Ecstasy

A stimulant is a category of psychoactive drug that increases the central nervous system (CNS) activity. All of which lead to feelings of euphoria and increased motivation, these substances amplify print energy, alertness, and attention. Stimulants are often used in medical and recreational settings. These include amphetamines, cocaine and nicotine, as well as medications such as modafinil (used to treat narcolepsy) and methylphenidate (commonly prescribed for ADHD). The principal pathways that stimulate spirits modify neurotransmitters, significantly serotonin, dopamine and norepinephrine. Stimulants potentiate neurotransmission (arousal, concentration, and pleasure) by increasing the bioavailability of these neurotransmitters in the synaptic cleft (Volkow et al. 2017). Amphetamines cause an overflow of dopamine and norepinephrine in the synapse, whereas the action of cocaine is to mediate buildup of the neurotransmitter in the reward centers of the brain by blocking reabsorption (Rang et al. (2020). Stimulants used for treating obesity, narcolepsy, and ADHD (Gazzaniga et al. (2020).

Stimulants increase overall neurotransmission, which consequently makes the available neurotransmitters more accessible in the synaptic cleft and results in arousal, focus and pleasure (Volkow et al. 2017). Amphetamines act to increase the concentration of dopamine and norepinephrine in the synapse e space while cocaine blocks the reuptake of dopamine, leading to accumulation of the transmitter within the brain reward system (Rang et al. (2020). Stimulants are employed in treating obesity, narcolepsy and attention deficit hyperactivity disorder (ADHD) (Gazzaniga et al. (2020).

Deciphering the contributions of genetic factors to the etiology of addiction can potentially translate into better responsiveness to treatment and prevention of illness. To identify the genes that are required for neuroadaptations, both genome-wide approaches and candidate gene studies have been applied to better understand the molecular basis underlying the genetic contribution to drug addiction (Al-Eitan, Rababa'h, Alghamdi, 2021). Many research studies are available that describe the association between genetic polymorphisms and drug abuse. In one such study, male individuals of Jordanian Arab ancestry participated. Approximately 498 people were found to be addicted to one or more of the following substances: amphetamine (5.7%), alcohol (5.5%), benzodiazepines (4.6%), opiates (4.4%), cocaine (1.1%), cannabis (0.4%), synthetic cannabinoids (47.5%), and cannabinoids (19.6%). In 89% of the cases, one medication was used. However, more than one substance was used by 11% of addicts in the study (Kumar P, Basu D, 2000). Drug addiction is driven primarily by changes in neurotransmitter systems. The endocannabinoid and dopaminergic systems seem to be particularly important; drugs bind those systems and/or adjust the function of their neurotransmitters to alter the functioning of a specific brain area. These two systems have a lot of receptors in the prefrontal cortex (PFC), the striatum, the thalamus, the nucleus accumbent (NAcc), the Ventral Tegmental Area (VTA), the amygdala, the inferior cingulate gyrus (ICG) and anterior cingulate gyrus (ACG) and again the Striatum. These brain regions control emotion regulation, impulse control, and decision-making, explains what makes drug addicts feel satisfied by its energization (Navarrete, F.; García-Gutiérrez, M, 2022). The use of cocaine under abuse destroys some of the mesolimbic dopaminergic neurons and prevent reabsorption of dopamine which led to the development of habitual and relapsing behavior. Methamphetamine is associated with cell death, but it is neurotoxic to dopaminergic neurotransmitter systems. M. nemestrina adult males show that even just one dose of methamphetamine alters levels of a variety of endocannabinoids in the striatum, suggesting a potential linkage between the drugs action and the ebb and flow of the endocannabinoid system. The functional role of the endocannabinoid system in rectifying the effects of psy-chostimulant drugs, such as amphetamine and cocaine, has been demonstrated in multiple studies (Morcuende, Á. Femenía, T.; Manzanares, J, 2022).

On the other hand, for example, poly-drug use exhibits psychotic symptoms, schizophrenia (Mefodeva, V.; Carlyle, M.; Walter,, 2022), finally also found PTSD (Post-Traumatic Stress Disorder) (Nath, A.; Choudhari, S.G.; Dakhode, S.U.; Rannaware, 2022) and psychiatric comorbidity, with personality, mood, and anxiety disorders (Daigre, C.; Grau-López, L Poon,

J.Y.K.; Hu, H, 2022), for many people with substance use disorder (SUD). The dual diagnosis of SUD together with ASD (Autism Spectrum Disorder) is also found in some cases (McKowen, J.; Woodward, D.; Yule, 2022). Understood as a complex intertwining between behavior, personality, and psychopathology, substance use disorder can be interpreted. Shared risk factors such as socioeconomic status and personality can explain the overlapping effects of substance use, and psychopathology (dual diagnosis) (Lui, S.S.Y.; Chan, R.C.K, Claes, L, Santens, E 2022). It has been reported that about 10–20% of the population have an addiction-related problem according to the various surveys conducted (McKowen, J.; Woodward, D, 2022), and half of people with substance use disorder develop other mental disorders in their lifetime, and conversely, people with other mental disorders develop substance use disorder, indicating that the relationship between both is likely to be bidirectional. There was a positive correlation between anxiety, depression and craving intensity. Time of abstinence may also affect the craving and psychiatric symptoms association (Wang et al., 2023). Temperament and personality traits are important factors that promote the development and persistence of addiction-related behaviors. So important to these characteristics are disinhibition and lack of self-control, which really mean the ability to control your impulses, your feelings and your thoughts. A failure of self-control is thought to be a transdiagnostic feature; a lack of control can manifest internalizing behaviors, such as those present in mood or anxiety disorders, or externalizing behaviors, such as those seen in substance use disorder and attention deficit hyperactivity disorder (ADHD). Moreover, high behavioral activation (BAS) and low self-control (EC) are associated with Cluster B of personality disorders, while high behavioral inhibition (BIS) and low self-control (EC) are associated with Cluster C of personality disorders. As for Cluster A, a BIS · BAS combination is reported rather (Santens, E.; Dom, G, 2022). Drug use and addiction are strong predictors of anxiety symptomology. Stress has further been shown to be associated with increased strength of cravings to use methamphetamine and opiates (Poon, J.Y.K.; Hu, H.; Lam, M, 2022). Desire intensity and SUD are often comorbid with mood disorders (Santens, E.; Dom, G.; Dierckx, E, 2022). More specifically, in patients on methadone maintenance therapy, sadness correlated positively with the strength of heroin cravings. People might use drugs more often, as a form of "self-medicating" to deal with feelings of anxiety or depression even though the use of the substance may impact the brain and create such experience (Poon, J.Y.K.; Hu, H.; Lam, M, 2022). High rates of substance use disorder and co-morbidity with Post-Traumatic Stress Disorder (PTSD) are commonly observed, and both conditions frequently emerge during adolescence. Some theories suggest that adolescents who

had traumatic experiences may be more susceptible to developing SUD, which in turn may help promote the establishment of PTSD. The history of trauma is a significant risk factor for aggressive and suicidal behavior in individuals with SUD. In addition, there was evidence that early emotional abuse correlates with addictive behaviors, as opposed to other forms of abuse (Goldman, K.; Levin, K; 2022).

SUD is a complicated condition that is impacted by many different things, including social circumstances. The onset and maintenance of SUD are significantly influenced by social variables. The circumstances in which people are born, develop, live, work, and age are known as social determinants of health (SDoH). The allocation of assets, power, and financial resources at the local, national, and international levels affects these conditions (Grinspoon, P. Poverty, 2021).

Understanding how an addiction might enter their lives we must first look at the person's upbringing, beginning with early infancy, to comprehend. Both the individual's growth and the emergence of addiction are significantly influenced by the parenting style used to raise the kid and the ensuing family dynamics. Furthermore, childhood traumas (physical or emotional abuse, neglect), even if they only happen once, have negative physiological effects and bad health outcomes. For instance, elevated cortisol levels raise the likelihood of drug use (Pomrenze, M.; Paliarin, F.; Maiya, 2022).

Adolescence is a critical time for biological, psychological, and social development, as is well recognized, but it is also a delicate time when people are more vulnerable to substance use, its harmful effects, and addictions that follow. Early substance use raises the chance of addiction if it begins before the age of 18, but it also increases the possibility of subsequent issues (physical, behavioral, social, and health) (Stillman, M.A.; Daddis, S.T, 2022).

There is a reciprocal association between drug usage and socioeconomic circumstances. Parallel to what has already been discussed, SUD has a negative impact on social behavior. It causes the person to avoid social situations, which frees up more time for drug use rather than rewarding social interactions. This creates a vicious cycle where the person starts using drugs more frequently, which further isolates them. The lockdown, which compelled young people to spend extended amounts of time at home, has contributed to the rise of this phenomena in recent years. Indeed, it has been discovered that COVID-19 played a role in the rise in social isolation and overdoses (Pomrenze, M.; Paliarin, F.; Maiya, 2022).

Table 1.1.2. Social Factors Influencing Substance Addiction across Life Stages.

Social Factors	Description
Childhood	Parenting styles (authoritarian, authoritative, neglectful, permissive) influence likelihood of substance uses in children; childhood traumas (physical/emotional abuse, neglect) linked to increased cortisol levels and risk of substance use.
Adolescence	Adolescents susceptible to substance use due to curiosity, societal pressure, relationship issues, etc.; parental support as protective factor; peer support correlated with higher alcohol consumption; social isolation exacerbates substance use.
Adulthood	Family characteristics (cohesion, expressiveness, conflict) influence alcohol use in adults with AUD; loneliness associated with increased alcohol use; lack of social support, medical complications, bereavement contribute to onset of SUD or AUD.
Social Background	Social context influences addiction development: urban areas with drug accessibility and security issues associated with addiction; neighbourhood disorder (graffiti, crime) and social cohesion impact alcohol use.

As they become older, people with AUD report having a family that is less cohesive and expressive and more conflictual. These are risk factors for alcohol use, covered up by the person's excuses for using alcohol (e.g., alcohol reduces concern). Anxiety and alcohol consumption are linked to rising loneliness, which is also a symptom of COVID-19. Features of older age that may contribute to the emergence of SUD or AUD include physical difficulties, dealing with loss, and a lack of social support. This affects healthy aging and raises health risks by raising the chance of early mortality: Because of their comorbidities and frailty, those who drink alcohol are more likely to have unpleasant withdrawal symptoms and have greater incidences of dementia (Maxwell, A.M.; Harrison, K.; Rawls, 2022). Summary of social factors related to substance addiction, including influences from childhood, adolescence, adulthood, and social background (Stewart, S, Mulhern, J.P, Pomrenze, M, Stillman, M.A, Maxwell, A.M, Mohamed, S etc., 2022) (Table 1.1.2).

1.2. Neurobiological Basis of Addiction

In 2021 report provided by WHO, approximately 296 million people aged 15 to 64 were estimated to use some form of psychoactive substance (including drugs) and around 39.5 million were estimated to suffer from drug use disorders, which refer to potentially hazardous consumption or dependency on substances. It is believed that approximately 0.6 million deaths annually – 420,000 men and 160,000 women – are attributable to drug related psychoactive substance usage. In 2019, drug usage was responsible for around 36 million years of previously productive life available (DALY) in terms of lost years. It is estimated that approximately 14.8 million people who inject drugs are present in the world, among whom 15.2% are HIV positive and 38.8% are suffering from Hepatitis C. Psychoactive substances are subject to usage classification according to the schedule's hierarchy on a national and international scale based on the restrictions regarding therapeutic value and safety concerns. The 1961 Single Convention on Narcotic Drugs as modified with 1972 Protocol, the 1971 Convention on Psychotropic Substances and the 1988 Convention on Illicit Traffic in Narcotic Drugs and Psychotropic Substances constitute international agreements on control of the production and distribution of psychoactive drugs. The top psychoactive drugs include amphetamines, cocaine, heroin, LSD, opioids, marijuana/cannabis, alcohol, caffeine, and nicotine. 4.9%, 22.5%, and 3.5% of adults worldwide, respectively, overused alcohol, tobacco products, and cannabis to the extent of developing problems, according to 2015 research. According to the UNODC World Drug Report 2021, the highest yearly prevalence rates worldwide are now found in cough syrups, prescription opioids, and cannabis, at 10.8% (male 18.8%, female 2.6%), 4.7% (male 6%, female 3.3%), and 2.4% (male 2.3%, female 2.4%), respectively. Worldwide, the most often misused drugs have traditionally been alcohol, tobacco/nicotine, and caffeine. In many cases, they have serious detrimental impacts on mental health and well-being, yet they are also frequently lawful. Cannabis is the most illegal substance on the list.

The lifetime prevalence of drug use disorders within the general population of the United States is approximately 10%. People between the ages of 15 and 64 globally is around 324 million and are believed to have used illicit drugs at some point. Moreover, the National Survey on Drug Use and Health (2019) estimates that around 57 million individuals aged 12 and above claimed to have used illicit drugs at some point in the past year. Of these, almost 48 million individuals reported using marijuana which makes it the most abused drug. Furthermore, the survey also noted that 4.4 million individuals met the criteria for marijuana use disorder (Ignaszewski, 2021).

The addiction to psychoactive substances represents a public health challenge on a global scale, impacting millions of individuals across varying age groups and social classes. In a 2023 report from the United Nations Office on Drugs and Crime, it was noted that in 2021 approximately 296 people were reported to be using drugs worldwide. This marks a 23 percent increase over a ten-year period. Out of this opioid dependence remains the biggest problem and accounts for upwards of 70 percent of drug overdose deaths. Substance use disorders are reported to be most prevalent out of all disorders having a high disparity across regions.

The WHO (2022) claims that among the global population aged 15-64 years, around 5.5% had taken drugs in the preceding year, with the most prevalent cases reported in North America, Eastern Europe, and Central regions. In the United States alone, the National Survey on Drug Use and Health (NSDUH, 2022) reported that 16.5% of the population aged 12 or older had a substance use disorder in the past year.

In Azerbaijan, national reports indicate a rising trend in substance dependence, particularly among young adults. Data from the Republican Narcological Center (2023) suggest that the number of registered drug-dependent individuals has increased by 12% over the last five years, with synthetic drugs and opioids being the most misused substances. According to the American Psychiatric Association (APA, 2021), nearly 50% of individuals with substance use disorders have co-occurring mental health conditions, such as depression, anxiety, or bipolar disorder.

Remission from substance addiction remains a major challenge, with relapse rates ranging between 40-60% within the first-year post-treatment (National Institute on Drug Abuse [NIDA], 2023). Factors influencing relapses include poor social support, underlying mental health disorders, and neurobiological changes caused by prolonged substance use (Volkow, N. D., Koob, G. F., & McLellan, A. T, 2021). Addiction is a neurobiological disease that alters several structures and functions of the brain. 2B–D: The critical systems implicated in addiction comprise the reward circuit, executive control network, stress systems, and learning/memory pathways (Koob & Volkow, 2016). These systems are connected through numerous neurotransmitter pathways (DA, glutamate, gamma-aminobutyric acid (GABA), serotonin (5-HT), and endogenous opioids) that are critical for the initiation and maintenance of addictive behavior (Volkow et al., 2019). The dopaminergic system is crucial in drug abuse due to its ability to strengthen drug-seeking behavior. Addictive drugs, including alcohol, stimulants, and opioids, all promote the release of dopamine (DA) in the ventral striatum (VS), and specifically its core subregion niche nucleus accumbens (NAc) (Volkow, 2020). Imaging studies show that these brain areas are less active during drug use

in addicted individuals, compromising self-control and making it more difficult to resist drug urges in favor of the long-term goal of recovery (Volkow et al., 2019). There is dysregulation of the orbitofrontal cortex (OFC), which adds value to rewards, which results in overvaluing drug rewards and undervaluing natural pleasures (Koob & Volkow, 2016). Epigenetic changes that modulate gene expression and make individuals vulnerable to relapsing (Nestler, 2020). The Brain Disease Model of Addiction posits that addiction is a brain disease, characterized by changes in the motivation and reward systems of the brain, short-circuiting impulses to stop use even in the face of adverse consequences. Central to this model, especially the pathways for dopamine, is the influence of addictive substances and behaviors on the brain's reward system. In the normal brain, dopamine is released in response to potential rewards, producing pleasure and reinforcing participation in those beneficial behaviours like socializing, eating, or having sex. Addiction acts by extensive rewiring of many circuits in the brain and modifying systems of neurotransmitters. Dysregulation of dopaminergic, glutamatergic, GABAergic, serotonergic and opioid pathways underpin the compulsive nature of substance use, deficits in executive function and vulnerability to relapse (Heilig et al., 2021).

That psychoactive substances have been used for thousands of years, with evidence from ancient Egypt, Greece and China. The substances much praised for the spiritual, ritualistic, and medicinal properties were considered sacred or divine in many societies. For example, opium was used in ancient Egypt to relieve pain, and wine was consumed during religious ceremonies in ancient Greece. The use of psychoactive substances carries with it a historical context influenced by multiple cultural, social, and economic factors. In some cultures, it was assumed that these substances were an important part of mystical or spiritual experiences, in which people entered altered states of consciousness or encountered divinity. Conversely, other individuals, e.g., those who consumed alcohol at social gatherings, were using these substances for recreation or socialization. The diverse history of psychoactive substance use is closely related to the different ways in which humans have tried to modify their cognition, and their perception of reality (Charee M, 2023).

1.3. Diagnosis of Psychoactive Substance Addiction

The DSM-5 categorizes drug use disorder as a single, moderate to severe disorder that encompasses the DSM-IV definitions of substance abuse and substance dependence. With the exception of caffeine (which cannot be classified as a drug use disorder), each substance is treated

as a separate substance use disorder (or stimulant use disorder, alcohol use disorder, etc.), but almost all drugs are diagnosed with the same general rules. These general disease criteria not only have been combined, but they also have been solidified. In contrast, the DSM-5 lists diagnostic criteria for moderate drug use disorder requiring two or three symptoms from a list of eleven, whereas before, one (American Psychiatric Association 2013). DSM encompasses all forms of mental health ills, and dramatically influences the way that illnesses are diagnosed, treated and studied. Regardless of our efforts to harmonize DSM-5 and ICD-11, there remain many marked differences between the two systems, as their goals are quite distinct. Later in this article, we will discuss how the most recent revisions of the two systems have approached the topic of "addictions" somewhat differently. The DSM-5 aims to provide a common lexicon of research and clinical language to describe events of mental health problems, whilst the ICD-11 aims at the clinical utility on issues such as LNG in a diverse array of clinical (care) settings through a focus on clinical characterisation across the world (Grant & Chamberlain, 2016).

Both the World Health Organization (WHO) and the American Psychiatric Association (APA) state that any differences between the two classification systems are to be minimized and maintained only when conceptually guided. World-wide, both the ICD and the DSM strongly influence psychiatric practice and research and much has been done over the years to harmonisation between the two systems However, there are some important differences in the classification of SUD between DSM-5 and ICD-11. The "Disorders due to substance use and addictive behaviors" paragraph of the ICD-11 has a counterpart in the DSM-5: "Substance-related and addictive disorders" (First et al., 2021; Reed et al., 2019).

The Diagnostic and Statistical Manual of Mental Disorders (DSM-5)

In the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), the 11 criteria for substance use disorder fall into four general categories: impaired control over use (criteria 1 to 4), as indicated by use of large amounts or over a long period of time; unsuccessful efforts to reduce or stop use; spending a great deal of time obtaining, using or recovering from the substance; and craving the substance. Social disability (criteria 5-7), such as use when physical danger is likely; continued use despite social or interpersonal problems; neglect of significant roles and relationships to use. Risky use is characterized by recurrent substance use in physically hazardous situations (Criterion 8) and continued use despite knowledge of having a persistent or recurrent physical or psychological problem likely caused or worsened by the substance (Criterion 9).

Table 1.3.1. DSM-5 Diagnostic Criteria for Substance Use Disorders.

Criterion	Description
Criterion 1	Substance is often taken in larger amounts or over a longer period than was intended.
Criterion 2	There is a persistent desire or unsuccessful efforts to cut down or control substance use.
Criterion 3	A great deal of time is spent on activities necessary to obtain, use, or recover from the substance's effects.
Criterion 4	Craving, or a strong desire or urge to use the substance.
Criterion 5	Recurrent substance use results in a failure to fulfill major role obligations at work, school, or home.
Criterion 6	Continued substance use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of the substance.
Criterion 7	Important social, occupational, or recreational activities are given up or reduced because of substance use.
Criterion 8	Recurrent substance uses in situations in which it is physically hazardous.
Criterion 9	Substance use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance.
Criterion 10	Tolerance, as defined by either of the following: A need for markedly increased amounts of the substance to achieve intoxication or desired effect; Markedly diminished effect with continued use of the same amount of the substance.
Criterion 11	Withdrawal, as manifested by either of the following: The characteristic withdrawal syndrome for the substance; The substance is taken to relieve or avoid withdrawal symptoms.

The pharmacological criteria include the development of tolerance—defined as a need for markedly increased amounts of the substance to achieve the desired effect, or a markedly diminished effect with continued use of the same amount (Criterion 10)—and the presence of withdrawal symptoms, either through the characteristic withdrawal syndrome or by using the substance to relieve or avoid withdrawal symptoms (Criterion 11).

A diagnosis of substance use disorder is established when an individual meets at least two of these criteria within a 12-month period. The severity of the disorder is classified as mild (2–3 criteria), moderate (4–5 criteria), or severe (6 or more criteria), depending on the number of criteria met (American Psychiatric Association, 2013). This multidimensional model enables a more nuanced understanding of substance-related problems, integrating behavioral, cognitive, and physiological indicators of disordered use (Table 1.3.1).

The International Classification of Diseases (ICD-11)

ICD-11, the 11th version of the International Classification of Disease (ICD) system, took effect January 1st, 2022. Used in some 180 countries around the globe, the ICD is a regular update of a catalog of mens human disease, and a potentially related medical issue run by the World Health Organization (WHO). Beyond their basis for research precision, disease classification and coding are vital for epidemiological data-gathering to monitor trends in disease incidence and prevalence and for exact clinical diagnosis and effective communication between health care providers (Sanusi et al., 2022; Saunders, 2017). Substance-related disorders result from the use of psychoactive-drug substances or medications, whether once or repeatedly. These conditions are classified according to the substance. The list of substances has expanded from 9 (ICD-10) to 14 to capture contemporary patterns of usage (Poznyak et al., 2016): alcohol, cannabis, synthetic cannabinoids, opioids, sedative hypnotics and anxiolytics, cocaine, stimulants such as amphetamine, methamphetamine, or methcathinone, synthetic cathinones, caffeine, hallucinogens, nicotine, volatile inhalants, MDMA and related drugs, and dissociative drugs such as ketamine and phencyclidine. 2018).

Table 1.3.2. Difference between the list of substances in ICD-10 and ICD-11.

ICD-10	ICD-11
Chapter 5: "Mental and behavioral disorders"	Chapter 6: "Mental, behavioral or neurodevelopmental disorder"
F10-F19 Mental and behavioral disorders due to psychoactive substance use	Disorders due to substance use or addictive behaviors
Mental and behavioral disorders due to use of… F10 alcohol F11 opioids F12 cannabinoids F13 sedatives or hypnotics F15 other stimulants, including caffeine F16 hallucinogens F17 tobacco F18 volatile solvents F19 multiple drug use and use of other psychoactive substances	Disorders due to use of… 6C40 alcohol 6C41 cannabis 6C42 cannabinoids 6C43 opioids 6C44 sedatives, hypnotics or anxiolytics 6C45 cocaine 6C46 stimulants including amphetamine, methamphetamine or methcathinone 6C47 synthetic cathinones 6C48 caffeine 6C49 hallucinogens 6C4A nicotine 6C4B volatile inhalants 6C4C MDMA or related drugs, including MDA 6C4D dissociative drugs including ketamine and phencyclidine [PCP] 6C4E other specified psychoactive substances, including medications 6C4F multiple specified psychoactive substances, including medications 6C4G unknown or unspecified psychoactive substances 6C4H non-psychoactive substances 6A41 catatonia induced by substances or medications 6C4Y other specified disorders due to substance use 6C4Z disorders due to substance use, unspecified

Four additional classes have been added to include substances that are not listed or unknown: other specified psychoactive substances, including medications. These differences can be observed in the substance list from ICD-10 and ICD-11 which is represented in the Table 1.3.2. The structure of the classification suggests that the substance (rather than the clinical syndrome) is the focus of diagnosis. The purpose of this new grouping revision then is to allow the collection for use in many contexts, inform accurate monitoring, as well as treatment and prevention. Following the substance classes, the list of diagnostic categories (Reed et al., 2019; World Health Organization, 2019).

Table 1.3.3. ICD-11 Diagnostic Criteria.

Criterion	Description
Criterion 1	Substance use often continues despite the occurrence of problems.
Criterion 2	A strong desire to take psychoactive substances.
Criterion 3	Difficulties in controlling substance-taking behavior in terms of its onset, termination, or levels of use.
Criterion 4	A physiological withdrawal state when substance use has ceased or been reduced.
Criterion 5	Evidence of tolerance such that increased doses of the psychoactive substance are required to achieve effects originally produced by lower doses.
Criterion 6	Progressive neglect of alternative pleasures or interests because of psychoactive substance use, increased amount of time necessary to obtain or take the substance or to recover from its effects.
Criterion 7	Persisting with substance use despite clear evidence of overtly harmful consequences.

The following table outlines seven core diagnostic criteria for psychoactive substance dependence as defined by the World Health Organization (WHO, 1992) in the ICD-10

Classification of Mental and Behavioural Disorders. These criteria are used to identify patterns of maladaptive substance use that may indicate dependence. Each criterion reflects a different dimension of addiction, from physiological changes to behavioral and cognitive dysfunctions (Table 1.3.3).

1.4. Remission in Psychoactive Substance Addiction

People with SUD (apart from those with an opioid addiction) would require a minimum threshold of 90 service days, according to the National Institute on Drug Abuse (2012). A. behavioral therapies, drugs, or a combination of these) to start the required adjustments for recovery. This period does not seem long enough for those with a persistent SUD, even though it is better than no service at all. Given the length of this clientele's recovery trajectories, the high relapse rates following the first year of treatment, and the cyclical nature of the problem—which entails repeated periods of abstinence and relapse over several years—it would appear that the provision of a long-term recovery service is necessary to enable these individuals to sustain the changes they have started in the various areas of their lives. There is no scientific agreement on how long these individuals should receive services to initiate and sustain the necessary changes in a recovery process. According to Bergman et al., the bulk of the data currently available is based on treatment durations of no more than 12 months. Eastwood et al. (2015). 2018; Grella and associates. 2010; Lash and Associates. As well as Lemke and Moos (2003), McKay (2009), McKay, Knepper, Deneke, O'Reilly, and DuPont (2016), and Metsch et al. 1999).

About 25 percent of the U.S. S. population had at least one SUD before the previous year. Abstinence (14.2 percent), asymptomatic use (36.9 percent), symptomatic use (10.9 percent), and persistent/recurrent SUD (38.1 percent) were the most common past-year substance use and DSM-5 symptomology among those with any prior SUDs. Young adulthood, higher educational attainment, higher personal income, never having been married, being divorced, separated, or widowed, not receiving lifetime substance use treatment, and stressful life events all significantly increased the odds of past-year persistent/recurrent SUDs compared to abstinence among people with prior SUDs. Furthermore, compared to abstinence, remission from a previous tobacco use disorder reduced the likelihood of persistent or recurrent SUD during the previous year. Only one in seven people were abstinent, while most adults with previous DSM-5 SUDs continued to report symptomatic substance use from the previous year. Based on the common and distinct correlates

of persistent/recurrent SUDs, the results point to the importance of looking at remission linked to both substance-specific SUDs and SUD aggregation; this is particularly true for stressful life events, which may be helpful (McCabe, S. E., West, B. T., Strobbe, S., & Boyd, C. J, 2018).

The World Health Organization estimates that SUDs account for approximately 5% of the overall disease burden, illicit drug use for 0–8% (WHO, 2004). According to Whiteford et al., 0–4% are caused by illicit drug use. (2015). SUDs are linked to social issues like domestic violence, criminal negligence, traffic accidents, and suicide, as well as health issues like cancer, infectious diseases, mental disorders, and cardiovascular diseases (Beck and Richard, 2012, Cullen et al. Von Laue et al. (2009). (2003). In recent decades, there has been a surge in efforts to enhance treatment due to the high rates of SUD morbidity and mortality. Several studies have evaluated results, validated the efficacy of different therapies, and shown the benefits of self-help groups (Gerstein et al. UKATT Research Team, 2005; 1997). However, the majority of studies only measured treatment outcomes for a 12-month period, which is consistent with how long SUD treatment typically lasts (Arria and McLellan, 2012).

In Azerbaijan, during the span from 2000 to 2015, the count of drug addicts registered in Baku city and admitted to dispensaries doubled, escalating from 5,700 to 11,417. The rate of drug addiction per 100,000 population increased from 490.97 in 2011 to 517.96 in 2015. The Yasamal, Sabunchu, and Nasimi districts emerged as the most problematic areas in terms of an increase in the number of drug users. In the backdrop of a five-year increase in the incidence of drug addiction, the dynamics of the primary incidence of drug addiction varied between 25.1-24.8 per 100 thousand population, exhibiting a discernible decrease. A slight rejuvenation of drug addiction, coupled with a small increase in the number of young individuals with minimal social engagement, has been observed. It is notable that the rejuvenation of drug addiction, low levels of social activity, and a small increase in the number of young students are observed. Although the proportion of women among registered drug addicts increased slightly but progressively from 2011 to 2015, it remained relatively low and fluctuated between 5,2% and 5,4%. The male-to-female ratio was 1:18 and 1:19, respectively, during the same period. A strong increase (1,7 times) in the prevalence of people with AIDS was observed during the study, for both men (1,5 times) and women (2,4 times). The prevalence of AIDS of injecting drug users comprised a significant percent of AIDS cases, 62,8% in 2011 and 50,4% in 2015, and tended to grow both in women and men (Mammadov, P. P., 2024). Remission is the period in which the symptoms of a disease or disorder are reduced, eliminated or markedly less than previous periods. If you are currently symptom-free, that does

not necessarily have to mean that a condition has been resolved. In psychology, remission occurs when a mental illness wanes, and someone experiences fewer or zero symptoms for a period. That can occur in a range of conditions, including schizophrenia, bipolar disorder, anxiety and depression. Someone whose mental health is in remission may require continued therapy or treatment to keep their mental health on track, but during the remission it may be that their mental health doesn't require as much effort to manage — or even that it has returned to something "normal." There are two types of remission mainly: Partial remission: The patient has some symptoms of the disorder but is considerably less severe or of concern than when the illness was acute. Complete remission: The patient does not have clinician or radiological evidence of disease but may remain at high risk of future relapse. The treatment goal of remission in clinical psychology, particularly with chronic mental health disorders. Much like with effective treatment, remission can happen with a combination of therapy and/or medication, but often requires ongoing management practices, such as ongoing therapy, medication, or lifestyle changes, to be maintained. Remission, when symptoms return and relapse occurs, is often viewed as a phase in the broader trajectory of a mental health condition if potential stressors or triggers are not sufficiently regulated. The term plays a key role in the treatment and management of various psychological disorders including Major Depressive Disorder (MDD) when symptoms of sadness, hopelessness, and lack of interest subside. Treatments of anxiety disorders include minimizing the occurrence and intensity of worry or anxiety reactions. Using medicine and therapy to manage manic or depressive episodes to attain periods of remission is bipolar disorder. Schizophrenia: Suppressing symptoms such as delusions and hallucinations so that people can live their lives more normally. Remission in substance use disorders is periods of sobriety or dramatically reduced substance use, and they often require continual support to prevent relapse. Addiction has a significant effect on brain chemistry, changing neural pathways and neurotransmitter levels. The reward system in the brain is upset by substance abuse, which results in compulsive behaviors and a loss of self-control. Addiction and mental health have a complicated relationship because this disruption frequently makes underlying mental health conditions like anxiety or depression worse (Chetty, A, 2023).

Remission is a significant milestone in the healing journey and a major step in the right direction. While this does not close the door on the path to recovery, it inspires hope and proves that one can live life without drugs. It can impair the judgment and decision-making of those with addiction, causing them to make poor decisions who can be harmful to themselves and others. One

may prioritize drug usage over reasoning, resulting in impulsive behavior that can be harmful, such as engaging in risky and dangerous activities or omitting their responsibilities. A neurocognitive impulse-control profile in opiate users with varying durations of abstinence — both groups exhibited heightened delay discounting, and former opiate users in early remission showed significantly poorer decision-making under risk and ambiguity compared to controls. Moreover, individuals from both ex-opiate user categories exhibited a diminished tendency to suppress automatic responses, yet retained the ability to inhibit initiated responses, particularly in difficult situations (Psederska, E. & Vassileva, J, 2023).

Substance abuse and substance use disorders (SUDs) have long been linked to stress. Research aimed at comprehending the fundamental mechanisms underlying this association has increased dramatically over the last 20 years. The multilevel "adaptive stress response" framework presented in this review includes an acute reaction, a stress baseline, and a recovery phase with return to homeostasis that takes place across domains of analysis and at different response times. It also covers data demonstrating how this adaptive stress response is disrupted in the context of trauma, chronic and recurring stressors, unfavorable social and drug-related environments, acute and chronic drug abuse, and the aftereffects of drug withdrawal and abstinence. The adaptive stress response phases' subjective, cognitive, peripheral, and neurobiological disruptions are also discussed, along with how they relate to rigid, maladaptive coping, elevated craving, relapse risk, and drug maintenance. The implications of addressing this "stress pathophysiology of addiction" for prevention and treatment are finally covered, along with elements that could be focused on when developing an intervention to reverse stress-related changes in drug motivation and enhance the results of SUD treatment (Sinha, R, 2024).

Substance use disorder (SUD) is a widespread debilitating medical condition that profoundly affects various aspects of health and is often associated with morbidity and death. Patients lean on their families for support when they are sick. This support includes helping patients come to terms with their illness, improving their compliance with therapy, and ultimately supporting their recovery. Family cohesiveness has consequently been seen as a protective facet that inhibits substance abuse relapsing and a buffer application against drinking and substance use in populations with substance abuse issues. Higher levels of drinking and substance use are associated with less cohesive families. But the strain that an SUD brings to a family can cause exhaustion or relationship strain. Consequently, the patient and the family, in general, would benefit from family cohesion-reformation efforts. Support networks outside the family (eg G. Peers

support, support groups, and self-help groups could be complementary tools to help patients cope with the emotional and practical consequences, and maintain their remission (Muller AE, Skurtveit S, Clausen T, 2017).

Table 1.4.1. Relapse Rates and Contributing Factors for Substance Use Disorders.

Substance	Relapse Rate (%)	Notes
General Substance Use Disorders	40–60%	Overall relapse rate across all substance use disorders.
Alcohol	70%	Professional treatment and support groups aid in reducing relapse risk.
Opioids (without MAT)	Up to 90%	Highest relapse rate without medication-assisted treatment (MAT).
Opioids (with MAT)	Approximately 40%	MAT significantly reduces the rate of return to use.
Heroin	78.20%	High relapse rates due to severe withdrawal symptoms and cravings.
Cocaine	61.90%	Behavioral therapies and coping strategies are critical for recovery.
Methamphetamine	52.20%	Strong psychological dependence contributes to high relapse rates.

When treatment is aided by medication, that rate falls to as low as 40%. The rate at which people return to using other substances varies. Also, there may be factors in your case that make you more or less likely to use it again. Your risk of relapsing, for instance, will be significantly higher than that of someone without a co-occurring mental health diagnosis. Your likelihood of resuming your drug use will also be higher than that of those who do not abuse multiple substances.

The relapse rate is between 40 and 60 percent when all substance use disorders are considered. The highest rate of relapses in cases of opioid use disorder without medication-assisted treatment is 90%. On the 6th table Relapse Rates and Contributing Factors for Substance Use Disorders and their relapse rates clearly described (Table 1.4.1).

A systematic review and meta-analysis found that 35% to 54.4% of individuals with substance use disorders (SUDs) achieved remission over an average follow-up period of 17 years. Annual remission rates were estimated between 6.8% and 9.1%. Longer follow-up periods were associated with higher remission rates, highlighting the chronic nature of SUDs and the need for sustained treatment approaches (Kelly, J. F., Greene, M. C., & Bergman, B. G, 2016).

Data from the National Epidemiologic Survey on Alcohol and Related Conditions indicated that among individuals with prior SUDs, 14.2% achieved abstinence, 36.9% engaged in asymptomatic use, and 38.1% experienced persistent or recurrent SUDs. Stressful life events were significant predictors of continued substance use, underscoring the importance of addressing psychosocial factors in treatment (Grant, B. F., et al, 2018).

- Depression and Its Role in Remission.

According to American Addiction Center, depression affects more than 350 million people worldwide, and only about half of them will ever be treated. In the United States, more than 15 million adults have an episode of clinical depression in any particular year — nearly 7 percent of the population. Different from the sadness or grief that most people experience for a limited time after a loss, the symptoms of depression are present most days for weeks, months, or even years—affecting every part of a person's life.

According to the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5), a person must have 5 or more of the following symptoms of depression almost every day during a 2-week period to meet diagnostic criteria for depression: and the symptoms are not due to any other medical condition or the effects of substance use (eg, drugs, alcohol). They include:

- A low, depressive mood.
- A diminished pleasure or interest in daily activities.
- Recurrent thoughts of self-loathing, worthlessness or guilt.
- Sleep problems, like sleeping too much or not enough.
- Unexplained weight loss or gain.
- Physical fatigue.

- They seem to have low energy, their reactions and movements are slower than before.
- Difficulty concentrating or remembering things.
- Recurrent, intrusive thoughts about death or dying.
- Wanting to die or to attempt suicide.

It has been shown in studies that many factors that cause depression are also involved with substance use disorders. This can be known as co-occurring disorders, or dual diagnosis. Depression and addiction commonly encompass:

1. Chemical imbalance in the brain.
2. Family history.
3. Past trauma. Additionally, the physical and psychological manifestations of addiction might mask depression's symptoms or exacerbate the symptoms of this class of mental illness.

In an analysis of a nationally representative sample of 43,093 adults 18 years or older, researchers discovered that among those with a current diagnosis of alcohol use disorder, more than one in five also had concurrent major depressive disorder. Among respondents actively seeking treatment for alcohol use disorder, the prevalence of at least one mood disorder was greater than 40% than that of the general population. Alcohol is a central nervous system depressant, which may act as a stimulant at first but quickly exacerbate lethargy, drowsiness and depression. The use of alcohol, which depresses cognition and decreases inhibitions, can also increase the likelihood that a depressed person will act on suicidal impulses.

The use of alcohol and drugs can influence the course of a depressive disorder adversely by exacerbating the symptoms of depression and increasing the risk of hospitalization, while also affecting the course of treatment. If you have depression and someone is treating you for it, but you are also using drugs or alcohol, that treatment probably isn't going to help you much, unless they address your substance use along with your depression. Substance use can negatively impact motivation and render therapeutic interventions ineffective. Also, alcohol or drugs could have harmful interactions with medicines used to treat depression. A program that merges mental health and recovery services at the same location, with a cross trained staff in both fields, is the most effective way to treat depression.

Some people with depressive disorder have structurally different brains than those who do not have depression. MRI imaging studies show that the brain regions which govern mood, cognition, metabolic function, and sleep look different in those with serious mood disorders. A

chaotic home environment or childhood physical, sexual, or emotional abuse is a risk factor for depression in adolescence or adulthood. Trauma therapy can be very helpful to work through unresolved memories and heal the emotional scars that can act as a precursor to depression later in life. Neurologists and pharmacologists have long explored the link between brain chemistry and depression to find fixes for this crippling disorder. Chemical imbalances in certain neurotransmitters in the brain that regulate emotional states, moods, energy levels, and appetite, including serotonin, norepinephrine and dopamine, have been associated with depression. Like any other kind of chronic mental illness, the development of depression is typically caused by an interplay between different factors. A family history of depression, for instance, might be accompanied by a history of past trauma or a marriage that breaks up to make a person more susceptible to depression.

Those with depression often feel estranged, starkly lonely and powerless. The good news is that depression, even when accompanied by a co-occurring substance use disorder (SUD), is treatable. Addiction can complicate the treatment of depressive disorders. Depressive symptoms with low motivation, low self-worth and a flat emotional effect can mimic the effects of chemical intoxication or withdrawal. The client must submit to a comprehensive psychiatric assessment for the treatment team to be able to differentiate between the effects of depression and a substance use disorder. Like other types of mental illness, major depressive disorder is serious, debilitating and treatable with the right set of therapeutic strategies. Depressed people can be treated, and their families can regain hope for the future, with the help of trained, licensed mental health professionals. When substance use occurs comorbid with a depressive disorder, co-occurring treatment of both disorders results in better outcomes. Treatments for depression and co-occurring SUD may include Medications for depression. The most prescribed medications for depression are selective serotonin reuptake inhibitors (SSRIs), such as fluoxetine (Prozac), citalopram (Celexa), and sertraline (Zoloft). These drugs work on the principles of correcting these chemical imbalances by sending surge of serotonin (a mood-affecting neurotransmitter) molecules to the brain. Today, SSRIs are regarded as the first-line pharmaceutical treatment for depression, because they have such mild side effects compared to older antidepressant agents. And cognitive-behavioral therapy (CBT). CBT is aimed at addressing the maladaptive thoughts and behaviors of individuals with mood disorders such as depression. Cognitive behavioral therapy works on recognizing and changing self-defeating thoughts and negative self-playbacks like “I’m worthless,” “I’ll never feel better” or “I might as well drink, my life is so bad.” Negative thinking patterns can be countered

with positive affirmations and maladaptive coping skills can be replaced with adaptive responses to life's stressors and triggers.

MI (motivational interviewing). MI involves the patient in the recovery process through a partnership with the therapist, allowing patients to identify their goals and ultimately assist them in overcoming any ambivalence they have toward recovery. MI can be of great use for depression and others, who struggle to find and hold on to internal patient for things.

Trauma therapies. If a history of trauma is a contributing factor in a client's depression or substance use, trauma therapies such as Seeking Safety and eye movement desensitization reprocessing (EMDR) can aid the process. These methods assist in reprocessing unsettling memories and resolving old sources of pain, so the customer can advance along the path of recovery and rehab.

Family systems therapy. Family systems therapy treats the client's household as a system, and the diseases of depression and addiction as family diagnoses rather than individual diseases. Therapeutic goals for families include educating family members about depression and addiction, improving communication within the family, setting realistic boundaries and creating a home environment that is conducive to recovery. For the duration of substance use treatment, core interventions including individual therapy, group therapy, 12-Step programming and family or marriage counseling offer a stable support network and the foundation for psychological healing (Laura Close, 2025).

- Anxiety Disorders and Their Impact on Remission.

Anxiety disorders and SUDs are highly comorbid, and they reciprocally perpetuate one other. Anxiety-specific treatments that are integrated into SUD treatment should be able to lead to improvements in both anxiety and SUD outcomes (Barry Cl, Huskamp Ha, 2011).

About one in 10 U.S. adults go on to experience a drug use disorder (DUD), with drugs other than alcohol (i.e., cannabis, cocaine, hallucinogens, heroin, inhalants, nonheroin opioids, sedatives, stimulants, tranquilizers, and other drugs) (Grant et al., 2016). Newer evidence also suggests that the prevalence of cannabis use disorders is rising among U.S. adults during the last decade (Hasin et al., 2015). Of every 10 U.S. adults who become diagnosed with DSM-IV DUDs, an estimated three per 10 will still meet criteria for DUDs over a 3-year period (Fenton et al., 2012). Prevalence estimates of remission from substance use disorders in the general U.S. adult population are between 5.3% and 15.3% (White, 2012). Although the natural history of alcohol dependence and remission from alcohol dependence has been extensively studied in the U.S.

general population (Dawson et al., 2005a; Dawson, Goldstein, & Grant, 2007; Moss, Chen, & Yi, 2010; White, 2012), there have been very few longitudinal studies of the course and predictors of remission from drug dependence in the U.S. among adults over time (Calabria et al., 2010; Compton, Dawson, Conway, Brodsky, & Grant, 2013; Fenton et al., 2012; Sarvet & Hasin, 2016). It has been documented, for instance, that substances other than marijuana are being primarily misused by those entering drug treatment in the U.S. during the last two. So, for example, drug treatment admissions with alcohol as the primary drug of abuse declined from 57% in 1993 to 38% in 2013, whereas admissions for marijuana, opiates, and stimulants increased from about 22% in 1993 to 53% in 2013 (SAMHSA, 2006, 2012, 2015). These findings underscore the need to gain better understanding of spontaneous remission from drug dependence, potential relapse factors, and the stability of drug use abstinence over time, using use national U.S. studies (Blanco et al., 2007; Compton et al., 2007). An evolution in the manner of describing profiles of substance users in treatment has taken place; however, the clinical studies on the course and correlates of remission from drug dependence (i.e. non-alcohol) have lagged behind similar clinical studies for alcohol dependence (Lopez-Quintero et al., 2011).

Substance dependence is an enormous global public health challenge. Illicit drug dependence is related to vocational disability, depression, psychotic and social disorders, imprisonment and physical illness. We don't know exactly what causes drug dependence, but we do know from old studies that some of the risk factors could potentially be already identified very early on in life, maybe even before use or onset of abuse. Previous work has tested the association of depressive symptoms with antisocial, oppositional, and disruptive behavior disorders, disorders presumed to develop antecedent to and predictive of onset of substance dependence. Family history of mood, alcohol, and drug use disorders and childhood abuse A familial predisposition to mood disorder, and possibly also to alcohol and drug use disorders, seems to be risk factors for developing SUD as are childhood abuse and affiliation with deviant peers. For example, longitudinal research has demonstrated that deviant peer affiliations are associated with the trajectory and pattern of cannabis use throughout life. Morbid risk for substance dependence may be at least in part genetically mediated, and associations between familial mood disorders and substance dependence have been established It is not yet known what the moderators are that turn vulnerability into liability to substance dependence, and there is recent evidence for a gene environment interaction in co-morbid substance dependence and mood disorders (mbonic risk for substance use disorders in relatives are quite evident.

Prevalence rates of substance use disorders (SUDS) are 50+% higher among people with an independent anxiety disorder diagnosis than the general population, the National Epidemiological Survey on Alcohol and Related Conditions (NESARC) reports. Additionally, individuals with a SUD are twice as likely as counterparts free of the disorder to have a stand-alone anxiety disorder. The rate of comorbidity is almost four times as high among those with only the most severe form of SUDs, dependence. Therefore, effective interventions are crucial for the treatment of these widespread and complex diseases. The purpose of this chapter is to offer clinicians, researchers, and students an overview of anxiety disorder/SUD comorbidity and its treatment. We discuss two anxiety disorders: social anxiety disorder (SAD) and posttraumatic stress disorder (PTSD). The chapter starts with an overview of SUDs, SAD, and PTSD, as well as the models of comorbidity between these disorders. We emphasize the following in relation to making the SAD/SUD and PTSD/SUD comorbidity increasingly complex. Most of the chapter focuses on interventions that have been developed to target such complex comorbid presentations, among them data on treatment efficacy as well as a case example. Finally, we conclude and give future directions. (APA, 2023).

It is estimated from recent reports that 5.1% of the world population have alcohol use disorder (AUD) (Carvalho AF, 2019), some 35 million people worldwide have drug use disorders. The causes and risk factors for these common disorders are not fully understood. There is some indications that negative emotionality traits are associated with etiology and maintenance of addictive behaviour. Depressive symptoms among adolescents predict subsequent higher levels of alcohol use at 3 months follow-up, as well as the likelihood of being engaged in frequent binge drinking in early adult life (Wellman RJ, 2020). In contrast, some evidence suggests that individuals with SUDs have over 2-fold greater risk of developing mood disorders compared with those without SUDs (Kenneson A, 2013). This enhanced susceptibility to mood disorders may be related to lasting drug-induced changes in stress- and emotion-associated networks in the brain over time. Problems in mood regulation persist and are less effectively regulated in subjects with SUDs than in their peers (Murphy A, 2012). A better understanding of emotion regulation deficits in patients with addiction could clarify the pathogenesis and treatment of SUDs.

Emotion regulation: any process or activity through which a person shapes his or her emotions or emotional expression (McRae K, Gross JJ, 2020). Emotion regulation has many levels – a person can regulate what situations they approach or avoid, how they think about their

experience, and how they express or communicate their feelings. Certain forms of regulation are related positively to wellbeing (e.g., cognitive reappraisal, mindfulness and acceptance) and other strategies such as suppression are linked to poorer psychological outcomes, with clinically defined emotion regulation difficulties suggested as a factor underlying clinical disorders and influenced by a form of psychotherapy called dialectical behavior therapy (Linehan MM, 2018). Under this perspective, the arousal attached to an affective experience may require release when an individual both experiences an intense emotion and has difficulty in reducing its intensity. Some individuals in turn might use substances to modulate the distressing state which comes with it. These theories could provide directions to SUD treatment. Similarly, dialectical behavior therapy skills training enhances emotion regulation and abstinence rates while decreasing substance use severity among individuals with AUD. Thus, maladaptive ER may be commonly found among individuals with SUD, and a relevant target for intervention. Yet, to the best of our knowledge, no study has ever tried to quantify the gap in emotional regulation ability between SUDs and non-SUDs by a review of relevant literature (Cavicchioli M, Movalli M, 2019).

The effects of acute alcohol intoxication appear to be mediated in particular on a prefrontal level, for instance with respect to planning, verbal fluency, memory and complex motor control. Similarly, alcohol's impact on cognitive function after detoxification has been demonstrated in all cognitive domains. At 1–3 weeks of abstinence, chronic alcoholics still present memory, visuospatial and inhibition deficits. Most likely, at line of 6 months of abstinence, a full cognitive recovery has been observed but deficits have still been found with respect to visuospatial abilities and decision-making, which seems to remain present until at least until 1 year of abstinence. Indeed, long-term cognitive effects of alcohol use disorder (AUD) are possibly reversible but persistent cognitive impairments can emerge, such as Korsakoff's syndrome. The short-term effects of cannabis intoxication primarily affect working memory, executive functioning, and attention. Post-detoxification effects have been shown to affect executive functioning after 17h to 21days of abstinence. Very long-term (ie >1 month of abstinence), full cognitive recovery may be realized (Gonzalez R, Pacheco-Colón I, Duperrouzel JC, Hawes SW, 2017).

Regarding stimulant use (i.e., cocaine, amphetamine and ecstasy), cognitive impairments are viewed as milder 1 and exhibit an inverted U-shape curve of development. Experience of acute intoxication with low doses is generally one of increased response inhibition, attentiveness, speed and psychomotor performance. Cognitive deficits following a shorter abstinence in the executive functions, inhibition, (verbal) memory, psychomotor potentials and faster attention also disappear

again after a long-term remission. Following 1 year of abstinence cognitive function has been seen to be equivalent to normal controls. Case studies do exist, however, which have documented severe cognitive deficits among former chronic stimulant users where dose is the crucial factor. With regards to opioid misuse, comparatively few studies have evaluated the acute cognitive consequences. However, there is considerable evidence of memory dysfunction, and executive dysfunction, like verbal fluency, inhibition and decision-making also seems to be impaired after short-term abstinence. These deficits have been shown to last for up to 1 year after the abstinence. Whether complete recovery takes place remains mainly unclear; recovery of function has been shown however, at least in part after extended abstinence from opioid abuse (Zhong N, Jiang H, Du J et al, 2016).

Cognitive impairment among chronic drug users is of interest in clinical practice, as it is predictive of treatment outcome, and dropout rates relative to cognitively intact users. In AUD, these cognitive deficits are correlated with poorer treatment adherence and lower self-efficacy, subsequently leading to a drinking outcome with fewer abstinent days and more drinks per day. Worse treatment results, poorer treatment adherence and more abstinent are also shown in cocaine dependent patients with an rMCI. Poor executive function functioning is linked with poorer problem use recognition and inhibits the intent to quit in opioid and cocaine users. Interventions to improve cognitive performance, or to compensate for cognitive dysfunctions, might indeed result in better treatment effectiveness both with respect to addiction and functioning in daily life (Walvoort SJW, Wester AJ, Egger JIM, 2012).

A SUD can be a debilitating clinical condition leading to serious health awry and influencing various aspects of life. At the time of illness, patients mainly obtain support from family. This support ranges from helping patients adjust to living with the condition to enhancing adherence to treatment and, in turn, their recovery. Therefore, family cohesion has been regarded as a protective factor against drinking and substance use as well as a strong protective factor for substance abuse relapsing in populations with addiction problems. By contrast, low levels of family cohesion are associated with heavier drinking and drug use. However, with the presence of an SUD in the family, this strain may result in depletion or strained relationships. Any attempt by health care to assist the family in promoting family coherence among its members would thus appear to be directed not only to the patient, but also to the family. Support networks outside of the family (e.g., peer support, formal support groups, and self-help groups) might also provide another way in which survivors can manage the practical and emotional consequences, as well as in

maintaining remission. Increased social support, operationalized as social connectedness, has been associated with lower substance use and better mental health outcomes for individuals with an SUD (Birtel MD, Wood L, Kempa NJ, 2017).

Family unity and positive social supports are important to recovery, as noted above and we are not aware of any study that has assessed such support factors across multiple patient populations, including SUDs patients. The justification for the comparison of the groups was that family connectedness and social support have been reported to be similarly influential in patients with MDs. Stronger network support has also been associated with less relapse and hospitalization, with better adherence to medication and with direct relevance here, with less social disability and with better general functioning. Significant increases in perceived social support are considered a mediator of change in later depressive and anxious symptomatology, and higher social support has been correlated with decrease in symptoms among MD patients. Therefore, the absence of family cohesion and social support would also leave patients with MDs and SUDs defenseless in the recovery stage. Physical problems in the PD group mainly appeared spontaneously (e.g. cancer diagnosis), and we presumed PD patients' familial and social situation to be more comparable to population-based controls. We expected that participants with experience of exposure to illegal substances would report family cohesion and general social support to be at least as low as those with MD and far below those with PD (Stevens E, Jason LA, Ram D, Light J, 2015).

Treatment and Rehabilitation Strategies for Patients in Remission

This world-wide concept creates the possibility, at least in theory, of adjusting to the characteristics of different risk groups. Special drug use groups as reported by the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) there are some subgroups of drug users who supposedly have special problems, needs or vulnerabilities which need to be addressed differently. On the basis of this overview, adapted centers and services have been designed in order to provide a better response to the needs of the following groups: older people with social health problems and a problematic consumption of opioids and/or polyconsumption (the consumption of several drugs); women with drug-related problems; vulnerable young people with problems of addictive behaviours and other risk behaviours; and the families of people with problems related to addictive behaviours. In the field of drug policy and interventions targeting addictive behavior, focusing on harm reduction, recovery and sustainable livelihood are central. It is internationally accepted that these programmers must be expanded to embrace the biopsychosocial perspective,

and any sort of intervention must incorporate the themes of recovery and social support if it is to bring stable and long-lasting benefits. There are three conceptualizations of psychosocial support in substance abuse treatment which can be categorized according to structural support, functional support, and contextual support. The structural indicators of this area are the size of the network of social support, density, reciprocity, and interactivity between components, and the weighing of the structure is based on sociodemographic indicators analysis or social networks analysis. The functional level of these studies consists of emotional and other sides, including real support, perceived support, achievability and satisfaction with support. Finally, the level context is concerned with participants as relating to the type of support (social support); the time of support as relates to their stage in the life course seeking to make sense of their illness; and their own subjective experience. The concept of family as a central support system is crucial to this context. Recovery is a key idea in relation to management and recovery from addictive behaviours. This interest does not only have to do with "not using" drugs (including alcohol) but also with being able to empower oneself as an active member of society. Furthermore, it does not imply a process of "natural recovery in which the addict stops taking drugs" (Hall, W.; Carter, A.; Forlini, C, 2015).

Recovery as a policy In the United States, the last few years have witnessed the emergence of recovery as a target policy. Similarly, Scotland, England and Wales frame recovery as a guiding principle in their drug policies, and other nations, such as Australia, have debated the incorporation of this term into their policies, even though there is not yet consensus on what the term recovery itself means. The supporters of innovation for addiction recovery and treatment of the substance use disorders (SUDs) can be distinguished in 2 blocks: the scientists and the people who are into recovery. Each of them has proposed an alternative definition of recovery and its principles and practices, including those that have previously co-operated. The first group of researchers (doctors, SUD specialists, medical facilities, and medical sector) conceptualize recovery as a process of clinical diagnosis, treatment, and rehabilitation. Yet, neither researchers in the field of addiction and addiction treatment, nor addiction policy makers have a clear mental picture of recovery even though recovery as a concept has recently become better known. For instance, expression recovery has often been used interchangeably with the terms abstinence, remission and resolution, but no agreement exists on the development of the respective definitions of the four words to better distinguish between them. A case in point is the efforts to distinguish recovery from stubborn drug or alcohol use that have been made by the Betty Ford Institute Consensus Panel. They distinguished between recovery from drug use and a "voluntarily maintained lifestyle

composed of sobriety, personal health and citizenship". Likewise, the UK Drug Policy Commission determined that recovery was "the voluntary commitment of individual to a lifestyle characterized by abstinence from substance use that maximizes the health and wellbeing of the individual and society and facilitates participation and contribution to society." At the heart of these definitions lies a process of self-transformation or improvement, reflected in a range of areas of functioning and facilitated through abstention or improved self-control over drug use. Recovery was described by Deegan as the process of "reclaiming a new and positive sense of self and one's own life beyond the limits of the disability. All of these—these definitions are all kind of abstinence based measures, but that doesn't necessarily mean recovery. Providers of addiction care commonly differentiate abstinence from use based on the remission (abstinence) criteria contained in the Diagnostic and Statistical Manual of Mental Disorders (DSM). The "aggregate permanent years of problem absence" is, for example, one of this type of criterion. This criterion, according to Dodge et al (2010) simply reflects the absence of clinical diagnosis of substance use rather than a multifaceted template for recovery.

Pharmacological Interventions in Preventing Relapse

Psychosocial intervention in AB recovery programs is significantly associated with medical care. During the interviews it was extensively found a relevant concern for the treatment of opioid use disorder older aged adults (preference older than 40 years old), specially from a point of view rated as "socio-health". Pharmacotherapy replacement treatment is broadly available across European countries given that individual recovery programs are not available for all people with an addictive behaviour in Europe. The adaptation of the recovery programmers to real traffic patterns and modes of drug use and dependence does not appear to be very wide nor very far and is still related to the heroine recovery treatments. For patients older than forty years, the level and kind of psychosocial intervention might be better defined compared to younger age groups, supported by former findings. So, not only treatment for women but also treatment for women with substance dependence and treatment for women with children are less available. The substantive knowledge and reality experienced in the programmers call for a reshaping of the dominant view of gender as merely an extra (perhaps irrelevant) add-on to one in which it becomes a needed and important part of it. This facilitates designing better targeted programmers for men, women, other gender identities, and for lesbian, gay, bisexual, transgender and intersex / LGTBI groups (Stockings, E.; Hall, W.D.; Lynskey, M, 2016). Another issue is regarding the social integration; they are still so stigmatised in addiction, and also a lot of sexual abuses or/and sexual

ex- ploitation. Moreover, interviews exposed that the interventions for trauma and mental illness among drug users continue to be ineffective and inadequate. Too few residential programmers for the population as a whole is generally felt (except in findings from Sweden, Belgium and Italy). In terms of work and social support, the informants of Sweden and Italy show programs (specific and with enough materials and human resources), using networks of public authorities, private bodies, but also of social bodies, from recognized institutions (Basta and San Patrignano), and the aim of the employability of the people involved in these programs. Lastly, only a few recovery treatment programmers are using a model of evaluation through monitoring and follow-up. Childcare and enhancing parenting skills and competencies are also further considerations for treatment programmers. There are models already working with these problems in a standardized manner like Proyecto Hombre biopsychosocial model and HERMESS -human centered, empowerment aimed, reintegration oriented, motivational driven, educational embedded, self-sustainability focused, social need oriented developed to be references to new recover-oriented program; another standard is "CHIME Model: Framework of elements of psychosocial support for personal recovery". This model is grounded in perceived social support and the extent to which available resources and capabilities are utilized. CHIME stands for the components of the model:

- Interpersonal Relationships (Connection and networks of support).
- Hope (Hope and motivation).
- Identity (Social identity and personal identity).
- Meaning (Meaning attributed by the person to the social support network).
- Empowerment (Confidence, personal and social skills).

They are being applied for "recovery cities" in several other cities, such as Goteborg and Stockholm (Sweden), to reduce risk situations due to drug use drug-related problems (e.g., crime and socio-health emergencies) and improve coexistence and citizen participation. A further element that must be taken into consideration is the coordination between the health system (especially drug treatments and substitutes, and medical protocols) and other services involved in social intervention in addiction behaviours. This synchronization is seen as extremely beneficial and while it clearly makes networks and services more efficient, professionals with experience in multi-disciplinary work are needed (Molina, A.J.; Gil, F.; Montesino, M.L, 2018).

1.5. Psychological and Behavioral Interventions

One of the well-researched modalities is CBT, which is designed to address maladaptive patterns of thought and behavior relevant to substance use. With CBT, clients can learn to recognize cues for craving and substance use, as well as build coping skills, and reframe cognitive distortions that sustain substance abuse. It has been effective across a variety of drugs, including opioids, stimulants, alcohol, and cannabis. Motivational Interviewing (MI) is a commonly used intervention to improve motivation to change. It's exactly the direct, client-focused approach that is so powerful in the beginning of therapy when ambivalence for change is high. MI promotes self-efficacy and the resolution of resistance, which in turn helps to engage and retain participants in treatment. Mindfulness-Based Interventions (MBIs) have received increasing attention as adjuncts to other addiction treatments in recent years. For example, Mindfulness-Based Relapse Prevention (MBRP), incorporates mediation practice with cognitive coping strategies to enhance awareness to cues for craving and to decrease automatic responding. Such methods assist in long-term recovery by improving psychological flexibility and the regulation of emotions. The use of mindfulness-based treatments is becoming increasingly adopted by addiction practitioners, and multiple studies support the effectiveness of integrating mindfulness techniques into addiction treatment (e.g., use of mindfulness-based interventions in the treatment of substance use disorders and behavioral addictions such as gambling). The present paper discusses theoretical models of mindfulness in the treatment of addictive behaviours and several postulated mechanisms of change. We describe mindfulness-based relapse prevention (MBRP) and its components, treatment targets, and results of clients' self-reported satisfaction with this modality of treatment based on participants in MBRP for whom we have received EBP data. Future directions in terms of operationalization and measurement, exploring moderators of the effects of treatments, and developing protocols for special populations are described (Bowen, S., et al, 2014).

CM is based on operant conditioning and reward abstinent behaviour by offering material rewards (vouchers, or privileges). This approach has produced robust results in the treatment of stimulant and opioid use disorders, most notably in terms of promoting adherence to treatment, and decreasing substance use in the short-term. Other group interventions like 12-Step Facilitation Therapy that promote attendance at mutual help groups, e.g., Alcoholics Anonymous (AA) and Narcotics Anonymous (NA) are often incorporated into plans of care. Programs are based on personal responsibility, spiritual development and the concept of peer support, providing a continuum of care beyond formal addiction treatment. For those meeting criteria for co-occurring

mental health or substance-use disorders, or those who have complex family environments, interventions such as Dialectical Behavior Therapy (DBT) and Multidimensional Family Therapy (MDFT) have been successful in targeting persistent emotion dysregulation, disrupted interpersonal functioning, and high levels of family conflict. DBT has been found to be successful in working with individuals who have borderline personality disorders and co-occurring substance use issues, by building up mindfulness and distress tolerance skills (Ghazanfari, F., Ghasemi, M., & Ghasemi, M, 2024). Moreover, Relapse Prevention Therapy (RPT) and Community Reinforcement Approach (CRA) focuses on maintaining abstinence by teaching patients how to cope with high-risk situations and engage in pleasurable substance-free activities, respectively. First among these, the Matrix Model, created initially for stimulant abusers, is an integrated treatment approach that includes components of CBT, family education, 12-step encouragement, and urine testing (Kelly, J. F., Humphreys, K., & Ferri, M, 2020).

CHAPTER II. METHODS AND METHODOLOGY

2.1 Organization and conduct of research

This study was conducted from February to April 2025 in the Republic Narcological Center of Azerbaijan based on the 2024–2025/2 protocol, permission was obtained from the Ethics Committee of Khazar University. 100 male participants (aged between 16-60 years) with a DSM-V and ICD-11 defined addiction of any kind. Once written informed consent was obtained, all participants were enrolled in the study. Participants were not allowed to participate in the study if they were undergoing treatment for another serious mental illness, had a history of neurological disorders or severe mental illnesses other than addiction, or were unable to give informed consent because of cognitive impairments.

- Socio-demographic questionnaire

Along with sociodemographic information like age, gender, socioeconomic status, and sociocultural traits, this form contains the general medical conditions, psychiatric illness histories, and treatment histories of addicts and their families. This questionnaire, which our clinic created, asks about the type, duration, and age at which addiction first appeared. To obtain a broader background, we included some of the previously mentioned questionnaires in the socio-demographic questionnaire, since the Azerbaijan Ministry of Health has not adopted them.

- Hamilton Depression Rating Scale (HDRS)

The HAM-D is a well-known clinical tool developed by Max Hamilton in 1960 that asseses the intensity of a subject's depressive symptoms. Based on version that was used, this structured interview measure 17–24 items to assed the following symptoms of depression (e. g., guilt, suicidal ideation, insomnia, agitation or retardation, anxiety, weight loss, physical symptoms). Higher scores signify more severe symptoms, with response items scored on a 3- or 5-point scale. The most widely used version has 17 items and a total score range of 0–52, and values <6. Score from 0 to 7 indicate mild depression, from 8 to 13 moderate depression, from 14 to 18 moderate depression, from 19 to 22 severe depression and more than 23 indicate very severe depression. Not only is the HAM-D a tool for diagnosis, but it also allows clinicians to follow changes in the severity of symptoms over time making it a valuable tool for the assessment of the efficacy of treatment in both clinical trials and everyday practice (Hamilton, 1960). There have been many

studies over the years that have confirmed its validity and reliability. This one scale provides clinicians with a comprehensive profile (but not formal subscales) of a patient's depressive symptoms and how severe they are. It assesses a broad spectrum of depressive symptoms (Williams, 1988). The Hamilton Depression Rating Scale (HAM-D) is one of the standard diagnostic tools used in the clinical protocols approved by the Ministry of Health of the Republic of Azerbaijan. Updated in 2021, the "Clinical Protocol for the Diagnosis and Treatment of Depression," approved by Decision No. 3 of the Collegium of the Ministry of Health dated February 3, 2009, recommends the use of the HAM-D scale for the assessment of depression.

- Young Mania Rating Scale (YMRS)

The Young Mania Rating Scale (YMRS), created by Vincent E. Young et al. in 1978, is an extensively utilized clinical instrument that assesses the severity of manic symptoms in patients diagnosed with bipolar disorder. The scale can be used at admissions, and these data are based on the immediate pre-admission data that are usually collected in a structured clinical interview (16), and consists of 11 questions that detail core mania symptoms such as elevated mood, increased motor activity, sexual interest, sleep issues, irritability, speech, language/ thought disorder, and insight. Each item is scored on a 0 to 4 or 0 to 8 scale, with higher scores reflecting more severe manic symptoms. Scoring on the Overall Young Mania Rating Scale (YMRS) output scale is from 0 to 60, with 0-12 indicating the normal range, 13-19 suggesting mild mania, 20-25 indicating moderate mania, and scores greater than 25 manifesting severe mania. It is commonly used in clinical and research settings to evaluate symptom severity and measure treatment response in individuals with bipolar disorder over time (Young et al., 1978). Its reliability and validity have been well demonstrated, with several studies supporting its sensitivity to fluctuations in manic symptoms. A study by Fristad et al. Its essential use was corroborated by (1992), who demonstrated a good internal consistency and strong correlation with other mania measures. Although the YMRS does not have established subscales, it provides a thorough assessment of manic symptoms and is an important resource for clinicians to use when assessing and monitoring individuals with bipolar disorder (Fristad et al, 1992).

- Zung Self-Rating Anxiety Scale (SAS)

The Zung Self-Rating Anxiety Scale (SAS) was developed by William W. Zung. What you call anxiety; I call K. Zung created a widely used clinical tool in 1971 to assess the severity of anxiety symptoms in those I call anxiety and the people you tell me to call anxiety. This is a 20-item self-report scale that assesses common anxiety-related experiences that fall into cognitive, autonomic, motor, and central nervous system symptoms. Conspicuous bodily anxiety was scored between 1 (none) and 4 (over 50% of the time) on a 4-point Likert scale, with higher scores indicating pathological anxiety. The raw score is then converted into an index score from 25 to 100. The raw score is between 20 and 80. Index scores between 25 and 44 indicate normal levels of anxiety, between 45 and 59 indicate mild to moderate anxiety, between 60 and 74 indicate moderate to severe anxiety, and > 75 indicate extreme anxiety. The SAS is widely utilized in clinical and research settings to assess an individual's risk for anxiety disorders, monitor the progression of symptoms and treatment response (Zung, 1971). Multiple studies have established its validity and reliability, demonstrating high correlation with clinician-administered anxiety assessments and good internal consistency. An investigation conducted by Olatunji and collaborators. Even though the SAS has no official subscales, it provides a comprehensive measure of anxiety severity and serves as a useful tool for clinicians who wish to assess and treat anxiety symptoms (Olatunji, 2006).

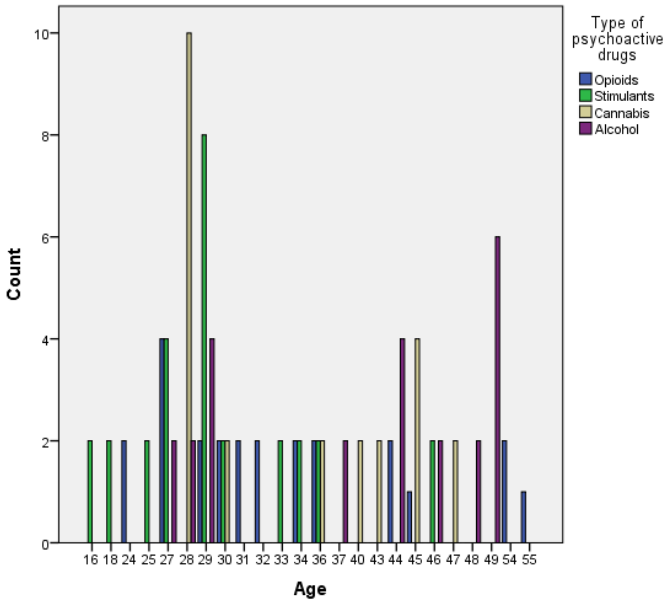
2.2. Data collection

Statistical analysis was performed by SPSS (Statistical Package for the Social Sciences) software. Software for Windows, release 21.0, IBM, Armonk, NY, USA. The analysis required computing descriptive statistics that included the summaries of individual and summary data such as averages, standard deviations, medians (min-max), frequency proportions, and percentages. Data distribution normality was checked through the descriptive analycategorical variables were tested by Chi-Square method. Correlations were analyzed by Spearman’s or Rho or Pearson tests. Results P-Values <0.05 were considered statistically significant.

CHAPTER III. STATISTIC ANALYSIS OF RESEARCH DATA

The total number of 100 individuals with addictive disorders included in this study were 100 males (100,0%). The mean age was 34,62±9,13 (Ranged = 16-55 years) in our sample group. The overall addiction duration was 5,45±3,41 years.

The length of addiction showed the following distribution: 0 - 3 years (27%, n = 27), 3 - 5 years (33%, n = 33), 5 -10 years (29%, n=29) and greater than 10 years (11%, n=11). Majority in employment status are full time employment (38%, n=38), unemployed (29%, n=29), part-time (24%, n=24) and retired (9%, n=9). Levels of education are varied; a high percentage of people has a university level education. most prevalent (44%, n=44), high school (31%, n=31), and primary education (16%, n=9), junior high school (4%, n=4), and illiterate (0%, n=2). Cross-tabulation by income reveal that the majority (57%) is moderate, while 24% are low and 19% high income. Singles constitute 48%, married people 34%, and the divorced are at 18%. 59) are currently being treated tive substances shown that the 21% (n 29 are treated at home 12% of violent subRisk factor Treatment status There were evide that at the time of assessment 0 are at risk 21% (n 21) are under treatment and 24% (n=24) are off treatment, 25% (n=25) are on no treatment, 18% (n=18) relapsed and 12% (n=12) are in recovery. Moreover, among the addicted, %54 had psychiatric disorder history.



Graph 3.1.1. Distribution of psychoactive drug type according to age.

Figure X depicts how psychoactive substance use varies with the age of the participants classified as opioid, stimulant, cannabis and alcohol. Age in years as individual level is plotted on the x-axis against the frequency (count) of users on the y-axis for each substance type. The results suggest variable levels of drug use among age levels. Cannabis use and stimulant use reached maximum individual age-specific levels at age 28 when the most subjects were (none)users. Also, the stimulant user frequency was significant at age 29. On the other hand, alcohol consumption tended to peak among older participants and reached a clear age at age 48. Generally younger stimulant and cannabis users converged with younger men in their late- to mid-twenties, while those who reported consuming alcohol met older men in their mid-twenties. No marked age-related peak was observed, by contrast to alcohol use, with more even variation of opioid use across ages. The profile of distribution indicates that the use of psychoactive substances varies according to the age and type of substance used. But because of multi-level categorization of age this visualization is broken. For future analysis it would be advisable to use broader categories to more adequately reflect the trends and make it easier to interpret (Graph 3.1.1).

3.1. Analyses of the descriptive statistics

Descriptive statistics were calculated to examine changes in depression symptom severity across three time points: before the intervention, at the end of the second month, and at the end of the third month. The results indicate a clear downward trend in depression scores over time.

At baseline, prior to the intervention, the mean depression score was M = 22.57 (SD = 8.20), with a median value of 22.50. The scores ranged from 8 to 41, and the 95% confidence interval for the mean was [20.94, 24.20]. According to the Hamilton Depression Rating Scale (HAM-D), this level corresponds to severe depression. The relatively high standard deviation indicates a moderate level of variability in symptom severity among participants.

By the end of the second month, the mean depression score had decreased to M = 13.09 (SD = 6.92), with a median of 11.00 and a range from 3 to 40. The 95% confidence interval for the mean was [11.72, 14.46]. This reduction reflects a transition from severe too mild to moderate depression, suggesting notable improvement in depressive symptoms.

At the third measurement point, conducted at the end of the third month, the mean score further decreased to M = 9.70 (SD = 3.69), with a median of 10.00 and a score range of 2 to 22. The 95% confidence interval for the mean was [8.97, 10.43]. These scores fall within the range of

mild depression or remission, and the lower standard deviation indicates a more homogeneous distribution of scores among participants.

Overall, the data demonstrate a consistent and substantial decrease in depression severity over the course of the three-month period, indicating the potential effectiveness of the intervention implemented during this time (Table 3.1.1).

Table 3.1.1. Descriptive Statistics for Depression Scores at Different Stages of Remission

			Statistic	Std. Error
Depression_before	Mean		22.5700	.82048
	95% Confidence Interval for Mean	Lower Bound	20.9420	
		Upper Bound	24.1980	
	5% Trimmed Mean		22.4000	
	Median		22.5000	
	Std. Deviation		8.20477	
	Minimum		8.00	
	Maximum		41.00	
Depression_2ndmonth	Mean		13.0900	.69210
	95% Confidence Interval for Mean	Lower Bound	11.7167	
		Upper Bound	14.4633	
	5% Trimmed Mean		12.5333	
	Median		11.0000	
	Std. Deviation		6.92105	
	Minimum		3.00	
	Maximum		40.00	
Depression_3rdmonth	Mean		9.7000	.36886
	95% Confidence Interval for Mean	Lower Bound	8.9681	
		Upper Bound	10.4319	
	5% Trimmed Mean		9.5444	
	Median		10.0000	
	Std. Deviation		3.68864	
	Minimum		2.00	
	Maximum		22.00	

According to the Shapiro-Wilk test, which is generally preferred for small to moderate sample sizes, the data for Depression_before ($p = .020$), Depression_2ndmonth ($p < .001$), and Depression_3rdmonth ($p = .019$) significantly deviate from a normal distribution. While the Kolmogorov-Smirnov test for Depression_before ($p = .052$) slightly exceeds the conventional significance level of .05 (suggesting marginal normality), the Shapiro-Wilk result indicates a significant departure from normality (Table 3.1.2).

Table 3.1.2. Test of Normality (Depression)

	Kolmogorov-Smirnov[a]	Shapiro-Wilk
	Sig.	Sig.
Depression_before	.052	.020
Depression_2ndmonth	.000	.000
Depression_3rdmonth	.020	.019

Descriptive analysis was conducted to examine the distribution of anxiety levels among participants as measured by the Zung Self-Rating Anxiety Scale. The mean anxiety score was M = 32.14 (SD = 7.71), with a 95% confidence interval ranging from 30.61 to 33.67. The median score was 30.50, suggesting a slightly left-skewed distribution given the higher mean. The minimum observed score was 20, while the maximum was 59, indicating considerable variability in anxiety levels across participants.

The 5% trimmed mean was calculated as 31.73, which is very close to the overall mean, suggesting that extreme values (outliers) did not significantly influence the central tendency.

These results indicate a moderate level of anxiety on average within the sample, with sufficient variability to justify further inferential analysis (Table 3.1.3).

Table 3.1.3. Descriptive Statistics for Anxiety Scores

			Statistic	Std. Error
Anxiety_zung	Mean		32.1400	.77081
	95% Confidence Interval for Mean	Lower Bound	30.6105	
		Upper Bound	33.6695	
	5% Trimmed Mean		31.7333	
	Median		30.5000	
	Std. Deviation		7.70808	
	Minimum		20.00	
	Maximum		59.00	

As shown in the table, both test statistics indicate statistically significant deviations from normality ($p < .05$). These results suggest that the anxiety scores are not normally distributed. Therefore, when conducting further analyses involving this variable, it may be necessary to use

non-parametric statistical methods or apply appropriate transformations if parametric analyses are desired (Table 3.1.4).

Table 3.1.4. Test of Normality (Anxiety)

	Kolmogorov-Smirnov[a]	Shapiro-Wilk
	Sig.	Sig.
Anxiety_zung	.001	.000

The participants' mania levels were assessed using the Young Mania Rating Scale (YMRS) at three different time points: before the intervention, at the 2nd month, and at the 3rd month. The findings are presented below.

Pre-Intervention (Baseline): The mean YMRS score before the intervention was M = 29.51 (SD = 4.13), with a 95% confidence interval ranging from 28.69 to 30.33. The median score was 29.00, and the range of scores extended from 24 to 41, indicating elevated mania symptoms at baseline. The 5% trimmed mean (29.28) was close to the actual mean, suggesting minimal influence of outliers.

2nd Month: At the second measurement point, the mean YMRS score showed a noticeable decrease to M = 16.75 (SD = 4.90), with a 95% confidence interval between 15.78 and 17.72. The median score was 17.00, and scores ranged from 7 to 31, reflecting a marked reduction in manic symptoms after the intervention began.

3rd Month: By the third month, a further decrease in mania symptoms was observed. The mean YMRS score dropped to M = 11.21 (SD = 3.48), with a 95% confidence interval ranging from 10.52 to 11.90. The median was 10.00, and scores ranged from 4 to 19. The interquartile range was 4.75, and the overall range was 15.00, showing reduced dispersion compared to earlier time points. The distribution was moderately positively skewed (Skewness = 0.569, SE = 0.241), and showed slight platykurtosis (Kurtosis = -0.390, SE = 0.478), indicating a relatively symmetric and flat distribution of scores at the final measurement (Table 3.1.5).

Table 3.1.5. Descriptive Statistics for Mania Scores at Different Stages of Remission

			Statistic	Std. Error
Mania_before	Mean		29.5100	.41329
	95% Confidence Interval for Mean	Lower Bound	28.6899	
		Upper Bound	30.3301	
	5% Trimmed Mean		29.2778	
	Median		29.0000	
	Std. Deviation		4.13288	
	Minimum		24.00	
	Maximum		41.00	
Mania_2ndmonth	Mean		16.7500	.49018
	95% Confidence Interval for Mean	Lower Bound	15.7774	
		Upper Bound	17.7226	
	5% Trimmed Mean		16.5111	
	Median		17.0000	
	Std. Deviation		4.90181	
	Minimum		7.00	
	Maximum		31.00	
Mania_3rdmonth	Mean		11.2100	.34766
	95% Confidence Interval for Mean	Lower Bound	10.5202	
		Upper Bound	11.8998	
	5% Trimmed Mean		11.1333	
	Median		10.0000	
	Variance		12.087	
	Std. Deviation		3.47660	
	Minimum		4.00	
	Maximum		19.00	
	Range		15.00	
	Interquartile Range		4.75	
	Skewness		.569	.241
	Kurtosis		-.390	.478

All p-values are below the conventional significance level of .05, indicating that the data deviates significantly from a normal distribution at each time point. This suggests that non-parametric statistical methods may be more appropriate for further analyses of these data, or that

transformations or bootstrapping techniques might be considered depending on the specific analyses planned (Table 3.1.6).

Table 3.1.6. Test of Normality (Mania)

	Kolmogorov-Smirnov[a]	Shapiro-Wilk
	Sig.	Sig.
Mania_before	.000	.000
Mania_2ndmonth	.011	.005
Mania_3rdmonth	.000	.000

The table presents the distribution of depression severity prior to remission across four psychoactive drug categories: opioids, stimulants, cannabis, and alcohol. Of the total 100 valid cases, the most frequent level of depression experienced before remission was severe, reported by 42% of participants. This was especially pronounced among individuals who had used opioids (58.3%) and stimulants (50.0%), compared to cannabis (33.3%) and alcohol (25.0%) users.

Moderate depression was observed in 34% of the overall sample, most commonly among stimulant (42.9%) and alcohol users (41.7%). In contrast, mild depression prior to remission was more common among cannabis (41.7%) and alcohol (33.3%) users, and significantly less prevalent among stimulant users (7.1%).

The comparison between observed and expected counts highlights discrepancies that suggest a non-random distribution. For example, the cannabis group had more individuals with mild depression (n=10) than expected (5.8), and fewer with severe depression (n=8) than expected (10.1), indicating a potential protective pattern relative to other substances.

These findings are directly relevant to the dissertation's core objective — examining the mental state characteristics of individuals with substance use disorders during remission. The data show that individuals addicted to opioids and stimulants tend to experience more severe depressive symptoms prior to remission, whereas cannabis and alcohol users are more likely to present with milder depressive symptoms. This distinction underscores the importance of considering substance type when assessing psychiatric comorbidity and planning early interventions during recovery (Table 3.1.7).

Table 3.1.7. Before remission (depression) Crosstabulation type of psychoactive drugs

			Type of psychoactive drugs				Total
			Opioids	Stimulants	Cannabis	Alcohol	
Before remission (depression)	Mild	Count	4	2	10	8	24
		Expected Count	5.8	6.7	5.8	5.8	24.0
		% within Type of psychoactive drugs	16.7%	7.1%	41.7%	33.3%	24.0%
	Moderate	Count	6	12	6	10	34
		Expected Count	8.2	9.5	8.2	8.2	34.0
		% within Type of psychoactive drugs	25.0%	42.9%	25.0%	41.7%	34.0%
	Severe	Count	14	14	8	6	42
		Expected Count	10.1	11.8	10.1	10.1	42.0
		% within Type of psychoactive drugs	58.3%	50.0%	33.3%	25.0%	42.0%
Total		Count	24	28	24	24	100
		Expected Count	24.0	28.0	24.0	24.0	100.0
		% within Type of psychoactive drugs	100.0%	100.0%	100.0%	100.0%	100.0%

Table 3.1.8. Chi-Square Tests (before remission of depression)

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	14.081[a]	6	.029

A Chi-Square Test of Independence was performed to examine whether there was a significant relationship between the severity of depressive symptoms before remission and the type of psychoactive substance used. The analysis yielded a Pearson Chi-Square value of χ^2 (6) =

14.081, p = .029, indicating a statistically significant association between the two variables at the conventional 0.05 alpha level.

This result suggests that the type of substance used is significantly related to the intensity of depressive symptoms experienced prior to remission. Given that opioids and stimulants were more frequently associated with severe depressive states, while cannabis and alcohol users tended to report milder symptoms, the finding aligns with existing literature on the neuropsychological effects of these substances.

This statistically significant relationship supports the core aim of the current dissertation by reinforcing the importance of substance-specific patterns in pre-remission mental states, particularly in the domain of affective symptoms. The findings point toward the necessity of substance-specific psychological and psychiatric interventions during the early stages of treatment and remission planning (Table 3.1.8).

The cross-tabulation of remission status in the second month with the type of psychoactive substance used reveals notable variations in symptom severity across different substance groups. A total of 100 valid cases were included in this analysis.

Participants who had used cannabis exhibited the highest rate of normal mental state in the second month of remission (33.3%), followed by those who had used stimulants (14.3%), alcohol (16.7%), and opioids (8.3%). In contrast, moderate and severe symptoms were more frequently reported among opioid and stimulant users. For example, 25% of opioid users reported moderate symptoms, and 14.3% of stimulant users were categorized under the severe group.

The mild symptom category was the most reported across all substance groups, with especially high rates among opioid (66.7%) and alcohol (66.7%) users. Interestingly, the presence of severe symptoms was observed only in stimulant (14.3%) and alcohol (8.3%) users, while cannabis and opioid users reported no severe cases in the second month.

This distribution pattern underscores the substance-specific progression of remission, suggesting that the type of psychoactive drug plays a significant role in the rate and depth of recovery during early remission stages. These findings are particularly relevant to the current study’s aim of exploring the neuropsychological profiles of individuals during remission from substance dependence (Table 3.1.9).

Table 3.1.9. Second Month of Remission and Substance Type

			Type of psychoactive drugs				Total
			Opioids	Stimulants	Cannabis	Alcohol	
Second month of remission	Normal	Count	2	4	8	4	18
		Expected Count	4.3	5.0	4.3	4.3	18.0
		% within Type of psychoactive drugs	8.3%	14.3%	33.3%	16.7%	18.0%
	Mild	Count	16	18	10	16	60
		Expected Count	14.4	16.8	14.4	14.4	60.0
		% within Type of psychoactive drugs	66.7%	64.3%	41.7%	66.7%	60.0%
	Moderate	Count	6	2	6	2	16
		Expected Count	3.8	4.5	3.8	3.8	16.0
		% within Type of psychoactive drugs	25.0%	7.1%	25.0%	8.3%	16.0%
	Severe	Count	0	4	0	2	6
		Expected Count	1.4	1.7	1.4	1.4	6.0
		% within Type of psychoactive drugs	0.0%	14.3%	0.0%	8.3%	6.0%
Total		Count	24	28	24	24	100
		Expected Count	24.0	28.0	24.0	24.0	100.0
		% within Type of psychoactive drugs	100.0%	100.0%	100.0%	100.0%	100.0%

To determine whether the observed differences in remission status across substance types in the second month were statistically significant, a Pearson Chi-Square test was conducted. The results, presented in Table 13, indicate a statistically significant association between the type of

psychoactive substance used and the severity of remission symptoms during the second month, $\chi^2(9) = 17.391$, $p = .043$.

This result suggests that the type of substance is meaningfully associated with variations in remission status, even at an early stage of recovery. Individuals recovering from stimulant or alcohol use appear more likely to exhibit persistent or more severe symptoms compared to cannabis users, who showed relatively better remission profiles. These findings support the hypothesis that substance-specific neuropsychological effects influence the early remission process (Table 3.1.10).

Table 3.1.10. Chi-Square Tests (Association between Substance Type and Second Month Remission Status)

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	17.391[a]	9	.043

A cross-tabulation was conducted to examine the distribution of remission status during the third month across different types of psychoactive drug use (Opioids, Stimulants, Cannabis, Alcohol). Of the 100 valid cases, most individuals were in the mild remission category across all drug types: 66.7% of opioid users, 78.6% of stimulant users, 66.7% of cannabis users, and 66.7% of alcohol users.

In the normal remission category, the percentages were notably lower: 33.3% for opioid users, 14.3% for stimulant users, 33.3% for cannabis users, and 25.0% for alcohol users. The moderate remission category was the least represented, comprising only 4% of the total sample. Notably, no individuals using opioids or cannabis were in moderate remission, while 7.1% of stimulant users and 8.3% of alcohol users fell into this category.

The distribution of observed counts was generally close to the expected counts based on the marginal totals. However, due to the small number of participants in the moderate remission group ($n = 4$), some expected cell counts fell below 5, which can affect the robustness of the Chi-Square Test of Independence.

These results suggest that mild remission is the most common outcome across all substance groups during the third month, with stimulant users slightly more likely to fall into the mild category compared to users of other substances (Table 3.1.11).

Table 3.1.11. Third month of remission *Type of psychoactive drugs Crosstabulation (Depression)

			Type of psychoactive drugs				Total
			Opioids	Stimulants	Cannabis	Alcohol	
Third month of remission	Normal	Count	8	4	8	6	26
		Expected Count	6.2	7.3	6.2	6.2	26.0
		% within Type of psychoactive drugs	33.3%	14.3%	33.3%	25.0%	26.0%
	Mild	Count	16	22	16	16	70
		Expected Count	16.8	19.6	16.8	16.8	70.0
		% within Type of psychoactive drugs	66.7%	78.6%	66.7%	66.7%	70.0%
	Moderate	Count	0	2	0	2	4
		Expected Count	1.0	1.1	1.0	1.0	4.0
		% within Type of psychoactive drugs	0.0%	7.1%	0.0%	8.3%	4.0%
Total		Count	24	28	24	24	100
		Expected Count	24.0	28.0	24.0	24.0	100.0
		% within Type of psychoactive drugs	100.0%	100.0%	100.0%	100.0%	100.0%

A Chi-Square Test of Independence was conducted to examine the association between the two categorical variables. The results of the Pearson Chi-Square test indicated that there was no statistically significant association between the variables, $\chi^2(6, N = 100) = 6.626$, $p = .357$. Similarly, the Likelihood Ratio test also did not show a significant relationship, $\chi^2(6, N = 100) = 8.343$, $p = .214$. The Linear-by-Linear Association was not significant either, $\chi^2(1, N = 100) = 0.213$, $p = .644$, suggesting no evidence of a linear trend between the variables. It is important to note that 4 cells (33.3%) had an expected count of less than 5, with the minimum expected count being 0.96. This condition may affect the validity of the test, as Chi-Square assumptions recommend that no more than 20% of cells should have expected counts below 5, and none should

be below 1. Therefore, results should be interpreted with caution, and consideration might be given to combining categories or using Fisher's Exact Test if applicable (Table 3.1.12).

Table 3.1.12. Chi-Square Tests (depression)

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.626[a]	6	.357

Table 3.1.13. Descriptive Statistics: Severity of Symptoms before Remission by Substance Type

			Type of psychoactive drugs				Total
			Opioids	Stimulants	Cannabis	Alcohol	
Before remission (mania)	Moderate	Count	22	28	24	24	98
		Expected Count	23.5	27.4	23.5	23.5	98.0
		% within Type of psychoactive drugs	91.7%	100.0%	100.0%	100.0%	98.0%
	Severe	Count	2	0	0	0	2
		Expected Count	.5	.6	.5	.5	2.0
		% within Type of psychoactive drugs	8.3%	0.0%	0.0%	0.0%	2.0%
Total		Count	24	28	24	24	100
		Expected Count	24.0	28.0	24.0	24.0	100.0
		% within Type of psychoactive drugs	100.0%	100.0%	100.0%	100.0%	100.0%

Table X presents the distribution of symptom severity before the remission phase across different types of psychoactive substances. Most participants (98%) across all substance categories—opioids, stimulants, cannabis, and alcohol—were assessed as having moderate

symptoms before entering remission. Notably, 100% of stimulant, cannabis, and alcohol users fell into the moderate severity category, while only the opioid group included individuals (8.3%) with severe symptoms prior to remission.

These findings suggest a broad homogeneity in baseline severity across substance types, except for opioid users, who showed slightly higher severity in the pre-remission phase. This may reflect the greater physiological dependence and withdrawal intensity associated with opioids, which could have influenced initial symptom presentations. The low overall percentage of severe cases (2%) may also reflect the study's sample selection or the timing of assessment (Table 3.1.13).

Table 3.1.14. Statistical Association between Pre-Remission Symptom Severity and Type of Substance Used

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.463[a]	3	.091

To determine whether there is a statistically significant association between the type of psychoactive substance used and the severity of symptoms before remission, a Pearson Chi-Square test was conducted. The result was not statistically significant, χ^2 (3, N = 100) = 6.463, p = .091. This indicates that there is no strong evidence to suggest that the severity of symptoms before remission differs by the type of substance used.

Although descriptive data showed that opioid users had a small proportion of severe cases (8.3%)—a feature absent in other substance groups—this variation did not reach statistical significance. The homogeneity of the symptom severity across drug types suggests that other factors, such as individual differences or treatment conditions, may play a more substantial role in pre-remission symptom profiles than substance type alone (Table 3.1.14).

Table X illustrates the distribution of symptom severity in the second month of remission across different types of psychoactive substances. The data reveals that most participants in all drug categories experienced mild symptoms during this period, with 68% of the total sample categorized as mild. The opioid group showed 66.7% mild severity, while the stimulant group had the highest percentage (85.7%) of participants in the mild category.

A notable trend is observed among cannabis users, where 41.7% were classified as normal, while 16.7% of alcohol users were categorized as having moderate symptoms. In contrast, opioid users had the highest proportion of individuals (8.3%) with moderate symptoms, although still a minor percentage overall.

These findings suggest that most participants in remission, regardless of substance type, exhibited a shift toward mild symptomatology in the second month, indicating some improvement. However, the distribution across drug types suggests potential nuances in remission dynamics that may warrant further investigation. The opioid group could benefit from continued monitoring and support (Table 3.1.15).

Table 3.1.15. Symptom Severity in the Second Month of Remission by Substance Type

			Type of psychoactive drugs				Total
			Opioids	Stimulants	Cannabis	Alcohol	
Second month of remission	Normal	Count	6	2	10	4	22
		Expected Count	5.3	6.2	5.3	5.3	22.0
		% within Type of psychoactive drugs	25.0%	7.1%	41.7%	16.7%	22.0%
	Mild	Count	16	24	12	16	68
		Expected Count	16.3	19.0	16.3	16.3	68.0
		% within Type of psychoactive drugs	66.7%	85.7%	50.0%	66.7%	68.0%
	Moderate	Count	2	2	2	4	10
		Expected Count	2.4	2.8	2.4	2.4	10.0
		% within Type of psychoactive drugs	8.3%	7.1%	8.3%	16.7%	10.0%
Total		Count	24	28	24	24	100
		Expected Count	24.0	28.0	24.0	24.0	100.0
		% within Type of psychoactive drugs	100.0%	100.0%	100.0%	100.0%	100.0%

A Pearson Chi-Square test was conducted to examine the relationship between the severity of symptoms in the second month of remission and the type of psychoactive substance used. The results revealed that the association between these variables was not statistically significant, $\chi^2(6, N = 100) = 11.314$, $p = .079$. This suggests that, although there are differences in symptom severity across substance types, these differences are not statistically significant at the 0.05 level.

Although the descriptive statistics show some variation in symptom severity across substance types, with opioid users experiencing a higher proportion of moderate symptoms (8.3%), these differences may be due to chance rather than a strong underlying relationship. Therefore, other factors, such as individual treatment responses or co-occurring conditions, may play a more significant role in symptom severity than the type of psychoactive substance used (Table 3.1.16).

Table 3.1.16. Statistical Association between Second Month of Remission and Substance Type

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.314[a]	6	.079

The table presents the distribution of mania symptom severity in the third month of remission across different psychoactive drug groups (Opioids, Stimulants, Cannabis, Alcohol). Out of 100 valid cases, most individuals (68%) were categorized as being in normal remission with respect to manic symptoms. This trend was particularly strong among cannabis users, where 91.7% were in the normal category, followed by alcohol users (75.0%), opioid users (58.3%), and stimulant users (50.0%).

Conversely, mild manic symptoms were more common among stimulant (50.0%) and opioid users (41.7%), while relatively rare among cannabis (8.3%) and alcohol users (25.0%). The expected counts indicate that the actual number of individuals with mild manic symptoms in the cannabis group (n = 2) was well below the expected value (7.7), suggesting a particularly low occurrence of mania in this subgroup.

These results are directly relevant to the aim of this dissertation, which focuses on identifying the mental state profiles of individuals during remission from substance use disorders. The data suggest that manic symptoms are more prevalent among those recovering from stimulant

and opioid addiction, compared to those who previously used cannabis or alcohol. This differentiation highlights the importance of tailoring clinical monitoring and psychological interventions based on the type of substance used, as certain groups may be more vulnerable to affective instability during early remission (Table 3.1.17).

Table 3.1.17. Third month of remission (mania) -Crosstabulation type of psychoactive drugs

			Type of psychoactive drugs				Total
			Opioids	Stimulants	Cannabis	Alcohol	
Third month of remission	Normal	Count	14	14	22	18	68
		Expected Count	16.3	19.0	16.3	16.3	68.0
		% within Type of psychoactive drugs	58.3%	50.0%	91.7%	75.0%	68.0%
	Mild	Count	10	14	2	6	32
		Expected Count	7.7	9.0	7.7	7.7	32.0
		% within Type of psychoactive drugs	41.7%	50.0%	8.3%	25.0%	32.0%
Total		Count	24	28	24	24	100
		Expected Count	24.0	28.0	24.0	24.0	100.0
		% within Type of psychoactive drugs	100.0%	100.0%	100.0%	100.0%	100.0%

A Chi-Square Test of Independence was conducted to assess the relationship between the severity of mania symptoms during the third month of remission and the type of psychoactive drug previously used. The Pearson Chi-Square value was χ^2 (3) = 11.918, p = .008, indicating a statistically significant association between the variables. This result is further supported by the Likelihood Ratio χ^2 = 13.196, p = .004, and a significant Linear-by-Linear Association (χ^2 = 4.854, p = .028), suggesting a potential trend across the levels of one or both variables. Importantly, none

of the cells had an expected count below 5, and the minimum expected count was 7.68, satisfying the assumptions of the Chi-Square test and lending credibility to the results.

This significant association supports the central aim of this dissertation by demonstrating that the type of psychoactive substance used has a meaningful relationship with the presence of manic symptoms during remission. Specifically, individuals with histories of stimulant and opioid use showed higher rates of mild manic symptoms compared to cannabis and alcohol users. These findings suggest that mania-related mental state characteristics in early remission may vary by substance type, emphasizing the need for differentiated clinical attention and tailored relapse prevention strategies depending on the substance involved (Table 3.1.18).

Table 3.1.18. Statistical Association between Third Month of Remission and Substance Type (Mania)

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.918[a]	3	.008

Depression_before was positively correlated with Depression_2ndmonth ($\rho = .390$, $p < .001$) and Depression_3rdmonth ($\rho = .331$, $p = .001$), indicating that participants with higher initial depression scores tended to continue experiencing elevated symptoms over time, though to a lesser extent.

Depression_2ndmonth showed a strong positive correlation with Depression_3rdmonth ($\rho = .625$, $p < .001$), suggesting a high degree of consistency in depressive symptoms between the second and third months. It was also negatively correlated with Mania_2ndmonth ($\rho = –.238$, $p = .017$), indicating an inverse relationship between depressive and manic symptoms during the second month.

3.2. Analysis of the correlation

Mania_before was negatively correlated with Mania_2ndmonth ($\rho = –.228$, $p = .023$), suggesting that those with higher initial mania scores showed reductions by the second month.

Finally, Mania_2ndmonth had a moderate positive correlation with Mania_3rdmonth ($\rho = .343$, $p < .001$), indicating stable manic symptom levels over time for those still experiencing symptoms (Table 3.2.1).

Table 3.2.1. Correlation Analysis. Relationship between Depression and Mania

Correlations						
			Depression_2ndmonth	Depression_3rdmonth	Mania_2ndmonth	Mania_3rdmonth
Spearman's rho	Depression_before	Correlation Coefficient	.390**			.331**
		Sig. (2-tailed)	.000			.001
	Depression_2ndmonth	Correlation Coefficient		.625**	-.238*	
		Sig. (2-tailed)		.000	.017	
	Mania_before	Correlation Coefficient				-.228*
		Sig. (2-tailed)				.023
	Mania_2ndmonth	Correlation Coefficient				.343**
		Sig. (2-tailed)				.000

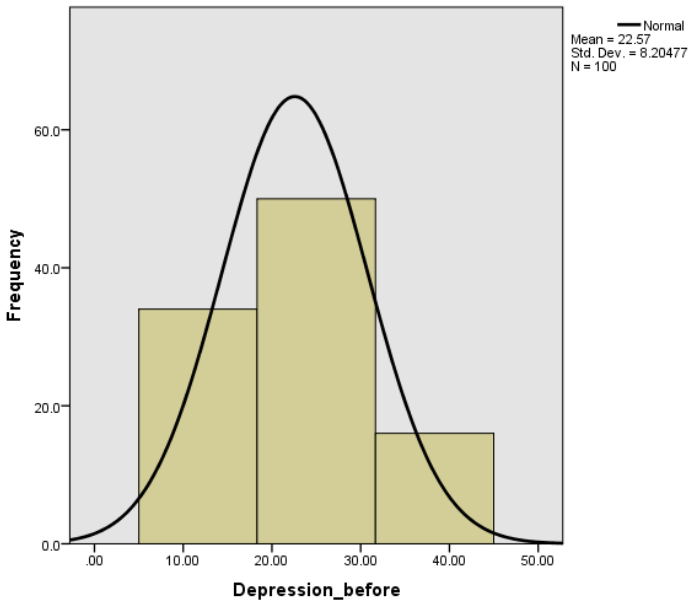
Table 3.2.2 Spearman Correlation Analysis between the Variables Anxiety and third Month of Depression.

Correlations			
			Anxiety_zung
Spearman's rho	Depression_3rdmonth	Correlation Coefficient	.347**
		Sig. (2-tailed)	.000

The correlation coefficient is 0.347, indicating a positive moderate relationship between anxiety levels (measured by Zung Anxiety Scale) and depression levels at the third month.

The significance value (2-tailed) is 0.000, which means the correlation is statistically significant ($p < 0.001$) and unlikely to be due to chance.

There is a statistically significant moderate positive correlation between anxiety (Anxiety_zung) and depression at the third month (Depression_3rdmonth) ($r = 0.347$, $p < 0.001$). This suggests that higher anxiety scores are associated with higher depression scores at the third month (Table 3.2.2).

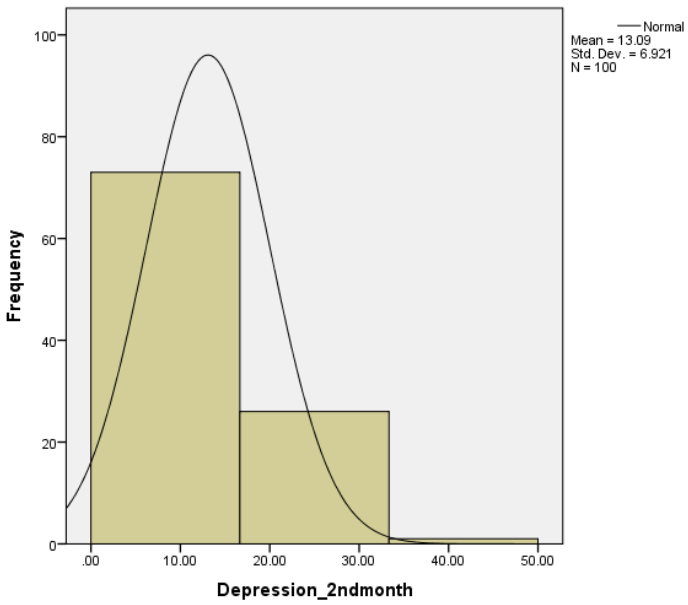


Graph 3.2.1. Depression histogram before remission

The depression scores range from approximately 0 to 50. The distribution appears slightly positively skewed, with a higher concentration of scores between 15 and 30. The tallest bar, representing the most frequent score range, is centered around the mean value.

The mean depression score prior to the intervention is 22.57, with a standard deviation of 8.20, indicating moderate variability within the sample. Although the curve suggests an attempt at normal distribution, the asymmetry of the histogram bars suggests some deviation from perfect normality.

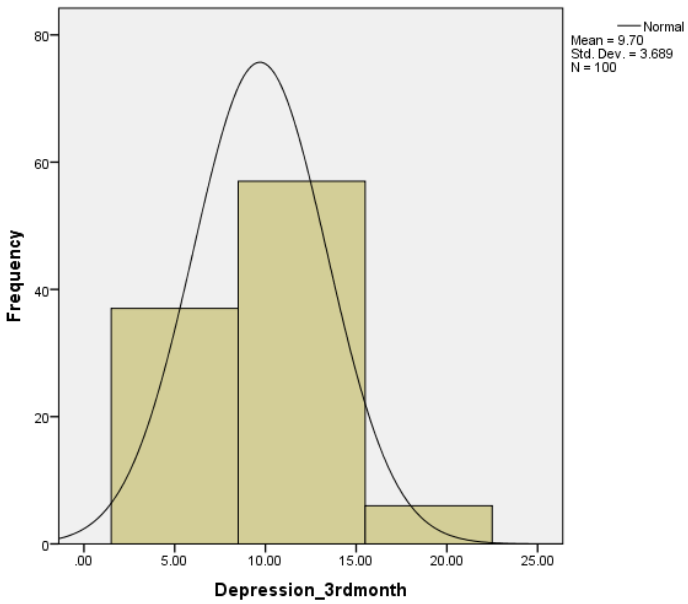
This graphical representation is helpful in visualizing the spread and central tendency of the data before statistical analysis. It provides insight into the baseline mental health status of the participants, which is crucial for evaluating the effectiveness of any subsequent intervention (Graph 3.2.1).



Graph 3.2.2. Depression histogram second month of remission

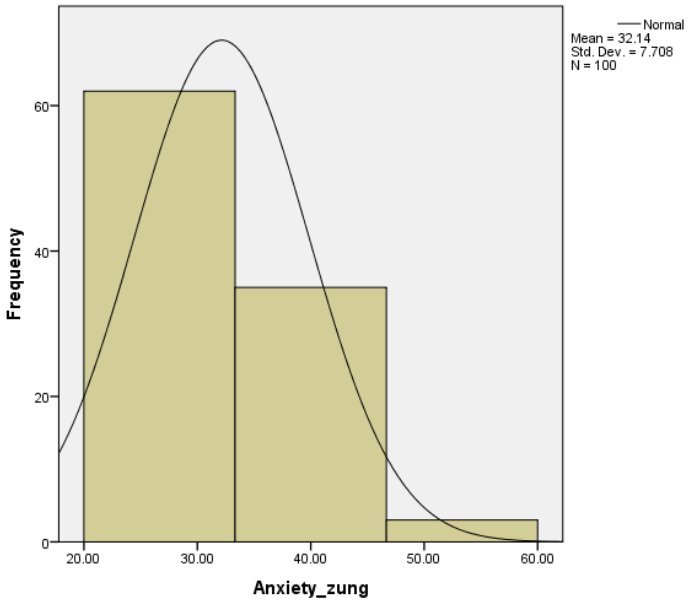
The range of scores remains between 0 and 50, but a clear leftward shift in the distribution is observed compared to the pre-intervention data. The highest frequency of scores is clustered between 0 and 15, indicating that most participants reported lower levels of depression at the second-month follow-up. The mean score has decreased to 13.09, with a standard deviation of 6.92, suggesting an overall reduction in depression symptoms and slightly less variability in responses. (Graph 3.2.2).

Compared to earlier months, the depression scores show a further shift toward the lower end, indicating continued improvement. The mean score has decreased to 9.70, with a standard deviation of 3.69, reflecting not only a reduction in average depression levels but also a more concentrated spread of scores, suggesting greater consistency in participant outcomes.



Graph 3.2.3. Depression histogram third month of remission

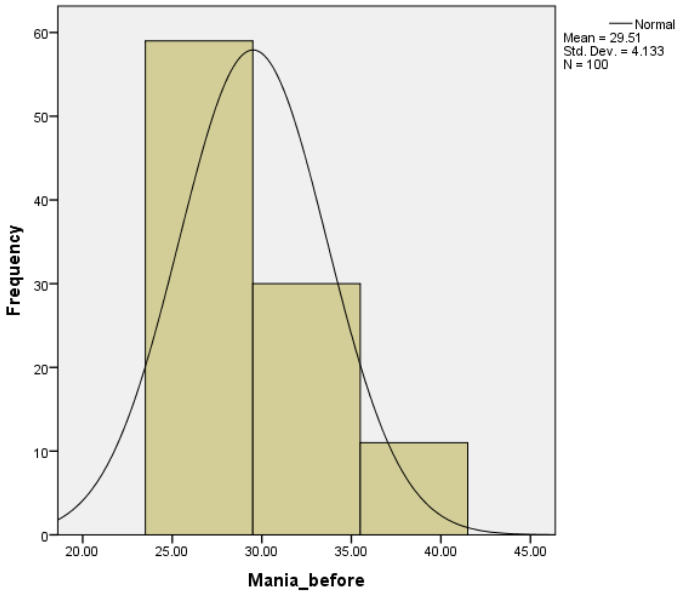
Most scores are now concentrated between 5 and 15, and the shape of the distribution is closer to normal, with only a slight positive skew. This pattern reinforces the observed trend: a consistent and steady decline in depression symptoms over the three-month period, potentially highlighting the effectiveness and sustainability of the intervention (Graph 3.2.3).



Graph 3.2.4. Anxiety histogram after remission

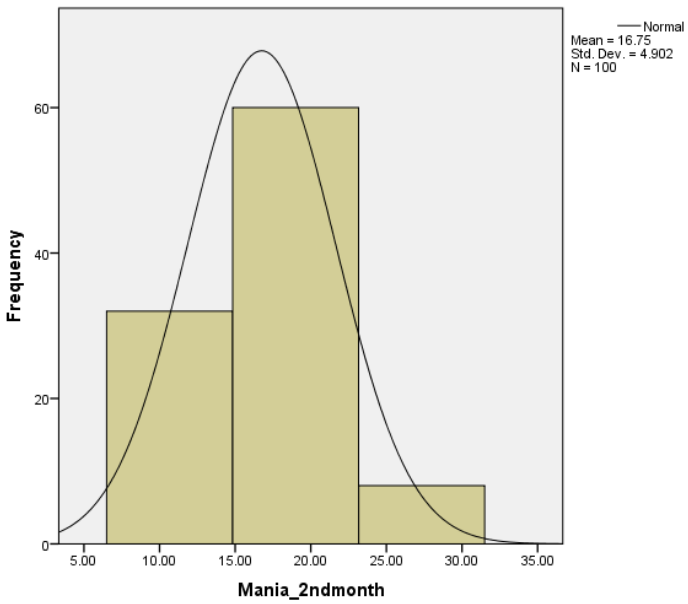
The axis ranges roughly from 20 to 60, indicating the possible range of anxiety scores. Labeled “Frequency”, representing the number of individuals (or observations) within each score range. The frequency reaches up to around 70. The mean score has decreased to 32.14, with a standard deviation of 7.708 (Graph 3.2.4).

The axis ranges roughly from 20 to 45, indicating the possible range of mania scores. Labeled “Frequency”, representing the number of individuals (or observations) within each score range. The frequency represents the number of observations, reaches up to around 60. The mean score has decreased to 29.51, with a standard deviation of 4.133.



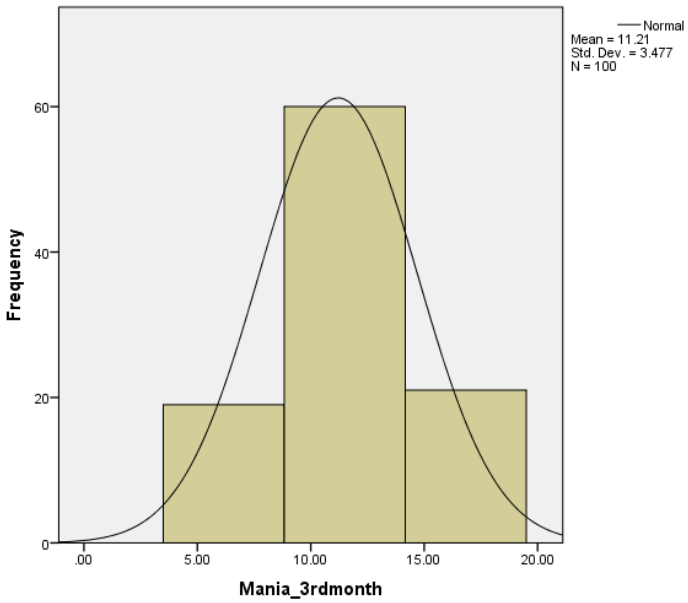
Graph 3.2.5. Mania histogram before remission

The axis ranges roughly from 20 to 45, indicating the possible range of mania scores. Labeled “Frequency”, representing the number of individuals (or observations) within each score range. The frequency represents the number of observations, reaches up to around 60. The mean score has decreased to 29.51, with a standard deviation of 4.133. Most of the samples had mania scores clustered around 25 to 30, with fewer individuals showing higher scores. The distribution suggests a concentration of lower mania scores before the event or treatment, with a long tail toward higher scores, indicating some outliers or a non-normal distribution pattern (Graph 3.2.5).



Graph 3.2.6. Mania histogram second month of remission

The axis ranges roughly from 5 to 35, indicating the possible range of mania scores. Labeled "Frequency", representing mania scores measured during the second month. The frequency represents the number of observations, reaches up to around 65. The mean score has decreased to 16.75, with a standard deviation of 4.902. There is a notable decrease in mean mania scores from 29.51 before to 16.75 at the second month, suggesting a reduction in mania symptoms over time or after treatment/intervention. (Graph 3.2.6).



Graph 3.2.7. Mania histogram third month of remission

The axis ranges roughly from 0 to 20, indicating the possible range of mania scores. Labeled "Frequency", representing mania scores measured during the third month. The frequency represents the number of observations, reaches up to around 65. The mean score has decreased to 11.21, with a standard deviation of 3.477. There is a notable decrease in mean mania scores from 29.51 before to 16.75 in the second month, 11.21 in the third month, suggesting that symptoms are improving consistently by the third month (Graph 3.2.7).

RESULTS

The main hypothesis of the study — that the presence of patients struggling with psychoactive substance addiction increases mental state levels — was supported by the findings. Individuals in remission continued to exhibit elevated symptoms of depression, anxiety, and, to a lesser extent, mania.

Depression scores, assessed using the Hamilton Depression Rating Scale (HAM-D), decreased over the three-month remission period:

Pre-treatment: $M = 22.57$, $SD = 8.20$ (severe)

2nd month: $M = 13.09$, $SD = 6.92$ (mild to moderate)

3rd month: $M = 9.70$, $SD = 3.69$ (mild)

Despite significant reduction ($p < .001$), patients remained clinically symptomatic, indicating persistent depressive risk during remission.

Correlational analysis showed a significant positive relationship between initial depression scores and scores at later stages ($\rho = .390$ for month 2, $\rho = .331$ for month 3; $p < .001$).

Anxiety levels (measured by the Zung Self-Rating Anxiety Scale) were found to be mild to moderate:

Mean: $M = 32.14$, $SD = 7.71$. No statistically significant difference was found in anxiety levels between types of substances used ($p = .158$), indicating that anxiety was a persistent factor across substance types.

Manic symptoms (measured by the Young Mania Rating Scale) also decreased significantly during the remission period:

Pre-intervention: $M = 29.51$, $SD = 4.13$

2nd month: $M = 16.75$, $SD = 4.90$

3rd month: $M = 11.21$, $SD = 3.48$. Although scores showed improvement, a subset of patients continued to present mild manic features. A significant relationship was found between type of substance used and mania levels at the 3rd month ($\chi^2(3) = 11.918$, $p = .008$).

A negative correlation between depression and mania in the 2nd month ($\rho = –.238$, $p = .017$)

A positive correlation between mania levels across months, indicating consistency in manic symptoms over time.

- Based on the screening conducted during the study, personality disorders were detected among individuals with substance addiction in Azerbaijan. However, there are currently no locally adapted diagnostic tools specifically designed for assessing these disorders in this population. This highlights a significant gap in clinical assessment tools within the country. EMCDDA's sophisticated data monitoring tools are largely absent in Azerbaijan. Establishing modern data collection and analysis infrastructure is crucial for accurate understanding and planning of interventions related to substance use disorders.
- In cases of 3-month remission, psychotherapy must be applied in parallel with pharmacological treatment. If psychotherapeutic interventions are provided consistently and systematically during the remission phase — especially when integrated with the 12-step recovery model — the likelihood of patients relapsing and returning to narcological centers can be significantly reduced.
- The role of the family is especially critical in the recovery process. Based on the sociodemographic data collected, many patients reported being socially isolated from family members, which severely hampers their reintegration into society. This suggests that family involvement in treatment and aftercare should be prioritized in any comprehensive rehabilitation strategy. The Pampedu Group highlights the importance of engaging local communities and NGOs. Expanding social support programs and rehabilitation centers in Azerbaijan could improve treatment outcomes by involving community stakeholders in recovery processes.

CONCLUSION

The present study was designed to investigate psychological characteristics of psychoactive substance dependent patients in remission with particular interest in emotional and mental well-being. By using structured questionnaires and psychometric scales including the Hamilton Depression Scale, Yang Manic Rating Scale, and Zung Self-Rating Anxiety Scale, the present study intended to evaluate the extent of depressive, anxiety, and manic symptoms in addicts in the remission phase. Key Findings SPSS analysis results reveal several characteristics, trends, and interactions between the mental statuses of the study samples. There was a major result for levels of depression (which were elevated in many patients even during remission) and for anxiety. These findings are consistent with the literature that indicates that adults in remission from substance abuse are at high risk for mental disorders, in particular depression and anxiety (Brewer et al., 2007; Moos, 2007). Furthermore, the level of manic symptoms (measured by the Yang Manic Rating Scale) is also relatively low, indicating that the manic attacks are less frequent during remission, like what has been found in remission studies of addictive behaviors (Kessler et al., 2003). Remission in Depression and Anxiety One remarkable finding of this study was the high score of mean point value on the Hamilton Depression Scale and Zung Self-Rating Anxiety Scale, which showed that depressive and anxious symptoms were prevalent in patients during the period of remission. These were milder symptoms than those in acute addiction but still presented patients with substantial quality of life obstacles. Statistically significant depression scores indicate that persistent emotional problems need to be addressed during remission with the use of persistent psychological treatment by mental health practitioners.

The continued depressive and anxiety symptoms could be due to several factors. One that the psychological correlates of substance dependence, for example low self-esteem, guilt and stress associated with history of addiction are likely to still be influencing mental health after remission. In addition, the cognitive withdrawal symptoms and potential barrier for emerging from social and occupational life post-addiction tended to make these mental health issues overweight (Miller & Rollnick, 2013). These results highlight the importance of integrated treatment programmes which not only target addiction recovery but also cater for patients' comorbid mental health challenges. The Role of Manic Symptoms Even though the prevalence of mania symptoms was rather limited among the subjects in this project, some participants - though very few - did test on mild levels of manic behavior. Consistent with the results of prior research in patients in remission from SUD, mood disturbances such as (subsyndromal) depression and hypomania may co-occur, albeit at a

milder level (O'Brien et al., 2005). The infrequency of manic symptomatology is likely to reflect the stabilizing influence of full remission, but it also suggests the need to screen individuals in recovery for a mood anomaly. It is also questionable why specific substances, or comorbid psychiatric disorders should predict for more evidence of mania during remission.

Clinical implications the results of this study have important clinical implications in the rehabilitation of the patients with remission from psychotropic substance abuse. In the context of continued depression and anxiety, mental health monitoring should also be integrated in addiction therapy. Inclusion of psychometric measures, as used in this study, could contribute significantly to a more comprehensive impression of the patients' mental state and thus be useful in providing patient-oriented care. The cognitive behavior therapy (CBT), mindfulness-based therapies and other psychological treatments have been similarly identified as supportive therapy for depression and anxiety in the remission. The results further underscore the value of permanent support networks for recovering individuals: "If these are taken away, then most of the effect of the treatment will be lost." Because of the stress and emotional hardships, they experience in remission, support from peers at their community centers and within their extended families could assist with these psychological aspects of cancer as well as their health. Limitations and Future Research This study has several limitations. The current study has some limitations despite the useful implications mentioned above. First, the number of samples was small, and the subjects were only from Republican Narcological Center, and whether it is extrapolable to the general population of ex abusers of psychoactive substances or not is unclear. Further research is needed to reproduce these results in more representative samples for confirmation and generalizability of findings. A further limitation is the cross-sectional design that only captured the overall picture of mental state characteristics at one time point. A longitudinal study with follow-up of mental health during remission could show more about the course of depressive, anxiety, and manic symptoms after remission from addiction.

Second, this study was confined to a small number of psychological factors, and future research should investigate other factors (i.e., personality, coping strategies, and social support) associated with mental health during remission. A further exploration between actual substance-specific addiction and mental health symptoms (e.g., the alcohol use disorders vs. the opioid use disorders) also would be useful to depth the concept of the mental state features from patients receiving remission. Conclusion In summary, this study highlights the nuanced nature of mental health issues experienced by people in drug-free remission from addiction to psychoactive

substances. The high level of depression and anxiety suggests a need for mental health care integration in addiction recovery programs. Manic symptoms were less extreme but still representing an area of concern. These results also suggest the necessity of a holistic addiction recovery, with continued psychological therapy to manage both the emotional and behavioral components of recovery. Future study may help to decipher the complex interplay that exists between addiction and mental health and, ultimately, offer direction for more efficacious treatment approaches in those in recovery.

Pharmacological treatment (e.g., substitution medications such as methadone, buprenorphine, or psychiatric medications such as antidepressants, mood stabilizers) is critical for stabilization of physiological functions and for any withdrawal symptoms that may develop. However, the present results indicate that, by itself, pharmacotherapy may not be able to effectively manage all the psychological and emotional disturbances that remain after remission is achieved. A lot of patients will still have thought distortions, trauma that hasn't been sufficiently dealt with or coping mechanisms they've been doing for decades that things like medication only do so much to counteract.

Drug therapy predominantly deals with the neurochemical implications of addiction and mood regulation, and this attention is requisite especially in the early phases. But it may not arm people with the emotional resilience or the tools of behavior that lead to long-term psychological health. This restriction corresponds with EMCDDA publications that underline the importance of a multidisciplinary, integrated care approach in addition to medication. Psychotherapeutic modalities (Cognitive Behavioral Therapy (CBT), Motivational Interviewing, Relapse Prevention Therapy, and Trauma-Informed Care), on the other hand, seek to dissect and reform the locus of psychopathologic abnormalities that underlie addiction. Psychotherapy seeks to change the way affected individuals think, managing their coping strategies and increasing their awareness of self and emotion.

The results of the current study, including the high rates of mood disorders in remission, highlight the importance of addressing psychotherapy as part of recovery. Psychotherapeutic patients are more likely to understand their behaviors, to build up healthier emotional reactions and decrease the chance of relapse. These psychological gains may not be directly measurable by biological markers but tend to materialise into long lasting mental health maintenance, such as lower scores of anxiety and depression in patients involved in organized psychotherapeutic follow up.

In addressing substance dependence, international organizations such as the United Nations Office on Drugs and Crime (UNODC), the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA), the Pompidou Group, and the World Health Organization (WHO) have developed advanced evidence-based approaches. However, many of these approaches have yet to be fully implemented in Azerbaijan. This section compares the strategies and methodologies employed by these organizations and provides practical recommendations for adaptation within the Azerbaijani context.

The results of this study draw attention to the severe gap in knowledge in those with psychoactive substance addiction in remission and call for further research and specialized interventions. The European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) is instrumental in informing policy and research around substance addiction across Europe. In this sense, the monitoring of drug trends, data provision and support of evidence-based practices are extremely important to steer the future path of treatment for addiction and mental health care. The EMCDDA is responsible for information on drugs and their use and consequences, including on mental health, which is pivotal for health promotion and preventive work in the European Union. Their European Drug Report provides detailed information about trends in drug use, drug dependency, and psychiatric comorbidity, in line with the current results. For example, the report frequently notes that these individuals in recovery—like participants in the current study—are at increased risk for psychopathological symptoms including depression, anxiety, and mood disorders, each of which were widespread in the present study. One of the main aims of the EMCDDA is the advocacy of an integrated response to treatment, which means that drug dependence treatment should be integrated into mental treatment centres. This is of particular importance given the finding in the present study that (in remission) patients continue to experience high levels of psychological distress including depression and anxiety. The EMCDDA takes the position that treatment should be addressed in a comprehensive fashion not only for the substance use problem, but also for its psychological comorbidity. Such combined models are essential for decreasing relapse rates and enhancing long-term recovery.

Regarding `the future of addiction treatment, EMCDDA's focus on developing guidelines for good evidence-based treatment is consistent with this dissertation's recommendation for better post-remission care. Addiction recovery programmes should also include mental health screening, on-going support and therapeutic interventions as integral components. The emphasis of the EMCDDA on the evaluation of these combined treatment approaches will be of great help in

developing and optimizing the procedures at both the national and European level leading to better patient care. The EMCDDA has been influential in shaping the national drugs debates by presenting evidence-based policy advice. Their continued efforts to probe the relationship between addiction and mental health could guide future policy efforts to address the mental health needs of those in recovery. As research indicates, those in recovery from addiction s are often vulnerable to mental health issues that are not always appropriately addressed in addiction treatment programs. EMCDDA's data and tools may support the development of policies promoting comprehensive care approach including both substances recovery and mental health stabilisation. The EMCDDA also endorses work to enhance the availability and accessibility of treatment of drug dependence, including in rural or deprived areas. And it's a good thing, too, because such programs are crucial for people that are in remission getting the help they need to deal with the mental health struggles that accompany recovery. In the future, this could include the realization of new programs, digital platforms, or mobile health interventions aimed at offering ongoing support in terms of mental health among survivors, especially after-treatment and ambulatory patients.

Certainly, more long-term studies are needed in the future to monitor the courses of the mental health of individuals in remission for prolonged periods. The EMCDDA has previously emphasised the importance of longitudinal data for understanding the longer-term impact of drug use and recovery on mental health. By partnering with facilities such as EMCDDA, subsequent research can inform evidence-based descriptions of MCC at various stages of recovery, to inform better predictive models and treatment strategies. Moreover, EMCDDA routinely encourages and finances research involving social determinants of addiction and recovery, including social economic status, social support, and access of care. These themes are important for understanding the mental state of those who are in remission and may help to direct future research that takes a more expansive view of the recovery experience that is not only biological and chronological but also social and existential. In sum, the prospects for the treatment and psychological support for psychoactive substance-addicted patients in recovery are bright especially with the ongoing support of the EMCDDA. These guidelines from the European agency's EMCDDA initiative in combining addiction treatment and mental health care, and its promotion of evidence-based policies and monitoring of psychological and social indicators of remission, will be critical in treating people in remission. The present work adds to the ongoing dialogue that is taking place about the mental health problems that patients encounter during remission, and it is expected that the investigation of the EMCDDA, together with the recommendations, guidelines, and policies

that will be formulated in the future, will continue to influence the design of future addiction recovery programs that will operate across Europe and elsewhere.

In conclusion, a critical dimension in enhancing substance dependence treatment lies in the adoption of continuous and integrated care models that align with the biopsychosocial framework advocated by the WHO. Such models emphasize the seamless coordination of medical, psychological, and social interventions to address the multifaceted nature of addiction. In Azerbaijan, the current fragmentation of healthcare and social services often results in discontinuities of care, which undermine long-term recovery and increase the risk of relapse. Integrating addiction treatment into primary healthcare and mental health services is essential to provide holistic support that spans from acute intervention to long-term rehabilitation and social reintegration. This integration would not only facilitate timely access to specialized care but also promoted destigmatization by normalizing addiction treatment within general health services. Furthermore, continuity of care ensures that patients receive ongoing monitoring and support, which are vital for managing co-occurring disorders and addressing the social determinants of health. To operationalize such models, Azerbaijan must invest in capacity building for healthcare providers, develop standardized care pathways, and foster intersectoral collaboration among health, social welfare, and justice institutions. Ultimately, continuous and integrated treatment models represent a paradigm shift that can substantially improve treatment outcomes and enhance the quality of life for individuals affected by substance dependence.

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APPENDICES

Appendix 1

All tests used in the research were administered by master's student Humay Eminzada. All participants in the surveys took part voluntarily, and the data obtained in this study is confidential and used solely for research purposes.

HAMİLTONUN DEPRESSİYA REYTİNQİ CƏDVƏLİ (HAM-D)

1. Depressiv əhval-ruhiyyə (məyusluq, ümidsizlik, əlacsızlıq, özünü əhəmiyyətsiz hiss etmə)

0 – yoxdur

1 – bu hisslər yalnız sorğu zamanı məlum olur

2 – bu hisslər sorğusuzda spontan olaraq verbal ifadə olunur

3 – bu hisslər həm verbal, həm də qeyri-verbal (xəstəninmimikası, pozası, səsi, ağlaması) vasitələrlə ifadə olunur

4 – xəstə yalnız bu hissləri həm spontan verbal ifadələrlə, həmdə qeyri-verbal şəkildə ifadə edir.

2. Günah hissi

0 – yoxdur

1 – öz-özünü günahlandırır, hesabedirki, digərinsanları pisvəziyyətdə qoyub

2 – günahfikirləri, keçmişdə edilənsəhvlərvə yagünahlarbarədə fikirləşir

3 – hal-hazırkı xəstəliyicəzakimiqəbuledir; günahkarlıqsayıqlamaları

4 – xəstə günahlandırıcı və hədələyicisəsləreşidirvə yaondahədələyicigörmə hallüsinasiyaları (qarabasma) olur.

3. İntihar niyyətləri

0 – yoxdur

1 – hiss edir ki, yaşamağa dəyməz

2 – ölməyi arzulayır və ya ölüm ehtimalları barəsində fikirləşir

3 – intihar fikirləri və ya intihar jestləri

4 – intihar təşəbbüsləri (hər hansı ciddi intihar təşəbbüsü 4 balla qiymətləndirilir).

4. Erkən yuxusuzluq

0 – yoxdur

1 – şikayət edir ki, vaxtaşırı yuxuya getməyə çətinlik çəkir (məsələn, 30 dəqiqədən artıq)

2 – hər gecə yuxuya getməyə çətinlik çəkir.

5. Gecə ərzində yuxusuzluq

0 – yoxdur

1 – şikayət edir ki, gecə ərzində narahat yatır

2 – şikayət edir ki, gecə ərzində dəfələrlə oyanır – hər hansı yataqdan durma halı (fizioloji tələbatları ödəməkdən başqa) 2 balla qiymətləndirilir.

6. Erkən səhər saatlarında yuxusuzluq

0 – yoxdur

1 – erkən səhər saatlarında oyanır, lakin yenidən yuxuya gedir

2 – yataqdan durduqdan sonra yenidən yuxuya getmək mümkün deyil.

7. İş və fəaliyyət qabiliyyəti

0 – çətinliklər yoxdur

1 – qabiliyyətsizlik fikirləri və hissləri; fəaliyyətlə (iş və ya hobbi) bağlı olan halsızlıq və yorğunluq hissi

2 – fəaliyyətə (iş və ya hobbi) olan marağın itməsi; xəstə bunu birbaşa şikayətlərlə və ya dolayısı yollarla – süstlük, qətiyyətsizlik (fəaliyyətə başlamaq və ya onu davam etdirmək üçün əlavə cəhdlərin lazım olması hissi) ifadə edir

3 – fəaliyyətə sərf olunan real vaxtın azalması və ya fəaliyyətin səmərəliliyinin azalması

4 – xəstəlik nəticəsində işin dayandırılması; xəstənin gündəlik məişət işlərindən başqa digər fəaliyyət göstərməməsi və ya gündəlik məişət işləri ilə də köməksiz məşğul ola bilməməsi 4 balla qiymətləndirilir.

8. Psixomotor süstlük (təfəkkürün və nitqin ləngiməsi, diqqəti cəlb etmə qabiliyyətinin azalması, motor aktivliyinin azalması)

0 – normal nitq və təfəkkür

1 – müsahibə zamanı yüngül ləngimə müşahidə edilir

2 – müsahibə zamanı nəzərə çarpan ləngimə müşahidə edilir

3 – müsahibə keçirmək çətindir

4 – tam stupor

9. Ajitasiya (təlaş)

0 – yoxdur

1 – həyəcan qeyd edilir

2 – həyəcanlı əl hərəkətləri, saçla oynama və s.

3 – xəstə həyəcandan bir yerdə otura bilmir

4 – daim barmaqları şaqqıldatmaq, dırnaqları çeynəmək, saçı yolmaq, dodaqları dişləmək.

10. Təşviş (psixoloji)

0 – yoxdur

1 – subyektiv gərginlik və qıcıqlanma

2 – az əhəmiyyətli səbəblərdən təşviş keçirməsi

3 – təşviş xəstənin sifət ifadəsində və səsində müşahidə edilir

4 – sorğusuz da ifadə edilən qorxular

11. Təşviş (somatik əlamətləri) Təşvişin fizioloji əlamətləri (məsələn, vegetativ sinir sisteminin hiperreaktivliyi, titrəmələr, dispepsiya, qarın nahiyəsində sancılar, diareya,

gəyirmələr, ürəkdöyünmələri, hiperventilyasiya, paresteziyalar, dərinin qızarması, tərləmələr, baş ağrıları, sidiyə getmənin tezləşməsi. Dərmanların mümkün olan yanaşı effektlərinə (məsələn, ağızda quruluq, qəbizlik) aid olan şikayətlər barəsində sorğudan

daşının.

0 – yoxdur

1 – yüngül dərəcədə ifadə olunub

2 – orta dərəcədə ifadə olunub

3 – ağır dərəcədə ifadə olunub

4 – kəskin ağır dərəcədə ifadə olunub

12. Qastrointestinal somatik simptomlar:

0 – yoxdur

1 – iştahanın itməsi, lakin xəstə başqalarının təkidi olmadan qidanı qəbul edir. Qida qəbulunun miqdarı təxminən normaldır

2 – başqaların təkidi olmadan qidanın qəbulunda çətinliklər. Əhəmiyyətli dərəcədə qida qəbulunun miqdarının azalması.

13. Ümumi somatik simptomlar

0 – yoxdur

1 – ətraflarda, başda, kürəkdə ağırlıq hissi. Baş, kürək, əzələ ağrıları. Enerjinin itməsi, tez yorulma

2 – yuxarıda göstərilən simptomlardan hər hansının kəskin dərəcədə ifadəsi 2 balla qiymətləndirilir.

14. Cinsi simptomlar (libidonun itməsi, cinsi aktivliyin enməsi, menstrual pozuntular)

0 – yoxdur

1 – yüngül dərəcədə ifadə olunub

2 – kəskin dərəcədə ifadə olunub.

15. İpoxondriya

0 – yoxdur

1 – öz bədəninə artmış diqqət

2 – xəstənin əsas diqqəti öz sağlamlığı ətrafında cəmlənib

3 – tez-tez səhhəti barəsində şikayət edir, ona kömək etməyi xahiş edir və s.

4 – ipoxondrik sayıqlama fikirləri

16. Bədən çəkisinin azalması

a. anamnezə əsasən

0 – yoxdur

1 – mövcud olan xəstəlik nəticəsində ehtimal edilən bədən çəkisinin azalması

2 – əhəmiyyətli dərəcədə bədən çəkisinin azalması (xəstənin sözlərinə əsasən)

b. həftəlik bədən çəkisinin ölçülməsinə əsasən

0 – yoxdur və ya həftədə 0.5 kiloqramdan az

1 – həftədə 0.5 kiloqramdan 1 kiloqrama qədəri

2 – həftədə 1 kiloqramdan artıq.

17. Öz halına tənqidi yanaşma

0 – öz halına tənqidi var, anlayır ki, xəstədir və depressiya halındadır

1 – xəstəlik olduğunu qəbul edir, lakin onu yalnız pis qida ilə, iqlimlə, yorğunluqla və s. əlaqələndirir

2 – öz halına tənqidi yanaşma yoxdur, xəstə olduğunu tamamilə inkar edir.

18. Gün ərzində halın dəyişməsi (A və B bəndlərə əsasən)

A. Xəstənin halının günün hansı hissəsində ağırlaşmasını qeyd edin

0 – gün ərzində xəstənin halı dəyişmir

1 – səhərlər 2 – axşamlar

B. Əgər xəstənin halının gün ərzində dəyişməsi mövcuddursa, bu dəyişmələrin hansı dərəcədə olduğunu qeyd edin

0 – gün ərzində xəstənin halı dəyişmir

1 – yüngül dərəcədə dəyişir 2 – nəzərə çarpan dərəcədə dəyişir

19. Depersonalizasiya və derealizasiya (öz şəxsiyyətin və ətraf mühitin anlayışın dəyişməsi; məsələn, qeyri-reallıq hissi, nigilistik fikirlər)

0 – yoxdur

1 – yüngül dərəcədə ifadə olunub

2 – orta dərəcədə ifadə olunub

3 – ağır dərəcədə ifadə olunub 4 – kəskin ağır dərəcədə ifadə olunub

20. Paranoid simptomları

0 – yoxdur

1 – ifrat dərəcədə şübhəlik

2 – münasibət ideyaları

3 – təqib və münasibət sayıqlamaları

21. Obsessiv-kompulsiv simptomları

0 – yoxdur

1 – yüngül dərəcədə ifadə olunub

2 – kəskin dərəcədə ifadə olunub

Pasientlərdə 0–7 bal depressiyanın olmaması, 8–13 bal – yüngül depressiya, 14–18 bal – orta dərəcəli depressiya, 19–22 bal – ağır dərəcəli depressiya və 23 baldan yuxarı son dərəcədə ağır depressiya qeydə alınır.

HAMİLTONUN DEPRESSİYA REYTİNQİ CƏDVƏLİ (HDRS)

Xəstənin Adi_____ Amb. kartasının/xəstəlik tarixinin №_____

SİMPTOMLAR	Müalicədən qabaq	1-ci təkrar müayinə	2-ci təkrar müayinə
	Tarix_____	Tarix_____	Tarix_____
1. DEPRESSİV ƏHVAL-RUHİYYƏ	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
2. GÜNAH HİSSİ	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
3. İNTİHAR NİYYƏTLƏRİ	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
4. ERKƏN YUXUSUZLUQ	0 1 2	0 1 2	0 1 2
5. GECƏ ƏRZİNDƏ YUXUSUZLUQ	0 1 2	0 1 2	0 1 2
6. ERKƏN SƏHƏR SAATLARDA YUXUSUZLUQ	0 1 2	0 1 2	0 1 2
7. İŞ VƏ FƏALİYYƏT QABİLİYYƏTİ	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
8. PSİXOMOTOR SÜSTLÜK	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
9. AJİOTAJ (TƏLAŞ)	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
10. TƏŞVİŞ (PSİXOLOJİ)	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
11. TƏŞVİŞ (SOMATİK ƏLAMƏTLƏRİ)	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
12. QASTROİNTESTİNAL SOMATİK SİMPTOMLAR	0 1 2	0 1 2	0 1 2
13. ÜMUMİ SOMATİK SİMPTOMLAR	0 1 2	0 1 2	0 1 2
14. CİNSİ SİMPTOMLAR	0 1 2	0 1 2	0 1 2
15. İPOXONDRİYA	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
16. BƏDƏN ÇƏKİSİNİN AZALMASI	0 1 2	0 1 2	0 1 2
17. ÖZ HALINA TƏNQİD	0 1 2	0 1 2	0 1 2
18. GÜN ƏRZİNDƏ HALIN DƏYİŞMƏSİ (A VƏ B BƏNDLƏRƏ ƏSASƏN)	(A)0 1 2 (Б) 0 1 2	(A)0 1 2 (Б) 0 1 2	(A)0 1 2 (Б) 0 1 2

19. DEPERSONALİZASİYA VƏ DEREALİZASİYA	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
20. PARANOİD SİMPTOMLARI	0 1 2 3	0 1 2 3	0 1 2 3
21. OBSESSİV-KOMPULSİV SİMPTOMLARI	0 1 2	0 1 2	0 1 2
ÜMUMİ BAL			

Appendix 2

YANQIN MANİYA REYTİNQİ CƏDVƏLİ (YMRS)

1. ƏHVAL-RUHİYYƏNİN YÜKSƏLMƏSİ

0 – qeyd olunmur

1 – bir qədər yüksəlmiş əhval-ruhiyyə və ya ehtimal edilən əhval-ruhiyyənin yüksəlməsi yalnız sorğu zamanı məlum olur

2 – əhval-ruhiyyənin yüksəlməsi subyektiv duyulur; insan optimistik, özünə güvənən, şən və ətraf mühitə uyğun görünür

3 – mühitə uyğun olmayan yüksəlmiş əhval-ruhiyyə; yersiz zarafatlar

4 – xəstə eyforikdir; səbəbi olmadan gülür; yersiz mahnı oxuyur

2. HƏRƏKƏT AKTİVLİYİNİN (ENERJİNİN) YÜKSƏLMƏSİ

0 – qeyd olunmur

1 – yüksəlmə subyektiv qeyd olunur

2 – ümumi canlandırılma və əl-qol hərəkətlərinin canlandırılması müşahidə edilir

3 – həddən artıq canlandırılma; periodik hiperaktivlik; rahatsızlıq (sakit etmək mümkündür)

4 – hərəkət yanıqlılığı; daimi hiperaktivlik (sakit etmək mümkün deyil)

3. SEKSUAL MARAQ

0 – normaldır; yüksəlməmişdir

1 – bir qədər yüksəlib və ya yüksəlməsi ehtimal edilir

2 – sorğu zamanı seksual marağının yüksəlməsi subyektiv qeyd edilir

3 – ünsiyyət zamanı spontan olaraq seksual mövzulara keçir; seksual məsələlərdən ətraflı danışır; özünün hiperseksuallılığı barədə bildirir

4 – açıq seksul davranış (digər pasiyentlərə, tibbi personala və ya həkimə qarşı)

4. YUXU

0 – yuxunun azalmasını qeyd etmir

1 – adi yuxu rejimi ilə müqayisədə 1 saata qədər yuxunun azalması

2 – adi yuxu rejimi ilə müqayisədə 1 saatdan artıq yuxunun azalması

3 – yuxuya ehtiyacın azalmasını qeyd edir

4 – yuxuya ehtiyacını inkar edir

5. QICIQLANMANIN ARTMASI

0 – yoxdur

2 – qıcıqlanmanın artması subyektiv qeyd edilir

4 – müsahibə zamanı qıcıqlıdır; palatada son zamanlarda qeyd olunan hirs və ya əsəbilik epizodları 6 – müsahibə zamanı tez-tez qıcıqlanıb hirslənir, səbirsizdir, həkimin sözünü kəsir; müsahibəni tez bitirmək istəyir.

8 – düşməncəsinə münasibət göstərir; əməkdaşlıq etməsi mümkün deyil; müsahibə keçirmək mümkün deyil

6. NİTQ (sürəti və kəmiyyəti)

0 – artmayıb

2 – subyektiv olaraq danışqanlığı qeyd edilir

4 – nitqin sürəti yüksəlib, vaxtaşırı çox danışır

6 – ünsiyyət zamanı həmsöhbətini üstələməyə çalışır; nitqin sürəti və kəmiyyəti əhəmiyyətli dərəcədə artıb; sözünü kəsmək çətindir

8 – söz axını; sözünü kəsmək mümkün deyil, fasiləsiz danışır

7. TƏFƏKKÜRÜN POZULMASI

0 – yoxdur

1 – müfəssəllik qeyd olunur; fikirləri bir qədər yayındırılır; təfəkkürü sürətlənib

2 – pasiyentin fikirləri yayınır, söylədiyi fikrin məqsədini itirir; tez-tez söhbətdə mövzudan mövzuya keçir

3 – fikirlər axını qeyd olunur; fikirlər dolaşıqdır; fikirlərin mənasını izləmək çətindir; cümlələri qafiyələndirir; exolaliya qeyd olunur

4 – təfəkkürü mənasızdır; ünsiyyət yaratmaq mümkün deyil

8. FİKİRLƏRİN MƏZMUNU

0 – normaldır

2 – reallığı sual doğuran planlar; təzə maraqlar

4 – xüsusi proyektlər barəsində fikirlər; həddən artıq olan dindarlıq

6 – nəhəng və ya paranoid ideyalar; münasibət ideyaları

8 – sayıqlamalar; hallüsinasiyalar

9. AQRESSİV DAVRANIŞ

0 – qeyd olunmur; həkimlə yaxşı əməkdaşlıq qurur

2 – sarkastikdir; bəzən ucadan danışır; gərgindir

4 – iddialar ifadə edir; şöbədə başqalarını hədələyir

6 – müsahibə zamanı həkimi hədələyir; qışqırır; müsahibə keçirmək çətindir

8 – hücum edir; ətrafı dağıtmağa çalışır; müsahibə keçirmək mümkün deyil

10. ZAHİRİ GÖRÜNÜŞÜ

0 – şəraitə uyğun geyinib və səliqəlidir

1 – bir qədər səliqəsiz görünür

2 – səliqəsiz görünür; üst-başı kifayət qədər qarışıq və əzilmişdir; şəraitə uyğun olmadan təntənəli geyinib

3 – üst-başı qarışıq və əzilmişdir; tam geyinməyib; ədəbsiz makiyaj 4 – üst-başı tamamilə dolaşıqdır; ibarəlidir; üstündə yöndəmsiz bəzəmələr

11. ÖZ HALINA TƏNQİDİ

0 – mövcuddur; xəstə olduğunu qəbul edir; müalicəyə ehtiyacı olduğu ilə razıdır

1 – xəstə olması ehtimalını qəbul edir

2 – davranışında dəyişikliklərin olduğunu qəbul edir, lakin xəstə olduğunu inkar edir

3 – davranışında dəyişikliklərin olduğunun ehtimalını qəbul edir, lakin xəstə olduğunu inkar edir 4 – davranışında hər hansı dəyişikliklərin olduğunu inkar edir.

YANQIN MANİYA REYTİNQİ CƏDVƏLİ (YMRS)

Xəstənin Adı_____ Amb. kartasının / xəstəlik tarixin №_____

SİMPTOMLAR	İlkin müayinə	1-ci təkrar müayinə	2-ci təkrar müayinə
	Tarix_____	Tarix_____	Tarix_____
1. ƏHVAL-RUHİYYƏNİN YÜKSƏLMƏSİ	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
2. HƏRƏKƏT AKTİVLİYİNİN (ENERJİNİN) YÜKSƏLMƏSİ	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
3 SEKSUAL MARAQ	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
4. YUXU	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
5. QICIQLANMANIN ARTMASI	0(1)2(3)4(5)6(7)8	0(1)2(3)4(5)6(7)8	0(1)2(3)4(5)6(7)8
6. NİTQ (sürəti və kəmiyyəti)	0(1)2(3)4(5)6(7)8	0(1)2(3)4(5)6(7)8	0(1)2(3)4(5)6(7)8
7. TƏFƏKKÜRÜN POZULMASI	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
8. FİKİRLƏRİN MƏZMUNU	0(1)2(3)4(5)6(7)8	0(1)2(3)4(5)6(7)8	0(1)2(3)4(5)6(7)8
9. AQRESSİV DAVRANIŞ	0(1)2(3)4(5)6(7)8	0(1)2(3)4(5)6(7)8	0(1)2(3)4(5)6(7)8
10. ZAHİRİ GÖRÜNÜŞÜ	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
11. ÖZ HALINA TƏNQİDİ	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
ÜMUMİ BAL			

Appendix 3

ZUNQUN ÖZ-ÖZÜNÜ QİYMƏTLƏNDİRMƏ TƏŞVİŞ CƏDVƏLİNİN BALLARIN HESABLANMASI VƏ ÜMUMİ BALIN QİYMƏTLƏNDİRİLMƏSİ

Uyğun olan cədvəl sütunlarında işarənizi (√) qeyd edin	NADİR HALLARDA	ARABİR	TEZ-TEZ	ƏKSƏR HALLARDA VƏ YA HƏMİŞƏ
1. Mən özümü adi halımdan daha əsəbi və təşvişli hiss edirəm	1	2	3	4
2. Mən səbəbsiz qorxu hissi keçirdirəm	1	2	3	4
3. Məni asanlıqla pərt etmək və ya təlaşa salmaq olar	1	2	3	4
4. Mən hiss edirəm ki özümü ələ ala bilmirəm	1	2	3	4
5. Mən hiss edirəm ki hər şey yaxşıdır və heç bir bəd hadisə baş verməyəcək	4	3	2	1
6. Mənim əllərim və ayaqlarım titrəyib əsir	1	2	3	4
7. Mən baş ağrılardan, boynumda və kürəkdə ağrılardan əziyyət çəkirəm	1	2	3	4
8. Mən özümü zəif hiss edirəm və tez yoruluram	1	2	3	4
9. Mən özümü sakit hiss edirəm və asanlıqla rahat oturmağa bacarıram	4	3	2	1

10. Məndə ürəkdöyünmələr olur	1	2	3	4
11. Məndə başgicəllənmələr olur	1	2	3	4
12. Məndə ürəkgetmələr olur və ya mən hiss edirəm ki ürəkgetməyə yaxınam	1	2	3	4
13. Mən rahat nəfəs alıram	4	3	2	1
14. Mən əl və ayaq barmaqlarımda giziltilər və keyimələr hiss edirəm	1	2	3	4
15. Məndə mədə ağlıları və qarın pozuntusu olur	1	2	3	4
16. Mən tez-tez işəməyə gedirəm	1	2	3	4
17. Mənim əllərim adətən soyuq olmur və qurudur	4	3	2	1
18. Mənim sifətim qızarıb yanır	1	2	3	4
19. Mən asanlıqla yuxuya gedirəm və rahatlıqla yatıb dincəlirəm	4	3	2	1
20. Məndə yuxuda qarabasmalar olur	1	2	3	4

20-44 – Norma

45-59 – Yüngül dərəcəli və ya orta ağır dərəcədə olan təşviş pozuntusu

60-75 – Ağır dərəcədə olan təşviş pozuntusu

75-80 – Kəskin ağır dərəcədə olan təşviş pozuntusu

Appendix 4

Humay Eminzada

Mental State Characteristics Patients Suffering from Psychoactive Substance Addiction During Remission

Abstract

This dissertation is dedicated to studying the psychological characteristics of patients suffering from psychoactive substance addiction during the remission phase. The purpose of the research is to assess the levels of depression, anxiety, and manic symptoms in individuals in remission and determine the relationship between these symptoms and overall mental health. The findings of this study will contribute to personalizing psychological support and optimizing rehabilitation programs for individuals in remission. The research was conducted at the Republican Narcological Center, utilizing standardized psychodiagnostics tools.

This study was conducted from February to April 2025 in the Republic Narcological Center of Azerbaijan. 100 male participants (aged between 16-60 years) with a DSM-V and ICD-11 defined addiction of any kind. Once written informed consent was obtained, all participants were enrolled in the study. Participants were not allowed to participate in the study if they were undergoing treatment for another serious mental illness, had a history of neurological disorders or severe mental illnesses other than addiction, or were unable to give informed consent because of cognitive impairments.

According to the Hamilton Depression Rating Scale (HDRS) results, a significant portion of participants in remission exhibited mild to moderate depressive symptoms. A smaller subset showed severe symptoms, indicating a clinically meaningful presence of depression even after substance use cessation. The Zung Self-Rating Anxiety Scale (SAS) indicated that moderate levels of anxiety were prevalent among the sample. The analysis revealed a statistically significant correlation between anxiety levels and the duration of remission, with higher anxiety reported among individuals in the early stages of recovery ($p < 0.05$). Findings from the Young Mania Rating Scale (YMRS) showed that most participants scored within the normal range.

The dissertation consists of an introduction, three main chapters, a conclusion, and a list of references. In the first chapter, titled “Literature Review,” the author provides a comprehensive analysis of the nature of psychoactive substance addiction, the psychological changes during the remission period, and the effects of this condition on individuals and society. This chapter includes references to both local and international scientific sources. It also explores how the symptoms of

psychoactive substance use disorder emerge, as well as their alignment with DSM-5 and ICD-11 criteria and the epidemiology of the disorder.

The second chapter, titled “Methods and Methodology,” justifies the use of psychometric tools such as the Hamilton Depression Rating Scale, the Zung Self-Rating Anxiety Scale, and the Young Mania Rating Scale. It clearly describes the research context—namely, the Republican Narcological Center of Azerbaijan. The data collection and analysis methods meet established scientific standards.

The third chapter presents the "Statistic Analysis of Research Data." The author systematically analyzed the obtained data, identified the main psychopathological symptoms observed in individuals with psychoactive substance addiction during the remission period, and interpreted the practical significance of these findings. Additionally, based on the results, recommendations were provided for effective psychological intervention and rehabilitation. The conclusion section of the dissertation summarizes the analyses presented in the three chapters and includes suggestions for future research directions.

Overall, the dissertation meets all academic requirements for a master’s thesis in terms of scientific level, structure, methodological justification, and relevance of the research topic. The theoretical and practical significance of the study is highly regarded. According to the research findings, combined psychotherapy and psychopharmacological treatment demonstrate significant improvements in individuals with substance use disorders both before and after remission. The dissertation concludes with a summary of results and references.

Keywords: psychoactive substance use disorder, addiction, remission, depression, anxiety, psychopathology.

Appendix 5

Humay Eminzadə

Psixoaktiv Maddə Asililiğindan Əziyyət Çəkən Xəstələrdə Remissiya Dövründə Psixi Vəziyyətin Xüsusiyyətləri

Xülasə

Dissertasiya işi psixoaktiv maddə asılılığından əziyyət çəkən pasiyentlərin remissiya mərhələsindəki psixoloji xüsusiyyətlərinin öyrənilməsinə həsr olunmuşdur. Tədqiqatın məqsədi, remissiya dövründə olan şəxslərdə depressiya, narahatlıq və manik simptomların səviyyəsini qiymətləndirmək və bu simptomlarla ümumi psixi sağlamlıq arasındakı əlaqəni müəyyənləşdirməkdir. Bu tədqiqatın nəticələri, remissiyada olan şəxslər üçün psixoloji dəstəyin fərdiləşdirilməsinə və reabilitasiya proqramlarının optimallaşdırılmasına töhfə verəcəkdir. Tədqiqat Respublikası Narkoloji Mərkəzində standartlaşdırılmış psixodiaqnostik alətlərdən istifadə edilməklə həyata keçirilmişdir.

Bu tədqiqat 2025-ci ilin fevral-aprel ayları ərzində Azərbaycan Respublikası Narkoloji Mərkəzində aparılmışdır. Tədqiqata DSM-V və XBT-11 diaqnostik meyarlarına əsasən hər hansı bir asılılıq növünə malik 100 kişi iştirakçı (yaşları 16-60 arasında) cəlb edilmişdir. Yazılı məlumatlandırılmış razılıq əldə edildikdən sonra bütün iştirakçılar tədqiqata daxil edilmişdir. Tədqiqat zamanı iştirakçıların digər ciddi psixi xəstəliklər üçün müalicə almamaları, asılılıqdan başqa ciddi nevroloji pozuntular və ya psixi xəstəliklər tarixinə malik olmamaları və ya idrak pozuntuları səbəbindən məlumatlandırılmış razılıq verə bilməmələri halında tədqiqatda iştirak etmələrinə icazə verilməmişdir.

Hamilton Depressiya Qiymətləndirmə Şkalasının (HDRS) nəticələrinə görə, remissiyada olan iştirakçıların əhəmiyyətli bir hissəsində yüngül və orta dərəcədə depressiv simptomlar müşahidə olunmuşdur. Daha az sayda iştirakçılarda isə ağır simptomlar qeydə alınmışdır ki, bu da maddə istifadəsi dayandırıldıqdan sonra belə klinik olaraq əhəmiyyətli depressiyanın mövcudluğunu göstərir. Zung Özünüqiymətləndirmə Təşviş Şkalasının (SAS) nəticələri, nümunə arasında orta səviyyəli narahatlığın geniş yayıldığını göstərmişdir. Təhlil nəticəsində anksiyete səviyyəsi ilə remissiya müddəti arasında statistik əhəmiyyətli korrelyasiya aşkar olunmuşdur – remissiyanın erkən mərhələsində olan şəxslərdə daha yüksək narahatlıq səviyyəsi qeydə alınmışdır ($p < 0.05$). Young Manik Simptomları Qiymətləndirmə Şkalasının (YMRS) nəticələri isə iştirakçıların əksəriyyətinin normal diapazonda bal topladığını göstərmişdir.

Dissertasiya işi giriş, üç əsas fəsil, nəticə və istifadə olunmuş ədəbiyyat siyahısından ibarətdir. Birinci fəsil olan "Ədəbiyyat icmalı" bölməsində müəllif yerli və beynəlxalq elmi mənbələrə istinad edərək psixoaktiv maddə asılılığının mahiyyəti, remissiya dövründə psixi dəyişikliklər və bu vəziyyətin fərdi və cəmiyyətə təsirləri haqqında ətraflı təhlil aparmışdır. "Ədəbiyyat İcmalı" adlanan fəsildə Psixoaktiv maddə istifadəsi pozuntusu əlamətlərinin necə yaranması, DSM-5 və XBT-11-ə uyğunluğu, epidemologiyası araşdırılmışdır

İkinci fəsildə "Metodlar və Metodologiya" başlığı altında istifadə olunan qiymətləndirmə alətləri (Hamilton Depressiya Şkalası, Zung Təşviş Şkalası, Young Maniakal Qiymətləndirmə Şkalası) əsaslandırılmış və tədqiqatın keçirildiyi kontekst (Azərbaycan Respublikasının Narkoloji Mərkəzi) aydın şəkildə təqdim olunmuşdur. Məlumat toplama və təhlil üsulları elmi tələblərə cavab verən səviyyədədir.

Üçüncü fəsildə "Tədqiqat məlumatlarının statistik təhlili" yer alır. Müəllif əldə etdiyi məlumatları sistemli şəkildə təhlil etmiş, psixoaktiv maddə asılılığı olan şəxslərdə remissiya dövründə müşahidə olunan əsas psixopatoloji əlamətləri müəyyən etmiş və bu nəticələrin praktik əhəmiyyətini şərh etmişdir. Eyni zamanda əldə edilən nəticələr əsasında effektiv psixoloji müdaxilə və reabilitasiya üçün tövsiyələr verilmişdir.

Dissertasiyanın nəticə bölməsi hər üç fəsildə aparılmış təhlillərə əsaslanaraq ümumiləşdirilmişdir və gələcək tədqiqat istiqamətləri üçün də təkliflər ehtiva edir.

Bütövlükdə, dissertasiya işi elmi səviyyəsinə, strukturuna, metodoloji əsaslandırmasına və tədqiqatın aktuallığına görə magistr səviyyəsində yazılmış iş üçün qoyulan tələblərə tam cavab verir. Tədqiqatın praktik və nəzəri əhəmiyyəti yüksək qiymətləndirilir. Tədqiqatın nəticələrinə görə, psixoterapiya və psixofarmakologiyann birgə müalicəsi remissiyadan öcə və remissiyadan sonra asılı şəxslərdə ciddi dəyişiklikləri nümayiş etdirir. Dissertasiya nəticə və istinadlarla tamamlanır.

Açar sözlər: psixoaktiv maddə istifadəsi pozğunluğu, asılılıq, remissiya, depressiya, təşviş, psixopatologiya.