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**Anxiety And Depression Levels In Family Members Of People Struggling With
Addiction**

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Introduction

The actuality of the subject. Addiction is characterized as a chronic, relapsing neuropsychiatric disorder that manifests through compulsive behaviors or substance use, despite negative consequences. According to a report from the World Health Organization (WHO), over 35 million people worldwide suffer from substance addiction. Recent reports indicate that the prevalence of alcohol use disorder is around 4.9% and tobacco use is about 22.5% of the global adult population. In addition, an estimated 324 million people worldwide, aged between 15 and 64 years, have utilized an illicit drug and about 4.4 million people were dealing with a marijuana use disorder (Ignaszewski, 2021). The global burden of disease study estimated that there were 15.5 million opioid-dependent individuals worldwide. Moreover, the disability and mortality associated with these addictions are profound. It was reported that opioid overdoses led to over 42,000 deaths in 2016. In addition, tobacco products is the leading cause of preventable diseases and deaths worldwide (Substance Abuse and Mental Health Services Administration, 2020). Dopamine plays a crucial role in addiction as substances that lead to addiction typically cause an overproduction of dopamine, leading to increased tolerance and dependency (Cooper, Robison, & Mazei-Robison, 2017). Recent studies emphasize the transition of substance use from voluntary behavior to an essential need driven by alterations in the brain's structure and chemistry which called Brain Disease Model of addiction (Heilig et al., 2021). There are two main categories of addiction. Substance addiction, also known as drug addiction, and non-substance addiction, also referred to as behavioral addiction, includes conditions like pathological gambling, food addiction, digital addiction (online gaming, smartphone, social media, addiction to computer technology etc.), exercise addiction (Goslar et al., 2020). Substance addiction involves a loss of control over drug use, characterized by relapses, compulsive drug seeking and usage despite adverse consequences. The types of substances commonly associated with addiction include alcohol, caffeine, cannabis, opioids, hallucinogens, inhalants, sedatives, hypnotics, anxiolytics, cocaine, tobacco, amphetamine-type substances, and volatile solvents (American Psychiatric Association, 2013). Non-substance-related addictions are an emerging field of study that reflects the complexity of human behavior and the potential for various activities or behaviors to become dysfunctional (Chinchella & Hipólito, 2023). Both substance and behavioral addictions carry a range of medical, economic, and social consequences, placing a substantial burden on individuals, families, caregivers and broader society. These impacts can exacerbate public health issues and strain economic resources, underscoring the need for effective interventions and support systems (Young et al., 2015). Addiction, a complex interplay of genetic, psychological, social and environmental

factors, represents a significant public health issue across various types. Understanding the risk factors for addiction is crucial for developing preventive measures and targeted interventions (Kozak et al., 2019). The Diagnostic and Statistical Manual of Mental Disorders (DSM-V, revised in 2013) and The International Classification of Diseases (ICD-11, revised in 2019) provide diagnostic criteria for substance addiction. These criteria are extensively utilized to diagnose addiction and assess its treatment (Petry, 2021; American Psychiatric Association, 2013). The substance addiction significantly impacts not only the individuals who abuse substances but also their family members. It has been documented that approximately 20% of the population has a family member who is struggling with drug addiction. The complexities of substance abuse extend to caregivers who face numerous challenges; physical challenges, social isolation, financial strain, impact on relationships and criminal aspects. They often experience high levels of stress, anxiety, and depression due to the unpredictable and chaotic nature of addiction. The emotional burden includes coping with the stigma of addiction, feelings of guilt, and helplessness. Moreover, substance abuse can result in severe consequences including estrangement, imprisonment, death, and a diminished capacity to function in familial roles such as parenting or sibling relationships (Yule, Wilens, & Rauch, 2017; Young et al., 2015). Therefore, we aimed to evaluate the levels of anxiety and depression in family members of individuals struggling with addiction.

The object of the study is family members of struggling with addiction.

The subject of the study is the examination and analysis of the psychological well-being of family members who are affected by loved one's addiction.

The purpose of the study is multifaceted, aiming to achieve several key objectives:

1. Understand psychological impact.
2. Identify contributing factors.
3. Measure and compare.
4. Explore coping mechanisms.
5. Raise awareness.

By achieving these purposes, the thesis aims to contribute to the academic and practical understanding of the broader impacts of addiction and improve the mental health and well-being of families affected by addiction.

Hypothesis of the study

Main hypothesis: The presence of family members struggling with addiction increases anxiety and depression levels.

Auxiliary hypotheses:

- The presence of family members struggling with addiction increases anxiety levels.
- The presence of family members struggling with addiction increases depression levels.
- There is a relationship between the anxiety and depression levels of family members of individuals struggling with addiction.
- Receiving support from family members reduces the anxiety and depression levels of families of individuals struggling with addiction.

Methods used in the research. Hamilton Anxiety Rating Scale (HAM-A) and Hamilton Depression Rating Scale (HAM-D) were used, social demographic questionnaire which based on the requirements of the study by the Professor and the master student.

Scientific significance of the research. This thesis research significantly contributes to the understanding of the broader implications of addiction, emphasizing the need for comprehensive mental health support for family members and promoting more effective and inclusive treatment and intervention strategies.

Scientific novelty of the research. The scientific novelty of this thesis research lies in its unique focus on the family members of individuals with addiction, its potential methodological innovations, its interdisciplinary and comparative insights, and its implications for policy and holistic treatment models. By addressing an under-researched area, it opens new avenues for understanding and mitigating the broader impact of addiction.

CHAPTER I. LITERATURE REVIEW

1.1. ADDICTION

1.1.1. Concept of Addiction

Addiction is a multifaceted chronic, relapsing neuropsychiatric disorder characterized by compulsive engagement in rewarding stimuli despite experiencing negative consequences. This condition involves a psychological dimension where individuals feel a compelling need to seek pleasure or relief from discomfort through various behaviors or substance use, often losing control over these actions (Lüscher, Robbins, & Everitt, 2020). Addiction is influenced by sociocultural factors such as environmental stresses and cultural norms, which can shape the development and persistence of addictive behaviors. These behaviors not only serve as coping mechanisms but also lead to long-lasting changes in the brain's reward circuits, perpetuating the cycle of addiction and complicating the recovery process. The process of addiction includes several core elements: engagement in behavior to achieve effects, preoccupation, temporary satisfaction, loss of control, and enduring adverse consequences (Volkow, Michaelides, & Baler, 2019). This significant overlap with other compulsive behaviors provides a framework for understanding its mechanisms. Psychologically, addiction often stems from the need to manage stress, trauma, or underlying mental health disorders. Social consequences include deteriorating relationships, decreased performance in school or work, burden on families and significant legal and financial problems, underscoring the complex interplay of biological, psychological, and sociocultural elements in understanding both substance and behavioral addictions (Sussman & Sussman, 2011).

1.1.2. Epidemiology

Addiction remains a significant global public health challenge, impacting millions worldwide across various substances and behaviors. Addiction affects numerous substances, including drugs, alcohol, tobacco, cannabis, and opioids, each contributing differently to the global burden. According to a report from the World Health Organization (WHO), over 35 million people globally are affected by substance addiction. The National Survey on Drug Use and Health estimated that, around 21 million individuals aged 12 or older were affected by substance use disorders annually in the United States (Johnston et al., 2020).

Recent estimates indicate that the global prevalence of alcohol use disorder is around 4.9% of the adult population, translating to approximately 240 million people worldwide. It's

estimated that about 1/3 of American adults will fulfill the criteria for an alcohol use disorder at some stage in their lives. In the United States 25% of adults engage in binge drinking, and 7% are diagnosed with alcohol use disorders. Out of these, approximately 14.8 million cases were related to alcohol use disorders (Cohn et al., 2015).

Tobacco use is even more widespread, with about 22.5% of the global adult population, or nearly 1 billion people, identified as smokers. A significant concern is the prevalence of nicotine use among young people, as the vast majority (84%) of individuals who develop a dependence on nicotine start smoking cigarettes before the age of 18. This early initiation highlights the critical need for targeted prevention efforts to reduce smoking rates among youth. In the United States, tobacco products are used by 17% of the population (Cohn et al., 2015). On the other hand, cigarette smoking among adolescents has significantly declined since reaching a peak in the mid-1990s, with a decrease of about 90%. However, this positive trend in nicotine reduction is countered by a sharp rise in vaping. Between 2015 and 2017, nicotine vaping rates doubled, and cannabis vaping increased two to threefold. By 2019, vaping had become one of the most prevalent forms of substance use among adolescents (Johnston et al., 2020).

Drug use disorders have a lifetime prevalence of approximately 10% in the general American population. An estimated 324 million people worldwide, aged between 15 and 64 years, have utilized an illicit drug. Moreover, according to the National Survey of Drug Use and Health (2019) approximately 57 million individuals aged 12 and older reported using illicit drugs within a year. Marijuana was the widely used illicit drug, with approximately 48 million users. The survey also revealed that about 4.4 million people were dealing with a marijuana use disorder (Ignaszewski, 2021).

The prevalence of these disorders varies significantly by region. Cannabis use is most prevalent in North America and Western Europe, where the rates are considerably higher than the global average. Opioid use is most prevalent in North America, reflecting the ongoing opioid crisis in the United States and Canada. 2 million were suffering from an opiate use disorder. The global burden of disease study in 2010 estimated that there were 15.5 million opioid-dependent individuals worldwide, with a notable concentration in North America (Hasin & Grant, 2015).

Despite the vast number of individuals affected by substance use disorders, fewer than 4 million receive treatment each year. This stark disparity highlights a significant gap in the healthcare system's ability to provide necessary services to those in need (US Department of Health and Human Services, 2019). The disability and mortality associated with these

addictions are profound. Psychostimulant dependence, including cocaine and amphetamines, was estimated to result in 37.6 disability-adjusted life years (DALYs) per 100,000 population for amphetamine dependence and 15.9 DALYs for cocaine dependence. It was also reported that opioid overdoses led to over 42,000 deaths in 2016, highlighting a significant escalation in the epidemic. In addition, tobacco products is the leading cause of preventable diseases and deaths worldwide (Substance Abuse and Mental Health Services Administration, 2020). Despite the significant global impact, the quality of data on addiction varies, with some regions having robust surveillance systems while others have less reliable data. Future efforts in epidemiology should focus on improving the accuracy and consistency of addiction data worldwide, enabling better policy-making and more effective interventions.

1.1.3. Pathophysiology

Modern psychiatric published data increasingly supports the notion that SUDs and addiction are not merely behavioral issues but complex conditions involving extensive neurobiological changes, particularly in how the brain processes rewards. Substance addiction is primarily characterized by an overwhelming compulsion to use substances despite the detrimental effects on health, social interactions, and personal responsibilities. This compulsion is rooted deeply in the brain's reward system, primarily through the neurotransmitter dopamine. Dopamine's role is pivotal; substances that lead to addiction typically cause an overproduction of dopamine, creating a temporary feeling of euphoria. Over time, the brain's ability to produce and regulate normal dopamine responses without substance interference diminishes, leading to the user needing more of the substance to achieve the same effects—a process known as tolerance. Dopamine enhances the reward and pleasure experiences associated with substance, reinforcing the behavior. In addition, the interaction of some neurotransmitters creates a complex network that supports the cycle of substance addiction, making it challenging to break without targeted therapeutic interventions (Cooper, Robison, & Mazei-Robison, 2017). Key neurotransmitters involved include:

- Serotonin, affecting mood and impulse control, which can influence addictive individuals.
- Opioid peptides, which are linked to the reward system and can intensify the pleasure derived from substance, thus encouraging repeated use.
- Glutamate, the primary excitatory neurotransmitter, plays a role in brain activity and plasticity, affecting learning and habituation to substance.
- γ -Aminobutyric acid (GABA), the primary inhibitory neurotransmitter, whose modulation by substance can induce feelings of calmness and relaxation.

1.1.3.1. Brain Disease Model

The Brain Disease Model of addiction posits that addiction is a brain disorder fundamentally characterized by altered brain structure and function, resulting in the compulsive use of substances or engagement in behaviors despite adverse consequences. Central to this model is the impact of addictive substances and behaviors on the brain's reward system, particularly the dopamine pathways. In the normal brain, dopamine is released in response to potential rewards, providing feelings of pleasure and motivating repeated engagement in those rewarding activities, like eating, sex or social interactions. However, in the brain of an individual with addiction, substances such as opioids, nicotine, or alcohol, or behaviors like gambling, induce excessive dopamine release, far surpassing what natural rewards do (Heilig et al., 2021).

Studies also demonstrated that particularly adolescence are vulnerability to addiction by 'Changes in the Midbrain Dopaminergic System' factor. This system becomes highly active, making adolescents more responsive to the rewarding effects of substances and potentially leading to addictive behaviors. In addition, imbalances in maturation between Cognitive Control Systems and Reward Reactivity plays crucial roles in addiction development. The brain regions responsible for reward reactivity, such as the nucleus accumbens, mature faster than those involved in cognitive control, like the prefrontal cortex. This imbalance can lead to impulsive decisions and poor control over urges, heightening the risk of engaging in and developing addictions. These factors contribute to the heightened risk of addiction individuals, as their developing brains make them particularly vulnerable to substances that alter mood and reward. Therefore, excessive dopamine release leads to a reinforcement of behaviors associated with substance use or the addictive behavior, making the experience much more desirable and, over time, seemingly necessary (Heather et al., 2018). As addiction develops, the brain undergoes profound changes: neuronal circuits that mediate reward, stress, and self-control are altered. Regular and excessive stimulation of these circuits by drugs or compulsive behaviors leads to neuroadaptive changes. These changes in the brain that reduce the sensitivity of reward circuits to normal levels of dopamine, a phenomenon known as tolerance. As a result, the addicted individual must increase the substance use or engagement in the behavior to achieve the same level of reward previously provided by lower amounts, further entrenching the addiction (Cooper, Robison, & Mazei-Robison, 2017). Moreover, these neuroadaptive changes are not easily reversible. The diminished function of dopamine in the reward circuit can lead to difficulty in experiencing pleasure from normally enjoyable activities, known as anhedonia, which perpetuates the cycle of addiction as the individual seeks out the addictive substance or

behavior as a seemingly sole source of pleasure. Critics of the Brain Disease Model argue that it may oversimplify the complexities of human behavior and the multifaceted nature of addiction, which includes environmental, social, and psychological factors. Therefore, understanding addiction as a brain disease framed by the alterations in dopamine-driven reward systems provides crucial insights into why addiction is so powerful and persistent. Recent studies emphasize the transition of substance use from voluntary behavior to an essential need driven by alterations in the brain's structure and chemistry. This transition is influenced by various factors, including genetics, the environment, and the individual's unique psychology. Research from the past two decades has increasingly supported the view that addiction is less about the moral failing of an individual and more about a treatable brain disease. This understanding has shifted treatment paradigms from punitive approaches to more empathetic and supportive interventions. Moreover, the brain disease model of addiction has highlighted the importance of viewing addiction through a neuroscientific lens, providing a clearer picture of how addictive behaviors, similar to chronic diseases, involve brain-based pathways. Advances in neurobiology have shown how sustained substance use impacts the brain's frontal cortex, which governs decision-making and impulse control, further complicating the individual's capacity to stop substance use (Berridge, 2017).

1.1.4. Types of Addiction

There are two main categories of addiction. Substance addiction, also known as drug addiction, is a neuropsychiatric disorder marked by a persistent urge to use drugs despite the adverse effects. Non-substance addiction, also referred to as behavioral addiction, includes conditions like pathological gambling, food addiction, digital addiction (online gaming, smartphone, social media, addiction to computer technology etc.), exercise addiction (Goslar et al., 2020).

1.1.4.1. Substance Addiction

Substance addiction is a global and growing issue, characterized as a neurobiological disease where individuals compulsively use drugs despite experiencing adverse consequences. Addiction manifests as loss of control over drug usage and an uncontrollable urge to acquire and use drugs, regardless of harmful outcomes. SUDs represent some of the most common psychiatric conditions, affecting approximately 35.3% of individuals over their lifetime. These disorders, which are chronic and often relapse, are marked by drug use that significantly associated with impairment and somatic symptoms. Moreover in the United States, the economic burden of SUDs surpasses \$700 billion annually (Suzuki, S., & Kober, H., 2018).

Recent advances in research methodologies have significantly deepened our understanding of drug addiction, framing it as a brain disorder. The brain disease model of substance addiction is widely recognized and has garnered support through evidence that individuals with drug addiction exhibit structural and functional changes in the brain's reward system, particularly in areas like the ventral tegmental area and nucleus accumbens. This suggests that addictive drugs hijack these circuits, altering dopamine release. Typically, dopamine response diminishes after repeated exposure to natural rewards, such as food or sex. However, with drugs, dopamine release is consistently elevated, which leads to a compulsive desire for the substance (Chinchella & Hipólito, 2023).

Techniques such as neuroimaging reveal that prolonged drug use can cause permanent changes at the molecular and cellular levels of the brain, which may lead to behavioral abnormalities. This evidence supports the classification of drug addiction as a type of brain disease. While the initial decision to use drugs is often voluntary, the neurobiological changes, particularly in the prefrontal cortex which is vital for executive functions, reduce an individual's control over their actions. This loss of control, coupled with intense physical and psychological cravings, leads to compulsive drug use, classifying it as a disorder (Nestler, 2016).

A variety of drugs and substances are known to be addictive. Key categories of addictive drugs identified in DSM-V include alcohol, caffeine, cannabis, hallucinogens, inhalants, opioids, sedatives, hypnotics, anxiolytics, cocaine, tobacco, and other or unknown substances. The DSM-V additionally categorizes anxiolytics, amphetamine-type substances, and inhalants as addictive (American Psychiatric Association, 2013) (Table 1).

Table 1. Summary of Addictive Substances.

| Substance Type | Prevalence and Use | Mechanism of Action | Key Insights and Effects |
|----------------|---|--|--|
| Alcohol | High global consumption; significant prevalence of alcohol use disorder | Dysregulation of gene expression in brain reward regions; involves CREB and Δ FOSB | Genetic factors significantly influence susceptibility and treatment responses |
| Tobacco | 1.3 billion users worldwide; high rate of tobacco-related addiction | Addiction is driven by neurobiological alterations; involves nicotinic acetylcholine receptors | Epigenetic modifications play a role in sustaining addiction |

| | | | |
|----------------------|--|---|--|
| Illicit Drugs | Varies widely; dependent on drug type and regional factors | Complex interactions between genetic, environmental, and neurobiological factors | Early interventions are key to managing addiction due to the progressive nature of neuroadaptive changes |
| Caffeine | Widely used globally | Acts as an antagonist to adenosine A1 and A2A receptors in the brain, enhancing alertness and wakefulness | Commonly used as a stimulant; has significant effects on the central nervous system and can lead to dependence |
| Cannabis | High use; varies by region | Contains THC which acts on cannabinoid receptors in the brain, affecting pleasure, memory, thinking, concentration, movement, coordination, and sensory and time perception | Used for both recreational and medicinal purposes; can lead to long-term cognitive effects if used extensively |
| Hallucinogens | Includes LSD, psilocybin, mescaline | Affects serotonin receptors in the brain linked to control of sensory perception and other regulatory functions | Can induce profound changes in perception, mood, and thought, potentially leading to psychological dependence |
| Inhalants | Common among adolescents; includes solvents | Psychoactive effects are achieved by inhaling volatile substances which act directly on the central nervous system to produce mind-altering effects | Use can lead to serious health problems including neurological damage and death |

| | | | |
|-------------------|---|--|--|
| Opioids | Includes heroin, morphine, methadone | Bind to opioid receptors in the brain and nervous system to produce pain-relieving and euphoric effects | Highly addictive, with a high risk of overdose; dependence can develop quickly, leading to severe physical and mental health issues |
| Sedatives | Includes barbiturates and benzodiazepines | Enhance the effect of the neurotransmitter GABA, which has calming effects | Can lead to dependence and withdrawal symptoms; misuse can result in potentially lethal respiratory depression |
| Stimulants | Includes cocaine, amphetamines, and ecstasy | Increase dopamine levels in the brain, which enhance feelings of euphoria, increased energy, and alertness | High potential for addiction; can cause severe psychological or physical dependence and increase the risk of stroke and heart problems |

1.1.4.2. Alcohol Addiction

Alcohol consumption ranks as the third leading cause of preventable deaths globally. Alcohol Use Disorder (AUD), commonly referred to as alcohol addiction, is a significant risk factor for death for individuals across all age groups, impacting around 4% of the adult population. Alcohol addiction, recognized as a significant public health issue, persists as a focus of extensive research due to its complex nature and profound impact on individuals and society. Alcohol consumption was responsible for about 6% of all deaths annually. AUD significantly diminishes both the lifespan and quality of life for affected individuals and their families. Emerging research continues to explore the multifaceted aspects of alcohol addiction, encompassing neurobiological mechanisms, genetic predispositions, and environmental influences (Wang et al., 2020). Research from family, twin, and adoption studies has firmly established that alcohol dependence and AUDs are complex conditions with a significant heritable component. These studies suggest that genetics may account for approximately 50-60% of the observed phenotypic variability in these disorders. The interaction between genetic and environmental elements contributes to the considerable heterogeneity seen in the

manifestation of AUDs, making them a broadly diverse and challenging group of disorders to understand and treat effectively (Reilly, Noronha, Goldman, & Koob, 2017).

As a brain disorder like other addiction types, AUD disrupts the brain's reward circuitry, which not only fuels the addiction but also places individuals at heightened risk for various mental health issues such as anxiety, depression, and impaired cognitive functions. Moreover, the physical health repercussions of chronic alcohol use are severe. AUD commonly leads to serious liver diseases, such as alcoholic hepatitis and liver cirrhosis. These conditions are among the leading causes of morbidity and mortality worldwide. The co-occurrence of AUD with both mental health disorders and critical physical health conditions underscores the need for comprehensive, integrated treatment approaches that address all aspects of health affected by alcohol addiction. In addition, environmental factors, including social settings, stress levels, and the availability of alcohol, significantly influence the initiation and continuation of alcohol use (Wang et al., 2020). Alcohol addiction is acknowledged as a chronic illness characterized by cycles of relapse and remission. During relapse, individuals return to heavy drinking, often triggered by stress, environmental cues, or insufficient coping mechanisms. Remission, on the other hand, involves periods where individuals can either abstain from alcohol completely or control their consumption effectively. This pattern highlights the long-term nature of alcohol addiction, which requires ongoing management and support to navigate these cycles successfully. Treatment approaches often include behavioral therapies, medication, and support groups, aimed at sustaining long-term remission and improving overall life quality (Badiani et al., 2018).

1.1.4.3. Gambling Addiction

Gambling, a common global activity, entails risking valuable items in hopes of gaining something of greater value. While most adults engage in gambling without significant issues, the lifetime prevalence of pathological gambling in the general population is approximately 0.5–1.0%. Pathological gambling is characterized by compulsive, frequent gambling episodes that take precedence over and negatively impact the individual's social, occupational, material, and family commitments and values (Fauth-Bühler, Mann, & Potenza, 2017).

Gambling was initially recognized as a psychiatric disorder in the 9th edition of the ICD. In DSM-IV, pathological gambling was categorized under "Impulse Control Disorders Not Elsewhere Classified." However, as research continued to show similarities between gambling and substance use disorders, it was reclassified under "Substance-Related and Addictive Disorders" in the DSM-V. Furthermore, pathological gambling was renamed "gambling

disorder" in this edition. Currently, it is the only non-substance related disorder listed in the Substance-Related and Addictive Disorders category (American Psychiatric Association, 2013). For a diagnosis of gambling disorder according to the DSM-V, an individual must exhibit at least four of the following nine symptoms within a year:

1. Requires increasing amounts of money to achieve the desired level of excitement.
2. Exhibits restlessness or irritability when attempting to decrease or cease gambling.
3. Has persistently tried and failed to manage, reduce, or quit gambling.
4. Constantly engages with thoughts of gambling, such as reliving past experiences or planning future activities.
5. Frequently resorts to gambling when feeling emotional distress like helplessness or depression.
6. Often tries to recover gambling losses by gambling more.
7. Hides the extent of their gambling from others.
8. Has compromised or lost important personal or professional relationships or opportunities due to gambling.
9. Has resorted to financial assistance from others to manage gambling-induced financial problems.

1.1.4.4. Non-Substance-Related Addictions

In contemporary society, the concept of addiction has expanded beyond substances such as drugs and alcohol to include behaviors that do not involve substance intake but can still significantly interfere with daily functioning. Forms of non-substance-related addictions varies such as exercise addiction, digital - internet addiction, and food addiction. These addictions share common characteristics with substance-related disorders, including loss of control over behavior despite being aware of the adverse consequences, craving, tolerance, and withdrawal symptoms. Even though non-substance addictions do not involve drug intake, they exhibit symptoms and brain mechanisms that are strikingly similar to those observed in drug addiction.

1.1.4.4.1. Food Addiction

Food addiction is a paradigm used to describe eating behaviors that mimic drug addiction symptoms, including binge eating, craving, and impaired control over eating high-fat or sugary foods despite being aware of the adverse consequences. The prevalence of food addiction varies, with a significant association found between higher food addiction scores and

increased BMI. Studies have shown that food addiction is present in approximately 9.3% of individuals, with a higher incidence among obese populations. Observations that obese and overweight individuals, as well as those with Eating Disorders, exhibit behaviors similar to addiction have prompted the application of an addiction model to explain their atypical eating patterns. This approach suggests that certain eating behaviors might share underlying mechanisms with substance abuse, such as compulsive engagement despite negative consequences (Minhas et al., 2021). Food addiction is described as a chronic, relapsing condition. It stems from a complex interplay of factors that intensify cravings for particular foods. These cravings are usually aimed at reaching a heightened state of pleasure, energy, or excitement, or to alleviate negative emotional or physical feelings. On the other hand, understanding the similarities and differences between food addiction and eating disorders such as obesity, binge eating disorder, night eating syndrome etc. is essential. Food addiction demonstrates several typical symptoms of classic addiction, including tolerance, withdrawal symptoms, and an excessive allocation of time to eating-related activities, often at the cost of other interests or responsibilities. These specific traits set food addiction apart from eating disorders, which generally do not exhibit these addiction-related symptoms (Leary et al., 2021).

Concept of food addiction initially adapted from the DSM-IV-TR criteria for drug addiction. Thus, food addiction diagnosis requires at least three of the following criteria within a 12-month period:

1. Consuming food in larger amounts or for longer periods than intended;
2. A persistent desire or repeated unsuccessful attempts to cut down or control food intake;
3. A significant amount of time spent obtaining, consuming, or recovering from the effects of food;
4. Foregoing important social, occupational, or recreational activities in favor of food use;
5. Continued consumption of food despite knowledge of its negative consequences;
6. Development of tolerance, requiring increased amounts of food to achieve the desired effect;
7. Experiencing withdrawal symptoms when reducing or discontinuing food intake.

In addition, several questionnaires such as Eating Behaviors Questionnaire, The Yale Food Addiction Scale have been developed to assist in diagnosing food addiction, providing a structured approach to identify its presence based on specific criteria and responses (Pursey et al., 2014).

1.1.4.4.2. Digital Addiction

The internet has brought significant advancements in education, entertainment, and information dissemination, enhancing societal functions. However, it has also led to the emergence of an addiction disorder, causing widespread concern. Digital addiction, often referred to as internet addiction or gaming disorder, involves compulsive use of digital devices such as smartphones, computers, and gaming consoles, which significantly impairs an individual's ability to function in various life domains. Internet addiction encompasses several distinct types; addiction to online gaming, mobile phone addiction, addiction to online relationships, addiction to cyber sexual activities, compulsive information seeking leading to overload, impulsive online behaviors, and addiction to computer technology. This form of addiction is particularly prevalent among adolescents and young adults, with symptoms including withdrawal experiences similar to those of substance addiction, mood modification, and conflict with personal and professional responsibilities (Xu et al., 2021).

This disorder currently affects an estimated 2% of the global adult population according to the large-scale study involving people across seven European countries. Additionally, about 5 % of the sample was considered "at-risk" for developing Internet Addiction Disorder. Internet Addiction Disorder is characterized by an inability to control internet usage, significantly affecting an individual's personal life. This manifests as compulsive engagement with social networks, online shopping, internet-based sexual activities, video games, and other digital interactions. This excessive use, can ultimately result in social and psychological harm to the individual, often accompanied by physical symptoms (Lozano-Blasco, Latorre-Martínez, & Cortés-Pascual, 2022). Research suggests an escalating concern, as digital media becomes increasingly integral to daily life and social interaction. Additionally, social media addiction is characterized by excessive and compulsive use of social media platforms, leading to significant impairment in personal, social, and professional areas of life. Individuals may experience intense urges to check social media notifications and feel anxious when not connected. This form of addiction is particularly prevalent among teenagers and young adults, who find social interactions online equally or more rewarding than face-to-face interactions. This addictive behavior can result in disrupted daily routines, sleep disturbances, and decreased productivity, with users often prioritizing social media interaction over real-world relationships (Bickham, 2021).

Research into internet-related disorders, including Internet Gaming Disorder, has intensified since Internet Gaming Disorder was listed in the appendix of the DSM-5 in 2013 by APA as a condition characterized by distress and deterioration from a lack of self-regulation.

Researchers discovered that Internet Gaming Disorder is particularly associated with impairments in cognitive, emotional, and behavioral response inhibition, affecting areas such as attention. Moreover, the WHO has acknowledged gaming disorder in the ICD-11. According to the both ICD-11 and DSM-V, problematic gaming is defined as repetitive and persistent behavior that continues for at least one year and causes significant disruptions in daily life. Furthermore, to broaden the scope of assessing internet-related disorders, some researchers and clinicians have developed scales that align more with a general concept of internet addiction rather than solely focusing on gaming disorder. Among these, the Chen Internet Addiction Scale stands out as one of the most frequently used tools in both research and clinical environments (Lozano-Blasco, Robres, & Sánchez, 2022).

1.1.4.4.3. Exercise Addiction

Exercise addiction can be described as a pathological behavior pattern where the individual habitually exercises to the extent of losing control over their exercise routines. This compulsive behavior involves dependence and leads to negative consequences in the person's health, social interactions, and professional life. Exercise addiction is characterized by a compulsion to engage in physical activity excessively and rigidly, often at the expense of physical health and social or occupational obligations. This addiction is not merely about a high commitment to fitness; rather, it involves an unhealthy obsession with exercise, which may lead to severe injuries and social isolation (Olave et al., 2021). According to a study exercise addiction is notably prevalent among individuals with eating disorders. Research shows that prevalence rates of exercise addiction in these populations vary widely, ranged from 29% to 80%. On the other hand, the DSM-IV recognized exercise addiction by criteria including tolerance, withdrawal, unintended use, out of control, substantial time invested in the activity, reduction in other activities, and persistence despite negative consequences. Despite these detailed criteria, currently exercise addiction is not listed in international classifications of mental disorders (Trott et al., 2021).

1.1.5. Risk Factors

Addiction, a complex interplay of genetic, psychological, and environmental factors, represents a significant public health issue across various types. Understanding the risk factors for addiction is crucial for developing preventive measures and targeted interventions. This complex combination of influences makes it difficult to pinpoint exact causes, as both sets of factors collectively drive the development and progression of SUDs. The interaction between

genes and environment can vary widely among individuals, further complicating efforts to isolate specific causes and effects within the context of substance addiction.

1.1.5.1. Genetic Factors

Genetic Predisposition Research indicates that genetic factors contribute substantially to an individual's vulnerability to addiction. For instance, family studies have shown that first-degree relatives of individuals with substance use disorders are at higher risk for developing similar problems. Genetic predisposition affects the brain's reward system, primarily through neurotransmitters like dopamine, which play a significant role in the experience of pleasure and reward. In large sampled meta-analysis on addiction, heritability estimates from twin and adoption studies show significant genetic contributions, approximately 50% for alcohol addiction and even higher for opioid addiction. The genetic risk factors largely overlap across different substances. Thus, gene knockout technologies and genomic scanning are crucial in identifying genes that heighten the risk of addiction and are impacted by drug consumption (Verhulst, Neale, & Kendler, 2015).

1.1.5.2. Social and Environmental Factors

Environmental factors such as exposure to physical, emotional, or sexual abuse during childhood significantly increase the risk of addiction. These traumatic experiences can alter brain chemistry and function, making an individual more susceptible to addictive behaviors as a coping mechanism. Additionally, peer pressure, family dynamics, and socioeconomic status also play critical roles in the development of addictive behaviors. Early Exposure and Use The age at which an individual first uses drugs is a critical risk factor for the development of addiction. Early use of substances like alcohol, tobacco, or illicit drugs can interfere with brain development, particularly affecting areas involved in decision-making, impulse control, and regulation of emotions, increasing the likelihood of progressing to serious substance use and addiction. Social Factors Social and cultural factors, such as accessibility of substances, social norms regarding drug use, and support systems, significantly influence addiction. Isolation and lack of social support can exacerbate substance use and hinder recovery, while strong social ties and community resources can facilitate recovery (Corcos et al., 2008).

1.1.5.3. Psychological Factors

Several psychological factors, including anxiety, depression, and other mental health disorders, are strongly associated with addiction. These conditions may lead to substance use

as a form of self-medication, exacerbating the cycle of addiction. Personality traits such as high impulsivity and sensation-seeking behavior are also linked to increased risk of substance use and addictive behaviors. In addition, chronic stress is a well-known risk factor for addiction. Stress triggers the release of corticotropin-releasing factor and activation of the hypothalamic-pituitary-adrenal axis, leading to increased substance use as a coping mechanism. Additionally, stress can exacerbate the neurobiological changes associated with addiction, making relapse more likely. In conclusion, addiction is a multifactorial disease influenced by a complex interplay of genetic, environmental, psychological, and social factors (Milivojević et al., 2012). The ongoing COVID-19 pandemic has introduced widespread uncertainty and distress, significantly impacting mental health and potentially exacerbating substance use issues. It's estimated that about 9 million adults in the United States experienced both a psychiatric disorder and at least one substance use disorder within a single year. This comorbidity can complicate treatment and recovery efforts, indicating a complex interplay between mental health and substance use that requires integrated treatment approaches. Additionally, even among those who do not meet the criteria for a substance use disorder, there is a notable increase in the consumption of substances such as alcohol, cigarettes, and illicit drugs among psychiatric patients. Highlighting the severity of this issue, a survey reported that 37.2% of individuals with psychiatric disorder were cigarette smokers, a rate significantly higher than the 16.3% prevalence found among those without psychiatric disorder. This data underscores the need for targeted interventions and comprehensive care strategies to address the unique challenges faced by this vulnerable population (Kalin, 2020).

Furthermore, impulsivity plays a significant role in the dynamics of SUDs, acting both as a precursor and a consequence of substance use. Initially, higher levels of impulsivity may lead individuals to experiment with substances as they may act without considering the long-term consequences of their actions. Over time, continued substance use can further enhance impulsivity, creating a cycle where impulsive behaviors increase the likelihood of further substance use and vice versa. On the other hand, the prevalence of cognitive impairments among individuals with SUDs is highly variable and remains uncertain, with estimates ranging from 30% to 80%. Cognitive impairments in SUD patients can affect memory, attention, decision-making, and executive functioning, complicating treatment and recovery efforts (Kozak et al., 2019).

1.1.6. Diagnosis

The Diagnostic and Statistical Manual of Mental Disorders (DSM-V) and The International Classification of Diseases, 11th Revision (ICD-11) provide diagnostic criteria for substance addiction. These criteria are extensively utilized to diagnose addiction and assess its treatment. The DSM-V includes drug addiction in its section on 'substance use disorders,' which details various cognitive, behavioral, and physiological symptoms. These symptoms reveal that the individual persists in using substances even when experiencing significant related difficulties. Before the publication of the DSM-V, terms like "substance dependence" and "drug abuse" were commonly used by entities like the World Health Organization and the American Psychiatric Association, instead of "drug addiction." The term "drug dependence" refers to a physical or psychological, or both, reliance on a drug that emerges after repeated or continuous use. The transition from the DSM-IV to DSM-V marked a significant change in terminology, favoring "dependence" over "addiction." This shift was reportedly aimed at reducing the stigma associated with the term "addiction" (Petry, 2021).

1.1.6.1. The Diagnostic and Statistical Manual of Mental Disorders (DSM-V)

The 11 criteria in DSM-5 for substance use disorders are categorized into four subgroups: impaired control over substance use (criteria 1-4), social impairment (criteria 5-7), risky use (criteria 8-9), and pharmacological criteria (criteria 10-11). It's important to recognize that various types of drugs meet different criteria related to withdrawal, necessitating the use of drug-specific criteria sets for accurate diagnosis. The severity of a substance use disorder is determined by the number of symptom criteria present and ranges from mild to severe. A mild disorder is indicated by two to three symptoms, a moderate disorder by four to five symptoms, and a severe disorder is defined by the presence of six or more symptoms within a 12-month period (Table 2) (American Psychiatric Association, 2013).

Table 2. 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 in 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 resulting 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 use 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. |

1.1.6.2. The International Classification of Diseases, 11th Revision (ICD-11)

ICD-11 published by the World Health Organization (WHO) in 2019, offers updated diagnostic criteria for addictive behaviors, reflecting advances in understanding and treating these disorders. Unlike its predecessor, ICD-10, and DSM-5, ICD-11 provides a more nuanced approach to addiction, emphasizing a spectrum of behaviors beyond substance use, including gambling and other behavioral addictions (Table 3). In ICD-11, addiction is categorized under disorders due to substance use or addictive behaviors, which is a significant departure from ICD-10. This new classification system acknowledges the similarities in the underlying psychological mechanisms between substance use disorders and addictive behaviors such as gambling, gaming, or even compulsive sexual behavior. This alignment is somewhat reflective of DSM-5's approach, which was the first to recognize gambling disorder as a behavioral addiction, but ICD-11 goes further by potentially including additional categories for other compulsive behaviors. The diagnostic criteria in ICD-11 focus on the impaired control over the behavior, increasing priority given to the behavior over other activities and interests, and continuation of the behavior despite clear evidence of harmful consequences. These criteria must be met repeatedly over a period of at least 12 months to warrant a diagnosis, allowing for a more comprehensive assessment of the individual's condition. This timeframe aligns with DSM-5, which similarly requires long-term patterns to diagnose substance-related and addictive disorders. However, ICD-11 places a stronger emphasis on the behavioral pattern and its psychological impact rather than the quantity or frequency of substance use alone, which was more pronounced in ICD-10. One notable difference between ICD-11 and DSM-5 is the explicit recognition in ICD-11 of the harmful pattern of behavior as a central diagnostic feature. While DSM-5 does recognize the pattern and consequences of addictive behavior, it also places considerable emphasis on the physiological aspects of addiction, such as tolerance and withdrawal, which are less central in ICD-11. This shift highlights a broader understanding of addiction, viewing it through a more behavioral lens rather than strictly medical. In summary, ICD-11's approach to diagnosing addiction represents a significant evolution from ICD-10 and offers a more aligned perspective with DSM-5 by recognizing both substance-related disorders and behavioral addictions. It underscores the importance of viewing addictive behaviors within a broader context of psychological dysfunction, thereby informing more tailored and effective treatment strategies (Heinz et al., 2022).

Table 3. ICD-11 Diagnostic Criteria.

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

1.1.7. Addiction and Family

The family, as the primary socializing agent for children, exerts a profound influence on their psychosocial development, which encompasses emotional, social, and cognitive growth. Interactions starts even in early childhood by the maternal attachment styles. In this role, the family teaches children how to manage their emotions, and interact with others. This occurs through direct interactions, observation of family members, and implicit learning from the household environment. Within the family, children learn to identify, express, and regulate emotions. The emotional support and responsiveness of caregivers directly shape a child's ability to form secure attachments and manage stress or adversity. Furthermore family interactions provide the first social experiences for children. Through these interactions, children learn social norms, behaviors, and roles. Through these complex interactions, the family significantly contributes to the holistic psychosocial development of children. The nature of the parent-child relationship deeply affects various adolescent behaviors, particularly in the context of substance use. Studies have highlighted that the way parents educate and manage

their children serves as both a risk and a protective factor against such issues during adolescence. Consequently, different parenting styles and associated factors can determine whether adolescents are at high, or low risk of developing SUD (Freudenberg & Heller, 2016; Settley, 2020).

Research also indicates that over 80% of adolescents experiment with drugs or alcohol before reaching adulthood. Therefore, substance addiction significantly impacts not only the individuals who abuse substances but also their family members, profoundly affecting the quality of life for all involved. The complexities of substance abuse extend to caregivers who face numerous challenges;

- **Physical Challenges:** Caregivers may encounter physical strain from managing emergencies related to substance use, such as overdoses or accidents, as well as the everyday physical demands of caring for someone who may be incapacitated or in poor health due to substance abuse.
- **Mental and Emotional Stress:** The mental health of caregivers can be severely affected. They often experience high levels of stress, anxiety, and depression due to the unpredictable and chaotic nature of addiction. The emotional burden includes coping with the stigma of addiction, feelings of guilt, and helplessness. Moreover, substance abuse can result in severe consequences including estrangement, imprisonment, death, and a diminished capacity to function in familial roles such as parenting or sibling relationships. For caregivers, the stress intensifies particularly when the individual struggling with addiction faces incarceration, which can destabilize their emotional well-being, disrupt relationships, and impair overall functioning. The ripple effects of substance abuse reach far beyond the individual, profoundly impacting their family members and loved ones. These effects often create enduring challenges that affect the daily life and emotional health of those around the addicted individual, highlighting the broad and deep impact of substance abuse on families.
- **Social Isolation:** Families dealing with substance abuse may withdraw from their social networks due to shame, or to focus on the crises at home. This isolation can lead to a lack of support at times when it is most needed.
- **Financial Strain:** The costs of treatments, potential legal issues, and the possible loss of income either from the person abusing substances or from caregivers needing to reduce their work hours to provide care can create significant financial hardships.
- **Impact on Relationships:** Relationships within the family can become strained or damaged. Trust issues often arise, and the emotional toll can affect family dynamics,

leading to conflicts and breakdowns in communication (Yule, Wilens, & Rauch, 2017).

- **Criminal aspects:** A marked number of individuals with SUD and histories of addiction are involved in criminal activities. Additionally, the use of certain drugs is classified as a criminal offense, which adds to the legal and social challenges associated with managing addiction. These complications not only affect the individuals directly involved but also extend to the broader societal systems tasked with addressing these issues, including legal, healthcare, caregivers and social services. The intersection of addiction with criminal behavior highlights the complex nature of addiction as both a health issue and a legal concern, necessitating a multifaceted approach to treatment and rehabilitation (Grahn, Padyab, Hall, & Lundgren, 2020).

Overall, substance addiction disorders can have pervasive and enduring effects on families, underscoring the need for comprehensive support systems that address the needs of both the individuals with the addiction and their caregivers. It has been documented that approximately 20% of the population has a family member who is struggling with drug addiction (Settley, 2020). Moreover, caregivers of individuals with substance addiction face several significant concerns that can deeply impact their ability to provide support and maintain their own well-being. One of the primary issues is the difficulty in obtaining immediate access to treatment once the addicted individual acknowledges the need for help. This is often compounded by long waiting lists, limited availability of specialized services, and bureaucratic challenges, which can delay critical intervention. Additionally, there is a notable scarcity of long-term professional support following initial rehabilitation, leaving caregivers and recovering individuals without the necessary continuous support to prevent relapse. Another complication arises when the addicted individual is in denial or outright refuses treatment, placing additional strain on caregivers who must navigate these challenging dynamics. The level of stress and the challenges faced by caregivers are also influenced by various factors related to the addiction, such as the type, amount, and frequency of substance use, methods of administration, severity and duration of the addiction, behavioral issues stemming from the addiction, and any co-occurring mental or medical disorders. These elements can dramatically affect the nature of care required and the caregiver's burden, emphasizing the need for a comprehensive support system that addresses the complex needs of both the individual experiencing addiction and their caregivers (Daley, 2017).

When a family member suffers from substance addiction, it often shifts the family dynamic dramatically, with the addicted individual becoming the central focus. This shift can significantly disrupt family cohesion, affect communication, and alter the behavior of other

family members. Caregivers, in particular, face immense challenges; they frequently experience feelings of insecurity as they cope with being lied to and manipulated by the addicted individual. This emotional toll is substantial, and the continuous stress and emotional burden can lead many caregivers to develop serious mental health conditions, such as clinical depression or anxiety disorders. As a result, caregivers often find themselves in need of professional mental health support to manage their own well-being while they attempt to support their loved one through recovery (Young et al., 2015).

1.1.8. Treatment & Coping Strategies

Addiction, whether related to substances or behaviors, is a multifaceted disease that demands a comprehensive treatment strategy encompassing pharmacological, behavioral, and psychosocial interventions. Addiction treatment has evolved significantly, recognizing that effective management requires addressing the biological, psychological, and social dimensions of the disorder.

1.1.8.1. Pharmacological Interventions

Mostly the severity of the consequences of substance addiction often drives individuals to seek help and participate in medication-assisted treatment programs. Thus, pharmacotherapy plays a critical role, particularly in the treatment of substance use disorders such as opioids, alcohol, and nicotine. Clinical research has played a crucial role in establishing an evidence base for using pharmacological agents to treat SUDs. When these pharmacological agents are combined with psychosocial interventions, they can offer effective treatment solutions. Additionally, medical treatments for alcohol addiction target various neurotransmitter systems and include medications such as disulfiram, which inhibits aldehyde dehydrogenase; naltrexone, an opioid receptor antagonist; nalmefene, which modulates opioid receptors; and acamprostate, which affects multiple targets as well as methadone and buprenorphine (Xu & LaBar, 2019). These treatments are designed to interfere with the chemical processes involved in alcohol dependence. However, despite the availability of these therapeutic options, relapse is still a common occurrence, underscoring the chronic nature of SUDs. These pharmacological treatments are most effective when combined with behavioral therapies that help modify the patient's thinking and behaviors related to substance use. Behavioral therapies, such as Cognitive Behavioral Therapy (CBT) are cornerstone treatments for all types of addiction. These therapies are designed to help individuals change their drug-use behaviors, handle triggers and stress, and apply healthier life skills. The efficacy of these therapies is well-

documented across various types of addictions, including alcohol, nicotine, and even behavioral addictions like gambling. Additionally, there is a significant gap in the treatment coverage, with many individuals suffering from SUDs not receiving adequate care. This underlines a critical shortfall in the management and support systems available to those affected, highlighting the need for improved access to treatment and ongoing support to reduce the incidence of relapse and enhance overall treatment outcomes (Miller & Moyers, 2015).

Furthermore, given the crucial role of the dopaminergic system in reward processing and its involvement in substance use disorders, genetic analysis of this system holds significant promise. By understanding the genetic variations within the dopamine pathways, researchers can gain insights that may influence the development of personalized treatment strategies. This approach, known as pharmacogenetics, aims to tailor pharmacological treatments based on an individual's genetic makeup to enhance treatment efficacy and reduce side effects. For example, identifying specific genetic markers that affect dopamine regulation could lead to more effective targeting of therapies that modulate this neurotransmitter system, potentially improving outcomes for individuals suffering from substance abuse disorders. This kind of precision in treatment not only optimizes therapeutic interventions but also moves us closer to more individualized healthcare solutions in the realm of addiction (Patriquin et al., 2015).

Recent advances also suggest promising results from newer modalities such as digital interventions, including mobile apps and online support systems, which can provide continuous, real-time support and are particularly effective in reaching populations that might not have access to traditional in-person therapy sessions. Another innovative approach in the treatment of addiction involves the use of vaccines, particularly for combating nicotine and opioid addictions. These vaccines stimulate the immune system to produce antibodies that block the psychoactive effects of these substances before they reach the brain, thus reducing their rewarding effects. This area of research is expanding and represents a novel approach that could transform the future landscape of addiction treatment. Moreover, Repetitive Transcranial Magnetic Stimulation (rTMS) has emerged as a potential treatment for reducing cravings in various addictions, from substance-related disorders to behavioral addictions like gambling. rTMS works by modulating neural activity in brain regions associated with craving and impulse control, offering a non-invasive option that could complement existing treatments (Rogojanski, Vettese, & Antony, 2011).

1.1.8.2. Comprehensive Coping Strategies

Addiction, whether to substances or behaviors, imposes a profound challenge not only to the individual but also to their families and communities. Recent research has continued to evolve, emphasizing a broad spectrum of coping strategies that can be effectively tailored to support individuals across various types of addictions.

- **Mindfulness and Acceptance Strategies**

Incorporating mindfulness and acceptance-based therapies has shown promising results in addiction treatment, especially for substance use like tobacco and alcohol. Techniques such as mindfulness meditation help individuals observe their cravings and emotions without judgment or immediate reaction. This approach fosters a greater awareness of triggers and a more controlled response to cravings, which can significantly reduce the frequency and intensity of use. Research indicates that mindfulness not only aids in managing the addiction but also mitigates associated negative affects and depressive symptoms, enhancing overall emotional regulation (Dziurzyńska, Pawłowska, & Potembska, 2016).

- **Engagement and Behavioral Strategies**

Coping strategies focusing on active engagement and behavioral adjustments are critical in managing addictions. These include establishing a routine, engaging in physical activity, and participating in hobbies or social activities that do not involve the addictive behavior. For example, replacing former drinking times with sports or family activities can effectively redirect the focus and reduce the urge to engage in harmful behaviors. Additionally, techniques like cue exposure therapy, which gradually introduces the individual to trigger situations in a controlled environment, help build tolerance and coping strategies in real-world scenarios (Salonia, Mahajan, & Mahajan, 2021).

- **Social Support and Peer Networks**

Leveraging social support systems, including family, friends, and peer support groups like Alcoholics Anonymous or online support communities, plays a pivotal role in successful addiction management. These networks provide emotional support, accountability, and practical advice from individuals who have experienced similar challenges. The sense of community and understanding within these groups can be incredibly reinforcing and provide a buffer against relapse (Salonia, Mahajan, & Mahajan, 2021).

- **Cognitive Behavioral Strategies**

Cognitive-behavioral therapy (CBT) remains a cornerstone in treating various types of addictions by helping individuals reframe their thoughts and behaviors related to addictive substances or activities. CBT strategies involve identifying and challenging dysfunctional

thoughts, developing problem-solving skills, and practicing stress management techniques. This approach is particularly effective in addressing not just addiction but also co-occurring mental health disorders such as anxiety and depression, which often accompany and exacerbate addictive behaviors (Dziurzyńska, Pawłowska, & Potembska, 2016).

Coping with addiction requires a multifaceted approach tailored to the individual's specific needs and the nature of their addiction. By combining mindfulness practices, behavioral changes, social support systems, cognitive restructuring, and pharmacological support, individuals struggling with addiction can develop a robust toolkit to manage their condition effectively.

1.2. DEPRESSION

Depression is a severe mental health disorder that deeply affects an individual's daily life and functioning. Characterized by persistent sadness, a debilitating low mood, impaired cognitive functions, and a diminished interest in previously enjoyed activities, depression extends its impact across biological, social, and personal dimensions of life. Individuals with depression often endure profound feelings of despair, hopelessness, irritability and emotional emptiness. These symptoms are not just temporary blues; they are long-lasting (lasting at least 2 weeks) and can significantly interfere with the person's ability to work, study, eat, sleep, and enjoy life. The pervasive nature of these feelings makes depression a critical issue that requires careful attention and appropriate treatment to manage its symptoms and improve quality of life. Depressive disorders are associated with considerable morbidity and mortality, reflecting their severe effect on individual health and well-being (Firth-Cozens, 2023).

1.2.1. Symptoms of Depression

Depression manifests through a variety of symptoms that can be broadly categorized into emotional, physical, and cognitive groups. The emotional symptoms are often the most recognizable and include persistent feelings of sadness, hopelessness, and anhedonia, which is a loss of interest or pleasure in almost all activities. This emotional dysregulation can extend to irritability and frequent or unexplained crying spells, reflecting the profound impact of depression on mood stability. Physically, individuals with depression may experience significant changes in their bodily functions (Gautam et al., 2017). Common physical symptoms include changes in appetite and weight, sleep disturbances like insomnia or hypersomnia, and a noticeable decrease in energy levels leading to fatigue. These symptoms are not only a consequence of the emotional distress but also contribute to the severity of the disorder by

impairing daily functioning and overall health. Moreover, unexplained aches and pains, headaches, and digestive problems are frequently reported, which can often lead to a misdiagnosis of purely physical ailments without recognizing the underlying depressive disorder. Cognitive symptoms are equally debilitating and include difficulty concentrating, indecisiveness, and impaired memory. These symptoms can significantly affect an individual's ability to function at work or school, leading to a decline in productivity and cognitive performance. Furthermore, thoughts of death or suicide, or actual suicide attempts, are severe and alarming symptoms of depression that necessitate immediate medical attention. Awareness and understanding of these symptoms are fundamental in improving diagnostic accuracy and treatment efficacy (Villarroel & Terlizzi, 2020).

1.2.2. Prevalence

Depression is a leading cause of disability globally and significantly contributes to the overall burden of disease. According to the WHO, depression impacts approximately 4.0 % of the global population, including 5.0% of adults. This equates to approximately 280 million people worldwide who suffer depression with significant variations across different regions and countries. Additionally, a population-based study in Europe that documented data from 27 countries found that the overall prevalence of current depressive disorders is notably high, approximately 7.0 %. In 2019, data revealed that within a two-week period, about 3.0% of adults experienced severe symptoms of depression, 4.2% encountered moderate symptoms, and about 12 % had mild symptoms. Thus, 19.0 % of adults reported experiencing symptoms of depression ranging from mild to severe (Scientific Reports, 2018; Villarroel & Terlizzi, 2020).

In more developed regions, the prevalence can be as high as 5.9%, while lower rates are often observed in less developed countries. A 2020 meta-analysis reported a pooled prevalence rate of approximately 25% for depression during the COVID-19 pandemic, underscoring the situational increases related to global crises and their impact on mental health. In addition, the prevalence of depression is influenced by various socioeconomic and demographic factors. Studies indicate higher rates of depression among women and those facing socioeconomic disadvantages. Moreover, unemployment and lower educational attainment are associated with higher risks of developing depression. Age also plays a critical role, with younger adults showing increasing rates of depression, possibly due to a combination of social, economic, and psychological pressures (Scientific Reports, 2018; International Journal of Clinical and Health Psychology, 2020).

The COVID-19 pandemic has had a profound impact on global mental health, exacerbating the prevalence of depression among all demographics. Research from 2020 indicates that the pandemic led to a significant increase in depression rates, with estimates suggesting that one in four people experienced significant depressive symptoms during the peak periods of the pandemic. Despite its high prevalence, depression remains underdiagnosed and undertreated in many parts of the world. This gap in treatment is particularly pronounced in low- and middle-income countries where access to mental health services is often limited (International Journal of Clinical and Health Psychology, 2020).

1.2.3. Risk Factors

Depression is a multifaceted condition, and understanding the risk factors is crucial for grasping its onset, recurrence, and prevalence. Moreover, the presence of comorbid conditions can double the risk of adverse outcomes in terms of diagnosis, prognosis, and treatment, adding complexity to managing the disorder effectively.

- **Genetic Predisposition.** Recent research reaffirms that genetic factors significantly influence the risk of developing depression. Studies show that having a family history of depression can increase individual risk, suggesting that genetic predisposition plays a crucial role in the disorder's transmission across generations. The heritability of MDD is documented to be between 33% and 45%, with certain subtypes of the disorder showing even higher heritability rates. But the relationship between genetics and depression involves multiple genes, none of which individually have a significant impact. Instead, numerous genes contribute small effects that cumulatively explain only a minor portion of the genetic component associated with depression (Dagnino et al., 2020).
- **Environmental Influences.** Environmental factors are profoundly implicated in the onset of depression. These include traumatic experiences such as childhood abuse or neglect, adverse childhood experiences which have been linked to long-term changes in brain function that predispose individuals to depression. Life events, such as the loss of a loved one, severe stress from work or relationships, and isolation, are also significant contributors (Schaakxs et al., 2017).
- **Biological Factors.** Biological influences on depression include neurobiological changes, such as alterations in neurotransmitter systems involved in mood regulation, including serotonin, dopamine, and norepinephrine. Hormonal

imbalances, such as those associated with thyroid problems or changes during menopause, also play a critical role (Schaakxs et al., 2017).

- **Lifestyle and Health-Related Factors.** Lifestyle choices and physical health are closely linked to depression. Poor diet, lack of physical activity, and substance abuse, including alcohol and smoking, have been associated with an increased risk of developing depression. Chronic diseases and length of diseases such as cardiovascular disease, diabetes or malignancy have also been linked to higher rates of depression, likely due to the stress of managing a long-term health condition (Dagnino et al., 2020).
- **Psychological and Social Factors.** Psychological factors, including personality traits such as low self-esteem and pessimism, increase vulnerability to depression. Social factors, such as low socioeconomic status, and education level, also play a crucial role. Importantly, the lack of social support and feelings of loneliness can trigger or worsen depressive episodes, highlighting the role of social connectivity in mental health (Schaakxs et al., 2017).
- **Age and Gender.** Depression can affect any age group, but prevalence rates vary by age and gender. Young adults and the elderly are particularly susceptible due to transitional life stages and potential isolation, respectively. Women are diagnosed with depression at approximately twice the rate of men, a disparity influenced by hormonal factors, societal roles, and biological susceptibility (Dagnino et al., 2020; Schaakxs et al., 2017).

1.2.4. Diagnosis

Understanding the nuances of depression diagnosis according to the DSM-5 and ICD-11 is crucial for healthcare professionals globally, as it affects treatment planning and the management of patients with this debilitating condition. Both DSM-5 and ICD-11 diagnostic systems emphasize the duration and quality of depressive symptoms, the threshold of five symptoms for a diagnosis, and the inclusion of functional impairment as a criterion (Cerbo, 2021)

The DSM-5, published by the American Psychiatric Association in 2013, outlines specific criteria for the diagnosis of Major Depressive Disorder (MDD). The core requirement is the presence of at least five out of nine specified symptoms during the same 2-week period. At least one of the symptoms must be either (1) depressed mood or (2) loss of interest or

pleasure. Other symptoms include significant weight loss or gain, insomnia or hypersomnia, psychomotor agitation or retardation, fatigue or loss of energy, feelings of worthlessness or excessive guilt, diminished ability to think or concentrate, and recurrent thoughts of death or suicidal ideation. The symptoms must cause clinically significant distress or impairment in social, occupational, or other important areas of functioning and are not attributable to the physiological effects of a substance or another medical condition (McGuffin & Farmer, 2014).

The ICD-11, revised in 2019 and set for implementation starting in 2022, has aligned more closely with the DSM-5 in terms of depressive disorder criteria. The ICD-11 emphasizes the presence of mood disturbance, characterized by a significant reduction in the ability to enjoy activities, deep sadness, or a feeling of emptiness, accompanied by a reduced energy level. Similar to the DSM-5, the diagnostic threshold is set at five symptoms, which include altered sleep patterns, changes in appetite, fatigue, diminished concentration, and recurrent thoughts of self-harm or suicide (Cerbo, 2021)

In addition to DSM and ICD criteria, there are widely used scales for diagnosis, depression severity, monitoring treatment, and conducting clinical research such as; Beck Depression Inventory, Hamilton Depression Rating Scale, Patient Health Questionnaire-9, Zung Self-Rating Depression Scale and Montgomery-Åsberg Depression Rating Scale. These scales are integral tools for assessing depression, helping healthcare providers determine the appropriate treatment and measure the effectiveness of interventions over time. Each has its strengths and particular focus, making them suitable for different clinical contexts and research requirements (Fried, 2017).

1.3. ANXIETY

Anxiety is described as a diffuse emotional state that arises in response to situations perceived as potentially harmful, where the likelihood or certainty of harm is low or unknown. This emotional response typically involves heightened alertness and apprehension about potential threats. Anxiety disorders encompass various conditions where the primary symptoms involve excessive fear or excessive worry. These disorders differ from normal fear or anxiety by being more severe, lasting longer, and interfering with work, social life, and other functional aspects. Anxiety disorders can develop at any age but typically manifest in childhood or adolescence. Early onset is associated with a higher risk of developing a more severe and persistent form of the disorder. Epidemiological studies show a median onset age ranging from late adolescence to early adulthood for most anxiety disorders (Szuhany & Simon, 2022).

Women are more likely to be diagnosed with most types of anxiety disorders than men. This disparity may be due to both biological factors, such as hormonal influences, and gender-specific social pressures or roles. Additionally, individuals from lower socioeconomic backgrounds and those experiencing significant life stressors are at a heightened risk. Recent epidemiological data suggest that anxiety disorders affect about 7.3% of the global population annually, with considerable variations depending on the specific type of anxiety disorder and the population being studied. Additionally, anxiety disorders are quite common in the US, with a lifetime prevalence of about 34% in adult population (Yang et al., 2021).

A combination of genetic, environmental, and psychological factors contributes to the development of anxiety disorders. Family and twin studies suggest a moderate to high heritability for anxiety disorders, indicating that genetic factors play a significant role. Additionally, traits such as neuroticism or behavioral inhibition in children are strong predictors of later anxiety. Traumatic experiences, especially in early life, such as abuse, neglect, or loss of a parent, significantly increase the risk of an anxiety disorder. Moreover, ongoing physical health problems and substance use can exacerbate or trigger anxiety symptoms (Yang et al., 2021).

1.3.1. Symptoms of Anxiety

Anxiety disorders are characterized by a range of symptoms that significantly impact individuals' daily lives and functioning. These symptoms include excessive worry, fears associated with social and performance situations, sudden panic attacks triggered by specific situations or unexpectedly, anticipatory anxiety, and behaviors designed to avoid stressful or triggering scenarios. Anxiety symptoms that can be broadly categorized into three groups: psychological, physical, and cognitive.

- **Psychological Symptoms**; excessive worry about different activities or events, which is out of proportion to the actual challenge posed. Feelings of nervousness, restlessness, or being tense. A sense of impending danger, panic, or doom. Increased irritability.
- **Physical Symptoms** such as; increased heart rate or palpitations, hyperventilation (rapid breathing), sweating, dizziness, shortness of breath, trembling or shaking, fatigue or feeling weak and gastrointestinal problems.
- **Cognitive Symptoms** includes; difficulty concentrating or thinking about anything other than the present worry and trouble sleeping, including problems falling asleep or staying asleep (Szuhany & Simon, 2022).

Recent studies highlight the impact of various global events, such as the COVID-19 pandemic, on the prevalence and severity of anxiety symptoms. Research from 2020 and 2021 indicates a marked increase in anxiety levels across different demographics, particularly due to the stresses induced by health fears and social isolation. A study conducted during the early stages of the COVID-19 pandemic found significant increases in generalized and social anxiety symptoms across a sample of adolescents and young adults, underscoring the pandemic's impact on mental health. The recent increase in anxiety symptoms across the global population calls for a greater emphasis on mental health support and intervention, especially in times of global stress. Understanding the symptoms of anxiety is crucial for early identification and effective management of this condition (Hawes et al., 2021).

1.3.2. Types of Anxiety Disorders

Commonly diagnosed types of anxiety disorders are Generalized Anxiety Disorder (GAD), which has a lifetime prevalence of approximately 6.0%, Social Anxiety Disorder (SAD) at 13%, and Panic Disorder, affecting 5.2% of the population, sometimes occurring with or without agoraphobia. Generalized anxiety disorder (GAD) and panic disorder exhibit lower prevalence rates compared to phobias.

1.3.2.1. Generalized Anxiety Disorder (GAD)

GAD is characterized by chronic and excessive worry about a number of different activities or events. Individuals with GAD find it difficult to control their worry, which is often more intense and persistent than typically warranted. GAD involves chronic anxiety, exaggerated worry, and tension, even when there is little or nothing to provoke it. Unlike the occasional anxiety experienced by many people in response to specific events, the anxiety experienced by individuals with GAD is more persistent, lasting for at least six months, and is often about health, family, money, or work. The intensity, duration, or frequency of the anxiety and worry is disproportionately out of alignment with the actual likelihood or impact of the anticipated event. Common symptoms include restlessness, fatigue, difficulty concentrating, irritability, muscle tension, and sleep disturbances. The prevalence of GAD varies, but it is generally more common in adults and twice as likely to affect women as men. Recent studies have shed light on the prevalence of GAD, indicating that it affects approximately between

4.0% to 6.0 of adults globally each year. The disorder is more common in high-income countries. GAD typically begins in adulthood and can develop over time, with many individuals not experiencing significant symptoms until they are adults. In addition to genetic, environmental, and psychological risk factors; personality traits such as neuroticism, negative temperament, and behavioral inhibition are also linked to higher risks of GAD. Recent research has focused on understanding the biological and neurological underpinnings of GAD. Studies have explored the role of neurotransmitters and the impact of inflammation on anxiety levels. There is also increasing interest in the effects of lifestyle factors such as diet, exercise, and sleep on GAD symptoms. Treatment for GAD typically involves a combination of psychotherapy, medications, or both. Cognitive-behavioral therapy (CBT) is effective in helping individuals learn to manage their anxiety by changing the thoughts and behaviors that contribute to their disorders. Medications, such as antidepressants and anti-anxiety drugs, can also be used to alleviate symptoms (Ruscio et al., 2017).

1.3.2.2. Panic Disorder

Panic disorder is diagnosed when panic attacks are recurrent and unexpected and are followed by at least one month of persistent concern about having another attack, worry about the implications of the attack, or a significant change in behavior related to the attacks. Panic attacks feature a variety of physical and psychological symptoms including palpitations, pounding heart, accelerated heart rate, sweating, trembling, sensations of shortness of breath, feelings of choking, chest pain, nausea, dizziness, chills, and fear of losing control that rapidly reaches peak within few minutes. Panic disorder may include agoraphobia, the intense fear of being in situations where escape might be difficult or help unavailable during a panic attack. Recent epidemiological studies suggest that panic disorder affects about 2-3% of adults globally each year, with a higher prevalence in women compared to men as well. The etiology of panic disorder is influenced by genetic, physiological, and environmental factors. Family studies suggest a strong genetic component, with higher risks among first-degree relatives of affected individuals. Neurobiological factors include dysregulation in neurotransmitter systems such as serotonin and norepinephrine. Environmental factors include significant life stressors, traumatic events, and conditioning experiences that may trigger panic responses. Recent studies have explored the neurobiological underpinnings of panic disorder, suggesting abnormalities in the amygdala and other parts of the fear circuitry in the brain. Additionally, contemporary research has examined the effectiveness of various treatment modalities for panic disorder, including CBT, which is considered the most effective psychological treatment for reducing symptoms

and preventing relapse. Treatment for panic disorder typically involves a combination of pharmacotherapy and psychotherapy. Selective serotonin reuptake inhibitors (SSRIs) are commonly prescribed for their effectiveness and safety profile. Psychotherapeutic interventions, particularly CBT, focus on exposing patients to the physical sensations of panic in a safe and controlled environment, teaching them coping strategies to manage and eventually reduce their fears (Perrotta, 2019).

1.3.2.3. Specific Phobias

Specific phobias involve a marked fear or anxiety about a specific object or situation (e.g., flying, heights, animals, receiving an injection). The phobic object or situation almost always provokes immediate fear or anxiety and is actively avoided or endured with intense fear or anxiety. Unlike general anxiety disorders, the fear in specific phobias is circumscribed to the presence of the specific phobic stimulus. Common phobias include fear of flying, heights, specific animals, or receiving injections. Specific phobias typically begin in childhood and vary in duration and severity. The risk factors associated with specific phobias show considerable similarity to those of GAD. The primary treatment for specific phobias is exposure therapy, a form of cognitive-behavioral therapy that involves gradual, repeated exposure to the phobic stimulus in a controlled environment. This method helps reduce fear and desensitize individuals to the phobic object or situation (Thng, Lim-Ashworth, Poh, & Lim, 2020).

1.3.2.4. Post-Traumatic Stress Disorder (PTSD)

PTSD is defined by the persistence of fear-based symptoms that occur after experiencing or witnessing a traumatic event. The diagnosis of PTSD requires exposure to an event involving death, natural disaster, serious injury, accident or sexual violence. The symptoms are grouped into four categories: intrusive memories, avoidance behaviors, negative changes in thinking and mood, and changes in physical and emotional reactions. Symptoms include re-experiencing the traumatic event (e.g., flashbacks, nightmares), avoidance of reminders of the trauma, negative changes in thought and mood associated with the event, and alterations in arousal and reactivity (e.g., being easily startled, feeling tense, difficulty sleeping). Epidemiological studies indicate that PTSD affects about 3.5% of U.S. adults annually, with a higher incidence reported among veterans, and soldiers. The disorder can occur at any age, including childhood, and is often accompanied by other conditions such as depression, substance abuse, and memory problems

(Gruenbaum et al., 2024). The global prevalence varies, influenced by factors such as socio-economic conditions, exposure to conflict, and the occurrence of natural disasters. Recent research has highlighted the significant impact of global events, such as the COVID-19 pandemic, on the rates of PTSD. Health professionals, COVID-19 survivors, and those who lost loved ones to the virus are at an increased risk of developing PTSD symptoms due to the prolonged and intense nature of the pandemic crisis. Treatment for PTSD includes a combination of psychotherapy and medication. CBT, specifically exposure therapy, and Eye Movement Desensitization and Reprocessing (EMDR) are effective for many people. Medications, such as antidepressants, can help control symptoms but are often more effective when paired with therapy (Qiu et al., 2021).

CHAPTER II. METHODS AND METHODOLOGIES OF RESEARCH

2.1. Research Design

This study was performed in Azerbaijan Medi-Art Hospital, Department of Psychiatry between February 2023 and April 2024. The study included 100 individuals (aged between 18-60 years) diagnosed with any type of addiction according to DSM-V criteria, along with their family members/caregivers. All participants were enrolled in this study after obtainment of written informed consent. Individuals were excluded from the study if they had a history of neurological disorders or severe psychiatric conditions other than addiction, were currently receiving treatment for another major psychiatric disorder, or were unable to provide informed consent due to cognitive impairments.

2.2. Data Collection

- **The Hamilton Anxiety Rating Scale (HAM-A)**

HAM-A is a widely used clinician-administered tool designed to assess the severity of a patient's anxiety symptoms. Developed by Max Hamilton in 1959, the scale consists of 14 items that measure both psychological and somatic symptoms of anxiety, such as mood, fears, tension, as well as physical complaints related to anxiety. Each item on the HAM-A is scored on a scale of 0 (not present) to 4 (severe), with the total score ranging from 0 to 56, where higher scores indicate greater anxiety severity. The scale's reliability and validity have been extensively evaluated since its inception. Studies conducted by Hamilton himself in the early 1960s established the scale's initial reliability and validity, and subsequent research has continued to support its use. A 1981 study by Rickels et al. reaffirmed its internal consistency and test-retest reliability, confirming the scale's utility in both clinical and research settings. The HAM-A does not have formal subscales, but it does assess a broad spectrum of anxiety symptoms, making it useful for tracking changes in the intensity of symptoms over time and the efficacy of treatment interventions. The interpretation of scores is generally straightforward; scores from 17 to 24 suggest mild severity, 25 to 30 moderate severity, and over 30 indicate severe anxiety. This scale has been instrumental in both clinical assessments and in facilitating a deeper understanding of anxiety through research (Maier, Buller, Philipp, & Heuser, 1988).

- **The Hamilton Depression Rating Scale (HAM-D)**

HAM-D, developed by Max Hamilton in 1960, is a widely used clinical tool designed to quantify the severity of depression symptoms in individuals. This scale, which can be administered in a structured interview format, includes a series of 17 to 24 items (depending on

the version used) that evaluate symptoms such as depressed mood, guilt, suicide ideation, insomnia, agitation or retardation, anxiety, weight loss, and somatic symptoms. Each item is scored on a 3- or 5-point scale, where higher scores reflect more severe symptoms. The most commonly used version has 17 items, with total scores ranging from 0 to 52, where scores of 0-7 are considered to be normal, 8-13 suggest mild depression, 14-18 moderate depression, 19-22 severe depression, and over 23 very severe depression. The HAM-D is not just a diagnostic tool but also serves to monitor changes in symptom severity over time, making it invaluable in both clinical trials and practice for evaluating treatment efficacy (Hamilton, 1960). Its reliability and validity have been established and reaffirmed through numerous studies over the decades. A notable study by Williams (1988) validated its use, confirming the scale's internal consistency and sensitivity to changes in depressive states. This scale does not have formal subscales but provides a comprehensive measure across a spectrum of depression symptoms, offering clinicians a detailed profile of a patient's depressive symptoms and their severity (Williams, 1988).

- **The Multidimensional Scale of Perceived Social Support (MSPSS)**

MSPSS is a psychological assessment tool specifically designed to measure the perception of social support from three distinct sources: Family, Friends, and Significant Others. Developed by Zimet et al. in 1988, the MSPSS is widely utilized to determine the extent to which an individual feels socially supported, an aspect crucial for psychological health and well-being. The scale consists of 12 items, with each subscale containing 4 items. Respondents rate each item based on a 7-point Likert scale from 1 (very strongly disagree) to 7 (very strongly agree), allowing for a nuanced gauge of perceived social support. The total score ranges from 12 to 84, with higher scores indicating greater perceived social support. This straightforward scoring system facilitates the scale's use in both clinical and research settings to assess the effectiveness of social support networks in buffering against stress and psychological distress. Zimet et al.'s initial 1988 validation study established the MSPSS's reliability and validity, demonstrating good internal consistency across its subscales and high construct validity, making it a reliable tool for diverse populations and various settings. The MSPSS has been subsequently validated in numerous studies across different cultural backgrounds, highlighting its universal applicability and robustness as a measure of perceived social support.

The scale's interpretation is direct: scores ranging from 12 to 48 suggest low perceived social support; scores from 49 to 68 indicate moderate support; and scores from 69 to 84 denote high perceived social support. These interpretations help in understanding the role of social support in the individual's life, guiding therapeutic interventions and community support

initiatives. The MSPSS's ability to dissect support perceptions into three different sources also allows for targeted assessments, which can significantly inform personalized treatment plans and support mechanisms (Zimet, Dahlem, Zimet, & Farley, 1988).

- **The Family Assessment Device (FAD)**

FAD is a comprehensive tool developed by Epstein, Baldwin, and Bishop in 1983 to evaluate the health and functioning of families. Designed based on the McMaster Model of Family Functioning, the FAD is utilized in both clinical and research settings to identify specific areas of dysfunction within family interactions. The tool consists of 60 items distributed across six subscales that measure key dimensions of family functioning: Problem Solving, Communication, Roles, Affective Responsiveness, Affective Involvement, and Behavior Control. Each item is rated on a 4-point Likert scale, from "strongly agree" to "strongly disagree," allowing for a nuanced assessment of family dynamics. The FAD's validity and reliability were rigorously tested in the initial studies by Epstein et al., which demonstrated that the instrument has high internal consistency and construct validity, confirming its effectiveness in distinguishing healthy from unhealthy family functioning. The scale provides a total score and individual subscale scores, with higher scores indicating greater dysfunction, thus offering detailed insights into specific areas of family interaction that may require intervention. Scoring of the FAD is straightforward, with the raw scores from items being averaged to produce subscale scores; these can then be interpreted against normative data to determine the extent of family dysfunction. The FAD is widely praised for its ability to comprehensively assess key domains of family functioning, making it a valuable tool for therapists and researchers aiming to understand and improve family dynamics (Epstein, Baldwin, & Bishop, 1983).

- **The Conflict Tactics Scales (CTS)**

CTS is a widely used instrument developed by Murray A. Straus in 1979 to measure interpersonal conflict and the strategies individuals use to handle disputes, specifically within the family context, including violence. The primary purpose of CTS is to assess the methods used by family members to resolve conflicts, categorizing them into three major types: reasoning, verbal aggression, and physical aggression. The scale's initial version, CTS1, was later expanded into the Revised Conflict Tactics Scales (CTS2) in 1996 to include scales for negotiation and psychological aggression, enhancing its scope and sensitivity to capture a broader range of behaviors, including sexual coercion and injury. CTS employs a self-report methodology where respondents indicate the frequency of specific behaviors that occurred during the past year. Each item is scored on a scale indicating how often each behavior occurred, ranging from "never" to "very frequently." This scoring system provides quantifiable data that

researchers and clinicians can use to assess the severity and frequency of conflict behaviors in relationships. The validity and reliability of the CTS have been confirmed through various studies since its inception. Research by Straus and colleagues has demonstrated the scale's robust psychometric properties, including its ability to reliably measure the constructs of interest and its applicability across different cultural and demographic groups. The scale is particularly valued for its ability to differentiate between types of aggression and its utility in longitudinal studies that examine the patterns and outcomes of family conflict over time. Interpretation of CTS scores involves analyzing the frequency and severity of reported behaviors. Higher scores typically indicate more frequent or severe use of the tactic in question, which can be crucial for interventions in family therapy or legal settings. The CTS has been instrumental in advancing research on domestic violence and family dynamics, offering insights into the patterns of conflict resolution and aggression within intimate relationships and familial settings (Straus, 2017).

- **The Satisfaction with Life Scale (SWLS)**

SWLS is a globally recognized self-report tool developed by Ed Diener, Robert A. Emmons, Randy J. Larsen, and Sharon Griffin in 1985, designed to measure an individual's global cognitive judgments of their own life satisfaction. This scale provides a comprehensive assessment of an individual's subjective well-being, which is considered a crucial component of psychological health. The SWLS consists of five items that participants rate based on a seven-point scale ranging from 1 (strongly disagree) to 7 (strongly agree). The items are designed to capture an individual's overall assessment of their life, rather than their feelings on specific aspects of life, making it a concise measure of global life satisfaction. The total score is obtained by summing the scores of all five items, with the possible range of scores being from 5 to 35. Higher scores indicate greater life satisfaction. Upon its development, Diener et al. conducted validation studies that demonstrated the SWLS possesses high internal consistency and test-retest reliability, as well as moderate temporal stability, confirming its utility as a reliable and valid measure of sustained life satisfaction. The scale has no subscales, as it aims to provide a singular measure of life satisfaction rather than an assessment of different life domains. The SWLS has also been adapted for use in over 26 languages, reflecting its applicability and relevance in diverse cultural contexts. Interpretation of the total score allows researchers and practitioners to gauge an individual's satisfaction with their life as a whole, facilitating studies in happiness and quality of life that inform interventions aimed at improving individual well-being (Diener, Emmons, Larsen, & Griffin, 1985).

- **The Coping Questionnaire (CQ)**

CQ developed by Orford et al. in 2005 is a crucial instrument crafted to assess the coping strategies of affected family members (AFMs) of individuals grappling with substance misuse issues. This scale, emerging from comprehensive research into how families deal with the significant challenges posed by a relative's addiction, is part of a broader framework aimed at enhancing support for families in such stressful circumstances. Developed as part of a wider project examining family responses across different cultural contexts, the CQ was validated through various studies included within the project, demonstrating its efficacy in capturing the nuances of family coping strategies. The questionnaire delineates coping into three broad categories, each representing a specific type of coping mechanism: Engaged Coping (active involvement and confrontation), Tolerant-Inactive Coping (passive and hopeful attitudes), and Withdrawal Coping (emotional or physical withdrawal from the problem). Each item on the CQ is rated on a 5-point Likert scale, from 0 (never) to 4 (always), allowing family members to indicate how frequently they employ each coping strategy. The scoring system thus provides a quantitative measure of coping behaviors, with higher scores on a subscale indicating a greater reliance on that particular coping style. The maximum score on each subscale is determined by the number of items it contains, multiplied by four, which gives a detailed view of the dominant coping strategies utilized by the family members. This tool not only aids in identifying which coping strategies are predominantly used by families but also helps in understanding the effectiveness and potential areas for intervention to support better outcomes for both the individuals with substance issues and their families (Orford et al., 2013).

- **Socio-demographic questionnaire**

This form includes detailed medical histories, general medical conditions, psychiatric illness histories, and treatment backgrounds of addicts and their families, along with socio-demographic data such as age, gender, socio-economic characteristics, and socio-cultural characteristics. Our clinic has prepared this questionnaire to encompass information regarding the age of onset of addiction, type, and duration.

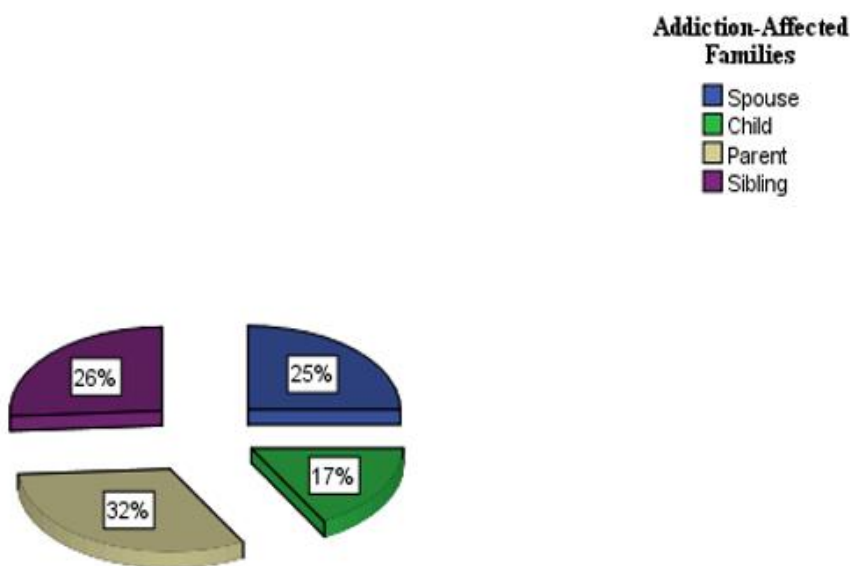
As some of the questionnaires mentioned before are not adopted by Azerbaijan Ministry of Health, so we used some of these questions in the socio-demographic questionnaire as an additional tool for getting more wide background.

2.3. Data Analysis

The data were analyzed using SPSS (Statistical Package for the Social Sciences) software for Windows, version 21.0, provided by IBM in Armonk, NY, USA. The analysis involved summarizing individual and aggregate data using descriptive statistics, which included means, standard deviations, medians (ranging from minimum to maximum), frequency distributions, and percentages. The normality of data distribution was assessed using the Kolmogorov-Smirnov test. For variables with a normal distribution, comparisons were made using the Student's t-test and ANOVA. For non-normally distributed variables, the Mann-Whitney and Kruskal-Wallis tests were employed to compare groups. Categorical variables were evaluated using the Chi-Square test. Correlations were examined using either Spearman's Rho or Pearson tests. P-Values of <0.05 were considered statistically significant.

CHAPTER III. RESULTS

The total number of 100 individuals with addictive disorders included in this study were 30 females (30,0%) and 70 males (70,0%). The mean age was $33,80 \pm 9,20$ (Ranged = 18-59 years) in our sample group. There was no statistically significant differences found according to the mean age between male ($34,54 \pm 9,40$) and female ($32,07 \pm 8,61$) cases ($p=0,207$). The overall addiction duration was $5,45 \pm 3,41$ years. Clinical characteristics of sample group is presented in Table 1. Addiction manifests primarily as alcohol (48%) and substance abuse (45%), with gambling being less common at 7%. The impact of addiction extends to various family relationships, with parents (32%) being the most affected, followed closely by siblings (26%), spouses (25%), and children (17%) (Graph 1).



Graph 1. AAF Distribution.

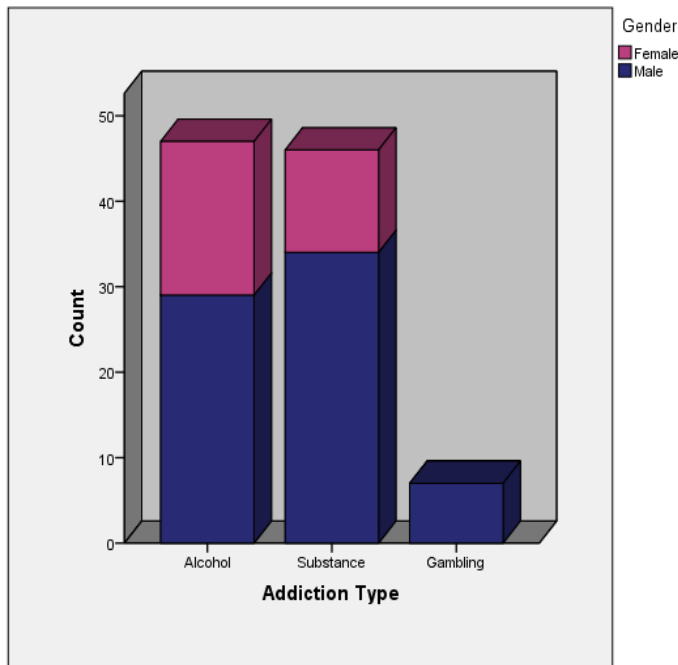
The duration of addiction varies: 0-3 years (27%, $n=27$), 3-5 years (33%, $n=33$), 5-10 years (29%, $n=29$), and over 10 years (11%, $n=11$). Employment status shows a majority in full-time jobs (38%, $n=38$), followed by unemployed (29%, $n=29$), part-time (24%, $n=24$) and retired (9%, $n=9$). Educational attainment is diverse, with university-level education being the most common (44%, $n=44$), followed by high school (31%, $n=31$), primary education (16%, $n=16$), middle school (7%, $n=7$), and uneducated (2%, $n=2$). Income levels show that a majority (56%) has a medium income level, while 26% are at the low end, and 18% enjoy high incomes. Regarding marital status, singles account for 46%, married individuals make up 36%, and the divorced are at 18%. Treatment status reveals that 21% ($n=21$) are currently in treatment, 24% ($n=24$) have completed treatment, 25% ($n=25$) are untreated, 18% ($n=18$) have relapsed, and 12% ($n=12$) are in recovery. Additionally, of the addictive individuals %54 had psychiatric disorder history.

Table 4. Clinical characteristics of individuals with addictive disorders.

| | Clinical Variable | n | % |
|----------------------------|--------------------------|----------|----------|
| Gender | Female | 30 | %30 |
| | Male | 70 | %70 |
| Addiction Type | Alcohol | 48 | %48 |
| | Substance | 45 | %45 |
| | Gambling | 7 | %7 |
| AAF | Spouse | 25 | %25 |
| | Child | 17 | %17 |
| | Parent | 32 | %32 |
| | Sibling | 26 | %26 |
| Addiction Duration | 0-3 years | 27 | %27 |
| | 3-5 years | 33 | %33 |
| | 5-10 years | 29 | %29 |
| | 10+ years | 11 | %11 |
| Employment Status | Full-time | 38 | %38 |
| | Part-time | 24 | %24 |
| | Unemployed | 29 | %29 |
| | Retired | 9 | %9 |
| Education Level | University | 44 | %44 |
| | Primary Education | 16 | %16 |
| | High school | 31 | %31 |
| | Middle School | 7 | %7 |
| | Uneducated | 2 | %2 |
| Income Level | Low | 26 | %26 |
| | Medium | 56 | %56 |
| | High | 18 | %18 |
| Marital Status | Single | 46 | %46 |
| | Married | 36 | %36 |
| | Divorced | 18 | %18 |
| Psychiatric History | Absent | 46 | %46 |
| | Present | 54 | %54 |

| | | | |
|-------------------------|----------------------------|----|-----|
| Treatment Status | In Treatment | 21 | %21 |
| | Treatment Completed | 24 | %24 |
| | Untreated | 25 | %25 |
| | Relapsed | 18 | %18 |
| | Recovery | 12 | %12 |

In terms of addiction type, alcohol is significantly more prevalent among males (61.7%) compared to females (38.3%), and this trend continues with substance addiction where males account for 73.9% compared to females at 26.1%. Moreover, gambling addiction is only present among males in this sample group, which statistically differentiates the genders ($p=0.033$) (Table 5) (Graph 2).



Graph 2. Distribution of addiction type according to the gender.

However, the differences in addiction duration between genders were not found statistically significant ($p=0.466$) (Table 2).

Table 5. Distribution of addiction type and duration according to the gender.

| | Clinical Variable | Female | Male | p-value |
|---------------------------|--------------------------|---------------|-------------|----------------|
| Addiction Type | Alcohol | 18 (38,3%) | 29 (61,7%) | 0.033* |
| | Substance | 12 (26,1%) | 34 (73,9%) | |
| | Gambling | 0 (0,00%) | 7 (%100,0) | |
| Addiction Duration | 0-3 years | 6 (22,2%) | 21 (77,8%) | 0,466 |
| | 3-5 years | 11 (33,3%) | 22 (66,7%) | |
| | 5-10 years | 11 (37,9%) | 18 (62,1%) | |
| | 10+ years | 2 (18,2%) | 9 (81,8%) | |

* = $p < 0.05$ statistically significant.

Table 6 provides an insightful look into the clinical characteristics of families affected by addiction. Half of the AAF group (50%) is currently receiving treatment, while 38% have received treatment in the past, and a smaller fraction (12%) has never received treatment. Health assessments of the Addiction Affected Families (AAF) reveal that 50% ($n=50$) are in good health, followed by 36% ($n=36$) in fair health, and a smaller fraction, 14% ($n=14$), in excellent health. Additionally, psychological illness history within these families shows that 36% have a history of psychological illness. According to the AAF group, 40% of the individuals with addiction are in 'poor' health, 33% in 'fair' health, and 27% in 'good' health. Similarly according to the AAF group of individuals with addiction; 51% showing 'low' treatment compliance, 22% 'medium', and 27% 'high'. Finally, the use of health services varies among these families, with 52% using services 'sometimes' and 42% 'rarely'. Only 6% use health services 'often'.

Table 6. Clinical characteristics of AAF.

| | Clinical Variable | n | % |
|--------------------------|--------------------------------------|----------|----------|
| Treatment History | Never received treatment | 12 | %12 |
| | Received treatment | 38 | %38 |
| | Currently receiving treatment | 50 | %50 |
| AAF Health | Fair | 36 | %36 |

| | | | |
|--|------------------|----|-----|
| | Good | 50 | %50 |
| | Excellent | 14 | %14 |
| AAF Psychological Illness History | No | 64 | %64 |
| | Yes | 36 | %36 |
| Addict Health Status | Poor | 40 | %40 |
| | Fair | 33 | %33 |
| | Good | 27 | %27 |
| Addict Treatment Compliance | Low | 51 | %51 |
| | Medium | 22 | %22 |
| | High | 27 | %27 |
| Health Service Use | Rarely | 42 | %42 |
| | Sometimes | 52 | %52 |
| | Often | 6 | %6 |

Obsessive-compulsive disorder are the most common disorder, recorded in 26% (n=26) of the AAF group. This is followed by Post-Traumatic Stress Disorder, affecting 17% (n=17) of the AAF individuals. Adjustment Disorders are present in 13% (n=13), showing moderate occurrence. Other psychological conditions appear less frequently among the group. Phobic/Paranoid ideation affects 8% (n=8) of the AAF individuals. Panic Disorder and Mood Disorders, Eating Disorders and Sleep Disorders, each impacting 3% (n=3) and 5% (n=5) respectively. The least prevalent condition is Major Depressive Disorder, affecting 2% (n=2) of the AAFs (Tablo 7).

Table 7. Diagnosis in AAF group.

| | Diagnosis | n | % |
|-------------------------------|---|----------|----------|
| According to the DSM-V | No diagnosis | 26 | %26 |
| | Obsessive-compulsive disorder | 26 | %26 |
| | Phobic/Paranoid ideation | 8 | %8 |
| | Adjustment Disorders | 13 | %13 |
| | Post-Traumatic Stress Disorder | 17 | %17 |
| | Panic Disorder and Mood Disorders | 3 | %3 |
| | Eating Disorders and Sleep Disorders | 5 | %5 |
| | Major Depressive Disorder | 2 | %2 |

The overall mean score of Hamilton Anxiety Rating Scale was $15,49 \pm 5,43$ and Hamilton Depression Rating Scale was $13,14 \pm 5,32$ entire AAF group. Table 8 provides detailed results from the HAM-A and the HAM-D among the AAF group. For anxiety, as assessed by HAM-A, the majority of individuals exhibit mild anxiety, accounting for 63% (n=63) of the group. Severe anxiety is also significant but less common, affecting 37% (n=37) of the individuals. In terms of depression, as measured by HAM-D, the results show a broad spectrum of depression severity. The most common condition is mild depression, observed in 54% (n=54) of the individuals. Moderate depression is present in 29% (n=29), while severe depression is relatively rare, affecting only 3% (n=3) of the group. Notably, 14% (n=14) of the individuals do not show signs of depression according to the HAM-D scale (Table 8).

Table 8. HAM-A and HAM-D results in AAF group.

| | Clinical Variable | n | % |
|----------------------------|----------------------------|----------|----------|
| HAM-A Category Code | Mild Anxiety | 63 | %63 |
| | Severe Anxiety | 37 | %37 |
| HAM-D Category Code | No Depression | 14 | %14 |
| | Mild Depression | 54 | %54 |
| | Moderate Depression | 29 | %29 |
| | Severe Depression | 3 | %3 |

Table 9 presents a comparison of mean scores for the Hamilton Anxiety Rating Scale and the Hamilton Depression Rating Scale across different clinical variables within the

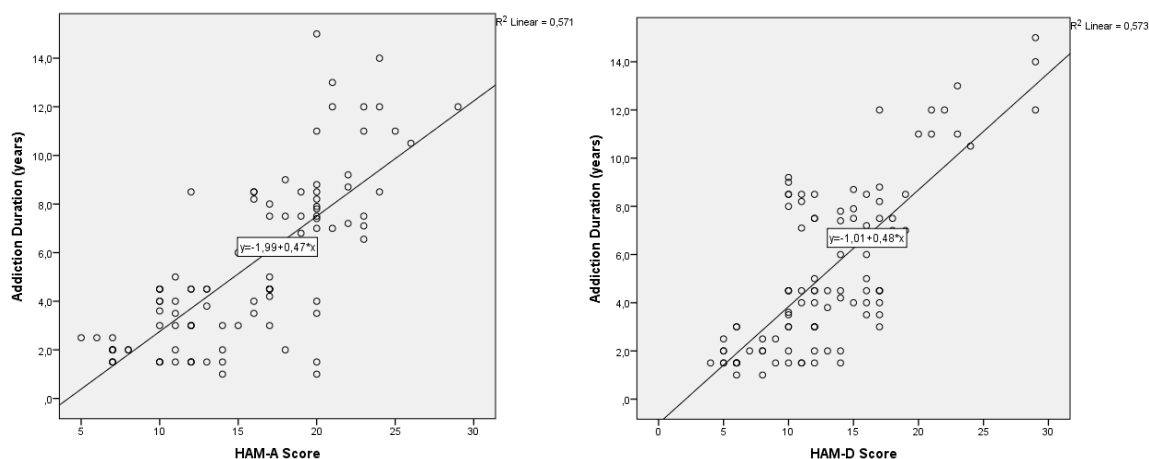
Addiction Affected Families group. Anxiety scores increased significantly from 10.52 ± 4.15 for 0-3 years to 23.27 ± 2.76 for over 10 years ($p=0.000$). Similarly, depression scores also showed a statistically significant escalation from 8.26 ± 3.02 for 0-3 years to 23.45 ± 4.00 for over 10 years ($p=0.000$). Additionally, the HAM-A and HAM-D scores showed no significant difference according to the caregivers, addiction types and treatment status in AAF group (p -values = 0.932, 0.739, and 0.819, respectively) (Table 9).

Table 9. Comparison of mean scores for HAM-A and HAM-D according to the clinical variables in AAF group.

| | Clinical Variables | HAM-A (Mean±SD) | p-value | HAM-D (Mean±SD) | p-value |
|-------------------------------|------------------------------|----------------------------|----------------|----------------------------|----------------|
| AAF | Spouse | 15,28±5,82 | 0,884 | 13,36±5,92 | 0,932 |
| | Child | 15,53±4,73 | | 12,59±3,82 | |
| | Parent | 15,06±5,01 | | 13,50±5,93 | |
| | Sibling | 16,19±6,17 | | 12,85±5,01 | |
| Addiction Type | Alcohol | 15,63±5,47 | 0,795 | 12,93±5,03 | 0,739 |
| | Substance | 15,55±5,43 | | 13,51±5,77 | |
| | Gambling | 14,14±5,84 | | 12,00±4,35 | |
| Addiction Duration | 0-3 years | 10,52±4,15 | 0,000* | 8,26±3,02 | 0,000* |
| | 3-5 years | 13,64±3,16 | | 12,82±3,12 | |
| | 5-10 years | 19,28±2,77 | | 14,14±2,99 | |
| | 10+ years | 23,27±2,76 | | 23,45±4,00 | |
| Treatment Status | In Treatment | 14,29±5,57 | 0,808 | 12,81±5,64 | 0,819 |
| | Treatment | 16,08±4,69 | | 14,29±4,53 | |
| | Completed | 15,88±5,86 | | 12,92±5,74 | |
| | Untreated | 15,89±6,36 | | 12,83±5,50 | |
| | Relapsed Recovery | 15,00±4,59 | | 12,33±5,61 | |

* = $p < 0.05$ statistically significant.

Moreover, there was a strong, positive and statistically significant correlation between the HAM-A score and the addiction duration ($r=0.734$, $p=0.000$). Similarly, a strong, positive and statistically significant correlation was detected between the HAM-D score and the addiction duration ($r=0.670$, $p=0.000$) (Graph 3).

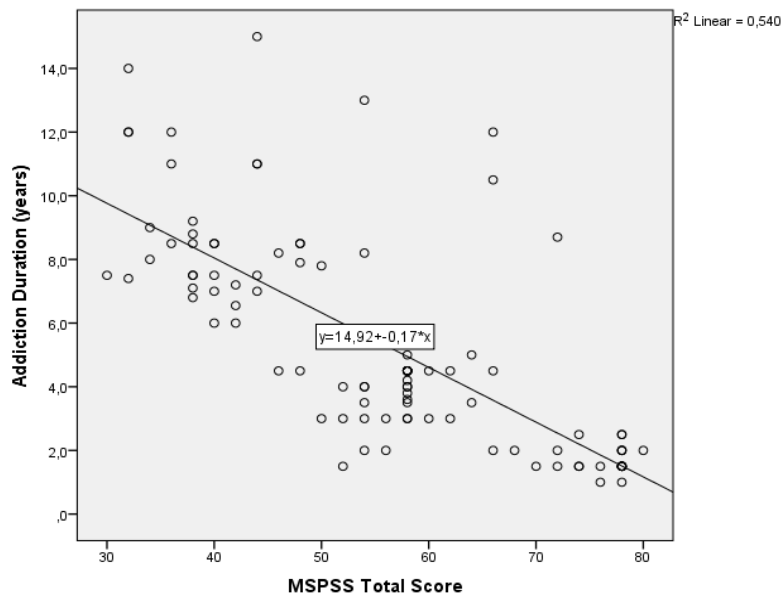


Graph 3. Correlations between the the addiction duration and HAM-A / D scores.

The overall mean total score of MSPSS Scale was $57,52 \pm 15,33$ and FAD Scale was $4,44 \pm 1,35$ entire AAF group. There were statistically significant, negative correlations detected between the MSPSS Total Score and the HAM-A Score ($r = -0.652$, $p = 0.000$), HAM-D Score ($r = -0.566$, $p = 0.000$) and addiction duration ($r = -0.802$, $p = 0.000$). In addition, there were statistically significant, positive correlations found between the FAD Total Score and the HAM-A Score ($r = 0.592$, $p = 0.000$), HAM-D Score ($r = 0.812$, $p = 0.000$) and addiction duration ($r = 0.638$, $p = 0.000$) (Table 10) (Graph 4).

Table 10. Correlations related to MSPSS and FAD scales.

| | HAM-A Score | | HAM-D Score | | Addiction Duration | |
|--------------------------|---------------|---------------|---------------|---------------|--------------------|---------------|
| | <i>r</i> | <i>p</i> | <i>r</i> | <i>p</i> | <i>r</i> | <i>p</i> |
| MSPSS Total Score | -0,652 | 0,000* | -0,566 | 0,000* | -0,802 | 0,000* |
| FAD Total Score | 0,592 | 0,000* | 0,812 | 0,000* | 0,638 | 0,000* |



Graph 4. Correlations between the addiction duration and MSPSS scores.

The mean total score of CTS Communication Positive sub-scale was $3,56 \pm 1,35$, CTS Communication Negative sub-scale was $4,32 \pm 1,41$, CTS Intervention sub-scale was $3,08 \pm 1,78$ and CTS Physical Aggression sub-scale was $4,04 \pm 2,01$ entire AAF group. For the CTS Communication Positive Score, there were statistically significant, negative correlations with the HAM-A Score ($r = -0,592$, $p = 0,000$), HAM-D Score ($r = -0,912$, $p = 0,000$), and Addiction Duration ($r = -0,638$, $p = 0,000$). Conversely, the CTS Communication Negative Score showed significant, positive correlations with the HAM-A Score ($r = 0,562$, $p = 0,000$), HAM-D Score ($r = 0,860$, $p = 0,000$), and Addiction Duration ($r = 0,626$, $p = 0,000$). The CTS Intervention Score, which likely reflects proactive conflict resolution strategies, is negatively correlated with the HAM-A Score ($r = -0,544$, $p = 0,000$), HAM-D Score ($r = -0,604$, $p = 0,000$), and Addiction Duration ($r = -0,775$, $p = 0,000$). Lastly, the CTS Physical Aggression sub-scale showed statistically significant, positive correlations with the HAM-A Score ($r = 0,670$, $p = 0,000$), HAM-D Score ($r = 0,717$, $p = 0,000$), and Addiction Duration ($r = 0,801$, $p = 0,000$) (Table 11).

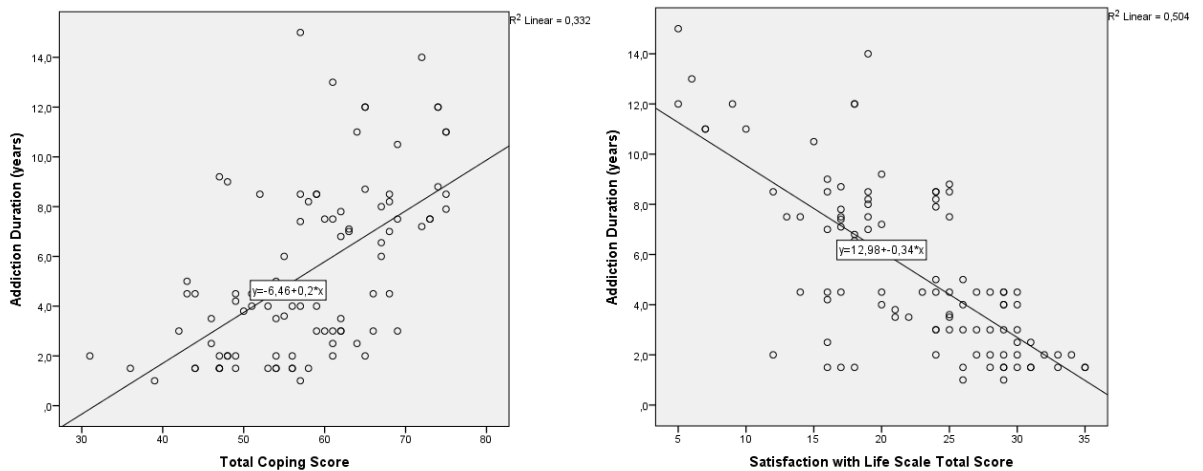
Table 11. Correlations related to CTS sub-scales.

| | HAM-A Score | | HAM-D Score | | Addiction Duration | |
|--|---------------|---------------|---------------|---------------|--------------------|---------------|
| | <i>r</i> | <i>p</i> | <i>r</i> | <i>p</i> | <i>r</i> | <i>p</i> |
| CTS Communication Positive Skor | -0,592 | 0,000* | -0,912 | 0,000* | -0,638 | 0,000* |
| CTS Communication Negative Skor | 0,562 | 0,000* | 0,860 | 0,000* | 0,626 | 0,000* |
| CTS Intervention Skor | -0,544 | 0,000* | -0,604 | 0,000* | -0,775 | 0,000* |
| CTS Physical Aggression | 0,670 | 0,000* | 0,717 | 0,000 | 0,801 | 0,000* |

The mean total score of Satisfaction with Life Scale was 22,86±6,69, Total Coping scale was 58,40±9,65, Engaged Coping sub-scale was 20,53±4,33, Tolerant-Inactive Coping sub-scale was 19,79±4,92 and Withdrawal Coping sub-scale was 18,08±4,83 entire AAF group. The Satisfaction with Life Scale Total Score demonstrated statistically significant, negative correlations with the HAM-A Score ($r = -0.505$, $p = 0.000$), HAM-D Score ($r = -0.518$, $p = 0.000$), and Addiction Duration ($r = -0.631$, $p = 0.000$). Conversely, the Total Coping Score showed significant, positive correlations with the HAM-A Score ($r = 0.528$, $p = 0.000$), HAM-D Score ($r = 0.488$, $p = 0.000$), and Addiction Duration ($r = 0.594$, $p = 0.000$). The Engaged Coping Score also reflected positive significant correlations, though with slightly lower magnitudes, with the HAM-A Score ($r = 0.362$, $p = 0.000$), HAM-D Score ($r = 0.305$, $p = 0.002$), and Addiction Duration ($r = 0.452$, $p = 0.000$). Additionally, the Tolerant-Inactive Coping Score was positively correlated with the HAM-A Score ($r = 0.412$, $p = 0.000$), HAM-D Score ($r = 0.451$, $p = 0.000$), and Addiction Duration ($r = 0.480$, $p = 0.000$). The Withdrawal Coping Score exhibited significant correlations with the HAM-A Score ($r = 0.309$, $p = 0.002$), HAM-D Score ($r = 0.290$, $p = 0.003$), and Addiction Duration ($r = 0.313$, $p = 0.002$) (Table 12) (Graph 5).

Table 12. Correlations related to SWLS and Coping sub-scales.

| | HAM-A Score | | HAM-D Score | | Addiction Duration | |
|---|---------------|---------------|---------------|---------------|--------------------|---------------|
| | <i>r</i> | <i>p</i> | <i>r</i> | <i>p</i> | <i>r</i> | <i>p</i> |
| Satisfaction with Life Scale Total Score | -0,505 | 0,000* | -0,518 | 0,000* | -0,631 | 0,000* |
| Total Coping Score | 0,528 | 0,000* | 0,488 | 0,000* | 0,594 | 0,000* |
| Engaged Coping Skor | 0,362 | 0,000* | 0,305 | 0,002* | 0,452 | 0,000* |
| Tolerant-Inactive Coping Skor | 0,412 | 0,000* | 0,451 | 0,000* | 0,480 | 0,000* |
| Withdrawal Coping Skor | 0,309 | 0,002* | 0,290 | 0,003* | 0,313 | 0,002* |



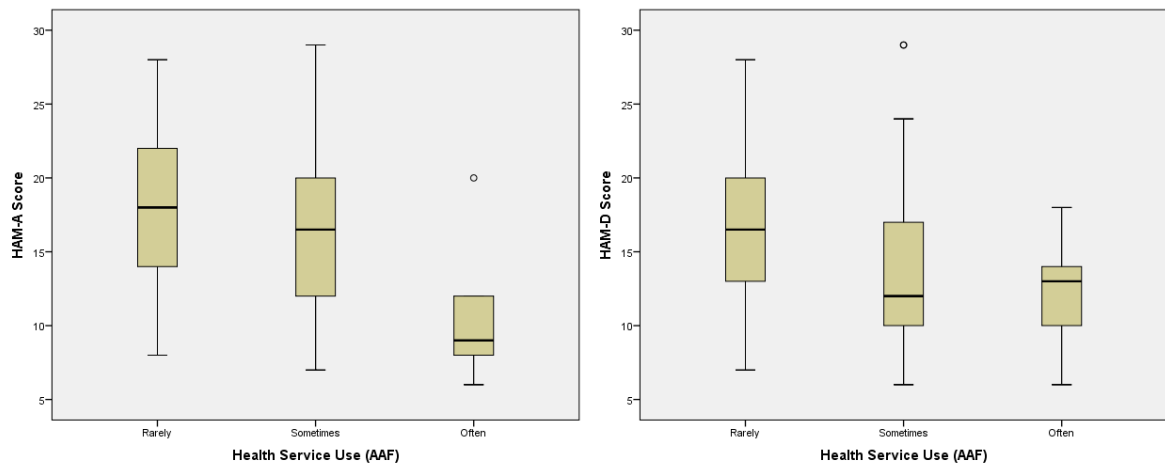
Graph 5. Correlations between the addiction duration and Total Coping Score - Satisfaction with Life Scale Total Score.

Furthermore, participants who used health services 'rarely' exhibited statistically higher mean HAM-A and HAM-D scores compared to those who used services 'sometimes' and 'often' (p-value = 0.010 for HAM-A and p-value = 0.013 for HAM-D). Similarly, in terms of treatment history, those who had never received treatment showed statistically higher mean HAM-D scores compared to those who had received treatment or were currently receiving treatment in AAF group (p-value = 0.020) (Table 13) (Graph 6).

Table 13. Comparison of mean scores for HAM-A and HAM-D according to the Health Service Use and treatment history in AAF group.

| | Clinical Variables | HAM-A (Mean±SD) | p-value | HAM-D (Mean±SD) | p-value |
|---------------------------------|---------------------------------|--------------------|---------------|--------------------|---------------|
| Health Service Use (AAF) | Rarely | 18,12±4,94 | 0,010* | 16,93±5,31 | 0,013* |
| | Sometimes | 16,56±5,18 | | 14,12±5,23 | |
| | Often | 10,67±5,00 | | 12,33±4,08 | |
| Treatment History (AAF) | Never received treatment | 17,58±6,62 | 0,052 | 18,50±6,37 | 0,020* |
| | Received treatment | 16,03±4,09 | | 14,79±4,00 | |
| | Currently receiving | 17,98±4,32 | | 16,62±4,71 | |

* = p<0.05 statistically significant.



Graph 6. Comparison of mean scores for HAM-A and HAM-D according to the Health Service Use in AAF group.

5. Discussion

Substance addiction profoundly affects an individual's physical, mental, emotional, and financial health, and its repercussions extend to caregivers who often neglect their own well-being while supporting their loved ones. Globally, it is estimated that 100 million adults are affected by the addiction problems of their relatives, highlighting the extensive impact that

substance abuse can have not only on individuals but also on their families. Therefore, substance addiction significantly disrupts family dynamics, often leading families to endure hardship quietly due to feelings of shame and a lack of available support. Thus, some researchers describe addiction as a "family disease." The research underscores the considerable emotional toll that families for substance addicts takes, manifesting in heightened care burden and depressive symptoms among caregivers. Studies such as those by Asante and Lentoor (2017) have documented caregivers' experiences, noting significant distress and nervousness due to the overwhelming challenges posed by the substance user's dependency. Many caregivers report suffering from panic attacks, primarily because they feel isolated and unable to discuss their struggles or seek assistance. There is a poignant sense of lost hope among caregivers. Particularly among parents, there is a profound sense of self-blame and a questioning of their parenting abilities, leading them to feel like failures in the face of their children's addiction. This emotional state is not only a burden but also a critical factor in the addicts' recovery and treatment processes. Kaur et al. (2018) emphasize that the emotional well-being of caregivers is crucial, as it significantly influences the quality of care provided and, consequently, the recovery outcomes of the substance users. Studies point out that as addiction takes its toll, families often see their social networks diminish and their economic and emotional stability become compromised. The collective burden of these challenges can leave family members feeling tired, anxious, afraid and pessimistic. These emotional responses are indicative of the deep impact that addiction has on the family unit, highlighting the need for comprehensive support systems that address the well-being of all family members affected by the addiction crisis (Daley, Smith, Balogh, & Toscaloni, 2018). Orford, Velleman, and Copello (2010) provide detailed insights into the emotional turmoil and physical symptoms experienced by family members of those struggling with substance abuse. Family members often report feelings of insecurity and worry, with their sense of security at home feeling threatened. These emotional stresses manifest physically; many family members experience anxiety and depression, which in turn can lead to panic disorders, chest pains, and insomnia. The physical symptoms described by these individuals is frequently attributed to the ongoing stress and anxiety of living with someone battling substance addiction, highlighting a clear link between the emotional burden and physical symptoms experienced by caregivers and family members. Similarly, Lee et al. (2011) conducted a study with 100 family members of individuals with addiction issues, and 100 participants as a control group. The findings revealed that family members of individuals with addiction experienced significantly higher levels of depression and stress (p -value < 0.001). Furthermore, these family members demonstrated more prevalent

mental or psychological disorders. One key insight from the study is the tendency to overlook the individual needs of family members while focusing on the challenges faced by the addiction patient. In another study conducted by McArdle, Stull, ve Laura (2018), participants were divided into two groups; 34 participants had a family member with an addiction, while 101 did not. The findings from this study indicated notable differences in mental health outcomes between the two groups. Participants who had a family member with an addiction had a mean anxiety score of 38.61, which was 2.36 points higher than the mean score of 35.26 for those without an addicted family member. Similarly, the mean depression score for those with an addicted family member was 38.30, 3.45 points higher than the mean score of 35.94 for participants from non-addicted backgrounds. Although these differences were not statistically significant, researchers still highlight the potential psychological impact on individuals who have close relatives struggling with addiction. A study conducted by Ray, Mertens, and Weisner in 2009 including data on 25,464 family members of individuals with SUDs. These family members were compared with those of individuals with diabetes (17,345), asthma (19,930), and a control group with no drug or alcohol dependence or chronic physical illness (20,320). The findings indicated that adult family members of individuals with alcohol or other drug dependencies were diagnosed with higher rates of depression, substance use disorders, and trauma compared to adults in non-AAFs. Moreover, children in AAFs were more likely to be diagnosed with ADHD and trauma compared to those in non-AAFs. In accordance with published data, the majority of AAFs exhibit anxiety disorder (mild anxiety 63%, severe anxiety 37%). Similarly, mild depression observed in 54%, moderate depression 29%, while severe depression was affected 3% of the AAF group in present study. Moreover, the AAF group diagnosed additional mental disorders according to the DSM-V. Obsessive-compulsive disorder was the most common disorder, recorded in 26% followed by Post-Traumatic Stress Disorder (17%), Adjustment Disorders (13%), Phobic/Paranoid ideation (8%), Panic Disorder-Mood Disorders (3%), Eating Disorders- Sleep Disorders (5%) and Major Depressive Disorder (2%), respectively. Overall, the diagnosis data provides a clear picture of the broad spectrum of mental health challenges faced by families dealing with addiction. The varied conditions highlight the need for comprehensive mental health services that are tailored to address the complex needs of individuals in families impacted by addiction, focusing on both prevention and treatment to improve their overall well-being. Moreover, the impact of substance addiction on families and individual members can be significantly influenced by several factors. These include the nature of the substances used, such as the type, and frequency of substance use. Particularly duration of the substance addiction is critical factor as well; more severe and

prolonged disorders tend to have a more profound impact on family dynamics and individual well-being (Daley, Smith, Balogh, & Toscaloni, 2018). Additionally, in a study Soares et al. (2016) reported that caregivers (n=120) of active addicts experienced higher levels of depression and anxiety compared to those caring for abstinent individuals. Researchers also highlighted that the duration and severity of the patient's addiction significantly increased the caregivers' psychological distress. This suggests that longer addiction durations correlate with increased anxiety and depression symptoms in family members and caregivers. Consistently, our findings revealed that there were strong, positive and statistically significant correlations between the HAM-A / HAM-D scores and the addiction duration in AAF group. Thus, profound impact of prolonged addiction on family members' mental health, with long-term exposure to addiction correlating with higher levels of both anxiety and depression.

Moos et al. and Orford et al. have contributed to our understanding of how families cope with substance-related challenges through the stress-strain-coping-support model. This model suggests that substance-related problems generate chronic stress for family members, leading to various strains, including physical and psychological ill-health. These health issues can increase the burden on healthcare systems as families seek relief and treatment (Moos, Finney, & Cronkite, 1990). According to Orford et al., families adapt to these stresses by deploying various coping strategies, which they categorized into three main styles: engaged, tolerant-inactive, and withdrawal coping. The engaged style involves actively addressing the problem, while the tolerant-inactive style represents a more passive approach, and withdrawal coping involves distancing oneself from the stressor. Research within the literature highlights significant links between these coping styles and the affective well-being of individuals in stressful caregiving situations. For example, studies have found that avoidant coping strategies are associated with higher levels of depressive symptoms among different groups, such as impoverished women, spouses of alcoholic patients, and individuals suffering from depression. These findings emphasize the critical role of coping mechanisms in influencing the mental health outcomes of those affected by another's substance abuse, underscoring the need for supportive interventions that address both the substance user and their family members' coping capacities (Orford et al., 1998). Supportively, in a matched case-control study, Lee et al. (2011) evaluated coping styles among family members of addiction patients (n=100) and matched controls (n=100). The family members' mean total score on the CQ was 44.1 ± 16.4 . They scored highest on engaged coping (26.8 ± 9.9), followed by tolerant-inactive coping (9.8 ± 6.2), and withdrawal coping (8.1 ± 4.2). Notably, tolerant-inactive coping exhibited the strongest correlation with all psychological well-being measures ($r = 0.45-0.58$, $P < 0.001$), suggesting

it has a significant impact on psychological health. The findings obtained from Lee et al. (2011) confirm that family members of addiction patients generally experience poorer psychological well-being compared to healthy controls. Their scores on standardized, self-reported measures of psychological health, well-being, and stress indicated poorer functioning and greater psychiatric morbidity. Among the coping styles, the tolerant-inactive coping style was most strongly correlated with measures of strain. Furthermore, the Perceived Stress Scale (PSS) emerged as the only predictor of psychiatric morbidity, identifying it as a potential focal point for interventions. These results support existing literature that links tolerant-inactive coping with higher levels of strain and a moderate correlation with depression, underscoring the need for targeted support for family members who predominantly use this coping style. Moreover, in same study family members scored significantly higher on the Beck Depression Inventory (BDI) ($p < 0.001$), and 39% of family members were at least mildly depressed compared to only 12% of the control group. Further analysis using the Short-Form Health Survey-36 (SF-36), which assesses quality of life, revealed that family members had significantly lower scores than controls ($p < 0.01$), suggesting poorer mental health quality. The Perceived Stress Scale (PSS) and the General Health Questionnaire (GHQ) also showed higher scores among family members (both p -value < 0.001), pointing to greater psychiatric morbidity and a higher incidence of what is termed 'caseness,' or the likelihood of having a diagnosable mental health condition. Importantly, the researchers highlighted a notable willingness among family members to engage in formal treatment or counseling for their own issues linked to the challenges of living with someone facing addiction. Consistently in our study, total score of QC was $58,40 \pm 9,65$, Engaged Coping sub-scale was $20,53 \pm 4,33$, Tolerant-Inactive Coping sub-scale was $19,79 \pm 4,92$ and Withdrawal Coping sub-scale was $18,08 \pm 4,83$ entire AAF group. The Total QC, Engaged Coping, Tolerant-Inactive Coping and Withdrawal Coping Scores exhibited significant, positive correlations with the HAM-A Score, HAM-D Score, and Addiction Duration. Moreover, the Satisfaction with Life Scale Total Score demonstrated statistically significant, negative correlations with the HAM-A Score, HAM-D Score, and Addiction Duration. These findings obtained from our study underscore the complex interactions between coping strategies, psychological well-being, and addiction, highlighting the need for nuanced approaches to mental health and addiction treatment that consider the impacts of life satisfaction and coping mechanisms.

Individuals and families grappling with addiction demonstrate a remarkable level of resilience, often developing stronger familial bonds as a result of their shared challenges. Protective factors play a crucial role in mitigating the adverse effects of SUDs on families.

According to Daley and Miller (2001), these include the employment of positive psychological coping strategies, the development of social skills, and the maintenance of strong relationships with parents, other family members, teachers, and mentors. These connections and skills not only provide crucial support during challenging times but also help individuals navigate the complexities of addiction and recovery. Such factors are vital in building resilience and promoting a positive trajectory for individuals and their families affected by SUDs, highlighting the importance of holistic approaches in treatment and support systems. Supportively, Kahyaoğlu, Dinç, Işık ve Ögel (2020) investigated the influence of family involvement in addiction treatment on substance use and treatment adherence among 214 patients with drug or alcohol addiction. The study included 148 family members—parents, siblings, or spouses—who participated in the treatment process. Key findings indicated that when family members participated in three or more treatment sessions, patients showed a significantly higher abstinence rate of 41%, compared to a 24.8% abstinence rate when families attended two or fewer sessions. Furthermore, increased family participation positively impacted treatment compliance; attendance at three or more sessions led to a 2.3 times higher rate of continued treatment compared to lesser family involvement, which showed no significant effect on treatment dropout rates. Additionally, the more sessions family members attended, the longer the patients remained substance-free, enhancing overall treatment compliance and reducing dropout rates. This study highlights the critical role of family engagement in addiction treatment programs, suggesting that active family involvement can substantially improve treatment outcomes. Supportively, Atadokht et al. (2015) conducted study to explore the AAFs (n=80) perceived social support on the relapse rates in individuals undergoing addiction treatment. Researchers documented a significant negative relationship between perceived social support and relapse frequency ($r = -0.34, P = 0.001$). This suggests that greater perceived social support from family, friends, and significant others can decrease the likelihood of relapse. The study underscores the critical role that emotional and social support dynamics play in the addiction recovery process. The findings suggest that family members' emotional expressions and the social support perceived by the individual can significantly influence relapse rates. For addiction treatment to be effective, it is essential to consider these factors in the therapeutic approach. Dysfunction in family dynamics play a significant role in the potential development of addiction. Key elements such as poor communication, frequent conflicts, and inadequate parental involvement create an environment that can significantly influence an individual's vulnerability to substance use disorders. When communication is strained or absent, family members may struggle to express their needs or concerns effectively, leading to

misunderstandings and unresolved issues. Similarly, constant conflict can create a stressful atmosphere that may push individuals toward substance use as a coping mechanism. Furthermore, when parents or caregivers are not actively involved in their children's lives, it can lead to feelings of neglect or low self-esteem, increasing the risk of substance abuse as individuals seek validation or escape through addictive behaviors. Additionally, children raised in families grappling with substance abuse are at an elevated risk of developing similar issues themselves, a phenomenon detailed by Fosu & Akotia (2014). The environment a child grows up in profoundly influences their future behavior and decision-making processes; witnessing substance abuse within the family often imprints these habits as conventional responses to stress or emotional distress. The pervasive impact of substance addiction on family dynamics is well-documented. Research by Fish, Maier, and Priest (2015) highlights the interconnections between family conflict, substance abuse, and the risk of relapse post-treatment. The presence of substance addiction within a family often leads to increased partner violence and diminished relationship satisfaction, further exacerbating the stress on familial relationships. The importance of family involvement in the treatment of substance addiction cannot be overstated. Fish et al. (2015) identified family conflict as a major predictor of substance use, suggesting that unresolved disputes within the family environment can directly influence an individual's addiction and relapse rates. Effective family treatment has been shown to not only mitigate these conflicts but also significantly improve the response of the addict to rehabilitation efforts. Given these dynamics, maintaining functional balance within the family becomes increasingly challenging as the addiction worsens, often negatively affecting the functioning of other family members. Assessing family conflict not only helps in identifying individuals who are at a higher risk of relapse but also enhances the overall outcomes for substance addiction treatment. Additionally, Orford, Velleman, and Copello (2010) describe how the stress experienced by family members in situations involving addiction often stems from intense and occasionally aggressive interactions. This tension is frequently compounded by conflicts over financial issues and possessions, which can exacerbate the already strained relationships within the family. Supportively in our study, there were statistically significant, negative correlations with the CTS Communication Positive Score and HAM-A Score, HAM-D Score, Addiction Duration. Similarly, the CTS Intervention Score, which likely reflects proactive conflict resolution strategies, is negatively correlated with the HAM-A Score, HAM-D Score, and Addiction Duration. Conversely, the scores of CTS Communication Negative and Physical Aggression sub-scales showed significant, positive correlations with the HAM-A Score, HAM-D Score, and Addiction Duration. In addition, there were statistically significant, positive

correlations found between the FAD Total Score and the HAM-A Score, HAM-D Score. These significant correlations obtained from our findings indicate that higher scores in positive communication and effective intervention strategies are associated with lower levels of anxiety and depression in caregivers. On the other hand, higher levels of negative communication and physical aggression are associated with greater anxiety and depression for families. Moreover, higher levels of family dysfunction, as measured by the FAD, are associated with higher levels of anxiety, depression and longer durations of addiction, pointing to the potential for negative family interactions to exacerbate or perpetuate addictive behaviors.

Studies highlighted how families affected by addiction seek various forms of support to manage their challenges. AAFs often rely on moral, financial, informational, and social support as key coping mechanisms. This multifaceted support is crucial not only for dealing with the immediate stresses associated with addiction but also for improving overall family dynamics and functionality. The implementation of strategies that enhance these forms of support is vital for helping families navigate the complex and often turbulent process associated with addiction recovery. By increasing social support and coping skills, modulating stress and pressure, and addressing symptoms of mental disorders, interventions can significantly improve the functioning of families affected by addiction (Mardani et al., 2023). Despite recognition from organizations like the WHO of the harm caused to AAFs, the full extent of this harm remains difficult to quantify. Indeed, estimating the number of family members impacted by substance misuse is challenging due to the lack of consistent and accurate data. This variability can arise from differences in how studies define and measure "impact," as well as varying reporting standards across regions and institutions. The complexity of substance misuse issues, which can be hidden within private family dynamics, also contributes to this uncertainty. AAFs often go unrecognized and uncounted, suffering silently without a collective voice. While they do not typically suffer from a single diagnosable illness, they are at increased risk for a range of stress-related conditions. Additionally, this group does not pose a direct threat to public health or order, nor do they usually have the collective power to drive significant social change. It is evident that the mental health literature often overlooks the specific needs and challenges faced by family members living with serious drug or alcohol problems. This group rarely receives special attention or recognition, despite the significant impact these circumstances can have on their mental health and well-being (Velleman, 2010). Bhatia et al. (2022) compared supported AAFs (n=51) with enhanced usual care (EUC) AAFs (n=51). Researchers reported that supported AAFs significantly improved social support scores compared to the EUC group (Adjusted Mean Difference [AMD] -6.05, 95% CI -10.98 to -1.12, $p = 0.02$). The study demonstrated the

feasibility and acceptability of identifying and engaging AFMs through community networking for lay counselor-delivered psychosocial care. There was a notable enhancement in social support among participants in the supported AAFs group. In accordance with published data, our findings revealed that there were statistically significant, negative correlations between the MSPSS Total Score and the HAM-A Score, HAM-D Score in AAFs. Furthermore, AAFs who used health services 'rarely' exhibited statistically higher mean HAM-A and HAM-D scores compared to those who used services 'sometimes' and 'often' in present study. This robust finding implies that higher levels of perceived social support are associated with lowering anxiety and depression symptoms, highlighting the importance of social support in AAFs.

Conclusion

In conclusion, our findings clearly demonstrated a broad spectrum of mental health challenges and significant psychological burden faced by families dealing with addiction. Additionally, we revealed the significant impact of prolonged addiction on family members' mental health, with long-term exposure to addiction correlating with higher levels of both anxiety and depression. Moreover, our findings highlighted that improving communication styles and intervention methods may benefit for both AAFs and individuals struggling with addiction in terms of reducing psychological distress. Our findings reveal crucial insights into how social support and family dynamics play integral roles in the psychological health and addiction trajectories of participants. Enhancing social support and addressing family dysfunctions could be key areas of focus for interventions aiming to reduce mental health issues and shorten addiction duration. Furthermore, our findings also suggest that the longer the addiction persists, the more it negatively impacts the mental health of family members, exacerbating psychological distress. It highlights the urgent need for effective support mechanisms and psychological interventions to assist families coping with addiction. The increasing severity of mental health issues with the duration of addiction suggests that interventions should be particularly targeted at supporting families over the long haul, helping them manage the increasing stress and emotional toll. It highlights the need for ongoing psychological support for families, especially those dealing with long-term addiction challenges, regardless of the specific addiction type or the individual's current treatment status. Particularly potentially escalating to severe cases that require urgent and intensive psychological intervention. Enhanced mental health support and interventions tailored specifically to address the complex emotional and psychological needs of families navigating the challenges of addiction. This includes not only managing symptoms of anxiety and depression but also providing supportive measures to improve and prevention overall mental health and their overall well-being. Addiction is a pervasive issue that affects numerous aspects of an individual's and caregiver's life and health. Recognizing its complex nature can aid in developing more effective treatments and interventions. Understanding addiction through a multi-dimensional lens allows for a more compassionate approach to addressing this profound challenge in public health. There is a critical need for governments and non-governmental organizations to craft and implement legislation that acknowledges and supports caregivers as part of the broader strategy to combat the multifaceted problem of substance addiction.

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HAMILTONUN DEPRESSİYA REYTINGİ CƏDVƏLİ (HAM-D)

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

0 – yoxdur

1 – bu hissələr yalnız sorğu zamanı məlum olur

2 – bu hissələrsorğusuzdaspontanolaraqverbalifadə olunur

3 – bu hissələr həmverbal, həm də qeyri-verbal (xəstənin mimikası, pozası, səsi, ağlaması) vasitələrlə ifadə olunur

4 – xəstə yalnız bu hissələri həmspontanverbalifadələrlə, həm də qeyri-verbal şəkildə ifadə edir.

2. Günah hissi

0 – yoxdur

1 – öz-özünü günahlandırır, hesab edir ki, digər insanları pəsvəriyyətdə qoyub

2 – günah fikirləri, keçmişdə edilən səhvlərvə ya günahlar barədə fikirləşir

3 – hal-hazırkı xəstəliyi cəzakimi qəbul edir; günahkarlıq sayıqlamaları

4 – xəstə günahlandırıcı və hədələyici səslərə şübhə və ya ondan hədələyici gormə 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 çətinidir

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

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

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 ANKSİYETE REYTINGİ CƏDVƏLİ (HAM-A)

1. Narahat temperament. Bu seçim gələcəklə bağlı qeyri-müəyyənlik hissini əhatə edir. Narahatlıqdan, güvənsizlikdən, Bu, əsəbilik, gözləmə və qorxu hissində qədər uzanan bir sıraya malikdir.

0: Xəstə adi haldan daha çox/az etibarsız və ya narahat deyil.

1: Xəstənin adi haldan daha etibarsız və ya narahat olması şübhəlidir.

2: Xəstə daha aydın şəkildə nəzarət etmək çətin olan narahatlıq, gözləmə və ya əsəbilik yaşayır. Vəziyyətdə olduğunu deyir. Ancaq vəziyyət xəstənin gündəlik həyatına təsir edəcəkdir. Ölçüdə deyil.

3: Narahatlıq və ya etibarsızlıq bəzən daha şiddətlidir; gələcəkdə narahat edir. O, mümkün böyük xəsərlərə və zərərlərə diqqət yetirir. Misal üçün Çaxnaşma hücumları və güclü terror hissləri var. Bəzən xəstənin həyatı Təsir edir.

4: Dəhşət hissi xəstənin həyatına əhəmiyyətli dərəcədə təsir edəcək səviyyədədir.

2. Gərginlik. Bu şık, istirahət edə bilməmə, əsəbilik, fiziki gərginlik, titrəmə və narahat yorğunluq vəziyyətləri əhatə edir.

0: Xəstə adi haldan çox və ya az stress keçirmir.

1: Xəstə adi haldan daha əsəbi və gərgin olduğunu bildirir.

2: Xəstə rahatlaya bilmir, daxili narahatlıqla dolur və onu idarə edə bilmir.

O, çətin günlər keçirdiyini açıq şəkildə bildirir. Lakin bu, onun gündəlik həyatına çox da təsir etmir.

3: Daxili narahatlıq və əsəbilik bəzən xəstənin gündəlik işinə təsir edəcək dərəcə və ya tezlik.

4: Gərginlik və iğtişələr həmişə xəstənin həyatına və işinə təsir edir.

3. Qorxular

Xəstənin müəyyən vəziyyətlərdə özünü tapması zamanı yaranan narahatlıq növü.

Məsələn, açıq və ya qapalı sahələr, növbələr, avtobusa və ya qatara minmək. Xəstə

Bu vəziyyətlərdən qaçaraq rahatlaşırlar. Əsas odur ki, bu qiymətləndirmə anında hər biri

Məqsəd, bu günlərdə əvvəlkinə nisbətən daha çox fobik narahatlığın olub olmadığını müəyyən etməkdir.

0: Yoxdur

1: Əgər varsa, şübhəlidir

2: Xəstədə fobik narahatlıq var, lakin bununla mübarizə apara bilir.

3: Xəstənin mübarizə aparması və onun fobik narahatlığına qalib gəlməsi çətinləşdi.

Buna görə də xəstənin gündəlik həyatına və işinə təsir etməyə başlamışdır (müəyyən müəyyən dərəcədə).

4: Fobik narahatlıq xəstənin gündəlik həyatına və işinə açıq şəkildə təsir edir.

4. Yuxusuzluq. Bu zərif xəstənin yuxu müddəti (24 saatda yuxu saatları), yuxu dərinliyi (səthi və O, yuxunun subyektiv təcrübələrini əhatə edir (məsələn, parçalanmış yuxu/dərin və davamlı yuxu). Qiymətləndirmə son üç gecəyə əsaslanır. Hipnotik və sedativlərin istifadəsini nəzərdən keçirin alınmamalıdır.

0: Adi yuxu müddəti və dərinliyi

1: Yuxu müddəti şübhəli və ya bir qədər azalıb (məsələn, yuxuya getməkdə çətinlik). çətinliklərə görə ikincil), lakin yuxu dərinliyində dəyişiklik yoxdur.

2: Yuxunun dərinliyində də azalma var, yuxu daha səthi olur. Bütövlükdə yatın xarab olur.

3: Yuxu müddəti, eləcə də yuxu dərinliyi dəyişdi. Bölünmüş yuxu dövrlərinin cəmi 24 saat ərzində bir neçə saati keçmir.

4: Burada yuxunun müddətini müəyyən etmək çətindir, çünki yuxu o qədər səthi olur ki, xəstə qısa yuxular və yuxular dövrlərinə aiddir.

5. Entellektüel (kognitif).mBu şık yoğunlaşma, güncel olaylar hakkında karar verme ve hafıza güçlüklerini kapsar.

0: Hastanın her zamankinden fazla / az hafıza ve / veya yoğunlaşma gücü yoktur.

1: Hastanın yoğunlaşma ve / veya hafıza güçlükleri olduğu kuşkuludur.

2: Hastanın günlük rutin çalışmasına yoğunlaşması büyük bir çaba ile bile zordur.

3: Yoğunlaşma, hafıza ve karar vermede daha belirgin güçlükler, örneğin bir makaleyi okumada veya bir TV programını sonuna kadar izlemede zorlanma. Yoğunlaşmada azalma veya hafıza zaafı görüşmeyi açıkça etkilememişse, 3 puan verin.

4: Hasta görüşme anında yoğunlaşma ve/veya hafıza ve/veya karar vermede güçlükleri olduğunu göstermişse.

6. Depresif mizaç

Bu şık hüznü, ümitsizlik, depresyon ve çaresizliğin verbal ve nonverbal iletilmesini sağlar.

0: Doğal mizaç

1: Hastanın her zamankinden daha ümitsiz veya hüznü olup olmadığı kuşkuludur , örneğin hasta her zamankinden daha depresif olduğunu muğlak bir şekilde ifade

etməkdir.

2: Hasta can sıkan deneyimlərlə daha açıq bir şəkildə uğraşmaqdadır, amma hala ümitsiz və ya çaresiz deyildir.

3: Hasta depressiya və / və ya ümitsizliyin açıq nonverbal bəlirtilərini göstərməkdədir .

4: Hastanın ümitsizlik və ya çaresizlik konularındakı atıfları və ya eyni konudakı nonverbal işarətləri görüşməyi kaplamakta və hastanın diqqəti bunlardan uzaqlaşdırıla bilməməkdir .

7. Somatik (əzələli)

Bu üslub zəifliyi, sərtliyi və faktiki ağrıya qədər ağrıları əhatə edir. Bu hisslər adi haldır

Bu, az və ya çox əzələ sisteminə lokallaşdırılmışdır, məsələn, çənə ağrısı və ya boyun ağrısı.

0: Xəstə əzələlərində adi haldan daha az/daha çox ağrı və ya sərtlik hiss etmir.

1: Xəstə əzələlərində adi haldan daha çox ağrı və ya sərtlik hiss edir.

2: Sempptomlar ağrıya bənzəyir.

3: Əzələ ağrıları xəstənin gündəlik işinə və həyatına müəyyən qədər mane olur. Təsir edir.

4: Əzələ ağrısı çox vaxt mövcuddur və xəstə gündəlik həyat və işin öhdəsindən aydın şəkildə gələ bilmir.

8. Somatik (emosional)

Bu seçim artan yorğunluq və zəifliyi ehtiva edir; hisslərin həqiqi funksiyası pozğunluqlara qədər uzanır. Tinnitus, bulanıq görmə, isti/soyuq flaşlar və Bu karıncalanma daxildir.

0: Yoxdur.

1: Xəstənin qeyd etdiyi təzyiq və ya karıncalanma simptomları (məsələn, qulaqlarda, gözlərdə və ya dəridə) adi haldan daha çox şübhəlidir.

2: Qulaqlarda təzyiq hissi cingiltiyə, gözlərdə görmə pozğunluğuna və Karıncalanma və sancığa çevrildi.

3: Ümumiləşdirilmiş simptomlar müəyyən dərəcədə xəstənin gündəlik həyatına və işinə müdaxilə edir. Təsir edir.

4: Ümumiləşdirilmiş sensor simptomlar tez-tez mövcuddur və xəstənin gündəlik həyatı və Bu, onun işinə açıq şəkildə təsir göstərir.

9. Ürək-damar simptomları

Bu sinif taxikardiya, ürək döyüntüsü, təzyiq hissi, sinə ağrısı, damarlarda döyünmə hissi və Buraya huşunu itirmə hissləri daxildir.

0: Yoxdur.

1: Əgər varsa, şübhəlidir

2: Ürək-damar simptomları mövcuddur, lakin xəstə hələ də simptomları idarə edir bacarmaq.

3: Xəstə ürək-damar simptomlarını idarə etməkdə çətinlik çəkir, belə ki Bunlar müəyyən dərəcədə xəstənin gündəlik həyatına və işinə təsir edir.

4: Ürək-damar simptomları tez-tez mövcuddur və xəstənin gündəlik həyatı və Bu, onun işinə açıq şəkildə təsir göstərir.

10. Solunum simptomları

Bu şık, boyun ve göğüste sıkışma veya kasılma, boğulma hissi ve iç çekerek solumaya kadar varan dispne duyularını kapsar.

0: Yok.

1: Varsa da kuşkulu

2: Solunum simptomları var, ama hasta halen simptomları kontrol edebilmektedir.

3: Hasta solunum simptomlarını kontrol etmede zaman zaman güçlük çekmekte, dolayısı ile bu semptomlar hastanın günlük yaşamı ve işini belli bir derecede etkilemektedir .

4: Solunum semptomları çoğu zaman vardır ve hastanın günlük yaşamı ve işini açıkça etkilemektedir .

11. Mədə-bağırsaq simptomları

Bu üslub udma çətinliyinə, mədədə narahatlıq hissi, dispepsiya, ürək yanması,

Buraya əlaqəli qarın ağrısı, dolğunluq, ürəkbulanma, qusma, mədə gurultusu və ishal daxildir.

0: Yoxdur.

1: Əgər varsa, şübhəli (və ya xəstənin adi mədə-bağırsaq hisslərindən fərqlidir). şübhəli).

2: Yuxarıda qeyd olunan abdominal simptomlardan biri və ya bir neçəsi mövcuddur, lakin xəstə hələ də simptomları idarə edə bilər.

3: Xəstə bəzən mədə-bağırsaq simptomlarını idarə etməkdə çətinlik çəkir, Buna görə də simptomlar xəstənin gündəlik həyatına və işinə müəyyən qədər müdaxilə edir. məsələn, bağırsaq nəzarətini itirmək meylinə təsir göstərir.

4: Mədə-bağırsaq simptomları tez-tez mövcuddur və xəstənin gündəlik həyatına və işinə müdaxilə edir. aydın şəkildə təsir edir, məsələn, bağırsaq nəzarətinin itirilməsi.

12. Genitouriya simptomları

Bu tərz daha tez-tez və tələsik sidiyə getməyə, menstruasiya pozuntularına, anorgazmiya, disparuniya, erkən boşalma, ereksiya itkisi kimi qeyri-üzvi və psixi simptomlar simptomları əhatə edir.

0: Yoxdur.

1: Əgər varsa, şübhə doğurursa (və ya xəstədə adi haldan başqa genitouriya əlamətləri varsa). şübhəli).

2: Yuxarıda qeyd olunan genitouriya simptomlarından biri və ya bir neçəsi mövcuddur, lakin Xəstənin gündəlik həyatına və işinə təsir etmir.

3: Xəstədə yuxarıda qeyd olunan genitouriya əlamətlərindən biri və ya bir neçəsi var mövcuddur və bunlar müəyyən dərəcədə xəstənin gündəlik həyatına və işinə təsir göstərir, məs. inkontinans meyli.

4: Genitouriner simptomlar tez-tez mövcuddur və xəstənin gündəlik həyatına və işinə müdaxilə edir. aydın şəkildə təsir edir, məsələn, sidik qaçırma.

13. Avtonom simptomlar

Bu ağız quruluğu, qızartı, solğunluq, tərləmə və başgicəllənməni əhatə edir.

0: Yoxdur.

1: Əgər varsa, şübhəlidir

2: Yuxarıda qeyd olunan avtonom simptomlardan biri və ya bir neçəsi mövcuddur, lakin Xəstənin gündəlik həyatına və işinə təsir etmir. .

3: Xəstədə yuxarıda təsvir edilən vegetativ simptomlardan biri və ya bir neçəsi var və Bunlar müəyyən dərəcədə xəstənin gündəlik həyatına və işinə təsir edir.

4: Avtonom simptomlar tez-tez mövcuddur və xəstə gündəlik həyata və işə açıq şəkildə müdaxilə edir. effektləri.

14. Söhbət zamanı davranış. Bu üslub görüş zamanı davranışa əsaslanır. Xəstə necə göründü: Əsəbi, O, əsəbi, həyəcanlı, narahat, titrəyir, tez-tez nəfəs alır və ya tərləyirdi? Qlobal qiymətləndirmə belə müşahidələr əsasında aparılır:

0: Xəstə narahat görünmür.

1: Xəstənin narahat olması şübhəlidir.

2: Xəstə orta dərəcədə narahatdır.

3: Xəstə açıq şəkildə narahatdır.

4: Xəstə narahatlıqla örtülür, məsələn, bütün bədəni titrəyir.

Dereceləndirmə:

0-5 : Anksiyete yok

6-14 : Minör anksiyete

>15 : Majör anksiyete

Abstract

The aim of this study is to evaluate the levels of anxiety and depression in family members of individuals struggling with addiction. It is well-known that addiction not only affects the individual but also has significant psychosocial impacts on their family members. Within this framework, the research has been conducted to assess the mental health of these family members and to raise awareness on this issue.

In this study, the Hamilton Depression Rating Scale (HAM-D) and the Hamilton Anxiety Rating Scale (HAM-A) were utilized to measure the depression and anxiety levels of family members of addicted individuals. The research includes first-degree family members such as spouses, parents, and children of individuals undergoing addiction treatment. The data collected from the participants were analyzed using statistical methods. However, the family evaluation scale, the conflict tactics scales and the satisfaction life scales were used to form the basis of our observations and tests.

The results revealed that family members of Individuals struggling with addiction exhibited high levels of depression and anxiety symptoms. Specifically, it was found that the emotional and economic burdens of addiction on the family had severe adverse effects on the mental health of family members. The levels of depression and anxiety were observed to increase proportionally with the duration and severity of the addiction. Additionally, it was determined that family members had limited access to social support systems, which added an extra burden on their mental health.

These findings indicate that in the fight against addiction, it is not only the individuals struggling with addiction who need psychological support and intervention but also their family members. It is recommended to develop and implement psychosocial support programs aimed at protecting and improving the mental health of these family members. Furthermore, the Hamilton Depression and Anxiety Scales were found to be effective and reliable tools for assessing the psychological state of family members.

In light of these findings, several key recommendations and implications for practice and policy can be drawn. Firstly, healthcare providers and policymakers must recognize the critical role of family support in addiction treatment programs. Integrating family counseling and support services into addiction treatment protocols could help mitigate the psychological burden on family members and improve overall treatment outcomes.

Secondly, raising public awareness about the psychosocial impacts of addiction on families is crucial. Public health campaigns and educational programs should include information on how addiction affects not just the individual but also their loved ones, and promote available resources and support systems.

Thirdly, future research should explore the long-term effects of addiction on family members' mental health. Longitudinal studies could provide deeper insights into how these psychological impacts evolve over time and identify key factors that contribute to resilience or vulnerability among family members.

Moreover, it may be beneficial to investigate the effectiveness of different types of psychosocial interventions for family members. Comparative studies on various therapeutic approaches, such as cognitive-behavioral therapy, family therapy, and support groups, could identify the most effective strategies for alleviating anxiety and depression in this population.

Lastly, it is essential to consider the cultural context when developing and implementing support programs. Cultural beliefs and values can significantly influence the experience of addiction and the willingness to seek help. Tailoring interventions to fit cultural contexts can enhance their acceptance and effectiveness.

In summary, this thesis underscores the profound and multifaceted impact of addiction on family members, emphasizing the need for comprehensive and inclusive approaches to addiction treatment and support. By addressing the psychological needs of family members, we can foster a more supportive environment for individuals struggling with addiction and promote healthier, more resilient families.

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