"PSYCHIATRIC COMORBIDITIES IN PATIENTS WITH ALCOHOL DEPENDENCE SYNDROME AND ITS CORRELATION WITH SEVERITY OF ADDICTION: A CROSS-SECTIONAL STUDY"

By

Dr. K. VENI NIRUDYA, MBBS

Dissertation submitted tothe

SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION AND RESEARCH CENTRE, KOLAR

In partial fulfillment of the requirements for the degree of

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(M.D.)
IN
PSYCHIATRY

Under the guidance of

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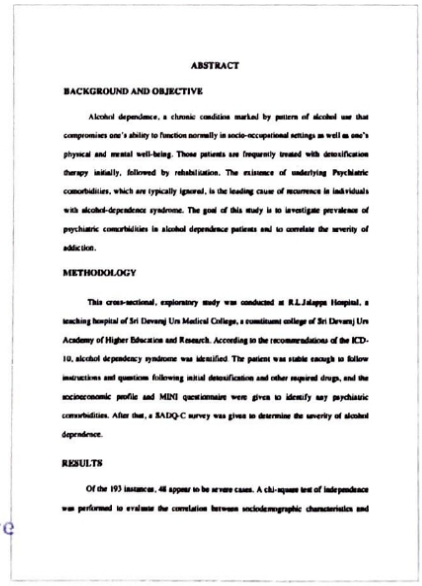

ABSTRACT

BACKGROUND AND OBJECTIVE

Alcohol dependence, a chronic condition marked by pattern of alcohol use that compromises one's ability to function normally in socio-occupational settings as well as one's physical and mental well-being. Those patients are frequently treated with detoxification therapy initially, followed by rehabilitation. The existence of underlying Psychiatric comorbidities, which are typically ignored, is the leading cause of recurrence in individuals with alcohol-dependence syndrome. The goal of this study is to investigate prevalence of psychiatric comorbidities in alcohol dependence patients and to correlate the severity of addiction.

METHODOLOGY

This cross-sectional, exploratory study was conducted at R.L.Jalappa Hospital, a teaching hospital of Sri Devaraj Urs Medical College, a constituent college of Sri Devaraj Urs Academy of Higher Education and Research. According to the recommendations of the ICD-10, alcohol dependency syndrome was identified. The patient was stable enough to follow instructions and questions following initial detoxification and other required drugs, and the socioeconomic profile and MINI questionnaire were given to identify any psychiatric comorbidities. After that, a SADQ-C survey was given to determine the severity of alcohol dependence.

RESULTS

Of the 193 instances, 48 appear to be severe cases. A chi-square test of independence was performed to evaluate the correlation between sociodemographic characteristics and

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Last, but not least, I would like to express my gratitude to the **Almighty** for all his blessings.

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LIST OF ABBREVIATIONS

ADS	Alcohol dependence syndrome
SADQ-C survey	Severity of Alcohol Dependence Questionnaire survey
ICD-10	International Classification of Diseases
AUD	Alcohol use disorders
MINI-Plus	Mini-International Neuropsychiatric Interview-Plus
WHO	World health organizations
AAF	Alcohol-attributable fraction
DD	Dysthymic disorder
GAD	Generalized anxiety disorder
GABA	gamma-aminobutyric acid
CBC	Complete blood count
SSRI	Selective serotonin reuptake inhibitors
SNRI	Serotonin-norepinephrine reuptake inhibitor
CBT	Cognitive-behavioral therapy
SUD	substance use disorder
MDD	Major depressive disorder
LSD	lysergic acid diethylamide
CAN	Cannabis

ABSTRACT

BACKGROUND AND OBJECTIVE

Alcohol dependence is a chronic condition marked by a pattern of alcohol use that compromises one's ability to function generally in socio-occupational settings and physical and mental well-being.

Thosepatients are frequently treated with detoxification therapy initially, followed by rehabilitation. The existence of underlying Psychiatric comorbidities, typically ignored, is the leading cause of recurrence in individuals with alcohol-dependence syndrome. This study aims to investigate the prevalence of psychiatric comorbidities in alcohol-dependence patients and to correlate the severity of the addiction.

METHODOLOGY

This cross-sectional, exploratory study was conducted at R.L. Jalappa Hospital, a teaching hospital of Sri Devaraj Urs Medical College, a constituent college of Sri Devaraj Urs Academy of Higher Education and Research. According to the recommendations of the ICD-10, alcohol dependency syndrome was identified. The patient was stable enough to follow instructions and questions following initial detoxification and other required drugs. The socioeconomic profile and MINI questionnaire have been given to identify psychiatric comorbidities. After which, a SADQ-C survey was given to determine the severity of alcohol dependence.

RESULTS

Of the 193 instances, 48 appear to be severe cases. A chi-square test of independence was performed to evaluate the correlation between sociodemographic characteristics and

severity of conditions, which appear to be statistically significant(P=<0.001). The majority of the patients were Males, with 95.85%.

The relationship between substance useand the severity of symptoms appears to be statistically significant (P=<0.001). The prevalence of psychiatric comorbidity is 46.63%, and the conditions' severityseems statistically significant (P=<0.001).

Comorbidities, including personality disorder (13.3%), anxiety disorder (35.5%),mood disorder (28.9%), and psychotic disorder (22.2%), tend to have a statistically significant correlation with the severity of the diseases (P=<0.001).

CONCLUSION

According to this study, Psychiatric co-morbidity is common in people with alcohol dependence. This study suggests a significant prevalence of psychiatric comorbidity in alcohol-dependence patients with major comorbidity as Mood Disorder, bringing us insight to evaluate in detail and treat accordingly.

A thorough evaluation is essential to determine the likelihood of a dual diagnosis and to provide treatment as necessary. This is because the probability of a dual diagnosis increases with the dependence's severity.

KEYWORDS: Alcohol dependence syndrome, psychiatric comorbidities, SADQ-C, ICD-10.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF GRAPHS

INTRODUCTION

INTRODUCTION

Alcohol use disorder is a chronic condition that affects a person's ability to behave responsibly in social and professional settings and their physical and mental welfare. Physical and emotional addiction is a result of this widespread health problem. Although alcohol use has grown dramatically in poorer countries, alcohol use disorders (AUD) have historically been more prevalent in wealthier countries. [1]

Statistics demonstrate that excessive alcohol use has adverse effects and is linked to several downsides. Clinically, it can highlight hepatocellular, neoplasia, gastroenteritis, stomach varies, and type 2 diabetes. The study demonstrates an increased prevalence of mood and anxiety disorders co-occurring at the psychiatric level, linked to worse results and difficulties sticking with therapy. [2]

The co-existence of mental diseases and alcohol use issues, or "dual diagnosis," has drawn more attention lately. People with many conditions are more prone than those with a single diagnosis to encounter problems of all types, sizes, and severity. Dual diagnoses are characterized as chronic in nature and treatment-resistant. [3]

Additionally, alcohol is a vital substance that has a long-lasting impact on almost all neurochemical systems. Because of this, excessive drinking can lead to significant mental illnesses, including psychosis, anxiety, and sadness. For example, schizophrenia, bipolar disorder, and antisocial personality disorder all increase the likelihood of later developing alcohol use problems. [4]

It is general knowledge that drug misuse and mental diseases coexist, and studies show that the likelihood of another mental illness developing in an alcoholic is three times higher.

According to surveys, 76.4 million (8%) of the two billion persons who drink alcohol globally have at least one other illness due to their habit. Alcohol use disorders can potentially mimic or exacerbate most other psychopathological symptoms. [5]

Numerous studies conducted in various settings have revealed a strong correlation between the frequency of mental illness and alcohol dependence syndrome. The strain on the healthcare system is increased when patients with alcohol dependence also have co-occurring psychological conditions. Concurrent psychiatric disorders in alcohol dependence are also linked to extended hospital admissions, poor treatment results, more excellent relapse rates, suicide, homelessness, and detrimental effects on families. [6]

Risk drinking was defined as either exceeding recommended levels for the weekly volume of intake (a maximum of 14 standard drinks for men or seven standard drinks for women) or exceeding recommended daily drinking limits (a maximum of 4 drinks for men or three drinks for women) once a month or more often.[7]

A case-control study indicated that the prevalence rates of mental comorbidity were 92% and 12%, respectively, in ADS and controls. Depression, antisocial personality disorder, and phobia were the most prevalent disorders.[8]

The above indicates how wildly disparate the outcomes of Indian research in this field have been. The location of the research (a hospital or community environment), the kind of AUD in the sample (abuse or dependence, continuous use, or remission), and the diagnostic methods (clinical interview, screening test, or structured interview schedule). [9]

Patients suffering from alcohol use disorder often get detoxification therapy first, followed by rehabilitation. [10] The primary reason for recurrence in patients with alcohol dependence syndrome is the presence of underlying mental comorbidities that are frequently disregarded. This study aims to look at the relationship between the degree of mental

comorbidities in alcoholics and the level of drinking or addiction. This aids treatment for persons who abuse alcohol and have co-occurring mental problems. This study was conducted to determine the prevalence of mental co-morbidities in individuals with alcohol dependence syndrome and if they are related to the severity of the condition.

AIMS&OBJECTIVES

AIMS AND OBJECTIVES

AIM:

To determine the prevalence of psychiatric comorbidities in alcohol dependence syndrome patients and to correlate the severity of the addiction.

OBJECTIVES:

1. To assess the prevalence of psychiatric comorbidities in patients with alcohol dependence syndrome.
2. To assess the correlation of psychiatric comorbidities with the severity of the addiction.

REVIEWOF LITERATURE

REVIEW OF LITERATURE

HISTORICAL PERSPECTIVES[11]

- Chemicals that lead to addiction have existed since the dawn of humanity. Addiction, on the other hand, could not have originated until humans created agriculture. (About 13,000 years ago).
- There are about 200 allusions to drinking and drunkenness in the Bible.
- Agapios contends that excessive alcohol use is harmful to one's health.
- In 1849, Magnus Huss used the term "alcoholism" to describe a state of prolonged intoxication from alcohol accompanied by physical disease and a decline in social functioning.
- The term was first used in 1866 by a French Ph.D. candidate to describe a syndrome associated with irresponsibility and binge drinking.
- Opium use was as pervasive in Britain, western Europe, and America in the 19th century as aspirin use is now.
- In 1878, the Business Men's Moderation Society encouraged moderate alcohol use.
- In 1885, Sigmund Freud first became interested in using cocaine to treat common diseases and morphine addiction.
- In 1925, correctional facilities assumed the functions of institutions that specialized in treating addiction. He produced a medicine that was not addictive.
- The APA first included alcoholism and drug addiction as psychopathic personality disorders in the DSM in 1952.
- The phrase "alcohol dependency" was first used by the WHO in 1957.
- In 1910, those who had an addiction were widely referred to as "addicts."

- In 1990, scientists discovered THC-responsive brain receptors, proving that the body naturally produces an analog of the drug.

NEED FOR THE STUDY

- Alcohol use is the world's third leading cause of illness and suffering. Alcohol is one of today's most extensively used and misunderstood substances. Alcohol drinking is a problem since it is socially acceptable.
- Factors depending on alcoholics such as body weight, gender, age at which drinking began, and the amount and frequency of consumption. One of the first effects of alcohol is euphoria, which is presumably why most people drink it.
- Alcohol dependency is a long-term illness characterized by a pattern of alcohol consumption that impairs one's capacity to conduct oneself regularly in social and professional contexts as well as physical and mental health. Physical and psychological addiction are the outcomes of this widespread health problem.
- Although alcohol use has expanded dramatically in underdeveloped countries, alcohol use disorders (AUD) have historically been more prevalent in wealthier countries.
- Alcohol use disorders (AUDs) are particularly significant in psychiatry. Alcohol is a powerful drug that suddenly and over time affects nearly all neurochemical systems. As a result, heavy drinking can cause severe mental conditions, including depression, anxiety, and psychosis.
- The probability of subsequently developing alcohol use issues increases when pre-existing mental diseases, including antisocial personality, bipolar, and schizophrenia disorders, to name a few, are present.

- As a result, alcohol use disorder has become a significant problem worldwide, and as was already said, it can lead to mental comorbidities. Alcohol dependence syndrome patients usually receive detoxification therapy first, followed by rehabilitation. However, the existence of underlying mental comorbidities that are typically ignored is the leading cause of recurrence in people with alcohol-dependent syndrome.
- This study investigated the correlation between the level of mental comorbidities in alcohol dependance patients and the level of drinking or addiction. This helps with the treatment of persons who also have co-occurring mental illnesses and alcohol consumption.
- This comprehensive approach results in improved patient care and a notable drop in recurrence. As a result, this inquiry is carried out.

CASE DEFINITION

A protracted state in which a person experiences an inability to resist the urge to consume alcohol. Alcohol dependenceinfluences a person's physical and mental health and friendships, family, and professional connections. Regular heavy drinking raises the chance of developing a variety of cancers.

According to the ICD-10, "Dependence Syndrome" is a set of physiological, behavioral, and cognitive occurrences in which a person's drug use or class of drugs significantly outweighs previously more essential activities.

One of the dependent syndrome's key characteristics is the impulse to consume the psychoactive drug. Alcohol use disorder is classified as a mental disease in the DSM-IV (APA, 1994), even though its criteria are very different from those of ICD-10. For instance,

although additional criteria are connected to the adverse effects of consumption, the DSM-IV does not include criteria for significant urges or compulsions to take substances.

In ICD-10 and DSM-IV, alcohol dependency is classified as either present or absent for diagnostic and statistical purposes, even though dependence appears as a spectrum of severity. As a result, categorizing dependency into mild, moderate, and severe categories is critical from a therapeutic standpoint. Most people with moderate dependency do not require alcohol withdrawal assistance. Alcohol withdrawal help is usually necessary for people with moderate dependence (SADQ score of 15 to 30). This is typically manageable in a community environment unless there are other dangers.

DIAGNOSTIC CRITERIA OF ADS

History and Background

The American Psychiatric Association and the New York Academy of Medicine released the "Diagnostic and Statistical Manual: Mental Disorders" in 1952 to provide a consistent nomenclature for mental health diagnoses.

The second edition, the DSM-II, was improved and released in 1962. Then, in 1980 and 1994, respectively, the DSM-III and DSM-IV were released. Each was created to enhance the knowledge and capacity for effective management of a broad range of mental health illnesses among doctors and public health professionals.

The fifth edition of the DSM, released in May 2013, is the first to be referred to as a "living document," meaning that revisions and updates will be made up until a sixth edition is eventually published. [12]

DSM – V

According to the DSM-5, an alcohol use disorder is "a problematic pattern of alcohol use those results in clinically substantial impairment or distress, as evidenced by at least two of the following [criteria] occurring within 12 months."

In other words, if a person met two of the following criteria or had any two of the symptoms indicated in the questionnaire within the preceding year, they may be diagnosed with AUD:

1. Alcohol is regularly used in more significant quantities or for longer durations than planned.

2. There is a persistent desire or ineffectual attempt to restrict or manage alcohol use.

3. A significant amount of time is spent on chores necessary to obtain, use, or recover from the effects of alcohol.

4. A strong urge or need to consume alcohol.

5. Consistent alcohol intake that interferes with vital tasks at work, school, or home.

6. Drinking while dealing with chronic, recurring social or interpersonal challenges caused by or exacerbated by alcohol's effects.

7. Significant social, professional, or recreational activities are terminated or reduced due to alcohol consumption.

8. Consistent drinking in situations when it is physically dangerous.

9. Alcohol use continues despite knowledge of a physical or psychological problem likely caused or exacerbated by alcohol.

10. Tolerance is the demand for considerably more alcohol to achieve desirable effects or intoxication or the need for much less alcohol to retain the same impact.

11. The typical alcohol withdrawal syndrome, or alcohol (or a medicine closely related to it, such as a benzodiazepine), is used to treat or prevent alcohol withdrawal symptoms. [13]

ICD – 10

A conclusive diagnosis was obtained when three or more of the critical features of dependence were present at the same time over the prior year, as specified by the ICD 10.

- Problems managing one's drinking behavior in terms of when it starts and stops or how much one drink
- Difficulties controlling substance-taking behavior in terms of its onset, termination, or levels of use
- A physiological withdrawal state when drinking has stopped or been reduced, as evidenced by the characteristic alcohol withdrawal syndrome (tremor, sweating, anxiety, nausea and vomiting, agitation, insomnia)
- Evidence of tolerance, such as the need for more alcohol to generate the same effects as before with less alcohol
- Alcohol intake gradually causes people to disregard other activities or interests, making it take longer to get alcohol, drink it, or recover from its effects.
- Persistent substance use in the face of overtly harmful effects, such as liver damage from excessive drinking, depressive mood states brought on by periods of heavy substance use, or cognitive impairment from drugs; it is essential to establish whether the user was aware of the extent and nature of the harm or could reasonably be expected to be. [14]

EPIDEMIOLOGY

In the UK, 87% of people drank alcohol the year before (Fuller, 2009). Due to cultural, religious, or other factors, some contemporary abstainers have never drunk alcohol, while others have in the past but not recently. The last category includes those who once engaged in risky drinking or were dependent on alcohol but stopped after learning about its adverse effects.

The amount of alcohol drunk by people who now consume it varies greatly, with mostconsumers being moderate and a smaller percentage consistently consuming one liter or more of spirits per day or more and being likely to be significantly alcohol addicted.

Adult males should not generally exceed four units daily, while adult women should not typically take more than three. This concept implies the benefit of having days when you consume less or no alcohol. Alcohol consumption is "low risk" below this point regarding potential harm to society or health. Government officials advise against drinking while pregnant. Those who consume alcohol over these levels but have not yet sustained alcohol-related damagesare considered risky drinkerssince their consumption raises the risk of future harm. These opinions are supported by extensive research on the impact of various alcohol intake amounts on mortality.

These opinions are supported by extensive research on the impact of various alcohol intake amounts on mortality. When alcohol consumption exceeds 50 units per day for males and 35 units per day for women, it is considered "absolutely harmful." The government refers to people who drink more than eight units per day for males and six units per day for women as "binge drinkers." Again, these categorizations are based on an in-depth study of how alcohol use affects adverse outcomes, including accidents, injuries, and other types of harm.

Since general population surveys do not include questions on alcohol dependence diagnosis using the ICD-10, there is a lack of exact information on the prevalence of

alcoholism in the UK (for example, the WHO Composite International Diagnostic Interview [CIDI]). The Psychiatric Morbidity Survey, which employed the Alcohol Use Disorders Identification Test as a WHO measure of alcohol-use disorders, provides the most accurate estimate of alcohol dependence. A probable alcohol dependency is indicated by a test result of 16 or above. In England, 4% of individuals between the ages of 16 and 64 experience alcohol dependence, with 6% of males and 2% of women reporting this illness.

This equates to 1.1 million individuals dependent on alcohol in England in 2000, and in 2007, 1.6 million people were living here. The prevalence of alcohol dependency, which ranged from 2% in the East Midlands to 5% in the North West, was significantly influenced by geography. The likelihood that a young adult (16–24 years old) would drink dangerously increases with age. The prevalence of risky drinking is 1.6 times higher among white people than people of color and other minorities.

While serving as helpful benchmarks for figuring out the incidence of alcohol use disorders in the general population and tracking changes over time, the government and Royal Colleges' standards for hazardous drinking and dangerous alcohol consumption.

Alcohol is linked to more than 60 illnesses and disorders, including high blood pressure, stroke, coronary heart disease, liver cirrhosis, and several malignancies, according to the World Health Organization. This percentage is connected to alcohol use (AAF). The AAF for alcohol intoxication and liver damage is 1. The AAF is less than 1 for other diseases, including cancer and heart disease. The AAF also includes categories for gender and age. Additionally, as was already mentioned, the risk caused by increased alcohol consumption varies for various medical problems. The risk of alcohol intake at a particular level may also be influenced by other variables such as gender, body weight, nutritional state, concurrent use of other drugs, mental health status, and socioeconomic deprivation. [15]

MENTAL HEALTH

Numerous mental health issues and alcohol use are intimately associated. Alcohol use disorder is frequently linked to drug usage, nicotine dependency, self-harm, despair, and anxiety. Alcohol may have a role in up to 41% of suicides, and 23% of those who intentionally harm themselves also battle alcohol addiction. Alcohol dependence raises the probability of suicide presentation by a factor of eight when people are referred to inpatient mental health care. In contrast, hazardous and harmful alcohol use increases the risk of suicide by a factor of three. In the same research, 54% of men and 46% of women said their patients were hazardous drinkers, even though 23% of the general population reported having an alcohol use issue. Particularly among women, their prevalence rates are significantly more significant than the general population's. [16]

SOCIAL PROBLEMS

Alcohol intake is correlated to relationship breakups, domestic abuse, and negligent and abusive child parenting. The Prime Minister's Strategy Unit estimates that over 1 million children are impacted by parental alcohol use and that up to 60% of child protection cases involve alcohol use (2003). Drinking also relates to risky sexual behavior, unintended pregnancies, money problems, and homelessness. Alcohol use disorder affects up to half of all homeless persons. Drinking alcohol reduces performance, increases absenteeism, and harms safety at work. [17]

ETIOLOGY

The variance in each person's risk of having an alcohol use issue cannot be attributed to a single component. The data points to a wide range of possible risk factors, some of which interact to raise the risk for problematic alcohol consumption and alcohol dependence. [18]

PERSONAL HISTORY

It is commonly known that excessive drinking tends to run in families. Compared to unrelated offspring, children of alcohol use disorder patients are generally four times more likely to become alcohol dependent. Genetic studies, particularly twin studies, have convincingly shown a genetic component to the risk of alcohol dependency. Whatever the precise heritability, these results suggest that genetics might not wholly account for the causes of alcoholism. Environmental variables and their interaction with genetic factors are responsible for the remaining variance. Multiple genes that affect how the brain functions have been linked to the disease, even though there is not a single gene that directly causes alcoholism.

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PSYCHOLOGICAL FACTORS

Psychological variables increase the likelihood of having an alcohol use disorder. A variety of learning theories strongly supports the importance of learning in alcoholism. Theories of conditioning explain how alcohol dependency forms. Alcohol is a psychoactive substance that, among other things, has pleasurable effects and the capacity to lessen unfavorable emotional states like anxiety. For instance, cravings for alcohol may be sparked by the fragrance and sight of a favorite beverage, leading to the frequent use of the substance after a period of sobriety.

Additional explanations for the rise in binge drinking and alcohol dependence may be found in the social learning theory. Families and peer networks can teach people new

drinking habits and expectations (beliefs) about the effects of alcohol. Stronger favorable expectancies among teenagers are associated with earlier initiation and more frequent consumption of alcohol (for instance, an idea that drinking is enjoyable and desired).

The idea that the start of alcohol dependency is brought on by a specific "addictive personality" is supported by some addiction counselors. It might be challenging to tell apart between personality features that existed before alcoholism and how alcohol affected how those qualities manifested in patients undergoing alcohol dependence therapy. However, there is a higher incidence of alcohol dependence and antisocial personality disorder in those with ASPD and severe addiction. Poor impulse control and disinhibiting traits like novelty and sensation seeking are major risk factors for developing alcohol and drug addictions. They may be brought on by abnormal pre-frontal cortex brain activity. [20]

PSYCHIATRIC COMORBIDITY

The occurrence of many disorders in a person throughout a given period is known as psychiatric comorbidity. While the strength of the association varies amongst problems, people with alcohol use disorder are more likely than the general population to experience most of the mood, anxiety, drug use, and mental concerns.

Comorbidity between alcohol use disorder and other psychiatric disorders may result from several factors, such as a direct or indirect causal relationship between the disorders or vice versa; shared genetic and environmental causes of the disorders and other psychiatric disorders; or because alcohol use disorder and other psychiatric disorders share psychopathological characteristics and are classified as a single diagnostic entity.

As was previously said, compared to the general population, individuals with alcohol dependence have greater rates of comorbidity with other mental diseases such as depression, anxiety, post-traumatic stress disorder (PTSD), psychosis, and substance addiction. Drinking

is seen as a type of "self-medication" when alcohol can, at least momentarily, alleviate anxiety and depression symptoms. The long-term effects of alcohol only make these problems worse, and there is no scientific evidence to back this assertion. [21]

TYPES OF PSYCHIATRIC COMORBIDITIES

Mood disorder

- Dysthymia
- Manic episode
- Major depressive disorder
- Bipolar affective disorder

Anxiety disorder

- Generalized Anxiety disorder
- Panic disorder
- Social phobia

Psychotic disorder

[Psychosis]

Personality disorder

[Antisocial personality disorder]

1. MOOD DISORDER[22]

The definition of mood is a pervasive and enduring feeling tone that affects almost every element of public behavior. A significant amount of emotional distress is a defining feature of affective disorders, often known as mood disorders (severe lows called depression or highs called hypomania or mania). The mortality and morbidity rates for these prevalent mental diseases are greater. The regions of the brain that control our emotions and moods are the amygdala and orbitofrontal cortex. During brain imaging tests, Amygdala enlargement has been observed in individuals with mood disorders, supporting the idea that alterations in these areas are the root cause of mood disorders. Mood issues are associated with repeated episodes of ventricular hypertrophy.

Patients who get little social support show signs of reduced brain plasticity, which makes them more prone to mood disorders. Mania is brought on by severe disruption of brain plasticity, whereas depression is caused by mild to moderate impairment.

In addition, mood problems can cause tiredness and a decreased appetite. Psychomotor activity may increase (resulting in agitation) or retardation. Increased agitation poses a severe risk to life since it can cause kidney failure and muscle deterioration.

In extreme circumstances, the patient may develop hallucinations and delusions, which are symptoms of psychosis. In mood disorders, neurocognitive alterations have been seen along with deficits in executive functioning, attention, focus, short- and long-term memory, and memory retrieval. These warning signs and symptoms result from a combination of risk factors, including genetic susceptibility, a good family history, and social support networks.

1a. DYSTHYMIA[23]

Dysthymic disorder (DD), commonly known as dysthymia and characterized by variable dysphoria and brief intervals of everyday mood, is a persistent mood condition. The symptoms of DD are far less severe than those of its cousin, major depression, and they are more prevalent in the community and primary care and mental health settings.

DD appears to have a hereditary tendency despite the lack of consistent, visible biological facts. In psychiatric and general medical settings, diagnosing DD may be challenging. Pharmacotherapy and psychotherapy are other treatment alternatives, albeit their results may be transient or restricted. Poor prognosis is linked to various prognostic variables, and it could take some time for DD to develop.

Etiology

Patients with DD do not all have the same biochemical anomalies, which may be related to the condition's etiological and/or clinical heterogeneity. Infrequent polysomnographic sleep patterns, increased interleukin-1, serotonergic dysfunction, and decreased platelet monoamine oxidase activity in females are examples of sporadic illnesses.

According to familial studies, dysthymic probands are more likely to experience DD14, severe depression, and personality disorders. This can suggest that there is a family history of susceptibility. In addition, various psychological issues, such as stress during adolescence and adulthood and unfavorable social conditions, may impact the illness.

DD is an Axis I mood disorder characterized by recurrent depression symptoms that are only mildly depressive (i.e., at least two years in duration).

To be diagnosed with this condition, a person must exhibit at least two of the diagnostic symptoms listed below:

(1) a poor appetite or overeating;

(2) inability to sleep or excessive sleepiness;

(3) lack of energy or weariness;

(4) low self-esteem;

(5) lack of focus or trouble making decisions; and

(6) emotions of pessimism.

Epidemiology

DD and high incidence of mental comorbidities are frequently correlated. Because "pure" dysthymia is so unusual, the National Institutes of Mental Health Collaborative Research on the Psychobiology of Depression had to adjust its recruitment tactics to enroll enough subjects. Major depression (up to 80%), anxiety disorders (up to 50%), personality disorders (22-38% or more for people with early-onset DD), somatoform disorders (3%-45%), and drug misuse (up to 50%) are common mental comorbidities.

Pathophysiology

The corpus callosum and frontal lobe of the brain differ between women with and without dysthymia, and this might imply that the developmental stages of these two groups conflict. These groups vary biologically in that healthy people anticipate more happy, neutral, or negative occurrences than dysthymic people. In comparison to healthy persons, this gives neurobiological proof of the emotional numbing that people with dysthymia have learned to utilize to shield themselves from extremely unpleasant sensations.

Evaluation

For at least two years, the person has been depressed for most days. The clinical presentation is typically impacted by low self-esteem, fatigue, and issues with eating or

sleeping. Before their condition is acknowledged, people with dysthymia may experience it for many years. Others around them frequently refer to them as "simply gloomy people." The diagnostic criteria are as follows: reduced or increased hunger, insomnia or excessive daytime sleepiness, exhaustion or poor energy, low self-esteem, problems paying attention or making decisions, and negative or sad emotions.

Differential diagnosis

Dysthymia has the following alternative diagnoses: secondary mood disorder to a primary medical problem, a severe spell of depression.

Treatment

Escitalopram, citalopram, sertraline, fluoxetine, paroxetine, and fluvoxamine are the antidepressants/SSRIs that are most frequently recommended for dysthymia. Cognitive behavioral therapy (CBT), interpersonal psychotherapy (IPT), manualized group therapy (MGT), CBASP, CBT, and problem-solving therapy are just a few of the psychotherapies that have drawn attention. These do not refute the advantages of supportive or psychodynamic psychotherapies.

Studies:

1. Due to methodological differences, there are few long-term outcome studies in treating DD, making research comparisons difficult. However, a consistent trend emerges: a significant minority of patients do not recover. For instance, when Klein et al. examined the 10-year outcomes of a sample of dysthymic individuals, they discovered severe symptoms and high recurrence rates. A bad prognosis may be more likely given the frequency of severe concomitant depression, which virtually all DD patients experience. Patients with DD may also struggle to adjust to marriage, have a

low quality of life, be disabled, and lack social support. Additionally, it appears that these people are more sensitive to stress. [24]

2. DD talks about a few prognostic factors. Less favorable outcomes are also linked to early onset of symptoms, history of sexual abuse, tense parent-child relationships, family drug use, and Cluster A personality disorders. Additionally, eating disorders and Cluster C personality traits are linked to older age, lower levels of education, concurrent anxiety disorders, positive family histories of depression, weaker mother-child relationships, chronic stress, and eating disorders. Concomitant psychopathology, a history of trauma, dysfunctional early familial ties, and focus all tend to have a poor influence on the prognosis for DD. [25]

1b. MANIC EPISODE [26]

A manic episode, also known as a manic phase, is defined by a change in behavior that significantly affects day-to-day functioning and lasts for one week. Since it lasts at least four days rather than a week and does not severely affect social or occupational functioning, hypomania differs from mania. Increased talkativeness, speech, less need for sleep, racing thoughts, distractibility, increased goal-directed activity, and psychomotor agitation are all signs of mania. Additional manic symptoms include grandiosity, impulsivity, impatience, and a heightened, labile mood. Even if the symptoms last less than a week, the time automatically qualifies as real mania and not hypomania if the person experiencing the symptoms has to be hospitalized.

Etiology

Mania, or more broadly, bipolar I disorder, has no identified etiology. There is substantial proof that the problem results from a complex genetic, psychological, and cultural

interaction. Numerous research based on families has unmistakably revealed a genetic component. In a study of monozygotic twins, it was shown that when one of the siblings tested positive for the condition, up to 80% of the twins were concordant for it. The fact that monozygotic twins do not always agree on everything illustrates how the environment may affect a person. Different allele frequencies have been linked to schizophrenia and bipolar I illness, according to research. Stressful psychosocial circumstances are strongly connected with both the onset and frequency of manic episodes, according to several anecdotal studies.

Epidemiology

Mania must be present for bipolar I disorder to be diagnosed; hence illness epidemiology may contain information on its incidence. Fewer people will have bipolar disorder at some time in their life. Equal chances exist for both men and women to be affected. However, women are far more likely than men to have many depressive episodes in a year. The symptoms of bipolar disorder often appear between the ages of 25 and 30, and men typically begin their periods before women do. According to studies, men generally have the first manic symptoms after a depressive episode, unlike women. Nearly two-thirds of bipolar patients have at least one relative undergoing treatment for the condition orhave been diagnosed with unipolar depression.

Pathophysiology

Several studies have demonstrated that particular brain areas are implicated in the pathophysiology of mania and bipolar disease; however, the exact processes involved are still unknown. In bipolar disease patients, the amygdala, hippocampus, basal ganglia, prefrontal cortex, and anterior cingulate have all demonstrated structural and functional abnormalities. BD patients have a hyperactive amygdala, a hypoactive hippocampus, and an underactive

prefrontal cortex. Executive function may be hindered in mania due to the heightened and uncontrolled emotions caused by increased amygdala activation and reduced cortical activity.

Evaluation

When a patient exhibits mania, a comprehensive examination should be performed to rule out any other possible differentials. A complete blood count (CBC), a complete metabolic panel (CMP), a thyroid panel, and a urine drug screen are only a few of the preliminary laboratory results required to evaluate a manic patient for individuals who are elderly or extremely young, brain imaging in the form of a CT or MRI would be necessary to detect any biological causes of manic symptoms.

Treatment

Risperidone, olanzapine, and haloperidol are examples of effective medications. Lithium, aripiprazole, and quetiapine were all quite effective medications. Although they were all more effective than the placebo, valproic acid, ziprasidone, and carbamazepine were less effective than their rivals. In managing mania, gabapentin, lamotrigine, and topiramate did not differ from the placebo. Although less often used, clozapine and electroconvulsive therapy have demonstrated various advantages for treating treatment-resistant mania. Finally, both patients and their families benefit from psychoeducation and psychotherapy.

Differential diagnosis

When persons display manic symptoms, some additional differential diagnoses may be developed. Other physiological and psychological problems can also exist in patients. Caffeine or other stimulant intoxication, especially that caused by cocaine, amphetamine, PCP, or nicotine, is one of the most frequent disorders that could mimic mania. Hallucinogens can also bring on similar symptoms. A person who abuses steroids and HGH may exhibit aggressive, irritable, agitated, and mania-like symptoms. Schizophrenia, a major

depressive disorder with psychotic characteristics and extremely high anxiety levels, is the primary mental illness resembling bipolar mania. Any mixed mood disorder, especially when psychosis is present, should be considered in the differential diagnosis of bipolar disorder.

Brain tumors are one example of a physiological condition that could resemble mania.

Studies:

1. Atagun M et al., 2022 offered the most recent recommendations for treating acute mania. Professionals are guided by the stepwise treatment model algorithm while treating patients who are resistant or troublesome. The primary level of evidence for medical efficacy is considered to be controlled, double-blind studies, whereas the secondary level is uncontrolled, open-label research. Case studies are assessed as tertiary evidence, and for agents without primary or secondary data, event reports and expert opinions are sought. However, medical professionals should consider several criteria, including previous treatment history, drug interactions, side effects, and medication adherence. As a result, due to the unfavorable impacts, highly effective agents may decrease their ranking in the recommendation algorithm. [27]
2. Tondo L et al. (2017) compared the length and frequency of bouts of mania and depression, as well as the overall proportion of time spent in depressed vs. manic episodes over 16.7 years, in 1130 professionally treated DSM-IV-TR BD patients of varied kinds. Most BD subtypes, except those with psychotic symptoms, spent more time in depression than manic morbidity, resulting in longer depressive episodes. In contrast, the overall amount of time spent in mania was highest in BD with psychotic symptoms, BD-I, and those who followed an MDI course. The proportion of time spent in depression was highest in those who completed a mostly DMI course. In

contrast to depression, whose episodes were often much longer on average, BD subtypes showed minimal variation in episode length. [28]

1c. MAJOR DEPRESSIVE DISORDER (MDD) [29]

Major depressive disorder (MDD) is anticipated to rank globally as the third-largest source of sickness burden, surpassing all other diseases. If a person experiences any of the following, whether alone or in combination: suicidal thoughts, a persistently negative or depressed mood, anhedonia (a loss of interest in pleasurable activities), guilt or a sense of worthlessness, lack of energy, difficulty concentrating, changes in appetite, psychomotor retardation or agitation, sleep disturbances, or any combination of these, it is time to seek medical attention.

Etiology

Major depressive illness is thought to arise from biochemical, genetic, environmental, and psychological causes. Previously, problems with serotonin, norepinephrine, and dopamine were supposed to be the primary causes of MDD.

Glutamate and glycine, two essential excitatory neurotransmitters, and the inhibitory neurotransmitter GABA, have been found to have a role in the development of depression. Depressed people had reduced GABA levels in their plasma, CSF, and brain. GABA is thought to operate as an antidepressant by blocking ascending monoamine pathways, such as those in the mesolimbic and mesocortical systems.

Medication that blocks NMDA receptors has been explored for its antidepressant benefits. Thyroid and growth hormone imbalances have also been linked to the development of mood disorders. Various traumatic childhood events have been linked to depression later in life.

Epidemiology

It has an average lifetime prevalence of 12 percent, with a range of 5 to 17 percent. This illness affects almost twice as many women as males. The roots of this imbalance have been proposed to be hormonal variations, the impacts of childbearing, differing psychological demands on men and women, and the behavioral idea of learned helplessness. Even though the average age of onset is about 40 years old, new research has revealed that younger populations are getting more afflicted due to alcohol and other drug abuse.

Those who lack significant interpersonal ties and are divorced, separated, or widowed are more likely to suffer from MDD. The prevalence of MDD does not change according to socioeconomic position.

Pathophysiology

According to the monoamine-deficiency theory, the core pathophysiology of depression is a shortage of the neurotransmitters serotonin, norepinephrine, or dopamine in the central nervous system. The neurotransmitter serotonin has received the most significant attention in depression research.

Evaluation

The Patient Health Questionnaire-9 (PHQ-9) is a commonly used self-report, standardized depression rating scale in primary care settings for screening, diagnosing, and monitoring treatment response for MDD.

The Hamilton Rating Scale for Depression (HAM-D), a clinician-administered depression rating scale, is commonly used to measure depression in most hospital settings. Although the original HAM-D comprises 21 items that reflect depressive symptoms, the first 17 items account for the majority of the score.

The Zung Self-Rating Depression Scale, the Raskin Depression Rating Scale, the Beck Depression Inventory (BDI), the Montgomery-Asberg Depression Rating Scale (MADRS), and other questionnaires are among the various evaluations.

Differential diagnosis

- Neurological reasons include subdural hematomas and cerebral vascular accidents.
- Examples of endocrinopathies include diabetes, thyroid issues, and adrenal diseases.
- Metabolic disorders include hyponatremia and hypercalcemia.
- Some abused drugs/substances include stimulant withdrawal, alcohol, sedatives, hypnotics, antihypertensives, anticonvulsants, and antibiotics.
- A couple of instances of infectious diseases include HIV and syphilis.
- Malignancies

Treatment

Depression has been treated using a variety of antidepressants, such as selective serotonin receptor inhibitors, serotonin-norepinephrine receptor inhibitors, and dopamine-norepinephrine receptor inhibitors. A mental ailment known as a major depressive disorder is quite common. People who are emotionally isolated from others, divorced, separated, or widowed are more likely to experience MDD. Neither socioeconomic position nor race has an impact on the prevalence of MDD. Comorbid disorders such as drug use, panic, social anxiety, and obsessive-compulsive disorders are frequently present in people with MDD.

Studies:

1. According to Nunes et al. (2006),DSM-IV primary and substance-induced major depressive disorder (MDD) both predicted future depression in substance-dependent individuals seeking treatment for both alcohol and depression (n = 110). People with

current drug-induced MDD were demonstrated to be less likely to overcome dependency than patients without baseline MDD in research looking at the impact of MDD on the course of substance abuse. The chance of remission was lower when there was no history of MDD before initiating lifelong drug consumption. When abstaining for a long time, persons with MDD anticipated dependent recurrence after being released from the hospital more accurately than those without MDD. [30]

2. Substance-induced mood disorders are more likely to disappear quickly once use stops, unlike independent depressed episodes. Therefore, prolonged abstinence among alcoholics is probably linked to reduced depression symptoms. In a 1-year follow-up of male alcohol-dependent hospital patients, 2.1% developed MDD independent of excessive alcohol consumption, compared to 2.1% who experienced depressive episodes while drinking heavily (n = 239). [31]

1d. BIPOLAR AFFECTIVE DISORDER[32]

A combination of manic, hypomanic, and mixed episodes, as well as significant subsyndromal symptoms that frequently appear between major mood episodes, are the hallmarks of bipolar affective disorder, a chronic and complicated disease of the mood. It is a significant contributor to disability worldwide. Bipolar one disease has often been linked to significant functional impairment, early death, severe medical and mental comorbidity, and reduced quality of life. A person's mood, which is referred to as a persistent and continuing emotion or feeling, affects their behavior and viewpoint. Unipolar and bipolar disorders are two examples of mood disorders, sometimes known as affective disorders.

ETIOLOGY

Biological Factors

1. **Genetic Factors:** The risk of bipolar disorder is 10-25% when one parent has a mood disorder. Twin studies have shown 70-90% concordance rates in monozygotic twins. Chromosomes 18q and 22q have the strongest evidence for linkage to bipolar disorder. Bipolar 1 disorder has the highest genetic link of all psychiatric disorders.

2. **Neuroanatomy:** The prefrontal cortex, anterior cingulate cortex, hippocampus, and amygdala are essential areas for emotion regulation, conditioning of responses, and behavior response to stimuli.

3. **Structural and Functional Imaging:** Abnormal hyperintensities in the subcortical regions, especially the thalamus, basal ganglia, and the periventricular area in bipolar disorder, indicated recurrent episodes and showed neurodegeneration. Patients with severe depression or a family history of mood disorder show increased glucose metabolism in the limbic region with decreased metabolism of the anterior cerebral cortex.

4. **Biogenic Amines:** Dysregulation of neurotransmitters that have been implicated in this disorder include dopamine, serotonin, and norepinephrine; however, the data have yet to converge to unveil a good association.

5. **Second Messengers:** G proteins or guanine-binding nucleoproteins are targets for mood stabilizers. They interact with membrane receptors and form second messengers like cyclic adenosine monophosphate (cAMP) and cyclic guanosine monophosphate (cGMP). Second, messengers regulate neuronal membrane channels.

6. **Hormone Regulation Imbalance:** Adrenocortical hyperactivity is observed in mania. Chronic stress decreases neurokinin brain-derived neurotrophic factor (BDNF), which impairs neurogenesis and neuroplasticity. The growth hormone is released after

stimulation from dopamine and norepinephrine and its release is inhibited by somatostatin. Increased CSF somatostatin levels are observed in mania.

7. **Immunological Factors:** Chronic elevation of cytokines and interleukins associated with clinical severity.

Psychosocial Factors

1. A significant life stressor can alter neurotransmitter levels, synaptic signaling, and neuronal death, among other brain alterations. This relates to the first mood disorder event and subsequent instances where it returns.

2. People with BD who exhibit histrionic, obsessive-compulsive, or borderline personality traits are more prone to experience depressive episodes.

Epidemiology

The lifetime prevalence of BD I in the general population is close to 1%. While bipolar disorder type I (BD I) affects both men and women equally, some studies have shown that men are more likely to experience manic episodes and, as a result, have BD I. In contrast, women are more likely to have BD II.

Although some research shows a later beginning (>25 years of age), bipolar disorder frequently manifests in early adulthood (18 to 20 years of age).

Suicide is more likely to occur among those who have mental problems. The suicide mortality rate among people with bipolar affective disorder is up to 20 times higher than that of the general population.

Pathophysiology

One of the most heritable mental disorders, bipolar affective disorder, is believed to be caused by a multifactorial model in which genes, environment, and psychosocial variables

dynamically interact to cause this phenomenon. There is some overlap between schizophrenia and several alleles with minor effects.

Brain-derived neurotrophic factor (BDNF), among other neurotrophic substances, is necessary for the signaling networks that allow dendritic sprouting and neuronal plasticity. Bipolar affective disorder patients' post-mortem brain tissue has been shown to have dendritic spine degeneration. Additionally, studies are being conducted on several pathways, including neuroinflammation, apoptosis, oxidation, mitochondrial dysfunction, and endoplasmic reticulum stress, that may impact neuronal interconnectivity.

Evaluation

A thorough clinical mental examination performed with the patient and their family members to understand the longitudinal history of the condition dramatically aids in the accurate diagnosis of bipolar affective disorder.

Before making assumptions about organicity, substance use, or iatrogenic causes, a thorough medical evaluation is required (e.g., urine drug screen, serum alcohol levels, urinalysis, thyroid panel, medication profile, etc.). Most test results in BD fall within acceptable tolerances.

Consider the blood levels of lithium, valproic acid, lamotrigine, or carbamazepine to identify therapeutic levels when titrating medication in patients who have previously been diagnosed with bipolar affective disorder and have been receiving therapy with mood stabilizers.

Differential diagnosis

• **Major Depressed Disorder:** A longitudinal history is essential since it might be challenging to distinguish between the depressive episodes found in MDD and BD. Those with BD will disclose a manic or hypomanic episode, disqualifying the diagnosis of MDD.

• **Schizophrenia:** Thinking disorders like schizophrenia can include mood symptoms that resemble bipolar affective disorder; these symptoms only seldom occur and only in the setting of the thought disorder.

• **Substance-induced bipolar disorder**: When a person uses drugs or alcohol, mania and depression can both get worse. A comprehensive laboratory analysis should rule out the possibility of drug use to lessen the discrepancy.

• **Personality disorders:** Mania, hypomania, and sadness all share traits with personality disorders, especially borderline and histrionic disorders.

• **ADHD**: Symptoms might resemble mania in children and adolescents, although they are less episodic and undulant than in BD.

Treatment

The cornerstone of acute therapy for bipolar mania and depression is using mood stabilizers and antipsychotic drugs. The primary pharmaceutical treatment for the bipolar affective disorder is mood stabilizers, especially while mania is in its maintenance phase. Since long-term usage has been shown to lower the risk of suicide, lithium is recognized as the gold standard in treating bipolar illness. Between 50 and 70 percent of persons using lithium experience reduced mania.

Regular serum lithium level monitoring is necessary due to lithium's limited therapeutic index. The anticonvulsants carbamazepine and valproic acid, which also have a mood-stabilizing effect, are frequently used to treat acute manic episodes. It is advised to use

second-generation or atypical antipsychotics alone or in conjunction with mood stabilizers, such as Ziprasidone, olanzapine, quetiapine, and risperidone.

It has been demonstrated that psychoeducation significantly increases prevention in bipolar illness patients. Additionally helpful to patients are family-centered therapy, interpersonal and social rhythm treatment, and cognitive behavioral therapy. It has also been demonstrated that functional rehabilitation can help those who have psychosocial functional impairments brought on by bipolar one or bipolar two diseases function better.

Bipolar depression is complicated to treat and often lasts far longer than unipolar depression, and it necessitates a different approach than unipolar depression. Antidepressants, lamotrigine, lurasidone, quetiapine, and olanzapine are all considered beneficial but have varying degrees of tolerability.

Studies

1. According to Jain A et al., BD has a history of being linked to serious medical and mental comorbidity, early death, high levels of functional disability, and a lower quality of life. There are two types of bipolar disorder (BD): bipolar disorder I (BD I) and bipolar disorder II (BD II). Since any existing associations would be indicative of the diagnoses of "substance/medication-induced bipolar and related disorder" and "bipolar and related disorder due to another medical condition," respectively, both aforementioned manifestations must occur in the absence of any substance, iatrogenic agent, or organicity. Cyclothymic disorder, a less well-known bipolar spectrum subtype, is more comparable to a personality disorder in persistence and chronicity. [33]
2. Hilty DM et al. (2006) scanned the Medline database between January 1990 and December 2005 for key terms relevant to bipolar disease, diagnosis, and therapy.

Bipolar disease is a severe public health concern typically recognized years after the disorder begins. Comorbid conditions are common and difficult to control. Treatment strategies frequently include a lifelong course of medicine and a focus on the psychosocial needs of patients and their families. Mania therapy is a well-known procedure. The field of combination therapy and its application to treating depressed, mixed, and cyclical episodes is expanding. Conclusions: Bipolar illness is a complex mental condition to manage, even for psychiatrists, due to its frequent attacks, associated disorders, and nonadherence to therapy. [34]

2. ANXIETY DISORDER:

2a. GENERALIZED ANXIETY DISORDER[35]

Fear is a natural neurophysiological state of vigilance characterized by a fight-or-flight reaction to a perceived existing or impending threat (real or perceived). Anxiety is a complex cognitive, affective, physiological, and behavioral response system associated with preparing for expected harmful events or situations, and it emerges as a future-focused emotional state. Pathological anxiety is formed when the perceived threat is overstated, or the risk of a scenario is erroneously judged, resulting in excessive and inappropriate behavior. Anxiety is one of the most prevalent mental diseases, but its true prevalence is unknown since many people avoid treatment or medical practitioners fail to make an accurate diagnosis.

Etiology

Anxiety disorders appear to be caused by a mix of biopsychosocial factors. When genetic predisposition is combined with stressful or traumatic circumstances, clinically significant disorders result.

The following conditions can exacerbate anxiety:

• Medications

• Herbal treatments

• Substance abuse

• Trauma

• Childhood memories

• Anxiety disorders

Epidemiology

One of the most prevalent mental illnesses in the general population is anxiety. The most prevalent is a particular phobia, with a 12-month prevalence rate of 12.1%. Social anxiety disorder, with a 12-month prevalence incidence of 7.4%, is the second most common Women experience anxiety disorders on average 2:1 more frequently than males.The least common anxiety disorder is agoraphobia, with a 12-month incidence rate of 2.5%.

Pathophysiology

The central nervous system's anxiety mediators include norepinephrine, serotonin, dopamine, and gamma-aminobutyric acid (GABA). The autonomic nervous system mediates most symptoms, particularly the sympathetic nervous system.

The amygdala is essential for fear and anxiety regulation, and anxiety disorder patients have a heightened amygdala response to anxiety cues. The amygdala and limbic system are related to prefrontal cortical regions, and prefrontal-limbic activity abnormalities can be corrected with psychological or pharmacological interventions.

Evaluation

When the history and examination do not reveal any other underlying medical conditions, initial laboratory testing may be limited to the following tests: complete blood count (CBC), chemical profile, thyroid function tests, urinalysis, and urine drug screen.

If the anxiety symptoms are exceptional or the physical examination reveals any irregularities, further testing may be required to identify or rule out underlying medical conditions. This might involve electroencephalography, a computed tomography (CT) scan of the brain, an electrocardiogram, infection tests, arterial blood gas analysis, chest radiography, and thyroid function tests.

Differential diagnosis

- Pheochromocytoma
- Asthma
- Atrial fibrillation
- Hyperthyroidism
- Delirium
- Diabetic ketoacidosis
- Substance abuse

Treatment

A benzodiazepine may be necessary to treat acute anxiety. Chronic anxiety is treated with either medication, psychotherapy, or a combination of the two.

Pharmaceuticals used to treat anxiety disorders include benzodiazepines, tricyclic antidepressants, mild tranquilizers, selective serotonin reuptake inhibitors (SSRIs), serotonin-norepinephrine reuptake inhibitors (SNRIs), and beta-blockers.

Cognitive-behavioral therapy is the most successful type of therapy. This type of treatment attempts to assist clients in identifying and changing the common maladaptive thought processes and beliefs that underpin and sustain symptoms. It is well-structured, goal-oriented, and instructive.

Studies

1. According to Magidson et al. (2012), generalized anxiety disorder (GAD) and substance use disorder (SUD) have a strong association (GAD). Clinical and community samples have frequently reported high rates of GAD and SUD comorbidity, and these reports have been linked to poorer outcomes than independent diseases. Compared to those with alcohol use disorders alone, those with comorbid anxiety develop more severe illnesses, are more handicapped, consume more alcohol, have worse social outcomes, and require more extended hospital stays. Concomitant SUD among GAD sufferers dramatically reduced their chances of treating the illness and increased the possibility that it would reoccur, according to long-term follow-up research. [36]
2. Patients with panic disorder were 2.4 times more likely than the general population to have a co-occurring substance use problem. According to one study of alcoholism inpatients, the prevalence of social phobia, specific phobia, generalized anxiety disorder, obsessive-compulsive disorder, posttraumatic stress disorder, panic disorder with agoraphobia, and anxiety disorders caused by alcohol was 24.7%, 30.6%, 19.3%, 5%, 4.6%, and 2%, respectively. Burns et al. observed similar results in 2005 when they examined a sample of 48 in-patient alcoholics and determined that 24% had agoraphobia and 24% had social and mixed phobias. [37]

3. According to the third causal explanation for comorbid anxiety and ADS, alcohol use over an extended period causes stress. Anxiety can result from changes in any of the many bio-psychosocial problems that alcoholism has generated. As alcoholism progresses, there are many periods of binge drinking, frequent withdrawal, and repeated intermittent periods of excessive drinking. These binge drinking episodes and withdrawal can change the nervous system and increase or induce anxiety. For instance, whereas acute alcohol use reduces anxiety by increasing GABA activity, persistent alcoholism results in a general deficit of GABA, negating the benefits of acute intake and perhaps causing anxiety to grow. [38]

4. Withdrawal periods can also trigger brain alterations such as hyper-excitability of particular brain systems (such as the limbic and norepinephrine systems), which are also linked todeveloping panic attacks. Repeated withdrawal episodes might cause a progressive brain adaptation/kindling over time, increasing the drinker's vulnerability to anxiety and aggravating stress-induced unpleasant effects during abstinence. Clinical studies show that people who have recently abstained from alcohol have increased feelings of anxiety, panic, and phobic-like behaviors in the short term, as well as symptoms of autonomic activity (i.e., sympathetic activation, such as increased heart rate and faster/shallower breathing) and persistent anxiety throughout protracted withdrawal. [39]

2b. PANIC DISORDER: [40]

Panic disorder and panic episodes are two of the most common conditions in the world of psychiatry. A panic attack is defined by the Diagnostic and Statistical Manual of Mental Health Disorders (DSM) as "an abrupt surge of acute fear or discomfort" that peaks in

a couple of minutes. A panic attack is characterized by four or more of a specific group of physiological symptoms.

Etiology

Some various theories and models explore the possible origins of panic disorder. Most believe that chemical imbalances, including gamma-aminobutyric acid, cortisol, and serotonin abnormalities, are likely contributory factors. Environmental and genetic variables are considered to play a role in the pathophysiology of panic disorder, and studies have found that stressful childhood events can lead to adult panic disorder. According to a recent study, neuronal circuitry may play a more significant role in panic disorder, making patients more vulnerable to developing the condition via hyperexcitability of specific brain areas.

Epidemiology

The only disorders with a greater lifetime prevalence than panic disorder aregeneralized anxiety disorder, posttraumatic stress disorder, and social anxiety disorder. Notably, individuals with panic disorder have much greater lifetime rates of cardiovascular, pulmonary, gastrointestinal, and other health problems than the general population. Panic disorder is less common among Latinos, Asian Americans, and African Americans than in European Americans, and men are not as affected as women. Panic disorder is rare in kids under 14, but it becomes more common in adolescence and the early stages of adulthood.

Patients with panic disorders frequently have several other comorbid diseases, including OCD, social phobia, asthma, COPD, irritable bowel syndrome, hypertension, and mitral valve prolapse. Babies born to pregnant women with panic disorder are also more likely to be underweight.

Pathophysiology

The neurotransmitters and peptides found in the central nervous system appear important in physical symptoms. In brain imaging studies, the limbic and frontal regions, among others, have indicated different modifications, including increased flow and receptor activation. Panic disorder and medical condition are intimately related from a pathophysiological and psychological standpoint. There are two primary causes for why patients are more likely to experience panic attacks. Because sensitive patients lack the neurochemical serotonin inhibitors, increased serotonin causes modifications in the autonomic nervous system's fear network model. The second idea contends that a shortage of endogenous opioids promotes separation anxiety and a heightened sensation of suffocation.

Evaluation

No specific radiographic, laboratory, or other tests are required to identify the panic disorder. The DSM 5 criteria can be used to diagnose the panic disorder that was previously mentioned. In actuality, distinct grading scales developed by medical professionals are employed to determine the severity of panic attacks. Healthcare providers should thoroughly evaluate the patient to rule out other diagnoses. The panic disorder develops when no alternative physical or psychological conditions can better explain the symptoms.

Differential diagnosis

- Angina
- Asthma
- Congestive heart failure
- Mitral valve prolapses
- Pulmonary embolism
- Substance use disorder

- Other mental health disorders associated with panic attacks

Treatment

The mainstays of pharmaceutical treatment are benzodiazepines and antidepressants. Among the several antidepressant categories, selective serotonin reuptake inhibitors (SSRIs) are recommended above tricyclic antidepressants and monoamine oxidase inhibitors. SSRIs are considered the gold standard for treating panic disorder. In patients with co-existing conditions or severe symptoms, it is recommended to take a benzodiazepine such as alprazolam until the antidepressants begin to function. Individuals with drug use disorder and panic disorder should take gabapentin in conjunction with mirtazapine.

Studies

1. According to the research by Anker JJ et al., 2022, epidemiological and psychiatric studies show that having a diagnosis of either drinking or panic disorder enhances your risk of later developing the other ailment. The behavioral research demonstrates that drinking to cope with unpleasant emotionsstrongly predicts both present and future alcohol-related disorders from a psychological perspective. According to neuroscientific research, the rise in negative affect and alcohol misuse is supported by overlapping neurobiological systems and psychological processes. The psychiatric belief that alcohol misuse and co-occurring anxiety represent diagnostic diseases that are neurobiologically distinct has long dominated the field. But recent research is increasingly supporting the neuroscientific hypothesis that many illnesses share underlying, mutually exacerbating neurobiological processes. [41]
2. Matt G Kushner et al., 2000 investigated the validity of various explanatory models in laboratory, clinical, family, and prospective studies. The research suggests that alcoholism and anxiety disorders may cause one another, especially when one of the

diseases is alcohol dependency rather than alcohol abuse alone. Furthermore, clinical trial findings suggest that panic disorders may play a role in sustaining excessive alcohol intake and relapsing into it. We hypothesize that short-term anxiety reduction from alcohol use and longer-term anxiety induction from persistent drinking and withdrawal might set off a vicious cycle of increased anxiety symptoms and alcohol consumption, leading to comorbidity. Our case is based mainly on pharmacological and behavioral laboratory data. [42]

2c. SOCIAL PHOBIA[43]

A severe fear or anxiety of one or more social situations in which the person may or may not be the center of attention from others is a significant component of social phobia. After being exposed to such a social situation, affected people almost always experience fear, anxiety, and worry that others would think negatively of them. These people typically avoid the social problems they find intimidating or cope with them anxiously, which impairs their performance in critical social, professional, or other spheres.

Etiology

According to studies on families and twins, environmental factors may have a more significant role in the genesis of social anxiety disorder than genetic ones. It hasn't proved easy to identify genetic markers. Children with inhibited temperaments may experience extremely tough or intrusive parenting, increasing their risk of SAD. Unfavorable or unpleasant life events might also increase risk. The search for neural reasons for SAD has been mostly fruitless. Future advancements in neuroimaging technologies may aid in our understanding of the illness. According to new studies, the "extended amygdala" plays a vital role in anxiety disorders.

Epidemiology

According to epidemiological studies, the prevalence of social anxiety disorder is between 5 and 10% worldwide and 8.4 and 15% throughout a person's lifetime. Prevalence rates are comparable within the US, and prevalence rates for children and adolescents are similar to those for adults. Social anxiety disorder affects women more commonly than it affects men. The third most common mental condition after depression and drug use disorder is social anxiety disorder, the most common anxiety disorder.

Pathophysiology

A previous study has revealed that patients with social anxiety disorder of the performance type may have an elevated autonomic nervous system reactivity, such as a faster heart rate. Some of the neurotransmitter systems that may be involved in the genesis of a social anxiety disorder include serotonin, dopamine, and glutamate. Brain imaging studies of persons with social anxiety disorder show the more significant activity of paralimbic and limbic regions. Specific toddler temperaments and parental stress have also been connected to the development of social anxiety disorder.

Evaluation

To assess the condition, the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, Diagnostic Criteria for Social Phobia, must be employed (DSM-5). If a person feels extreme fear or anxiety in one or more social situations where they might be vulnerable to others' probing eyes, they must match the requirements. The person is concerned that they will act in a way that could be misunderstood. The social situation is typically the source of stress or anxiety. The experiences are either put up with while being frightened or worried or entirely avoided. This worry or anxiety is disproportionate given the actual danger that the situation threatens.

Differential diagnosis

Social phobia must be distinguished from other disorders such as personality disorders such as schizoid personality disorder and avoidant personality disorder, depressive disorders, substance-related and addictive disorders, panic disorder, and agoraphobia, and neurodevelopmental disorders such as autism spectrum disorder, panic disorder, agoraphobia. A social anxiety disorder, the DSM-5 criteria state that their symptoms cannot be explained better by those of another mental disease. Hikomori is severe social isolation that lasts more than six months and affects 1.2% of persons in Japan, and schizophrenia is to be ruled out.

Treatment

The existing research provides strong evidence for the efficacy of medications and cognitive behavioral therapy (CBT) in treating social phobia. Individual CBT and selective serotonin reuptake inhibitors are efficient therapies for SAD, according to meta-analysis (SSRIs). Results are also affected more by serotonin-norepinephrine reuptake inhibitors (SNRIs) than by a placebo. The SSRIs paroxetine and sertraline, as well as the SNRI venlafaxine, have all received FDA approval. CBT fared better in treating SAD than psychodynamic therapy and other psychological therapies compared to several psychotherapies. The beta-blocker propranolol is used to treat social anxiety and benzodiazepines. The advantage of taking propranolol as required is that, unlike benzodiazepines, there is no risk of tolerance or dependence developing.

Studies

1. Schneier FR et al. (2010) assessed the prevalence and clinical implications of comorbid social phobia and alcohol use disorders (AUD, i.e., alcohol abuse and dependence). SP was associated with much worse mood, anxiety, psychosis, and personality issues in those addicted to alcohol. Individuals with SP with higher levels of alcohol intake and reliance had higher levels of substance use disorders, compulsive gambling, and antisocial personality

disorders. SP developed before alcohol dependence in 79.7% of comorbid cases, although the existence of comorbidity did not influence the age at which either disorder presented itself. Comorbid SP has been associated with higher levels of alcohol usage and dependence. Respondents with SP and alcohol abuse or addiction reported low rates of treatment seeking. [44]

3. PSYCHOTIC DISORDERS

PSYCHOSIS[45]

Psychosis is a collection of mental symptoms that results in a loss of reality. Even while only 1.5 to 3.5% of people will meet the diagnostic criteria for a psychotic disorder, a significant, variable number of people may have at least one psychotic symptom during their lives. Psychosis is a characteristic shared by many psychiatric, neuropsychiatric, neurologic, neurodevelopmental, and medical disorders. It is a distinguishing trait of schizophrenia spectrum disorders and other psychotic diseases. It is a contributing element in many mood and substance use disorders and a challenging symptom in many neurologic and medical conditions. Due to the extreme suffering that patients and loved ones may experience due to psychosis, medical professionals now view therapy as a critical component of treatment.

Etiology

A core mental disease, drug misuse, or another neurologic or medical condition can cause psychosis. First-episode psychotic disorders have been associated with brain abnormalities such as diminished prefrontal, superior, and medial temporal grey matter. Although the onset of psychotic symptoms and full-blown disease is commonly associated with epigenetic or environmental factors, fundamental psychotic disorders are assumed to originate in utero and are referred to as neurodevelopmental abnormalities (substance abuse, stress, immigration, infection, postpartum period, or other medical causes). There is

substantial evidence that genetic risk factors contribute to the development of psychotic disorders.

Epidemiology

Compared to schizophrenia, which affects 15 people out of every 100,000, about 50 people out of every 100,000 suffer their first episode of psychosis. While it commonly happens in women's teens to late 20s, the peak age of onset for males is in their teens to mid-20s. While early intervention is linked to better outcomes, an early onset is linked to adverse consequences. Psychosis is a rare occurrence in children.

Pathophysiology

Dopamine is the neurotransmitter that is most strongly linked to the pathophysiology of psychotic disorders. Excess dopamine in the mesolimbic tract is regarded to be the core cause of psychotic disorders' positive symptoms. Glutamate, an excitatory neurotransmitter, is also implicated. Several studies have found that the activity of the N-methyl-D-aspartate (NMDA) glutamate receptor is reduced. Studies have also highlighted gamma-aminobutyric acid (GABA), a critical inhibitory neurotransmitter. People with schizophrenia revealed symptoms of dysfunction in various studies. Finally, the implications point to an acetylcholine imbalance. This revelation was found while studying the smoking habits of schizophrenic individuals since nicotine has been shown to improve acetylcholine function. Studies have also shown improved cognition, and observers noticed specific improvements in smokers' weaknesses.

Evaluation

- Complete blood count and metabolic panel
- Urinalysis, urine cultures

- Thyroid-stimulating hormone (TSH), T3, T3
- Liver function tests
- Vitamin B12
- HIV
- CT, MRI
- EEG
- Lumbar puncture
- Rheumatologic or immunologic workup

Differential diagnosis

Age of onset: After age 40, physical or neurological conditions that cause psychosis are regularly noticed. Generation raises the risk of medical or neurological psychosis, particularly in hospitals.

Genetics: The primary psychotic disease and family history have a higher link than psychosis brought on by medical or neurological issues.

Presentation: Primary psychotic illness often appears during significant life pressures, whereas psychosis associated with medical/neurologic disorders frequently presents in hospital settings.

While auditory hallucinations are frequently linked to primary psychotic illness, all other types of hallucinations, barring sound, are generally related to psychosis brought on by medical or neurological conditions (e.g., visual, tactile, olfactory).

Treatment

According to research, antipsychotic medications are more effective in treating the positive symptoms of psychosis (hallucinations, delusions, disordered thinking, and behavior) and less effective in treating the negative symptoms. They may also have significant adverse effects, such as extrapyramidal symptoms and dangerous QT prolongation. There is evidence that some medications, clozapine and olanzapine in particular, reduce the risk of suicide in people with psychosis.

There is proof that benzodiazepines are an effective treatment for psychosis' catatonic symptoms.

Family members and other caregivers are essential in treating a psychotic patient, in addition to medications. This entails creating a safe and healing atmosphere for the patient and interacting with them coolly and empathetically.

Studies:

1. According to Holly A. Stankewicz et al., 2022, alcohol can produce chronic alcohol use disorder, acute intoxication, alcohol withdrawal, and psychosis. Alcohol hallucinosis is an alternative term for the specific diagnosis of alcohol-related psychosis. It is a relatively infrequent adverse effect of alcohol. Depending on the diagnostic inclusion criteria, it may be more frequent than previously thought. Alcohol-related psychosis is distinguished by the emergence of psychotic symptoms during or shortly after heavy drinking. Although clinically similar to schizophrenia, alcohol-related psychosis has been identified as a unique and independent disorder. Hallucinations, paranoia, and dread distinguish it. [46]
2. Alcohol dependence was 2.7-9 times more likely in patients with non-affective psychosis, according to epidemiologic studies. A population-based study (n = 8028) found that the lifetime incidence of alcohol-induced psychosis was 0.41

percent. Previous clinic-based studies have shown that alcohol hallucinosis occurred in 5- 11% of delirium tremens patients and 2-7% of individuals with alcohol dependence. In patients with schizophrenia, substance use has been connected to poor social functioning, symptom aggravation, frequent hospitalization, medication noncompliance, and mediocre treatment response. [47]

3. Individuals with comorbidity were more likely to have poor health and functional impairment, whereas patients without comorbidity developed alcoholism faster. Comorbidity was connected to an earlier onset of dependency, a more significant amount of alcohol taken daily, and a greater degree of dependence in patients with both Axis 1 and Axis 2 comorbidities. Several investigations have found a link between the severity of drinking and the prevalence of other mental symptom patterns. Alcohol and opioids were the two drugs most often connected to extra comorbidities in SUD patients with dual diagnosis, according to Subodh et al., 2017 research, with a 32.4% frequency. 12.3% of respondents suffered from an affective disorder, 11.2% from anxiety, and 5% from a psychotic disorder. [48]
4. Although mental comorbidity is common in ADS patients, little study has been done on the severity of alcohol dependence, and whether comorbidity is present; hence the seriousness of the issue is not being addressed in India. This study addresses this issue by examining the connection between mental illness and dependent severity. This research differs from others in that it only included individuals with ADS; no patients with SUD were part of the sample. In addition, the sample size for this study was more significant than that of other studies, and it was drawn from a rural area in southern India. [49]

4.PERSONALITY DISORDER

ANTISOCIAL PERSONALITY DISORDER[50]

A person with antisocial personality disorder, often known as sociopathy, is said to consistently disregard right and wrong as well as the rights and feelings of others. People with antisocial personalities frequently manipulate, provoke, or treat others harshly or indifferently. They don't show remorse or guilt for what they did.

Etiology

Although the specific origin of ASPD is uncertain, it has been demonstrated that both genetic and environmental factors contribute to its onset. Heritability estimates have fluctuated amongst studies in the past, ranging from 38% to 69%. Childhood psychopathology and adverse childhood experiences (including physical and sexual abuse, neglect, and abuse) are environmental factors connected to the development of antisocial personality disorder (CD and ADHD). The gene responsible for ASPD has been the focus of extensive investigation, and much evidence leads to the 2p12 region of chromosome 2 and mutations in AVPR1A. The oxytocin receptor gene has exhibited symptoms of variation, suggesting that the interactions of some genes with the environment have also been studied (OXTR).

Epidemiology

The estimated lifetime prevalence of ASPD in the general population varies from 1 to 4%. This assumption could be unduly generic since the conduct disorder is often not given a full assessment, and the conduct problem is typically first diagnosed before age 15. When the gender distribution is slanted toward men, men are more likely than women to have their ASPD diagnosed in the general population. It has been shown that antisocial personality disorder and drug abuse substantially correlate, and research shows that as people age, the prevalence of criminal populations declines. It has been hypothesized that this age-dependent

variance is explained by aging-related changes in personality traits and increased mortality rates linked to antisocial personality disorder behavior.

Pathophysiology

The pathogenesis of antisocial personality disorder is unclear (ASPD). Even though the frontal cortex's smaller grey matter volume is the most reliable scientific finding, it is believed that hereditary factors account for around 50% of the total risk of developing ASPD. Most of the involved genes are yet unknown.

Evaluation

There are now no accepted criteria for detecting antisocial personality disorder using current diagnostic approaches, including tests like serology. However, genetic testing and neuroimaging have been used to analyzeASPD's likely causes and patterns (see the Etiology section above). Patients with antisocial personality disorder are more likely to contract certain viral infections and sexually transmitted diseases linked to high-risk behavior, such as hepatitis C and human immunodeficiency virus, in addition to increased mortality rates from accidents, traumatic injuries, suicides, and homicides.

Differential diagnosis

• Personality disorder with narcissism (cluster B personality disorder with overlap; exploitive and uncompassionate, but not aggressive or deceitful)

• Substance use disorder (Before diagnosing ASPD, impulsivity and irresponsibility brought on by substance use must be ruled out). The presence of drug usage may indicate ASPD.

Treatment

Although it has not been proven that medication may treat ASPD, utilizing medication to manage co-occurring diseases is strongly encouraged. As first-line therapies for aggressive behavior, second-generation antipsychotics such as quetiapine (100 to 300 mg/day) and risperidone (2 to 4 mg/day) are effective. Second- and third-line therapies for aggression are selective serotonin reuptake inhibitors (SSRI), such as sertraline (100 to 200 mg/day) or fluoxetine (20 mg/day), and mood stabilizers, such as lithium and carbamazepine (dosed at standard bipolar disorder levels). Anticonvulsants such as carbamazepine and oxcarbazepine can aid with impulsivity. Bupropion and atomoxetine are widely used to treat comorbid ADHD due to their lack of addiction risk.

Studies:

1. Tracy Smith et al., 2022 found that antisocial personality disorder and alcohol co-occurring tend to aggravate and enhance ASPD symptoms and encourage persons to continue participating in risky activities. There is a strong connection between alcohol use and antisocial personality disorder. An antisocial personality disorder sufferer shows no regard for structure, rules, or authority. These individuals have extreme levels of impulsivity, careless behavior, and a lack of regret. These characteristics make a person more likely to engage in addictive behaviors. One of the most common addictions is alcohol addiction, which frequently co-occurs with an antisocial personality disorder. Someone with ASPD may act out forcefully and hostilely if they abuse alcohol. People with antisocial personality disorder usually begin drinking when they are young, experience problems with addiction quickly, and engage in binge drinking regularly. [51]

PREVALENCE OF COMORBID PSYCHIATRIC PROBLEMS IN INDIANS

According to a meta-analysis of 20 studies, 56/1000 persons in India were assessed to have a mental illness. Baxter et al. estimate that 0.2% of the general population had

schizophrenia, 0.1% had bipolar disorder, 2% had depression, and 0.2% had anxiety. Five thousand two hundred eighty-three people were involved in a retrospective study that found 13.2% had dual diagnoses, with a mood disorder (42.2%) being the most common. This discovery is essential given the high prevalence of mental comorbidity in SUD. Following alcohol, nicotine, and opioids, SUDs were most frequently discovered in people with comorbid diagnoses. Another retrospective study with 289 people with multiple illnesses indicated that alcohol and nicotine were the most often used medications, followed by opioids, associated with comorbidities, and MDD, the most frequently reported ailment. [52]

Depression is the most often reported condition in ADS, according to the bulk of cross-sectional research, with prevalence rates ranging from 25% to 80%. According to a case-control study, the prevalence rates of mental comorbidity in ADS and controls were 92% and 12%, respectively. The most common problems were depression, antisocial personality disorder (ASPD), and phobia. According to Vohra et al., there were 76.6% comorbid axis one disease and 40% comorbid axis two disorders. Major depression was most frequent (52.1%), followed by dysthymia (13.0%), brief psychosis (13.0%), and alcohol-induced psychosis (0.5%). Cluster B was the most common Axis 2 disorder (58.3%), followed by Cluster A (16.6%) and Cluster C (16.6%). [53]

Gauba et al. found that 86.8% of patients had issues with both axes 1 and 2. Depression (15%) was the most common affective disease, followed by dysthymia (8.75%), bipolar disorder (2.5%), mania (1.25%), mania with psychotic symptoms (1.25%), and schizophrenia (2%) in terms of prevalence. The gender gap between males and females found that while females had more comorbid disorders, MDD was the most often reported comorbidity in both genders. Males also had more severe ADS. [54]

ALCOHOL DEPENDENCE SEVERITY AND CONNECTION WITH PSYCHIATRIC COMORBIDITIES

Patients with comorbidity were likelier to have poor health and functional impairment, whereas patients without comorbidity experienced significantly milder alcoholism. Comorbidity was associated with an earlier onset of dependence, a larger volume of daily alcohol intake, and a greater degree of addiction in patients with Axis 1 and Axis 2 comorbidities. Numerous investigations have discovered a connection between the severity of addiction and the prevalence of other mental symptom categories.

Alcohol and opioids are the two drugs most frequently associated with other comorbidities in SUD patients, with a 32.4% rate of dual diagnosis, according to Subodh et al. 12.3% of the overall population had affective disorders, 11.2% had anxiety disorders, and 5% had psychotic illnesses. [55]

Furthermore, no significant relationship was found between the duration of drug use and comorbidity in this investigation. Research on 35 females was conducted to illustrate the association between the degree of alcohol dependency and the existence of comorbid mental conditions. 57.14% of the participants had concomitant Axis 1 disorders. The most prevalent was MDD (34%), followed by dysthymia (11%), PTSD (9%), adjustment disorder (8%), and mania (3%). Furthermore, there was no significant relationship between the age of beginning, frequent usage, the degree of dependency, and comorbidities in the research. [56]

STRESS, ADVERSE LIFE EVENTS, AND ABUSE

Due to a dearth of research focusing on the severity of alcohol dependence and the frequency of comorbidity, the magnitude of the problem is not being addressed in India despite the high rates of mental comorbidity among ADS patients. By examining the connection between the severity of reliance and mental comorbidities, this study aims to

solve this issue. This study differs from other studies since it only included individuals with ADS and excluded those with SUD when choosing its sample. Participants in this study were also picked from a rural region of southern India, and the sample size was more extensive than in past studies.

There is substantial evidence that adversity in one's life can contribute to excessive drinking and the development of alcoholism. Stressful life events or circumstances might also contribute to binge drinking. In addition, alcoholics report much higher levels of childhood trauma and neglect, including sexual abuse. According to one UK study, 54% of female alcohol addicts and 24% of male alcohol addicts regarded themselves as victims of sexual abuse, the majority of which occurred before the age of 16. They were also more likely to have a family history of alcohol misuse, and they began drinking and became addicted to alcohol earlier than those who did not have such a history. [57]

OTHER ENVIRONMENTAL FACTORS

Several more environmental factors increase the risk of developing alcohol use disorders. There is a high rate of alcohol use overall, accessibility and cost of alcohol, risk factors associated with certain occupations, peer pressure to drink, and attitudes about alcohol that are influenced by religion and culture. [58]

ALCOHOL DEPENDENCE SYNDROME AND PSYCHIATRIC COMORBIDITIES NEUROBIOLOGY

The neurobiology of dual illnesses has been the subject of limited investigation in the literature too far. Studying neuropathology in patients with alcohol dependence who commit suicide, structural disease in the cerebral cortex is mainly connected with alcohol use status, according to postmortem neuropathology research (Hercher et al., 2009). Although some of

these conditionsare made worse by concurrent depression, successful suicide is not associated with any new changes in the morphology of the brain in these regions. [59]

Depression and alcoholism are common among the local people. Even though persons with co-occurring depression and alcohol use disorders are not included in current treatment trials, comorbidity is associated with worse posttreatment results. Previous research indicates that, whereas emotional regulation deficits are related to anomalies in the default mode network, symptoms such as desire and anhedonia may be associated with alterations in the reward circuit. Several clinical neuroimaging investigations are translating prior information

regarding the reward circuit and default mode network supporting alcohol use disorder and depression to understand better the brain markers defining their comorbidity. Furthermore, neurobiological findings were tested to examine if newly found path mechanisms might be influenced positively by two psychotherapy intervention programs, mindfulness-based training and behavioral activation. [60]

Studies on brain structural imaging

All structural imaging investigations have used magnetic resonance imaging (MRI) as a research instrument. The combined effects of alcohol use disorder and schizophrenia magnify the harmful effects of each condition on certain parts of the brain, including the overall amount of grey matter in the prefrontal cortex and places not directly affected by schizophrenia. In patients with co-occurring mental disorders and alcohol dependence, a smaller prefrontal cortex is associated with early beginning drinking (De Bellis et al., 2005). Furthermore, co-occurring mental illnesses in individuals with alcoholism likely impede the

subcortical regions of the brain from recovering from their volume deficit during protracted abstinence from alcohol. [61]

People with alcohol dependence are more prone to acquire PTSD, which may be explained by the smaller hippocampus volume found in individuals who also have PTSD (Woodward et al., 2006). The co-existence of drug use problems and schizophrenia worsens the detrimental effects of substance use in those parts of the brain not directly affected by schizophrenia (such as the anterior cingulate, frontopolar, and superior parietal regions). Nonplanning Impulsivity is visible in the additive deficits associated with co-occurring drug use disorder and schizophrenia, in contrast to functional executive impairments, which are often unaffected by the comorbidity. [62]

People with dual disorders had abnormalities in a variety of brain locations, according to the study. The pontine structures, hippocampus, prefrontal grey matter volume, and total grey matter volume of the cerebral cortex are among the brain regions that have received focus in this research. More importantly, the bulk of individual research results has not been validated. As a result, drawing definite inferences from the given data is difficult. [63]

Table: 1 Research on the Neurobiology of Psychiatric Disorders and Substance Use Disorder [64-87]

Publication	Type of Publication	Study Population	Psychoactive Substance Studied	Mental Disorder Studied
Neuropathology				
M Goodkind et al., 2015	Meta analysis	Adults	Alcohol	schizophrenia, bipolar disorder, depression, addiction, obsessive-compulsive disorder, and anxiety
Balhara et al., 2017	Prospective studies	Adults	Substance	Psychiatric disorders alone on various neurobiological aspects.
N Gómez-Coronado et al., 2018	Review article	Adults	Alcohol	Mood disorder
MP Paulus et al., 2020	Review article	Adults	Methamphetamine	oxidative stress, neurotoxic and excitotoxic effects, and neuroinflammation.
II Mohamed et al., 2020	Epidemiological study	Adults	Alcohol	Anxiety and Depression
Structural neuroimaging				
Schiffer et al., 2010	Case-control study, MRI	Adults	Multiple	Schizophrenia
Sameti, Smith, Patenaude, & Fein, 2011	Case-control study, MRI	Adults	Alcohol	Multiple
KE Lind et al., 2017	Observational study	Adults	Alcohol	Multiple
KR Stoychev et al., 2019	Review article	Adults	Alcohol	Schizophrenia and bipolar disorder subjects, dorsolateral prefrontal, cingular, and insular cortex
X Navarri et al., 2022	Meta analysis	Adults	Alcohol and cannabis	major depression disorder (MDD), schizophrenia (SCZ) and bipolar disorder
J Dimitrova-Shumkovska et al., 2020	Review, TSPO-specific positron emission tomography	Adults	Alcohol	Multiple
S Gerhardt et al., 2022	Observational study, fMRI	Adults	Alcohol	Multiple
Functional neuroimaging				
Cornelius, Aizenstein, & Hariri, 2010	Experimental, BOLD fMRI	Adults	Cannabis	Threat paradigm
Bourque et al., 2013	Experimental, fMRI	Adults	Cannabis	Schizophrenia
Thompson et al., 2013	Interventional, [^{11}C]raclopride positron emission tomography	Adults	Multiple	Schizophrenia

Daniel G. Amen et al., 2015	Single photon emission computed tomography	Adults	Alcohol	Traumatic brain injury (TBI) and posttraumatic stress disorder (PTSD
J Bourque et al., 2017	Observational study, MRI	14 – 16 years	Alcohol, cannabis	mood fluctuation and psychotic symptoms
TA Henderson et al., 2020	Review article, single photon emission computed tomography (SPECT) and positron emission tomography (PET)	Adults	Alcohol	Alzheimer's disease and ADHD
SD Lichenstein et al., 2022	Systemic review, MRI	Adults	Csnnabis	Multiple
Genetic				
EA Tawa et al., 2016	Review article	Adults	Alcohol	ADH and ALDH have been linked to AUD and alcohol-related symptoms.
A Abdellaoui et al., 2021	Observational study	Adults	Alcohol and cannabis	ADHD, schizophrenia, and major depression.
KS Kendler et al., 2022	Review	Adults	Alcohol	Drug use disorder (DUD), major depression (MD), and attention-deficit hyper activity disorder (ADHD)
VS Knopik et al., 2022	Cohort study	Children	Alcohol	ADHD

GENETICS RESEARCH

Alcohol dependence is a complex hereditary disease. Although it has long been known that alcoholism runs in families, this does not prove that genetic risk factors play a role.There is evidence that genetic factors contributed to its etiology.[87]The frequency of the short allele at the serotonin (5-HT) transporter-linked polymorphic region's SLC6A4 locus is equal between people with depression and alcohol use disorder (Nellissery et al., 2004). Serotonergic neurotransmission has also been linked to controlling these people's moods and propensity for drinking. The gender and frequency of coexisting illnesses affect how the 5-HT transporter-linked polymorphic region polymorphism affects major depressive disorder in people with alcohol use disorders. [88]

Han Chinese people with comorbid alcohol use disorder, anxiety, and depressive disorders may benefit differently from the ALDH2*2 allele's preventative benefits due to various monoamine oxidase A (MAOA)-uVNTR polymorphisms (Gokturk et al., 2008). [89]

Co-occurring disorders, including alcohol consumption and mental illness, are far more common among women. Genotypically, LL 5-HTT. Additionally, in contrast to men, violent antisocial behavior is substantially associated with the presence of the high-activity MAOA gene in females with alcohol use disorder.

Interventions that are suitable and beneficial for people with ADHD and alcohol use disorders. In the shared genetic predisposition for alcohol abuse and ADHD, the serotonin transporter gene promoter and the 5-HT2c receptor Cys23Ser polymorphism are not connected. [90]

Patients with the 5-HTTVNTR 10R allele or the DATVNTR 9R allele are more likely to develop comorbid ASPD (Yang et al., 2012). On the other hand, individuals with the DATVNTR 10R/10R and 5-HTTVNTR 12R/12R genotypes are less likely to develop ASPD.

In homozygous for rs12199654-A individuals who had decreased total cerebral and lobar white matter volumes, cannabis use and schizophrenia co-occurred together. In a group of people with primary schizophrenia, comparative observational research found an allelic relationship between rs7103411 and comorbid alcohol use. Furthermore, single nucleotide polymorphisms in the brain-derived neurotrophic factor gene revealed allelic correlations with concurrent alcoholism in the replication group. [91]

STUDIES ON NEURORECEPTORS, BIOMARKERS, AND BIOCHEMICALS

Clonidine decreased beta-endorphin and growth hormone responses in the siblings of heroin users with personality disorders (Gerra et al., 1994). It seems improbable that a family serotonergic dysfunction influenced the development of a heroin addiction. However, the

emergence of familial sadness is most typically linked to heroin addiction when it is obvious. Additionally, heroin addicts with anxiety issues have decreased GABAergic function, not non-addicts. [92]

Alcohol dependance patients who are going through detoxification may have brief depressed symptoms that are linked to a central hypodopaminergic condition. Serotonin levels vary throughout the brains of alcoholics who kill themselves.

Prefrontal brain serotonin receptor mRNA levels are linked to impulsivity and mood issues later in life in people with alcoholdependence syndrome (Thompson et al., 2012). [93]

Changes in endogenous cannabinoids are not linked to improvements in drug use characteristics in patients with co-occurring substance use disorder and schizophrenia. Furthermore, in individuals with co-occurring schizophrenia and substance use disorders, baseline anandamide levels predict endpoint substance-use-related scores.

Furthermore, more significant concentrations of monounsaturated N-acylethanolamine have been connected to co-occurring anxiety and mood problems in cocaine users. In teenagers with co-occurring ADHD and drug use disorders, methylphenidate-induced dopamine transporter blockage is equivalent to that observed in adolescents with ADHD alone (Szobot et al., 2008). [94]

Cocaine users were divided into numerous subgroups with a greater prevalence of concurrent mental illnesses (mood [54%], anxiety [32%], psychosis [30%], and personality [60%] disorders) based on the study of several cytokines among abstinent people with cocaine use issues. Users who had no diagnosis had lower levels of IL1 than those who had mental health problems (Araos et al., 2015) [95]

Table: 2 Summary of Research Findings on the Neurobiology of Alcohol Use Disorders [96-105]

Name of the Study	Disorders Studied	Technique Used	Participants	Major Findings
Neuropathology				
SJ Scalzo et al., 2015	Alcohol use disorder and Wernicke - Korsakoff syndrome	Histopathology	Eligible cases totaled 623. Publication dates ranged from 1867 to 2014.	chronic cognitive impairment
JJ Miguel-Hidalgo, 2018	Alcohol use disorder	Histopathology	Review article	Astrocytes and oligodendrocytes in the prefrontal cortex's gray and white matter (GM and WM)
AP Le Berre et al., 2019	Korsakoff 's syndrome (KS) and alcohol-related dementia (ARD).	Multiple	Review article	Alzheimer's disease and frontotemporal dementia
S Leclercq et al., 2020	alcohol use disorder (AUD) present with important emotional , cognitive, and social impairments.	Postmortem histopathology	Alcohol dependent (n = 5 with completed suicide, controls (n = 5)	myelination, neurotransmission, inflammation
LA Ray et al., 2021	Alcohol use disorder	Histopathology	Review article with 258 case reports	Liver failure
Structural neuroimaging				
JE Salvatore et al., 2015	AUD	MRI	The long-term effects of alcohol on white and gray matter volumes	Cognitive and sensory loss
RE Thayer et al., 2017	AUD	CT, MRI	widespread gray matter	Higher processing and further mental development
R Zhang et al., 2021	AUD	EEG	For cortical thickness (CT), CT-sleep associations	AUD showed pronounced grey matter (GM) reduction

			were significant in AUD but not in HC and were lateralized such that lower CT in right hemisphere was associated with shorter N3, whereas in left hemisphere was associated with shorter REM sleep.	
M Fritz et al., 2022	AUD	magnetic resonance imaging (MRI)	acute and chronic effects of alcohol on both white and gray matter volumes	neurotransmitter changes during various stages of drinking and abstinence.
MA Parvaz et al., 2022	Substance use disorder	longitudinal neuroimaging studies	putative brain changes associated with abstinence in treatment-seeking individuals with substance use disorders.	Structural recovery appeared to occur predominantly in frontal cortical regions, the insula, hippocampus, and cerebellum. Functional and neurochemical recovery was similarly observed in prefrontal cortical regions but also in subcortical structures.

NEUROENDOCRINOLOGYRESEARCH

People with PTSD and depressive disorders have been the subject of the bulk of studies on the neuroendocrinology of dual diseases. Opioid dependence and alcohol use problems have co-occurred with these people's substance use concerns. These responses are controlled by neurochemicals such as cortisol, growth hormone, and prolactin. Alcohol use problems that coexist do not affect PTSD patients' elevated total triiodothyronine levels (Skrtic D et al..,2004). [106]

RECENT STUDIES RELATED TO THE STUDY:

2016 research in Kerala found that the most common method of deliberate self-harm was consuming poison (76%). 84% had done DSH under intoxication.92% had astressful situations immediately before DSH. 48% had attempted DSH impulsively. 40% had a past history of psychiatric disorder. 56% had a past history of DSH. 56% had psychiatric co-morbidities, of which Depressive disorders (39%) were the most common. 39% of patients with psychiatric comorbidity had a past history of DSH. 16% with co-morbid depressive disorder had attempted DSH in the past one year. [107]

According to 2017 research conducted at a deaddiction clinic in Chandigarh, people with alcohol dependence had a significant prevalence of mental comorbidity (59.6% and 84.2% in the present and lifetime frames, respectively). This prevalence was more significant in the early-onset group. The drug use profile of the early onset group was more severe, and there was more significant family history.[108]

In research by Ravikanth et al., 2020, conducted in the rural south Indian region of Mahbubnagar, 100 inpatients with alcohol-dependence syndrome were identified from a continuous sample of patients visiting an outpatient drug and alcohol clinic. However, individuals with lengthier drinking histories had a substantially greater frequency of mental comorbidity ($p = 0.03$). The age of drinking beginning, frequency, or length of abstinence in patients with and without mental comorbidities in connection to alcohol dependency was not found to be correlated by the authors. In individuals with more severe alcohol dependency, the prevalence of mental comorbidity was considerably higher ($p = 0.001$). Comorbidities did not, however, correlate with the degree of reliance. [109]

MATERIALS& METHODS

MATERIALS AND METHODS

STUDY DESIGN

Cross-Sectional Descriptive study

STUDY SETTING

It is a cross-sectional, Explorative, and observational study conducted amongst both the outpatient and admitted patients of R.L.JalappaHospital in Kolar.

SOURCE OF DATA

The patients diagnosed with Alcohol dependence syndrome atR.L.JalappaHospital in Kolarfrom January 2021 to March 2022 will be the source of the study.

STUDY POPULATION

All patients presenting to R.L.JalappaHospital in Kolarwith h/o alcohol dependencefrom January 2021 to March 2022.

INCLUSION CRITERIA:

1. Age group between 18-65 years.
2. All adult cases of Alcohol Dependence Syndrome diagnosed as per ICD 10 Criteria presenting to R. L. JALAPPA HOSPITAL, KOLAR.
3. All Alcohol dependent patients were referred from other clinical departments to the psychiatry department.

EXCLUSION CRITERIA:

1. Those patients with other substance dependence apart from nicotine.
2. Previous history of undergoing treatment for other psychiatric illnesses.
3. Patients who refuse to give consent.

STUDY TOOLS

1. Mini International Neuropsychiatric Interview (MINI) 6.0:

It is an ICD-10 and DSM-IV short-form structured diagnostic interview for mental illnesses. This study aimed to diagnose alcohol dependence syndrome; hence, the alcohol dependency diagnostic module of M.I.N.I 6.0 was used under the guide's supervision. The module begins with a screening question, followed by seven questions (in the section on alcohol dependency) that are all marked "Yes/No," depending on the patient's response. If you select "yes" for three or more of your answers, you have developed an alcohol addiction. The clinician-rated evaluation of current alcohol dependence syndrome exhibits good sensitivity (0.80) and specificity (0.80), correlating with the SCID-P (Structured Clinical Interview for DSM disorders - Patient edition) diagnosis of the condition (0.95).

The agreement with the CIDI (Composite International Diagnostic Interview) diagnosis of alcohol dependence syndrome was also high, with sensitivity (0.83) and specificity (0.83). (0.83). (0.97). For the present alcohol dependence syndrome, the tool's reliability assessment found an Inter-rater kappa of 1.00 and a test-retest kappa of 0.86.

2. International classification of diseases-10.

F1x.2 Dependence syndrome

A series of physiological, behavioral, and cognitive occurrences occur when a person's use of a substance or a class of substances takes on a significance more significant than their previously valued behaviors.

One of the main characteristics of dependence syndrome is the drive to consume psychoactive drugs, including those that may or may not have been prescribed by a doctor, alcohol or cigarettes. This yearning is often powerful and often overwhelming.

There may be evidence to support the idea that other syndrome symptoms emerge more quickly in drug-dependent persons when they resume drug use after a period of abstinence.

Diagnostic guidelines:

A conclusive diagnosis of reliance could often only be made if three or more of the following occurred concurrently over the prior year:

(a) an intense desire or an obsessive need to use the substance

(b) difficulties controlling the onset, cessation, or severity of drug use behavior

(c) a physiological withdrawal state (see F1x.3 and F1x.4) that results from stopping or reducing substance use, as shown by: the withdrawal syndrome that is typical for the substance; or use of the same (or a substance that is closely related) to minimize or avoid withdrawal symptoms.

(d) indicators of tolerance, such as the requirement for increasing doses of the psychoactive medication to get the same effects as earlier, lower doses (clear examples of this are found in alcohol- and opiate-dependent individuals who may take daily quantities sufficient to incapacitate or kill nontolerant users)

(e) the progressive loss of alternative interests or pleasures due to psychoactive drug use, as well as the lengthening of the time required to obtain, use, or recover from the substance.

(f) continuing to use drugs despite overtly harmful effects, such as liver damage from excessive alcohol consumption, depressive mood states brought on by periods of heavy drug use, or cognitive impairment brought on by drugs; it should be investigated whether the user was aware of the nature and extent of the harm, or could reasonably be expected to be.

Additionally, the limitation of a person's repertoire of psychoactive drug use behaviors has been noted as a differentiating characteristic (e.g., a tendency to drink alcoholic drinks in the same way on weekdays and weekends, regardless of social constraints that determine appropriate drinking behavior).

Subjective knowledge of drug compulsion is most encountered during attempts to cease or limit substance use; it is an essential component of the dependence syndrome that either psychoactive substance consumption or a desire to ingest a specific substance be present. This diagnostic criterion would rule out, for example, postoperative patients receiving opioid drugs for pain management who may experience withdrawal symptoms if the pills are discontinued but do not want to continue taking them.

The dependency syndrome can occur for a single substance (tobacco), a group of substances (opioid medications), or a more extensive range of substances for persons who feel forced to take any accessible drugs regularly and display anguish, agitation, and physical withdrawal symptoms.

Includes:

- Chronic alcoholism
- Dipsomania
- Drug addiction

The diagnosis of the dependence syndrome may be further specified by the following five-character codes:

- **F1x.20** Currently abstinent
- **F1x.21** Currently abstinent, but in a protected environment (e.g. in hospital, in a therapeutic community, in prison, etc.)
- **F1x.22** Currently on a clinically supervised maintenance or replacement regime [controlled dependence] (e.g. with methadone; nicotine gum or nicotine patch)
- **F1x.23** Currently abstinent, but receiving treatment with aversive or blocking drugs (e.g. naltrexone or disulfiram)
- **F1x.24** Currently using the substance [active dependence]
- **F1x.25** Continuous use
- **F1x.26** Episodic use [dipsomania]

3. Socio-demographic questionnaire:

The proforma contained information on the gender, age, education, occupation, income, marital status, place of residence, domestic situation (living alone or with family), age at which alcohol use began, most popular beverage, average daily alcohol intake, use of other drugs, and family history of alcohol use. The examination of the person's overall physical, systemic, and mental health is also documented. The questionnaire was developed to consider elements that might affect a subject's level of anxiety.

4. **Severity of Alcohol Dependence Questionnaire (SADQ-C):**

The SADQ-C is a questionnaire derived from the SADQ to determine the degree of alcohol dependency. It has 20 items, each of which is assessed on a four-point Likert scale, with "never or almost never" being the lowest score and "almost regularly" being the highest (score three). The questions were organized into five domains, which are as follows:

• Physical withdrawal symptoms;

• Emotional withdrawal symptoms;

• Cravings and drinking to alleviate withdrawal symptoms;

• Usual daily consumption;

The results ranged from 0 to 60, with 60 being the lowest and greatest score. Up to 15 was frequently seen as only a mild dependence, 16 to 30 as a sign of moderate dependence, and 31 or more as a sign of a severe dependence.

High internal consistency is demonstrated by the SADQ-C (Cronbach's alpha = 0.98). It provided excellent test-retest reliability, outstanding concept validation, and concurrent validity evidence (0.85).

STUDY COURSE: January 2021 to March 2022

DURATION OF STUDY: 1 Year 3 months.

METHOD OF COLLECTION OF DATA INCLUDING SAMPLING PROCEDURE :

Sample Size:

Calculation: $\frac{Z_{\alpha}^{2}(p)(1-p)}{d^2}$

Here,

Z= standard normal variant (1.96)

p = expected proportion in the population, based on a previous study (62.4%)

d = absolute error of 7%

considering an absolute error of 7%, the estimated sample size is 193.

Alcohol dependency syndrome has been diagnosed in all successive patients who have been referred to the psychiatric OPD from other departments (including admitted patients in the psychiatry ward)

METHOD OF COLLECTION:

METHODOLOGY:

This cross-sectional, exploratory study was conducted at R.L.Jalappa Hospital, a teaching hospital of Sri Devaraj Urs Medical College, a constituent college of Sri Devaraj Urs Academy of Higher Education and Research, after receiving approval from the institutional ethics council. The researcher thoroughly assessed their mental health and obtained a detailed history of their drinking patterns from a reliable informant. All study cases were also discussed with the department's teaching staff.

Alcohol dependence syndrome was diagnosed following ICD-10 guidelines. Individuals were included in the study after providing written informed consent.

After initial detoxification and other necessary medications, the patient was stable enough to follow the instructions and questions. The socioeconomic profile and MINI questionnaire were administered to determine any psychiatric comorbidities.

Two independent specialists in the department further verified the diagnosis of mental comorbidities. Following that, a SADQ-C questionnaire was administered to measure alcohol dependency.

STATISTICAL ANALYSIS:

Before being studied with SPSS 22, the data was obtained, coded, and enteredEpidata.

1. The Chi-square test of significance was applied for comparisons between qualitative data that were provided as frequencies and proportions.

2. Qualitative data were reported as mean,standard deviation, and t-tests were used to determine significance.

3. Odds ratios with a 95% confidence interval were calculated to ascertain the degree of association between various parameters.

4. A p-value of 0.005 or below was regarded as statistically significant.

RESULTS

OBSERVATION AND RESULTS

The co-occurring psychological condition might result in overuse or underuse of alcohol, leading to alcohol dependence syndrome. Therefore, it is crucial to check for psychological comorbidity in alcohol-dependence patients. The following results determined the prevalence of psychiatric co-morbidities in patients with alcohol dependence Syndrome and assessed the correlation of psychiatric comorbidities with the severity of alcohol dependence syndrome.

DEMOGRAPHIC PROFILES

Age, Gender, Occupation, Marital status, education, associated substance use, Background, family history of Alcohol dependence, family history of psychiatric illness, and family type were recorded as sociodemographic profiles in the present study.

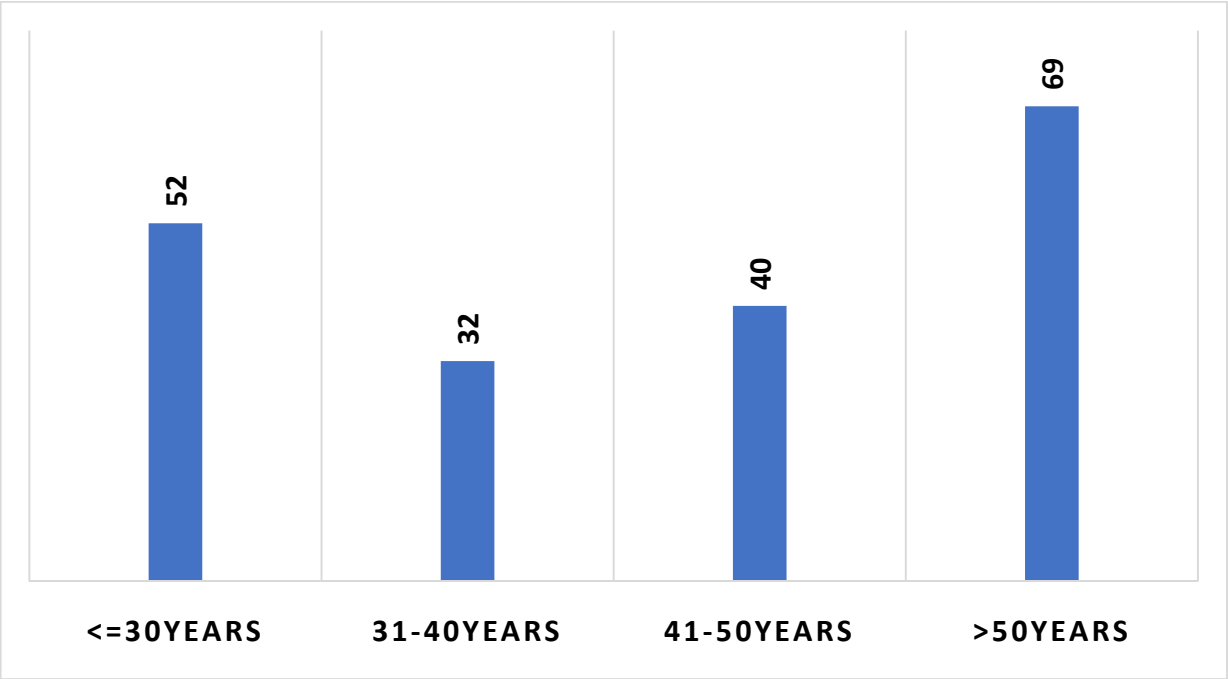
AGE DISTRIBUTION

The age group with the highest number of patients was > 50 years (35.75%) of the age group, which is followed by <=30 years (26.94%) & 41 - 50 years (20.73%).

Table: 3 Age-wise distribution (n=193)

AGE	NO OF PATIENTS	PERCENTAGE (%)
<=30YEARS	52	26.94
31-40YEARS	32	16.58
41-50YEARS	40	20.73
>50YEARS	69	35.75
TOTAL	193	100

Graph: 1 Age-wise distribution in frequency



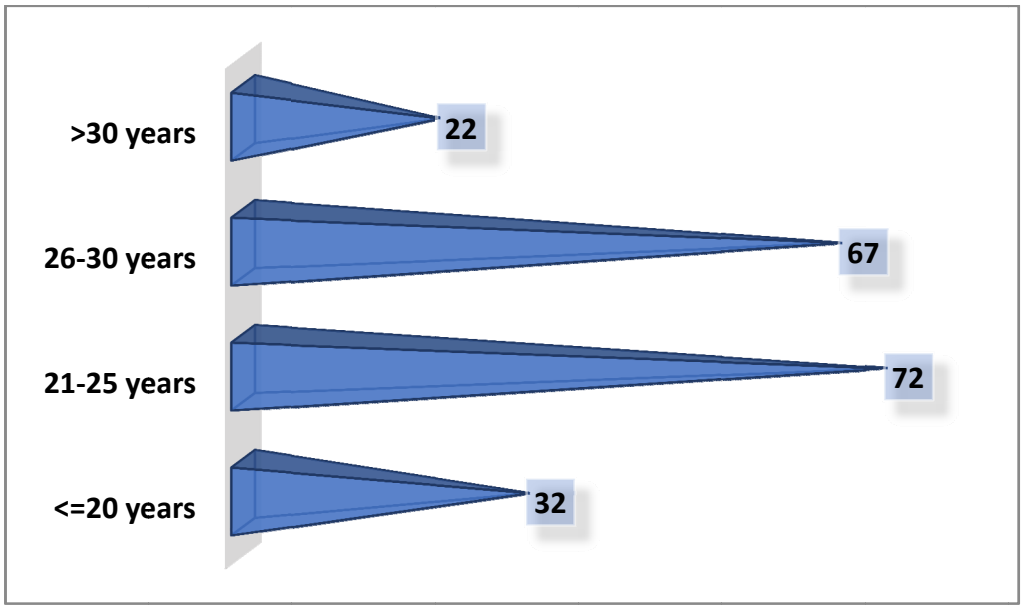
AGE ONSET DISTRIBUTION

The age group with the highest number of patients was 21 - 25years (37.31%) of the age group which is followed by 26 - 30 years (34.72%) &<=20 years (16.58%).

Table: 4 Age onset distribution

AGE @ ONSET	NO OF PATIENTS	PERCENTAGE (%)
<=20 YEARS	32	16.58
21-25 YEARS	72	37.31
26-30 YEARS	67	34.72
>30 YEARS	22	11.4
TOTAL	193	100

Graph: 2 Age onset distribution in frequency



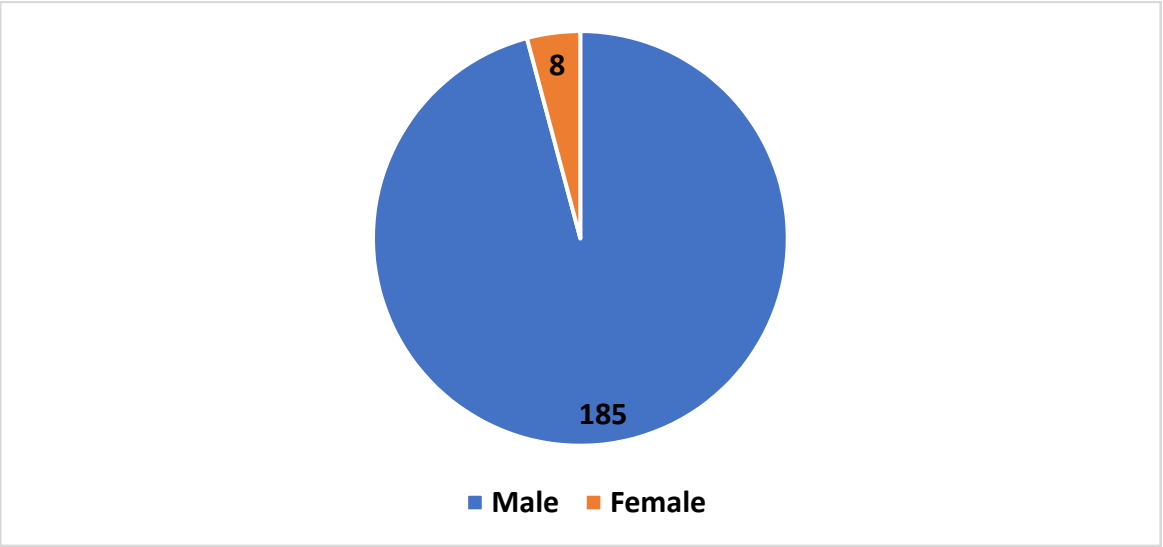
GENDER DISTRIBUTION

Our study had a male predominance, with 185 (95.85%) males and only 8 (4.15%) females. [Table: 5 and Graph:3]

Table 5: Gender distribution

SEX	NO OF PATIENTS	PERCENTAGE (%)
FEMALE	8	4.15
MALE	185	95.85
TORAL	193	100

Graph:3 Gender distribution in frequency



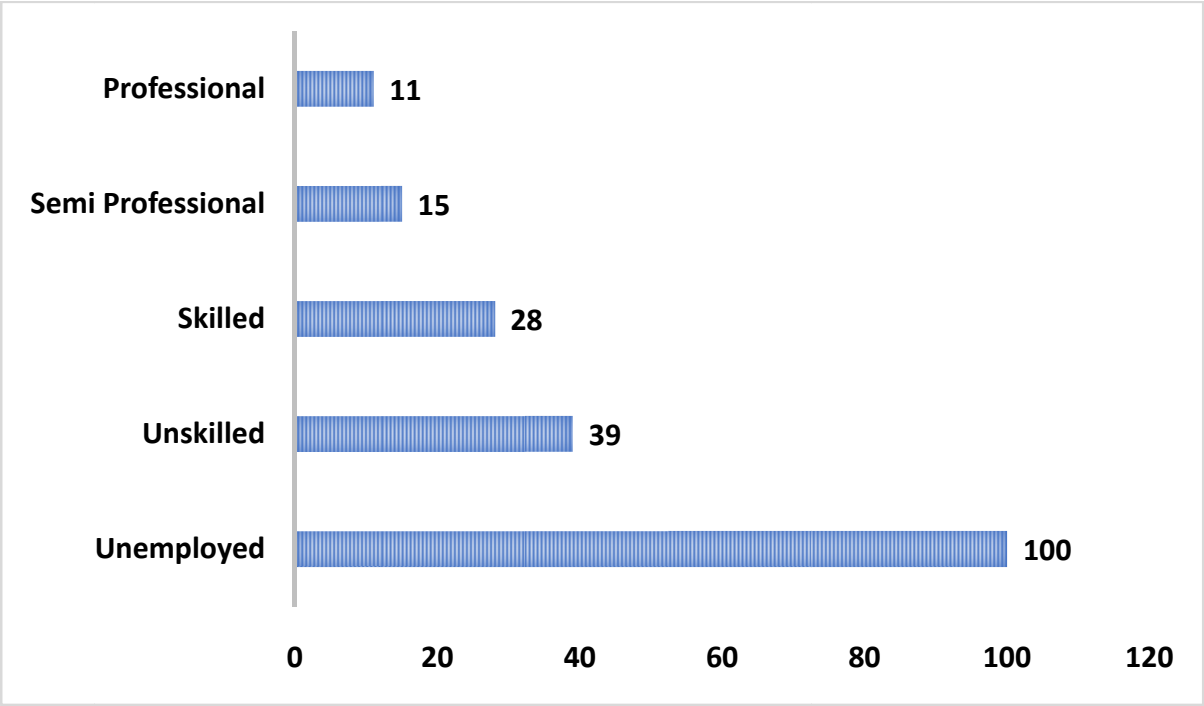
OCCUPATION

Only 11 of the 193 cases appear to be professional, while 15 appear to be semi-professional. There were 100 jobless people and 39 unskilled workers.

Table 6: Occupation distribution

OCCUPATION	NO OF PATIENTS	PERCENTAGE (%)
UNEMPLOYED	100	51.81
UNSKILLED	39	20.21
SKILLED	28	14.51
SEMI-PROFESSIONAL	15	7.77
PROFESSIONAL	11	5.7
TOTAL	193	100

Graph: 4 Distribution of Occupation in frequency



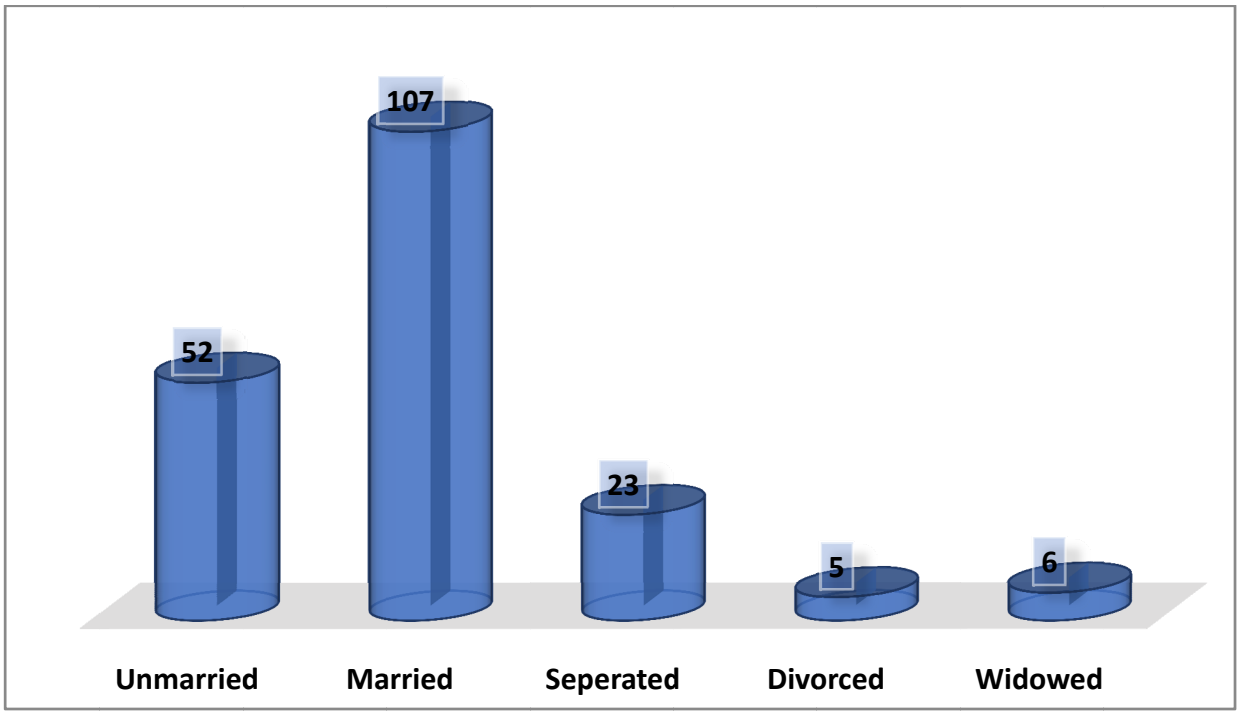
MARITAL STATUS

107 of the 193 patients were married. In the current study, 52 people were unmarried.

Table 7: Marital status distribution

MARITAL STATUS	NO OF PATIENTS	PERCENTAGE (%)
UNMARRIED	52	26.94
MARRIED	107	55.44
SEPARATED	23	11.92
DIVORCED	5	2.59
WIDOWED	6	3.11
TOTAL	193	100

Graph: 5 Marital status in frequency



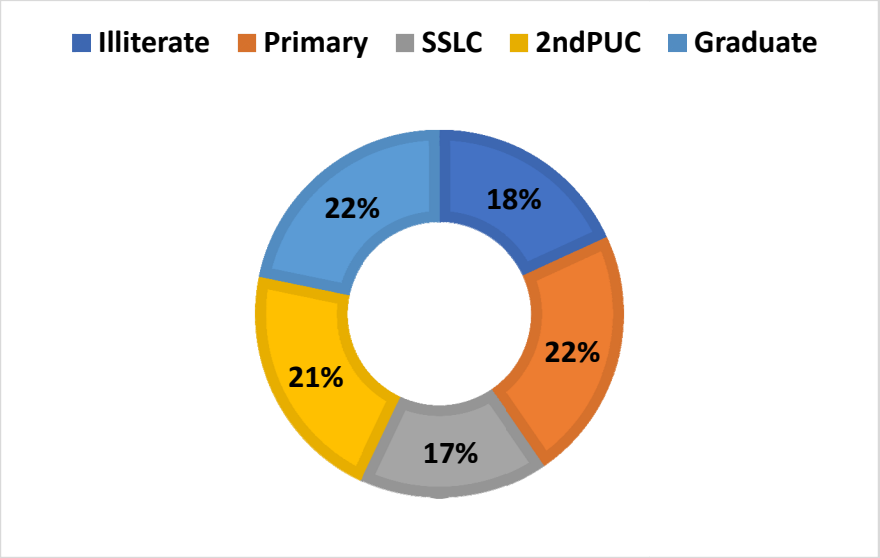
EDUCATION

42 of the 193 instances appear to be graduated. Forty-one cases finished their second PUC. Seventy-five patients completed their schooling. Thirty-five people seem to be illiterate.

Table 8: Distribution of Educated patients

EDUCATION	NO OF PATIENTS	PERCENTAGE (%)
ILLITERATE	35	18.13
PRIMARY	43	22.28
SSLC	32	16.58
2NDPUC	41	21.24
GRADUATE	42	21.76
TOTAL	193	100

Graph: 6 Distribution of Educated patients in frequency



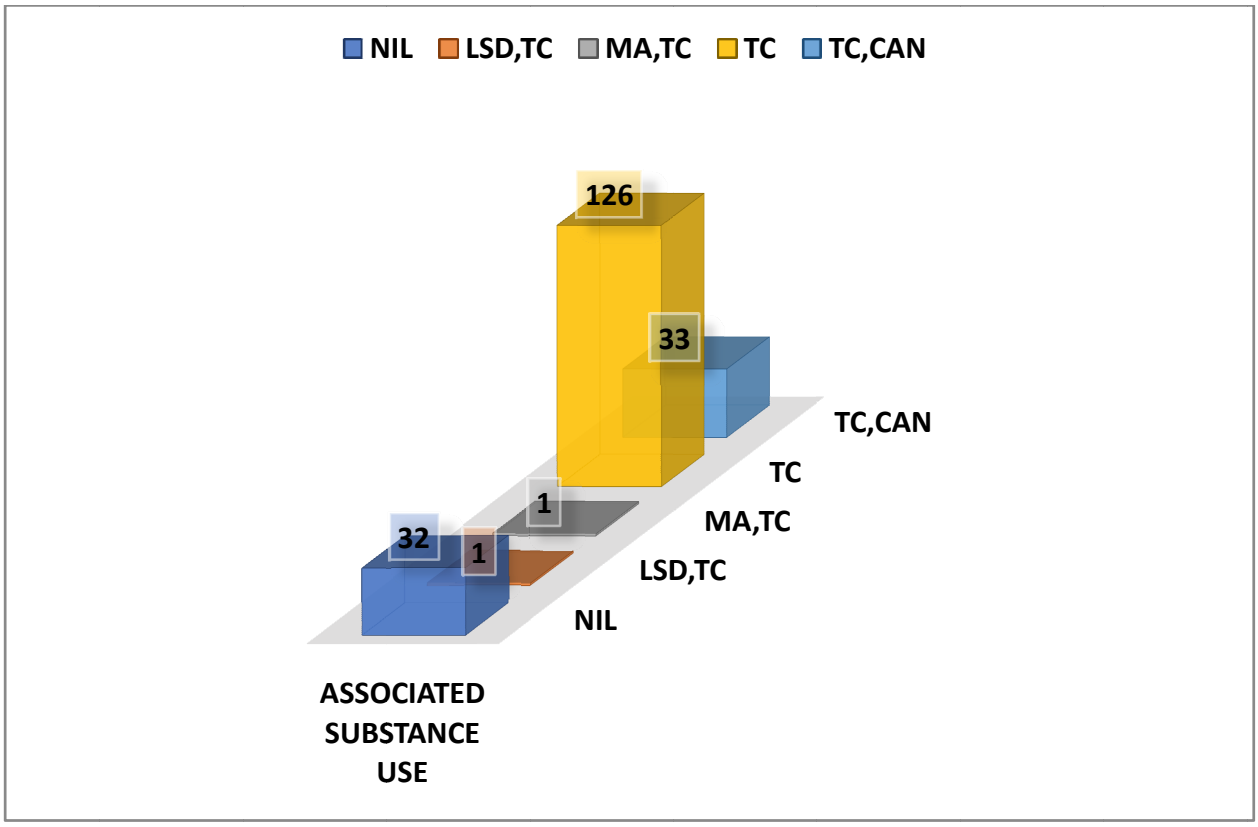
ASSOCIATED SUBSTANCE USE

In 33 cases, cannabis and tobacco were both utilized. Lysergic acid diethylamide and tobacco were both utilized on one occasion. In one example, Methamphetamine and tobacco were both utilized. In the current study, tobacco was used by most of the participants, and 32 instances were seen with no usage of any of the drugs.

Table 9: Distribution of Associated Substances used among the study patients

ASSOCIATED SUBSTANCE USE	NO OF PATIENTS	PERCENTAGE (%)
NIL	32	16.58
LSD, TC	1	0.52
MA, TC	1	0.52
TC	126	65.28
TC, CAN	33	17.1
TOTAL	193	100

Graph:7 Distribution of Associated Substance used among the study patients in Frequency



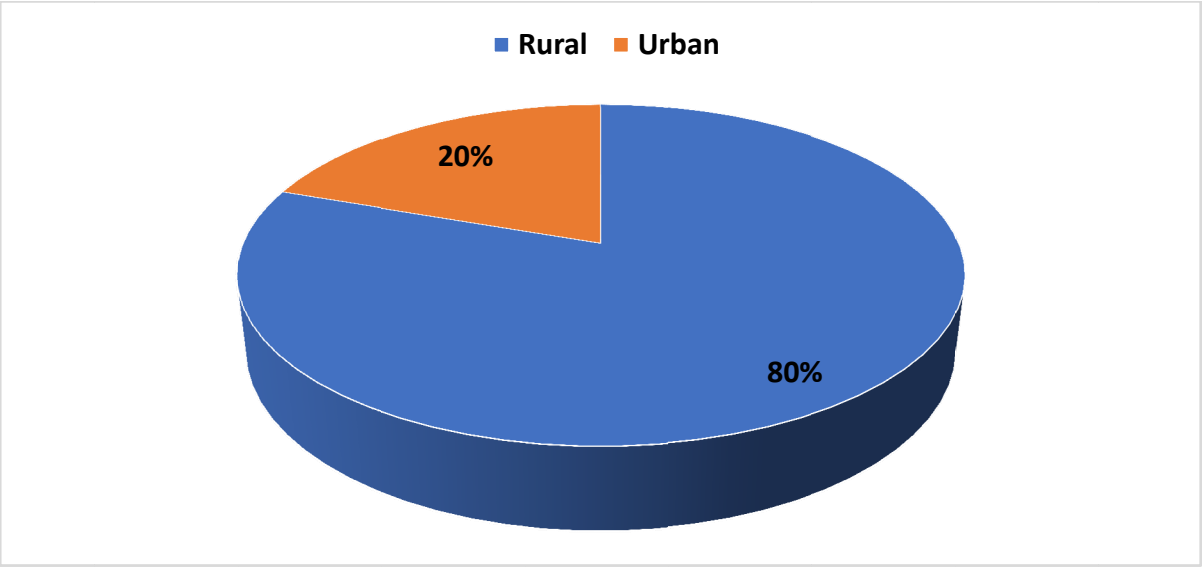
AREA OF RESIDENCE

155 Cases were from rural areas. 38 from urban areas.

Table 10: Distribution of patients from different residence areas

RESIDENCE AREA	NO OF PATIENTS	PERCENTAGE (%)
RURAL	155	80.31
URBAN	38	19.69
TOTAL	193	100

Graph:8 **Distribution of patients from different residential areas in Frequency**



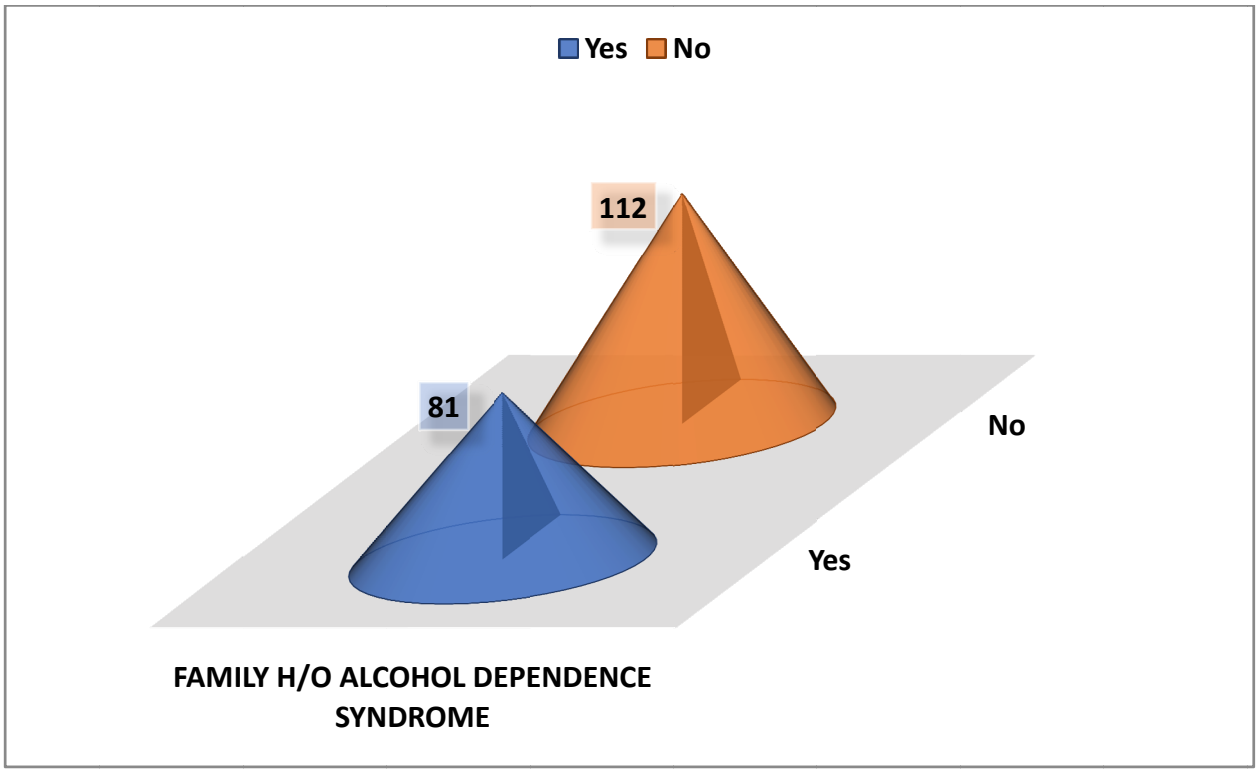
FAMILY HISTORY OF ALCOHOL DEPENDENCE

Eighty-one cases seem to have a family history of alcohol dependence in the present study.

Table 11: **Presence and Absence of F/H/O Alcohol Dependence**

FAMILY HISTORY OF ALCOHOL DEPENDENCE	NO OF PATIENTS	PERCENTAGE (%)
ABSENT	112	58.03
PRESENT	81	41.97
TOTAL	193	100

Graph: 9 **Presence and Absence of F/H/O Alcohol Dependence in Frequency**



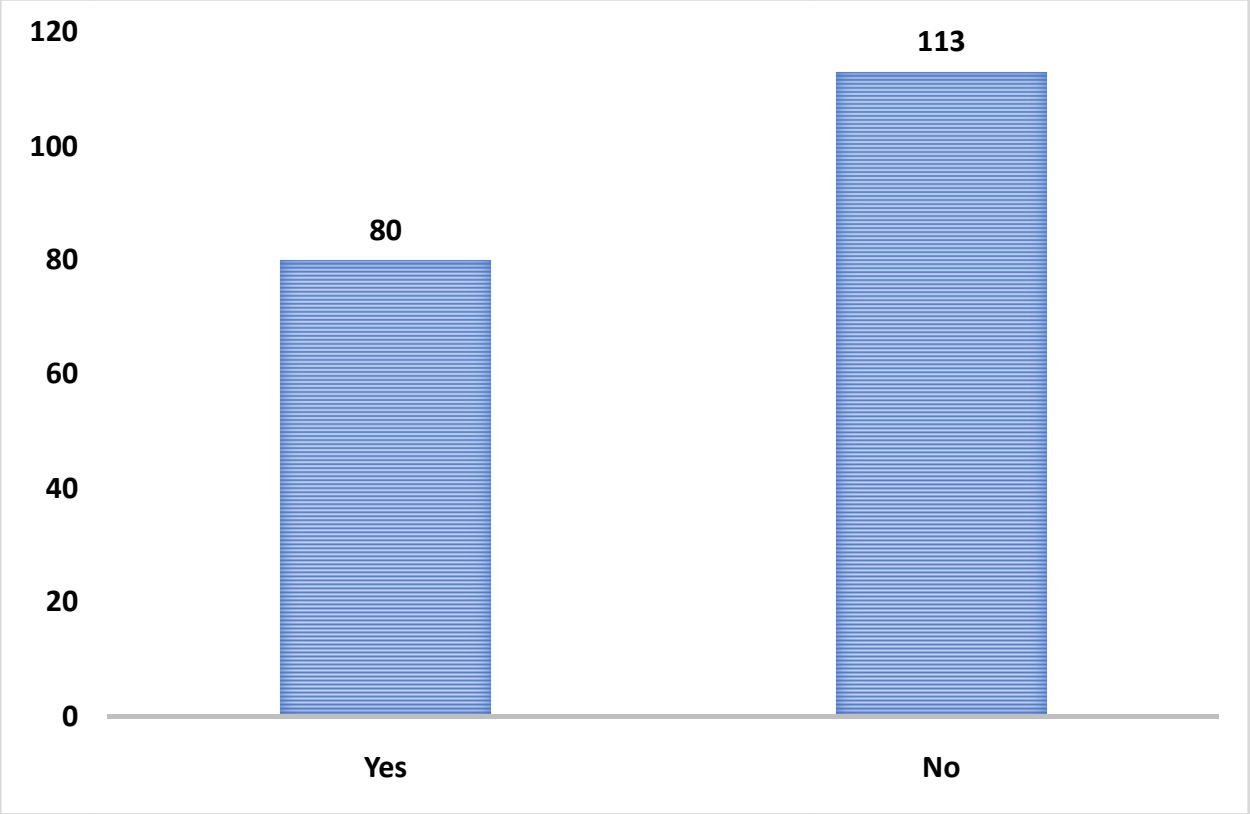
FAMILY HISTORY OF PSYCHIATRIC ILLNESS

Eighty cases seem to have a family history of psychiatric illness in the present study.

Table 12: **Presence and Absence of F/H/O Psychiatric Illness**

FAMILY HISTORY OF PSYCHIATRIC ILLNESS	NO OF PATIENTS	PERCENTAGE (%)
ABSENT	113	58.55
PRESENT	80	41.45
TOTAL	193	100

Graph: 10 Presence and Absence of F/H/O Psychiatric Illness in Frequency



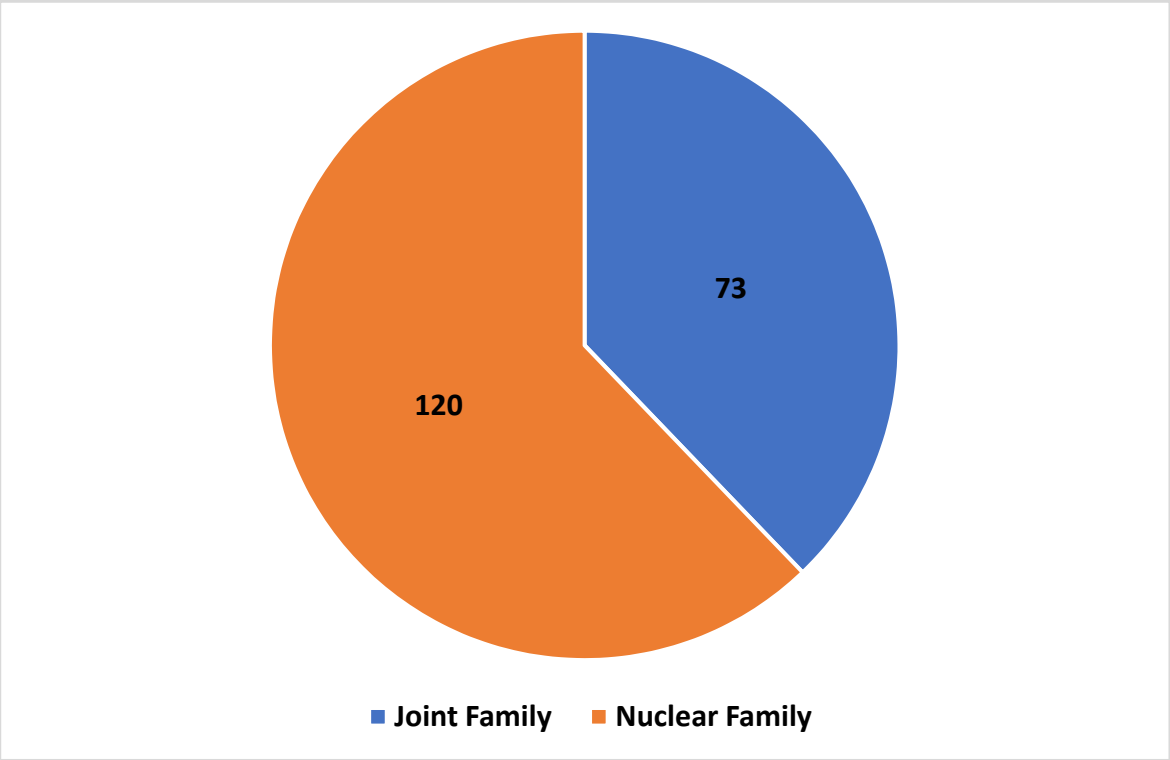
FAMILY TYPE

Of the 193 cases, 120 cases were from a nuclear family. Seventy-threecases were from joint families.

Table 13: Family types and their distribution

FAMILY TYPE	NO OF PATIENTS	PERCENTAGE (%)
JOINT FAMILY	73	37.82
NUCLEAR FAMILY	120	62.18
TOTAL	193	100

Graph:11 Family types and their distribution in Frequency



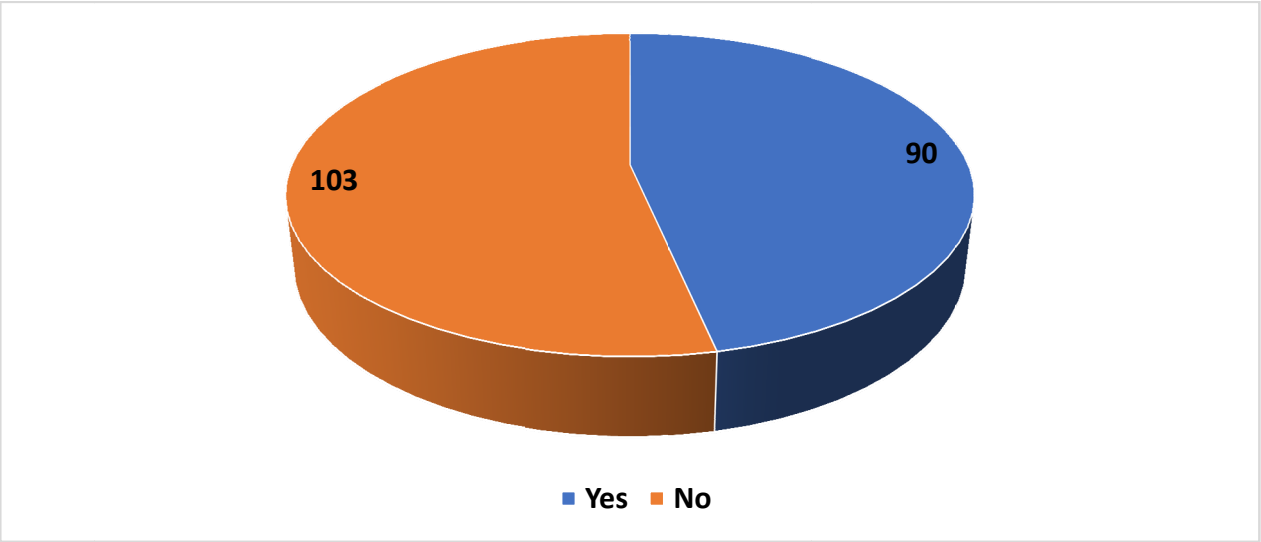
PREVALENCE OF PSYCHIATRIC COMORBIDITIES

Prevalence of Psychiatric comorbidities seen in 90 cases.

Table:14 Presence and Absence of Psychiatric Comorbidities

PREVALENCE OF PSYCHIATRIC COMORBIDITIES	NO OF PATIENTS	PERCENTAGE (%)
ABSENT	103	53.37
PRESENT	90	46.63
TOTAL	193	100

Graph:12 Presence and Absence of Psychiatric Comorbidities in Frequency



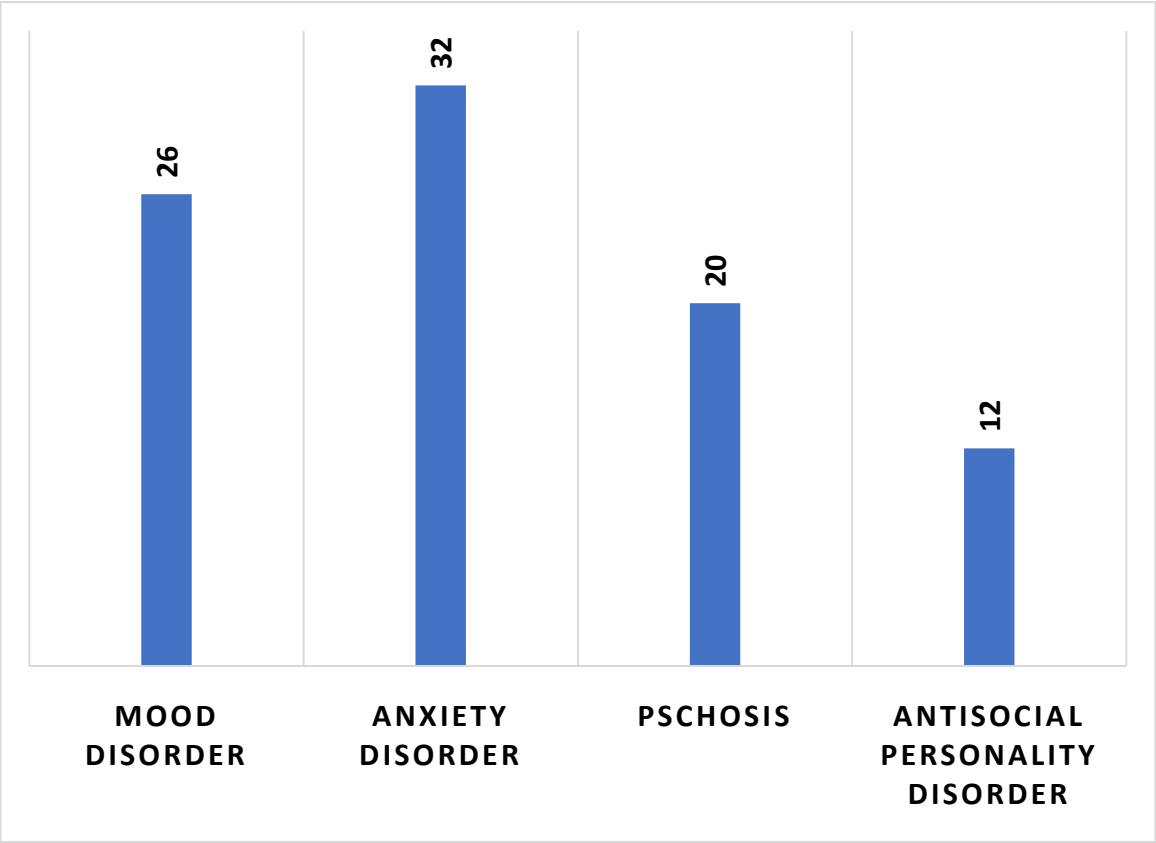
TYPE OF PSYCHIATRIC COMORBIDITIES

Antisocial personality disorder appears to affect 12 cases. Anxiety disorder appears to affect 32 cases. Psychosis was seen in 20 cases of anxiety disorder. Mood disorder appears to affect 26 cases.

Table: 15 Types of Psychiatric Comorbidities

PSYCHATRIC COMORBIDTY TYPES	NO OF PATIENTS	PERCENTAGE (%)
MOOD DISORDER	26	28.89
ANXIETY DISORDER	32	35.56
PSYCHOSIS	20	22.22
ANTISOCIAL PERSONALITY DISORDER	12	13.33
TOTAL	90	100

Graph:13 Psychiatric comorbidities and their distribution in Frequency



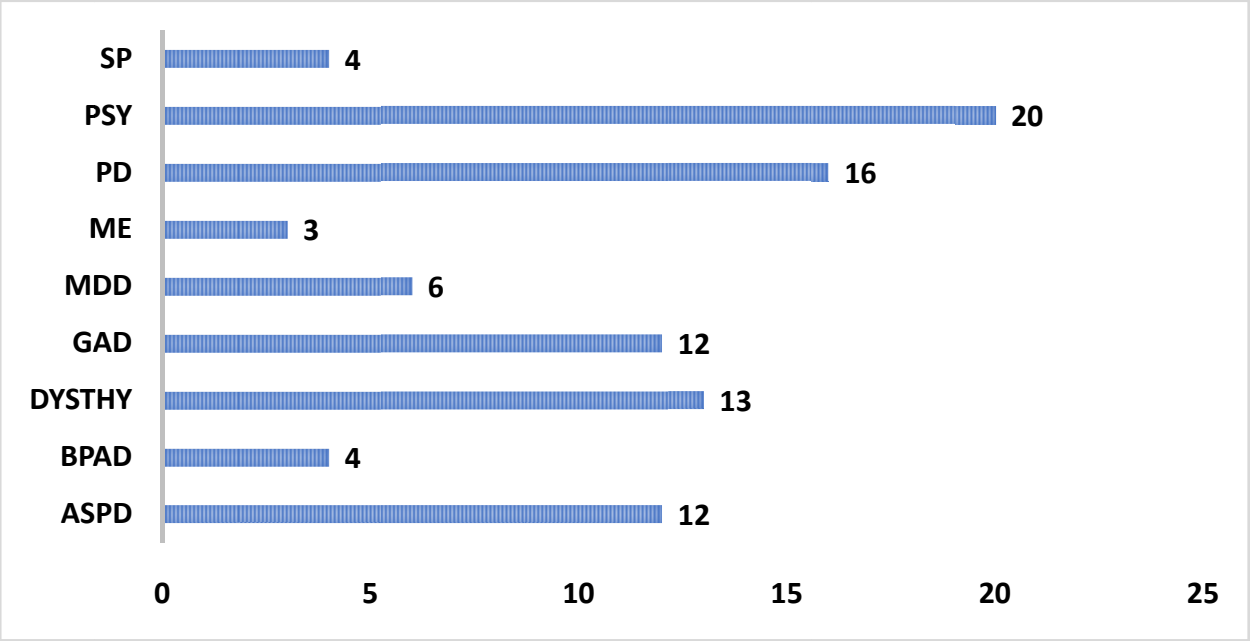
SUB-TYPES OF PSYCHATRIC COMORBIDTIES

Of the 193 cases, 103 cases were absent with any type of psychiatric comorbidities 90 instances involved the other types of mental comorbidities, which are shown below. In the present study 12 cases were seen with antisocial personality disorder, 4 cases seen with Bipolar affective disorder, 13 cases seen with Dysthymia, 12 cases seen with Generalized anxiety disorder, 6 cases seen with Major depressive disorder, 3 cases seen with Manic episodes, 16 cases seen with panic disorder, 20 cases seen with Psychosis and 4 cases seen with Social phobia.

Table:16 Sub types of Psychiatric comorbidities

PSYCHATRIC COMORBIDTY SUB-TYPES	NO OF PATIENTS	PERCENTAGE (%)
ANTI-SOCIAL PERSONALITY DISORDER	12	13.33
BIPOLAR AFFECTIVE DISORDER	4	4.44
DYSTHYMIA	13	14.44
GENERALIZED ANXIETY DISORDER	12	13.33
MAJOR DEPRESSIVE DISORDER	6	6.67
MANIC EPISODE	3	3.33
PANIC DISORDER	16	17.78
PSYCHOSIS	20	22.22
SOCIAL PHOBIA	4	4.44
TOTAL	90	100

Graph:14 Psychiatric comorbidities and their subtypes in Frequency



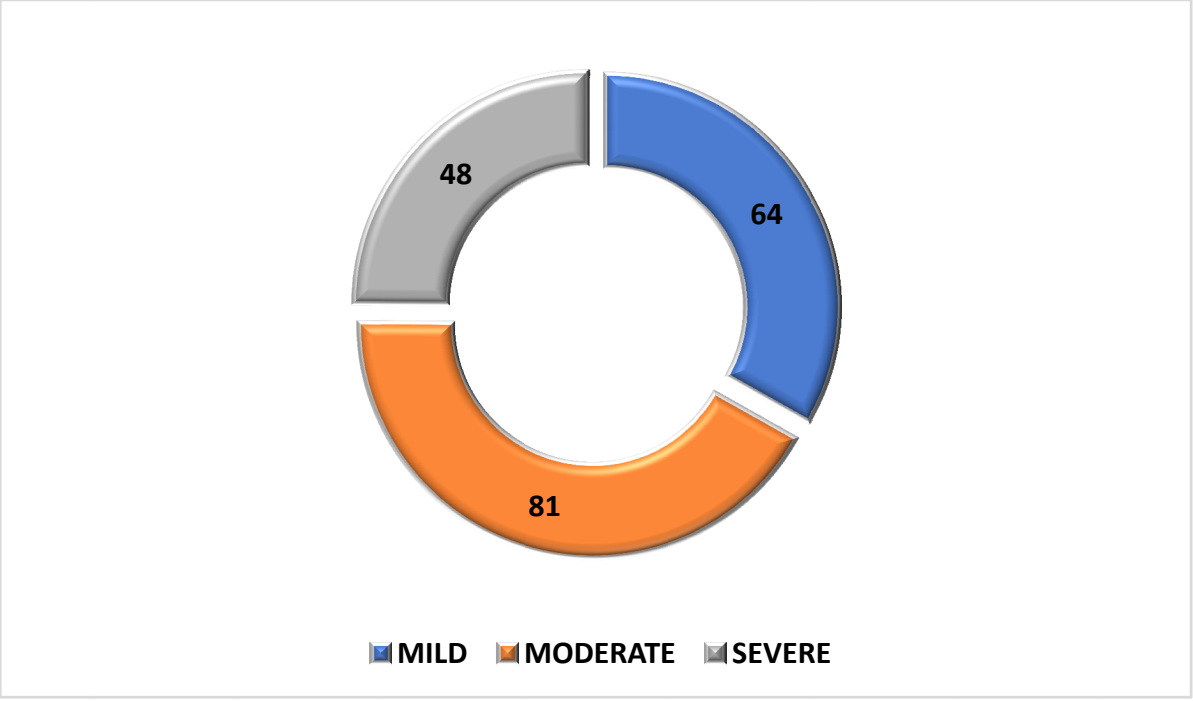
SEVERITY

Of the 193 cases, 48 cases seem to have severity such cases.

Table: 17 Severity types of Psychiatric comorbidities

SEVERITY	NO OF PATIENTS	PERCENTAGE (%)
MILD	64	33.16
MODERATE	81	41.97
SEVERE	48	24.87
TOTAL	193	100

Graph:15 Severity types of Psychiatric comorbidities



MEAN/SD OF AGE DISTRIBUTION

Table:18 Mean/SD distribution of Age and Age onset variables

VARIABLE	OBS	MEAN	STD. DEV.
AGE	193	42.503	14.181
AGEONSET	193	24.896	4.246

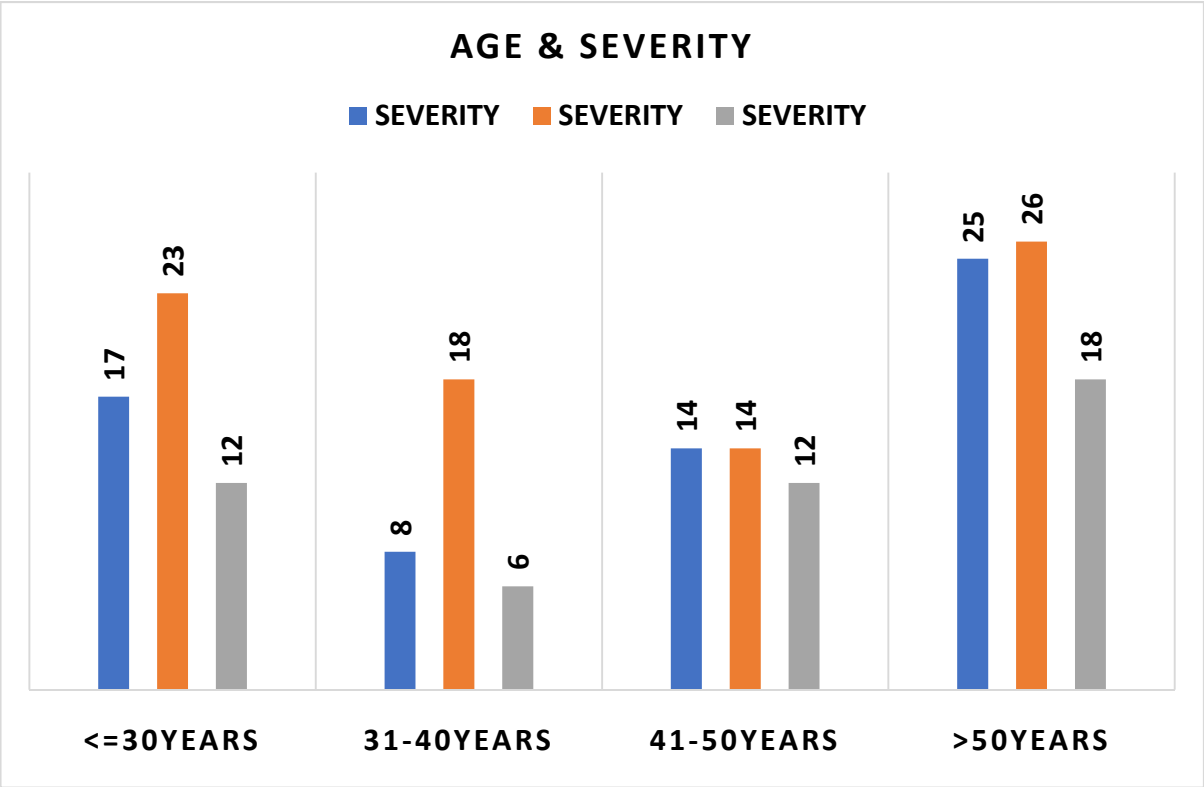
ASSOCIATION BETWEEN AGE AND SEVERITY

To investigate the relationship between Age and the severity of conditions, a chi-square test of independence was used. If p = 0.639, then these variables do not significantly interact.

Table: 19 Correlation between Age distribution and Severity levels

AGE	SEVERITY			TOTAL	P-VALUE
	MILD	MODERATE	SEVERE		
<=30YEARS	17 (27%)	23 (28%)	12 (25%)	52 (27%)	0.639
31-40YEARS	8 (13%)	18 (22%)	6 (13%)	32 (17%)	
41-50YEARS	14 (22%)	14 (17%)	12 (25%)	40 (21%)	
>50YEARS	25 (39%)	26 (32%)	18 (38%)	69 (36%)	
TOTAL	64 (100%)	81 (100%)	48 (100%)	193 (100%)	

Graph:16 **Association between Age distribution and Severity levels**



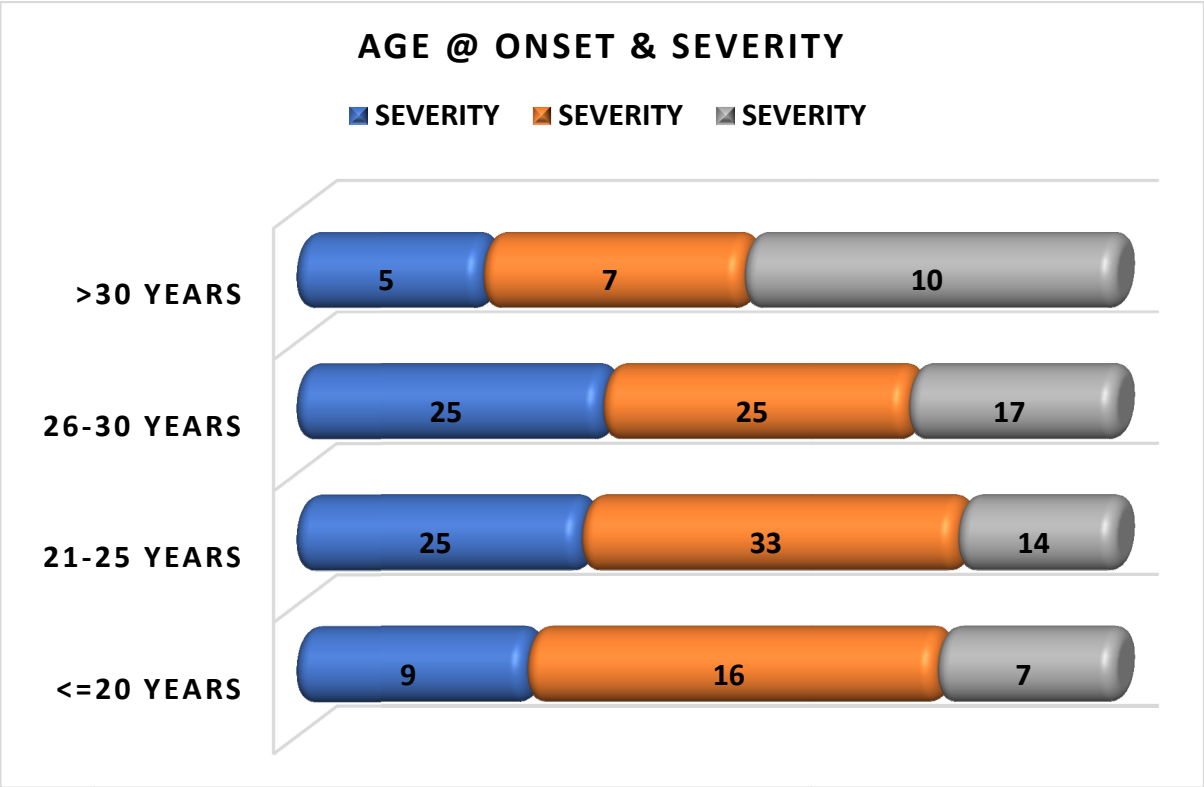
ASSOCIATION BETWEEN AGE ONSET AND SEVERITY

To investigate the relationship between Age onset and the severity of conditions, a chi-square test of independence was used. If p = 0.259, these variables do not significantly interact.

Table:20 **Correlation between Age onset distribution and Severity levels**

AGE @ ONSET	SEVERITY			TOTAL	P-VALUE
	MILD	MODERATE	SEVERE		
<=20 YEARS	9 (14%)	16 (20%)	7 (15%)	32 (17%)	0.259
21-25 YEARS	25 (39%)	33 (41%)	14 (29%)	72 (37%)	
26-30 YEARS	25 (39%)	25 (31%)	17 (35%)	67 (35%)	
>30 YEARS	5 (8%)	7 (9%)	10 (21%)	22 (11%)	
TOTAL	64 (100%)	81 (100%)	48 (100%)	193 (100%)	

Graph:17 **Association between Age onset distribution and Severity levels**



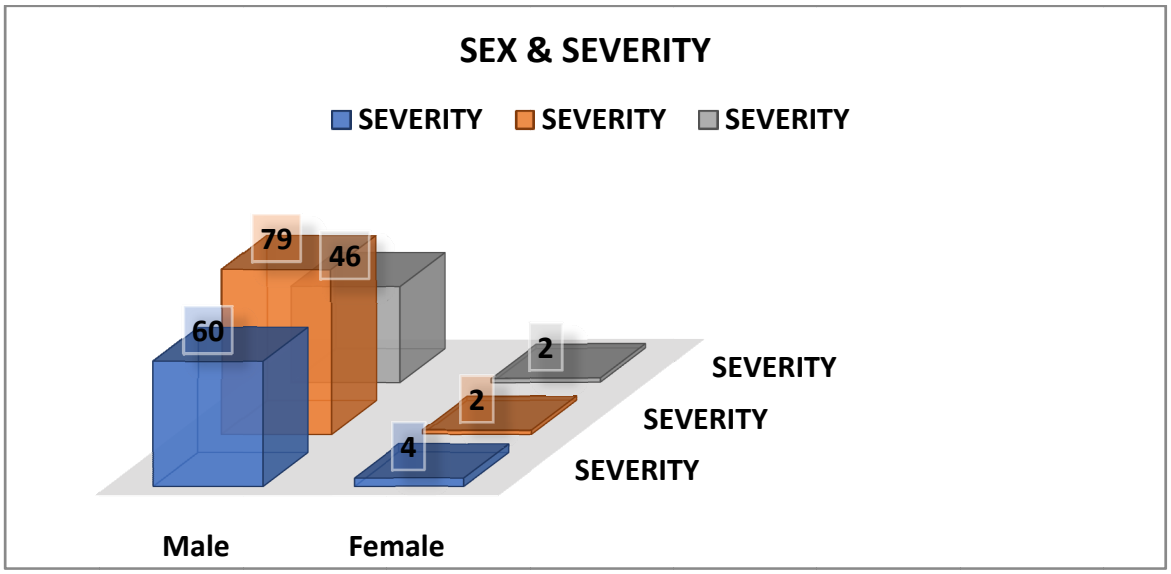
ASSOCIATION BETWEEN GENDER AND SEVERITY

To investigate the relationship between sex and the severity of conditions, a chi-square test of independence was used. If p = 0.526, then the two variables do not significantly interact.

Table:21 **Correlation between Sex distribution and Severity levels**

SEX	SEVERITY			TOTAL	P-VALUE
	MILD	MODERATE	SEVERE		
FEMALE	4(6.25%)	2(2.47%)	2(4.17%)	8(4.15%)	0.526
MALE	60(93.75%)	79(97.53%)	46(95.83%)	185(95.85%)	
TOTAL	64(100%)	81(100%)	48(100%)	193(100%)	

Graph:18 **Association between Sex distribution and Severity levels**



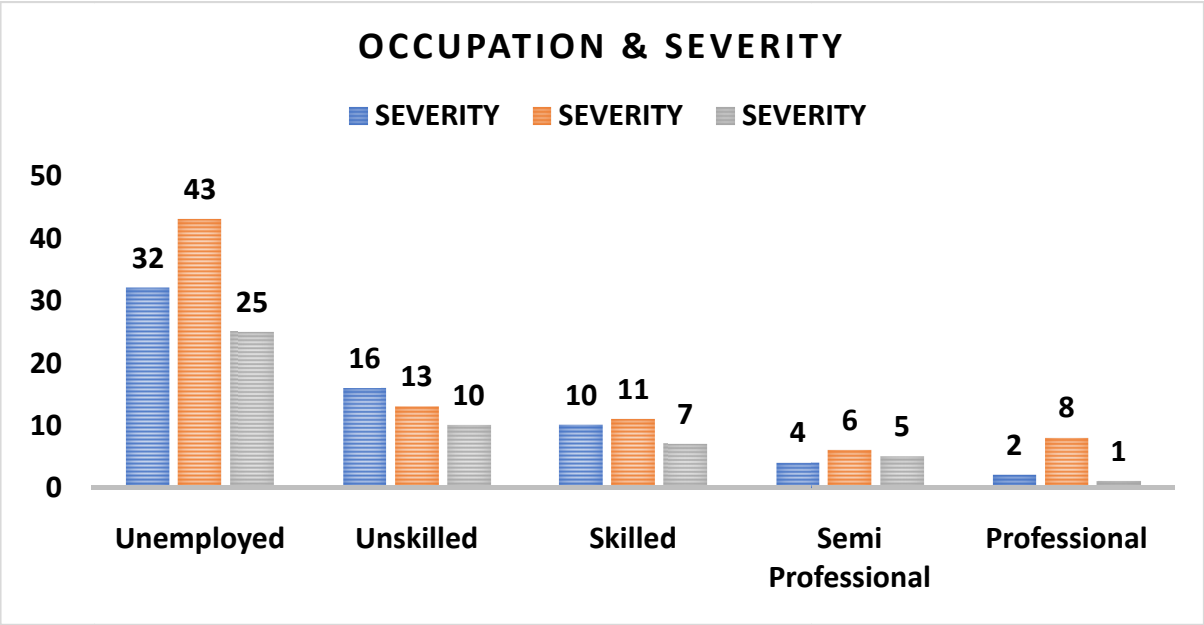
ASSOCIATION BETWEEN OCCUPATION AND SEVERITY

A chi-square test of independence was used to investigate the relationship between occupation and the severity of conditions. If p = 0.585, then the two variables do not significantly interact.

Table: 22 **Correlation between Occupation and Severity Levels**

OCCUPATION	SEVERITY			TOTAL	P-VALUE
	MILD	MODERATE	SEVERE		
PROFESSIONAL	2(3.12%)	8(9.88%)	1(2.08%)	11(5.7%)	0.585
SEMI PROFESSIONAL	4(6.25%)	6(7.41%)	5(10.42%)	15(7.77%)	
SKILLED WORKER	10(15.62%)	11(13.58%)	7(14.58%)	28(14.51%)	
UNEMPLOYED	32(50%)	43(53.09%)	25(52.08%)	100(51.81%)	
UNSKILLED WORKER	16(25%)	13(16.05%)	10(20.83%)	39(20.21%)	
TOTAL	64(100%)	81(100%)	48(100%)	193(100%)	

Graph:19 Association between Occupation distribution and Severity levels



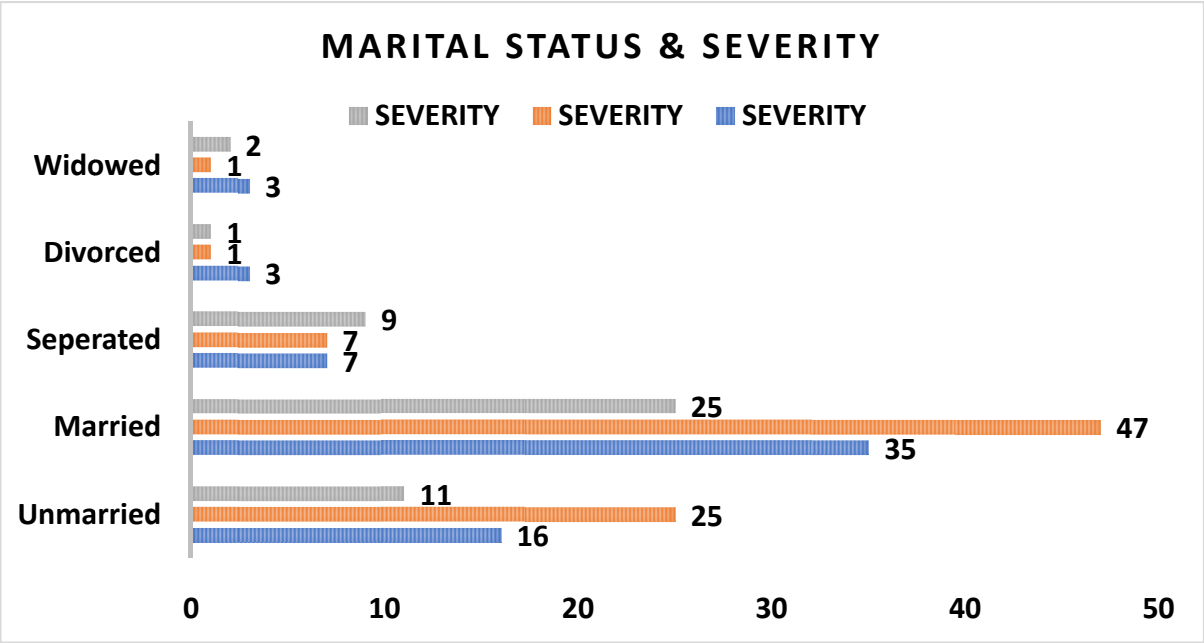
ASSOCIATION BETWEEN MARITAL STATUS AND SEVERITY

A chi-square test of independence was used to investigate the relationship between marital status and the severity of conditions. If p = 0.535, then the two variables do not significantly interact.

Table: 23 Correlation between Marital status and Severity levels

MARITAL STATUS	SEVERITY			TOTAL	P-VALUE
	MILD	MODERATE	SEVERE		
DIVORCED	3(4.69%)	1(1.23%)	1(2.08%)	5(2.59%)	0.535
MARRIED	35(54.69%)	47(58.02%)	25(52.08%)	107(55.44%)	
SEPARATED	7(10.94%)	7(8.64%)	9(18.75%)	23(11.92%)	
UNMARRIED	16(25%)	25(30.86%)	11(22.92%)	52(26.94%)	
WIDOWED	3(4.69%)	1(1.23%)	2(4.17%)	6(3.11%)	
TOTAL	64(100%)	81(100%)	48(100%)	193(100%)	

Graph:20 Association between a marital status distribution and Severity levels



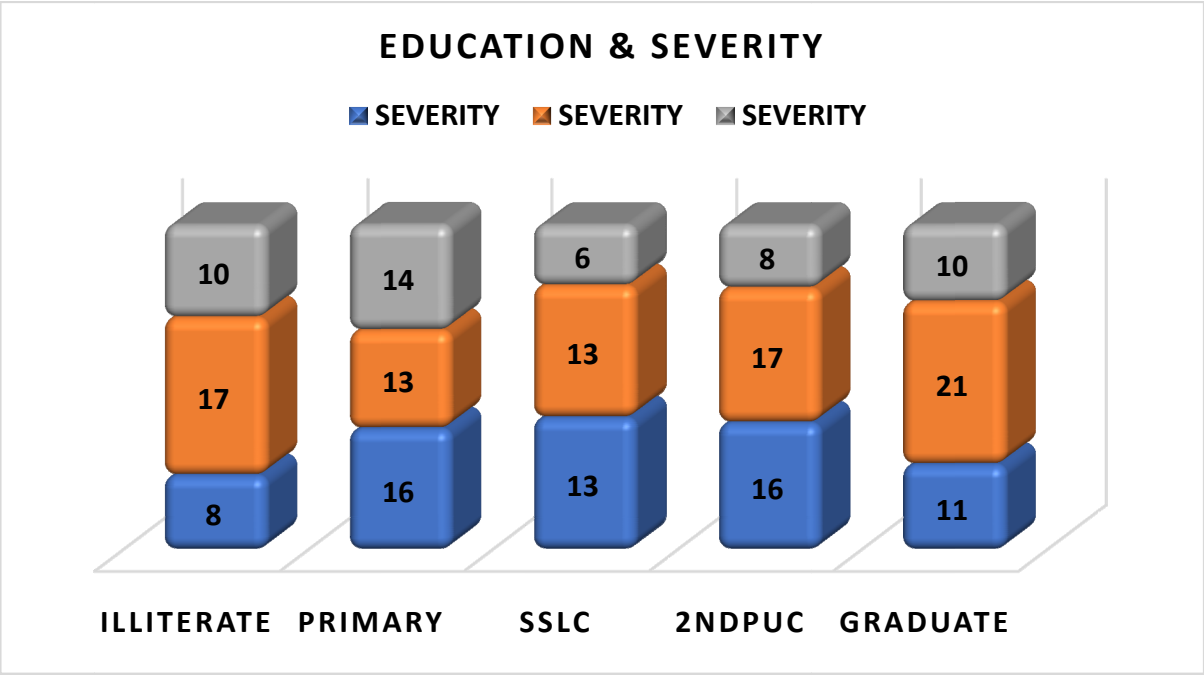
ASSOCIATION BETWEEN EDUCATION AND SEVERITY

A chi-square test of independence was used to investigate the relationship between education and the severity of conditions. If p = 0.585, then the two variables do not significantly interact.

Table: 24 Correlation between Education and Severity levels

EDUCATION	SEVERITY			TOTAL	P-VALUE
	MILD	MODERATE	SEVERE		
2ND PUC	16(25%)	17(20.99%)	8(16.67%)	41(21.24%)	0.48
GRADUATE	11(17.19%)	21(25.93%)	10(20.83%)	42(21.76%)	
ILLITERATE	8(12.5%)	17(20.99%)	10(20.83%)	35(18.13%)	
PRIMARY	16(25%)	13(16.05%)	14(29.17%)	43(22.28%)	
SSLC	13(20.31%)	13(16.05%)	6(12.5%)	32(16.58%)	
TOTAL	64(100%)	81(100%)	48(100%)	193(100%)	

Graph:21 Association between Education and Severity levels



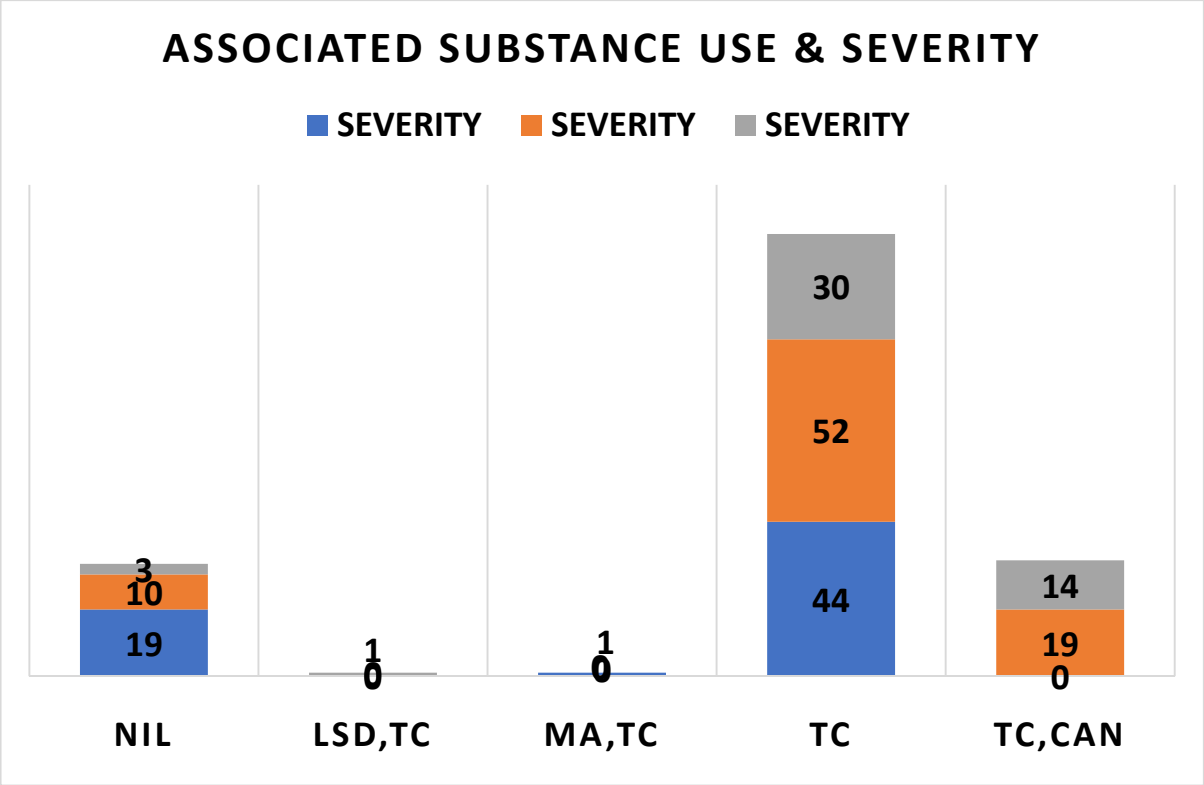
ASSOCIATION BETWEEN ASSOCIATED SUBSTANCE USE AND SEVERITY

A chi-square test of independence was used to investigate the relationship between associated substance use and the severity of conditions. If $p < 0.001$, then the two variables seem statistically significant.

Table: 25 Correlation between Associated substance use and Severity levels

ASSOCIATED SUBSTANCE USE	SEVERITY			TOTAL	P-VALUE
	MILD	MODERATE	SEVERE		
NIL	19 (30%)	10 (12%)	3 (6%)	32 (17%)	<0.001
LSD, TC	0 (0%)	0 (0%)	1 (2%)	1 (1%)	
MA, TC	1 (2%)	0 (0%)	0 (0%)	1 (1%)	
TC	44 (69%)	52 (64%)	30 (63%)	126 (65%)	
TC, CAN	0 (0%)	19 (23%)	14 (29%)	33 (17%)	
TOTAL	64 (100%)	81 (100%)	48 (100%)	193 (100%)	

Graph:22 **Association between Substance use and Severity levels**



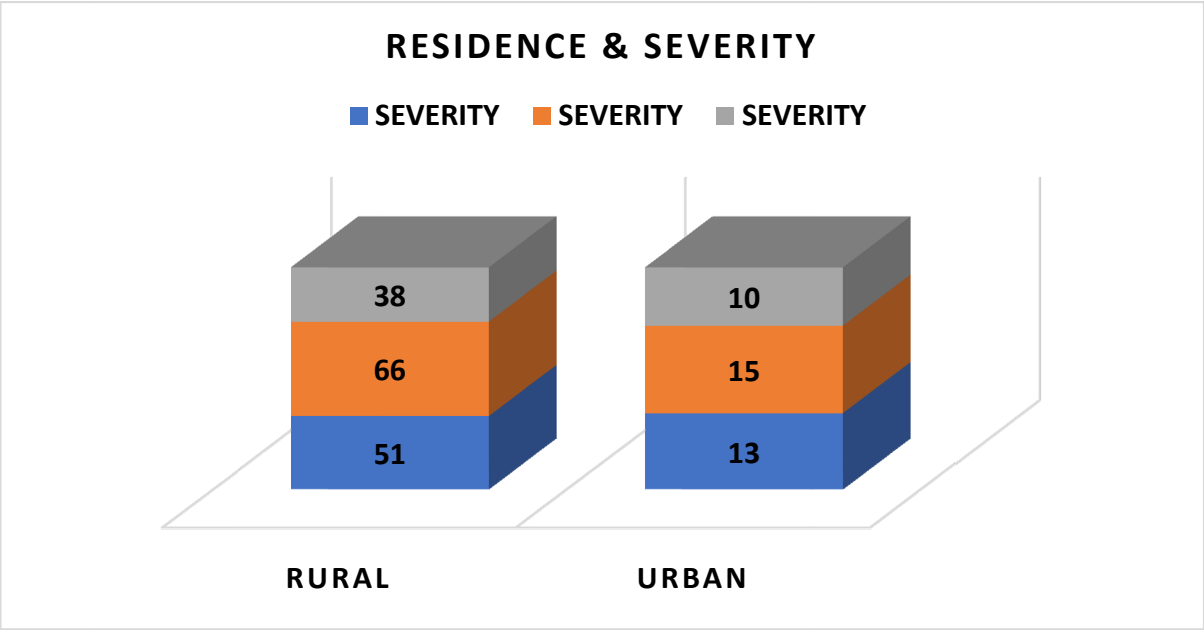
ASSOCIATION BETWEEN BACKGROUND AND SEVERITY

A chi-square test of independence was used to investigate the relationship between background and the severity of conditions. If p = 0.939, then the two variables do not significantly interact.

Table: 26 **Correlation between Background and Severity levels**

RESIDENCE	SEVERITY			TOTAL	P-VALUE
	MILD	MODERATE	SEVERE		
RURAL	51 (80%)	66 (81%)	38 (79%)	155 (80%)	0.939
URBAN	13 (20%)	15 (19%)	10 (21%)	38 (20%)	
TOTAL	64 (100%)	81 (100%)	48 (100%)	193 (100%)	

Graph:23 **Association between Residence and Severity levels**



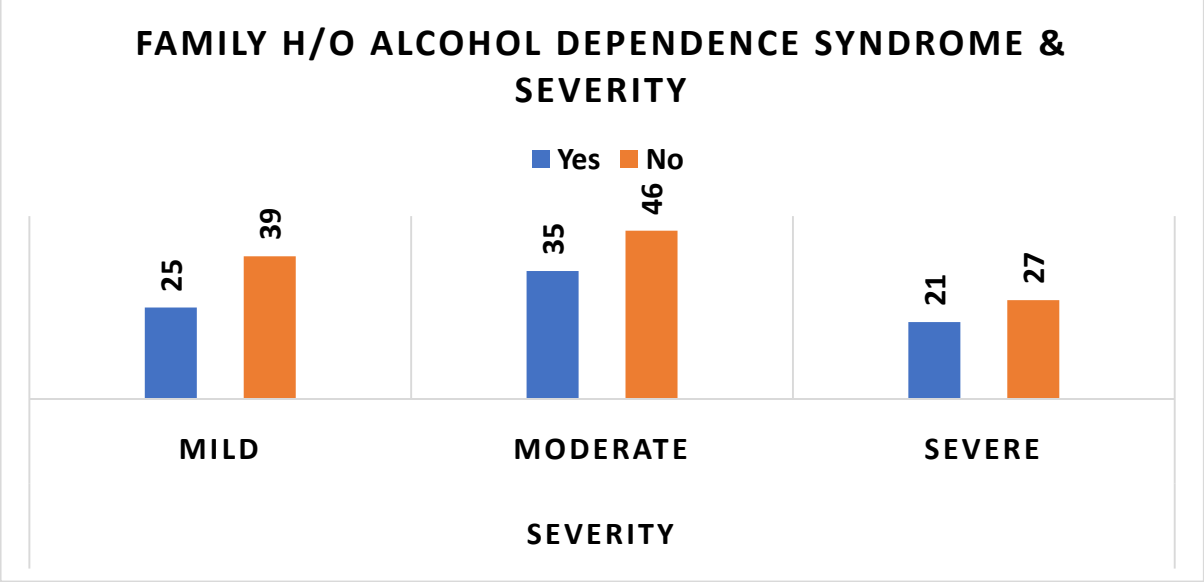
ASSOCIATION BETWEEN FAMILY HISTORY OF ALCOHOL DEPENDENCE SYNDROME AND SEVERITY

To investigate the relationship between a family history of alcohol dependence syndrome and the severity of conditions, a chi-square test of independence was used. If p = 0.845, then the two variables do not significantly interact.

Table: 27 **Correlation between family history of alcohol dependence syndrome and Severity levels**

FAMILY HISTORY OF ALCOHOL DEPENDENCE SYNDROME	SEVERITY			TOTAL	P-VALUE
	MILD	MODERATE	SEVERE		
ABSENT	39(60.94%)	46(56.79%)	27(56.25%)	112(58.03%)	0.845
PRESENT	25(39.06%)	35(43.21%)	21(43.75%)	81(41.97%)	
TOTAL	64(100%)	81(100%)	48(100%)	193(100%)	

Graph:24 **Association between family history of alcohol dependence syndrome and Severity levels**



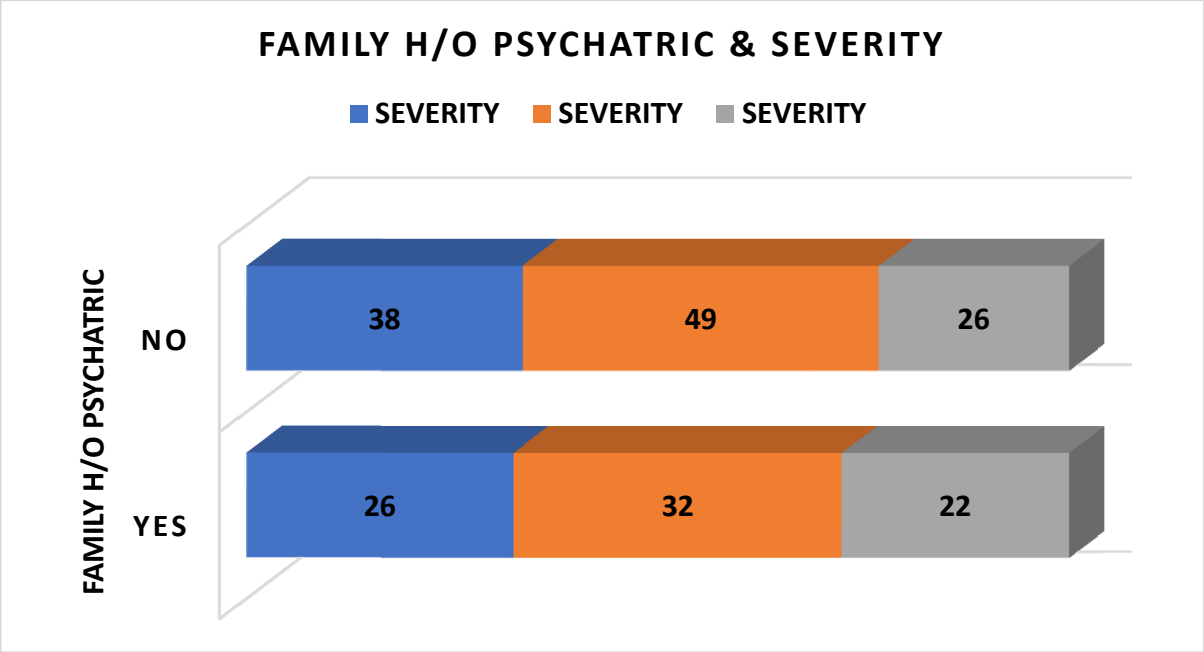
ASSOCIATION BETWEEN FAMILY HISTORY OF PSYCHIATRIC ILLNESS AND SEVERITY

A chi-square test of independence was used to investigate the relationship between a family history of psychiatric illness and the severity of conditions. If p = 0.769, then the two variables do not significantly interact.

Table:28 **Correlation between family history of psychiatric illness and Severity levels**

FAMILY HISTORY OF PSYCHIATRIC ILLNESS	SEVERITY			TOTAL	P-VALUE
	MILD	MODERATE	SEVERE		
ABSENT	38(59.38%)	49(60.49%)	26(54.17%)	113(58.55%)	0.769
PRESENT	26(40.62%)	32(39.51%)	22(45.83%)	80(41.45%)	
TOTAL	64(100%)	81(100%)	48(100%)	193(100%)	

Graph:25 Association between family history of Psychiatric and Severity levels



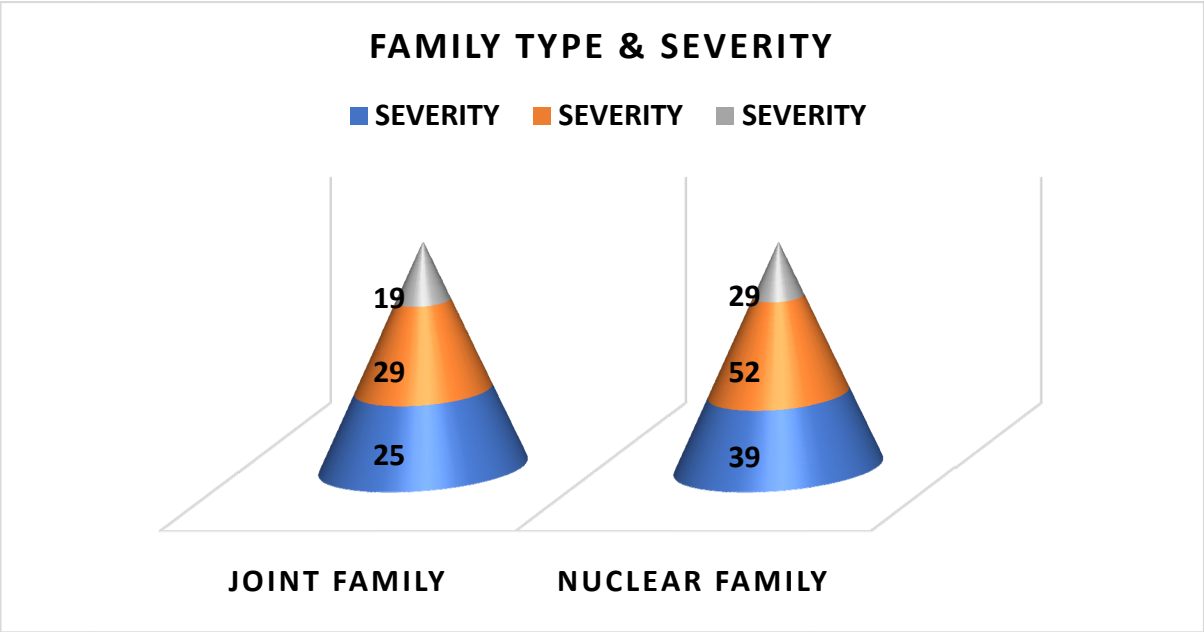
ASSOCIATION BETWEEN FAMILY TYPE AND SEVERITY

A chi-square test of independence was used to investigate the relationship between a family type and the severity of conditions. If p = 0.884, then the two variables do not significantly interact.

Table:29 Correlation between family type and Severity levels

FAMILY TYPE	SEVERITY			TOTAL	P-VALUE
	MILD	MODERATE	SEVERE		
JOINT FAMILY	25(39.06%)	29(35.8%)	19(39.58%)	73(37.82%)	0.884
NUCLEAR FAMILY	39(60.94%)	52(64.2%)	29(60.42%)	120(62.18%)	
TOTAL	64(100%)	81(100%)	48(100%)	193(100%)	

Graph:26 Association between family type and Severity levels



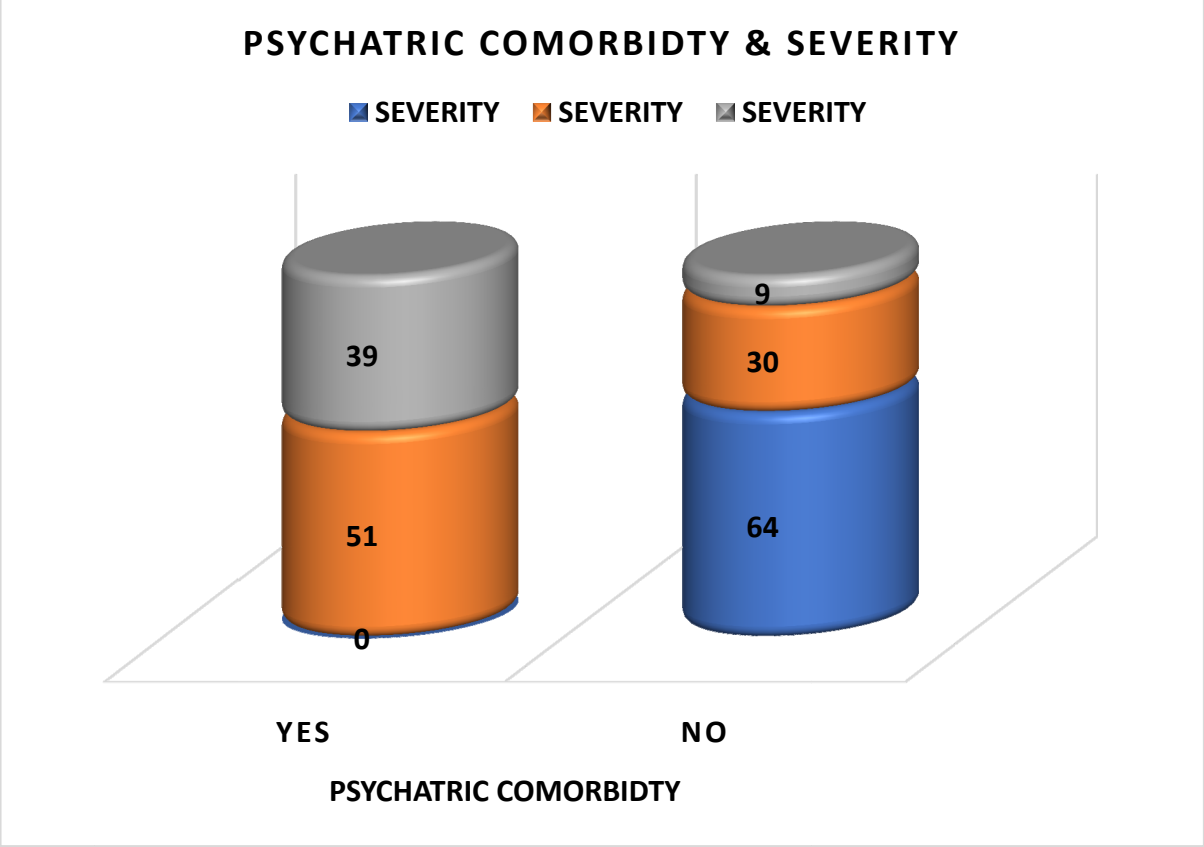
ASSOCIATION BETWEEN PREVALENCE OF PSYCHIATRIC COMORBIDITIES AND SEVERITY

A chi-square test of independence was used to investigate the relationship between the prevalence of psychiatric comorbidities and the severity of conditions. If $p < 0.001$, then the two variables seem statistically significant.

Table:30 Correlation between the prevalence of psychiatric comorbidities and Severity levels

PREVALENCE OF PSYCHIATRIC COMORBIDITIES	SEVERITY			TOTAL	P-VALUE
	MILD	MODERATE	SEVERE		
ABSENT	64(100%)	30(37.04%)	9(18.75%)	103(53.37%)	<0.001
PRESENT	0(0%)	51(62.96%)	39(81.25%)	90(46.63%)	
TOTAL	64(100%)	81(100%)	48(100%)	193(100%)	

Graph:27 **Association between Prevalence of Psychiatric comorbidities and Severity levels**



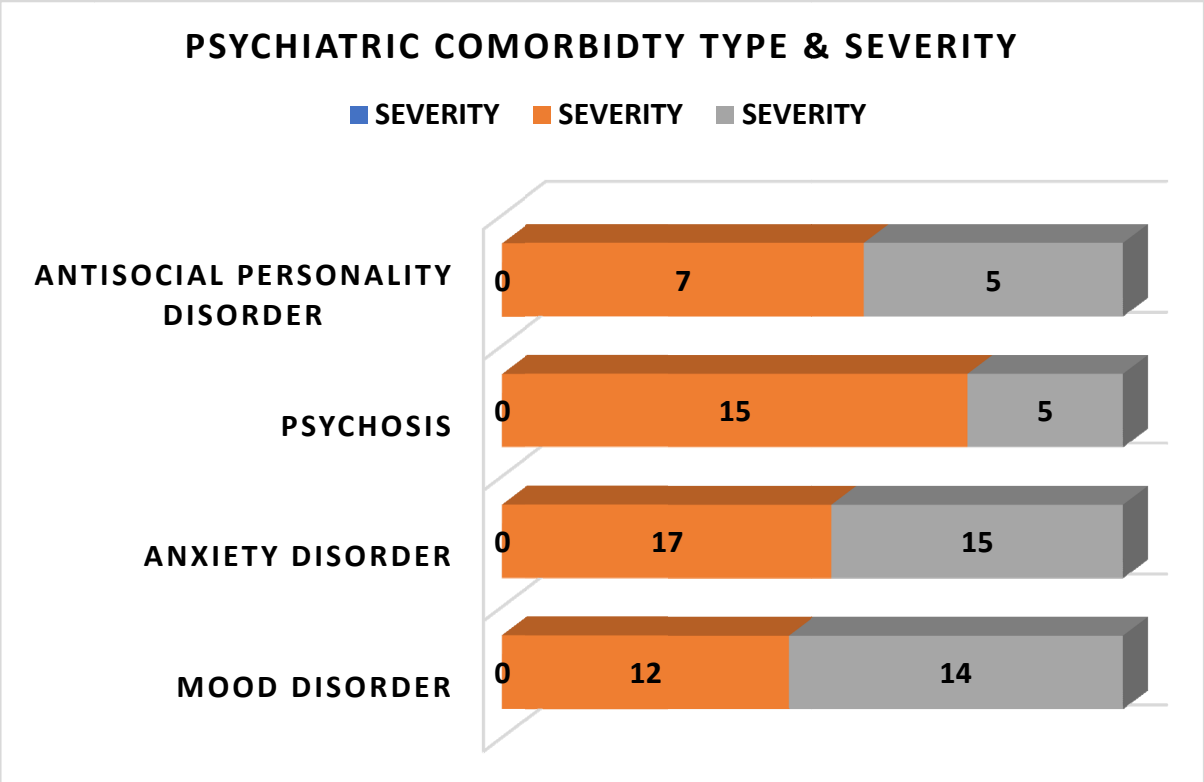
ASSOCIATION BETWEEN PSYCHIATRIC COMORBIDITY AND SEVERITY

To investigate the relationship between psychiatric comorbidities like antisocial personality disorder, anxiety disorder, mood disorder, and psychotic disorder and the severity of conditions, a chi-square test of independence was used. If $p > 0.001$, then these variables seem to be statistically non-significant.

Table:31 Correlation between psychiatric comorbidities and Severity levels

PSYCHATRIC COMORBIDTY TYPES	SEVERITY			TOTAL	P-VALUE
	MILD	MODERATE	SEVERE		
MOOD DISORDER	0 (0%)	12 (24%)	14 (36%)	26 (29%)	0.252
ANXIETY DISORDER	0 (0%)	17 (33%)	15 (38%)	32 (36%)	
PSYCHOSIS	0 (0%)	15 (29%)	5 (13%)	20 (22%)	
ANTISOCIAL PERSONALITY DISORDER	0 (0%)	7 (14%)	5 (13%)	12 (13%)	
TOTAL	0 (0%)	51 (100%)	39 (100%)	90 (100%)	

Graph:28 Association between Psychiatric comorbidities types and Severity levels



DISCUSSION

DISCUSSION

The co-occurring psychological condition might result in overuse or underuse of alcohol, leading to alcohol dependence syndrome. Therefore, it's crucial to check for psychological comorbidity in alcoholic patients. The following results determined the prevalence of psychiatric co-morbidities in patients with alcohol dependence Syndrome and assessed the correlation of psychiatric comorbidities with the severity of alcohol dependence syndrome. [110]

According to DB Kandel et al., 2010, probable drug-dependent persons have a greater risk of mental illnesses. The rates of mental disorders were comparable for individuals solely dependent on alcohol or smoking. Rates nearly increased for individuals addicted to both illegal and legal drugs. Individuals reliant exclusively on a single medication class have comparable rates of mental illness. Those addicted to illicit drugs are more likely to develop psychological disorders. This illustrates the additive relationship between legal and illegal drug dependency and psychiatric illnesses, as well as the higher rates of reliance on a legal substance among individuals dependent on an illicit drug. Individuals who are addicted to both legal and illicit substances have the greatest need for mental health care. [111]

DEMOGRAPHIC PROFILES

Age, Gender, Occupation, Marital status, education, associated substance use, Background, family history of Alcohol dependence, family history of psychiatric illness, and family type were recorded as sociodemographic profiles in the present study.

AGE DISTRIBUTION

The age group with the highest number of patients was > 50 years (35.75%) of the age group, which is followed by <=30 years (26.94%) & 41 - 50 years (20.73%). The mean age of the study group was 51.36/6.54.

Similarly, according to Gururaj G et al. (2016), [117] the National Mental Health Survey 2015-2016 found that the prevalence of AUDs is highest (6.72%) in the age range of 40-50 years. Similarly, Ramanan VV et al. (2016) revealed that the 46–55 age group had the greatest prevalence (17.1%). [112]

In contrast to our study, research by Mattoo SK et al., 2013, says that the alcohol-dependent group was older, with a mean age of 44.72/8.95 years. [113]

AGE ONSET DISTRIBUTION

The age group with the highest number of patients was 21 – 25 years (37.31%) of the age group which is followed by 26 - 30 years (34.72%) &<=20 years (16.58%). The mean/SD distribution of age onset variables was 24.896/4.246.

Das et al., 2020 sought to assess the mental comorbidities and severity of addiction in individuals with early and late-onset alcohol dependency. A total of 112 patients were screened, with 21 being rejected. Age <18 years (n = 1), age >60 years (n = 2), refusal to give consent (n = 1), years of formal education <8 years (n = 9), presence of serious comorbid medical illness (n = 3), and not being accompanied by a relative who could provide a correct history of the patient (n = 5) were the various reasons for exclusion. [114]

According to Lim et al. (2008), the mean age of EO patients was substantially lower (ranging from 35 to 42.43 years) than that of LO patients (the mean ranging from 40.1 to 47.61 years). [115]

GENDER DISTRIBUTION

Our study had a male predominance with 185 (95.85%) males and only 8 (4.15%) females.

MA Frye et al., 2003 investigated gender-specific correlations between drunkenness and bipolar disease, which had received little systematic examination earlier. As in the overall population, more males with bipolar disorder (49%, 57 of 116) than women (29%, 44 of 151) matched the criterion for lifelong drinking. Compared to the general population, the risk of drinking was higher for women with bipolar disorder (odds ratio=7.35) than for males with bipolar illness (odds ratio=2.77). In women with bipolar disorder, alcohol use wasrelated to a history of polysubstance use. In contrast, in males with bipolar illness, alcohol dependence was associated with a familial history of drinking. [116]

OCCUPATION

Only 11 of the 193 cases appear to be professional, while 15 appear to be semi-professional. There were 100 unemployed people and 39 unskilled workers.

Muke SS et al. (2014) discovered no significant differences in any categorical factors of the Sociodemographic profile of frequently admitted and first-time admitted patients. Only 13 of the 30 examples in Group A appear to be skilled, while the remaining 17 appear unskilled. The association between occupation and psychological comorbidities does not interact appreciably. [118]

MARITAL STATUS

107 of the 193 patients were married. In the current study, 52 people were unmarried.

Kurian Jose et al., 2017 evaluated marital quality between patients with alcohol dependence syndrome (ADS) admitted for the first time and patients with ADS admitted several times. When compared to first-time admitted patients with ADS, the intensity of alcohol dependence was shown to be considerably more significant in the frequently hospitalized group. Compared to first-time admitted patients, repeat hospitalized patients have significantly lower Marital Quality in the categories of Understanding, Rejection,

Satisfaction, Affection, Despair, Decision Making, Dominance, Self-Disclosure, Trust, and Role Functioning. There are conflicting ideas on the impact of alcohol on marital quality. [119]

EDUCATION

42 of the 193 instances appear to be graduated. Forty-one cases finished their second PUC. Seventy-five patients completed their schooling. Thirty-five people seem to be illiterate.

Z Liu et al., 2020 studied the effects of self-reported impulsivity and educational levels on the severity of alcohol dependency. Alcohol dependence severity was substantially predicted by impulsivity ($R2 = 0.069$, $F = 4.724$, $p = 0.034$). Furthermore, schooling years acted as a mediator in the connection between impulsivity and the degree of alcohol dependence ($R2 = 0.059$, $F = 4.414$, $p = 0.040$). The degree of alcohol dependence is affected by self-reported impulsivity, which may change in individuals with varying levels of education. [120]

ASSOCIATED SUBSTANCE USE

Cannabis and cigarettes were both used in 33 instances. In one example, both lysergic acid diethylamide and cigarettes were used. Methamphetamine and cigarettes were both used in one case. Most of the individuals in the current study consumed Tobacco.

The study by D. Henkel et al. (2011) concentrated on the prevalence of substance use/disorders among employed and unemployed people, the effects of substance abuse on unemployment and vice versa, the impact of unemployment on the treatment of alcohol and drug addiction, and quitting smoking, and the relationship between the business cycle, the unemployment rate, and substance use. Additionally, the patients in this research are more likely to smoke, use both legal and illegal substances, and suffer from alcohol and drug addiction problems (abuse, dependence). [121]

Murthy P et al. (2010) examined 250 patients in New Delhi, and most of them admitted to taking opioids (0.8%), alcohol (54.4%), cannabis (8.0%), and cigarettes (79.2%). [122]

AREA OF RESIDENCE

155 Cases were from rural areas. 38 from urban areas.

EL Friesen et al., 2021 compiled an overview of international literature on rural-urban differences in hazardous and destructive alcohol consumption and risk variables for these outcomes in rural and distant populations. The Scoping Review comprised 280 researchers from 49 nations. Most of the research (60%) discovered that rural, as opposed to urban, residency was associated with an increased chance of hazardous alcohol consumption or alcohol-related injury. Improved public health initiatives to lessen the burden of alcohol consumption in rural areas are needed. Still, their effectiveness is determined by how effectively they are tailored to the region's requirements. [123]

FAMILY HISTORY OF ALCOHOL DEPENDENCE

81/193 [42%] cases seem to have a family history of alcohol dependence in the present study. Likewise, LE Phelps et al. 2009 state that as part of a clinical study procedure, ketamine was infused into 23 of 58 patients with treatment-resistant DSM-IV severe depression who had information on a family history of alcohol consumption or dependence. [124]

FAMILY HISTORY OF PSYCHIATRIC ILLNESS

80/193 [41.45%] cases in the present study seem to have a family history of psychiatric illness. Similarly, 180 (41.3%) individuals had a family history of mental disease with substance use disorder [SUD], according to JE Grant et al. 2020 study. [125]

FAMILY TYPE

Of the 193 cases, 120 cases were from a nuclear family. Seventy-threepatients were from joint families.

Gupta PK et al., 2020 [126] discovered that the Early Onset group had a considerably greater family history of Alcohol Use Disorders than the Late Onset group. This has also been observed in previous investigations. Farmer RF et al. (2018) found that several clinical features among probands with AUD histories were significantly associated with AUD family density. Alcohol use is more prevalent in patients' family members than other drugs, indicating a clustering of alcohol use in families. [127]

PREVALENCE OF PSYCHIATRIC COMORBIDITIES

Prevalence of Psychiatric comorbidities seen in 90 cases. That antisocial personality disorder appears to affect 12 instances. Anxiety disorder appears to affect 32 patients. Psychosis was seen in 20 cases of anxiety disorder. Mood disorder appears to affect 26 instances.

According to Ravikanth T et al., in 2020, 66% of patients satisfied the criteria for a current mental condition, which included other substance misuse (9%), depression (23%), phobia (6%), mania (2%), somatization (1%) and schizophrenia (2%). Weiss et al., 2010 reported numerous co-occurring illnesses in a community survey, including severe depression (44%), bipolar disorder (6%), generalized anxiety (9%), phobia (3%),and substance abuse other than alcohol (12%). Despite accounting for only 1.3% of the total population, the overall rate of psychopathology was more significant than that seen in the general population.

In the standardized group, the lifetime prevalence rate for any substance misuse and mental condition was more than double that of the civilian population. [109]

Of the 193 cases in the present study, 48 seem to have severity in such cases, and 81 seem to have moderate such cases.

ASSOCIATION BETWEEN PSYCHIATRIC COMORBIDITY AND SEVERITY

To investigate the relationship between psychiatric comorbidities like antisocial personality disorder, anxiety disorder, mood disorder, and psychotic disorder and the severity of conditions, a chi-square test of independence was used. If $p > 0.001$, then these variables seem to be statistically non-significant [$p = 0.252$]

As opposed to this, Kenneth S. Kendler et al. (2018) discovered a significant severity for all illnesses, including MD, GAD, and AAD, and more substantial reductions for ASP and DAD. [128]

A chi-square test of independence was used to investigate the relationship between the prevalence of psychiatric comorbidities and the severity of conditions. If $p < 0.001$, then these variables seem to be statistically significant.

The most frequent mood illness was MDD (8%), which is consistent with numerous Indian research [Balhara YPS et al., 2016], followed by dysthymic disorder (5%), and bipolar disorders (5%). Previously, Western research identified MDD as the most prevalent comorbidity in ADS. However, 8% is lower than the prevalence of depressive illness reported in most studies, which ranged from 14-42%, 0.4 to 13% (dysthymia), and 2 to 22%. (Bipolar disorder). [129]

Anxiety disorders (11%) were the second most prevalent psychiatric comorbidity in the Gauba et al., 2016 study. [130] GAD (6%) is the most pervasive anxiety condition,

followed by adjustment disorder (3%) and panic disorder (2%). In our study, the prevalence of anxiety disorders was low compared to studies by Bowen et al., 2011, [131], which found 44% and 45%, respectively. Our findings, however, are equivalent to the 14% reported by Singh et al., 2005. [132] Most of the studies mentioned above had more excellent rates than this one, demonstrating a lower frequency of total mental comorbidity in the research group.

Other studies have similarly low rates, partly due to the fact that, despite a higher known association with substance use disorders, such patient populations are rarely seen in deaddiction settings. We only included patients who attended our deaddiction unit; many patients with schizophrenia-alcoholism comorbidity may have been following our general psychiatry department for schizophrenia treatment and thus may have been excluded from this study.

ASSOCIATION BETWEEN SOCIODEMOGRAPHIC PROFILES AND SEVERITY

A chi-square test of independence was used to investigate the relationship between Age and the severity of conditions. If $p = 0.639$, then these variables do not significantly interact.

B Han et al., 2017 [133] discovered a substantial relationship between age and addiction severity. This is in contrast to the present study. Meanwhile, J Li et al., 2020 recently said that alcohol use problems are not related to age distribution. [134]

A chi-square test of independence was used to investigate the relationship between Age onset and the severity of conditions. If $p = 0.259$, these variables do not significantly interact.

According to Johnson PR et al. (2010), the age of commencement of initiation demonstrated a strong negative connection with severity. [135]

A chi-square test of independence was used to investigate the relationship between occupation and the severity of conditions. If $p = 0.585$, then the two variables do not significantly interact.

According to Hingson RW et al. (2006), there is no link between profession and the severity of AUD disorders. [136]

A chi-square test of independence was used to investigate the relationship between marital status and the severity of conditions. If $p = 0.535$, then the two variables do not significantly interact.

EN Oliveira et al., 2019 discovered that there is no association between the frequency of alcohol usage and marital status. [137]

A chi-square test of independence was used to investigate the relationship between education and the severity of conditions. If $p = 0.481$, then the two variables do not significantly interact.

According to Banu S et al. (2010), most characteristics, such as present age, marital status, educational status, and employment status, were not substantially related to the severity of alcoholism. [138]

A chi-square test of independence was employed to evaluate the link between related drug usage and the severity of symptoms. If $p < 0.001$, the two variables appear statistically significant.

MA Schuckit (2006) investigated the relationship between associated drug use and the intensity of symptoms. [139]

A chi-square test of independence was used to investigate the relationship between the area of residence and the severity of conditions. If p = 0.939, then the two variables do not significantly interact.

Alcohol dependence was also correlated with the nation's region but not with the metropolitan area, according to Anthony et al., 1997. [140]

To investigate the relationship between a family history of alcohol dependence syndrome and the severity of conditions, a chi-square test of independence was used. If p = 0.845, then the two variables do not significantly interact.

Contrastly, LE Phelps et al. 2009, there is a link between a family history of alcohol use disorders and the severity of problems. [141]

A chi-square test of independence was used to investigate the relationship between a family history of psychiatric illness and the severity of conditions. If p = 0.769, then the two variables do not significantly interact.

In contrast, research by JE Grant et al., 2020 study, higher rates of substance use (alcohol, nicotine), higher rates of problem gambling, and higher prevalence of mental health concerns were all significantly linked with a family history of SUD. [142]

CONCLUSION

CONCLUSION

Alcohol dependence is frequently accompanied by psychiatric co-morbidity. According to this study, psychiatric comorbidity is significantly more common in people who are alcohol addicted. A thorough evaluation is essential to determine the likelihood of a dual diagnosis and to provide treatment as necessary. This is because the severity of dependence increases the probability of a dual diagnosis.

One of the most prevalent mental health issues in the community is alcohol use disorder. There is a need for intervention points that simultaneously identify co-occurring psychiatric illnesses and substance use. Untangling the relationships between alcohol consumption disorder and other disorders throughout time through epidemiological and experimental research will remain a fascinating and essential area of study.

Results cannot be extrapolated to a community context because the study was restricted to an in-patient population in a hospital environment. The Mini Plus scale could not distinguish between psychiatric problems caused by alcohol and those that are independent. A chronological range could not be assigned to a mental condition (lifetime, past, current diagnosis).

SUMMARY

SUMMARY

- The age group with the highest number of patients was > 50 years (35.75%) of the age group, which is followed by <=30 years (26.94%) & 41 - 50 years (20.73%). The mean age of the study group was 51.36/6.54.
- The age group with the highest number of patients was 21 – 25 years (37.31%) of the age group which is followed by 26 - 30 years (34.72%) &<=20 years (16.58%). The mean/SD distribution of age onset variables was 24.896/4.246.
- In our study, there was a male predominance, with 185 (95.85%) males and only 8 (4.15%) females.
- Only 11 of the 193 cases appear to be professional, while 15 appear to be semi-professional. There were 100 unemployed people and 39 unskilled workers.
- 107 of the 193 patients were married. In the current study, 52 people were unmarried.
- 42 of the 193 instances appear to be graduated. Forty-one cases finished their second PUC. 75 patients completed their schooling. 35 people appear to be illiterate.
- Cannabis and cigarettes were both used in 33 instances. In one example, both lysergic acid diethylamide and cigarettes were used. Methamphetamine and cigarettes were both used in one case. Most of the individuals in the current study consumed Tobacco.

- 155 Cases were from the rural area. 38 from urban areas.
- 81/193 [42%] cases seem to have a family history of alcohol dependence in the present study.
- 80/193 [41.45%] cases seem to have a family history of psychiatric illness in the present study.
- Of the 193 cases, 120 cases were from a nuclear family. Seventy-threepatients were from joint families.
- Prevalence of Psychiatric comorbidities seen in 90 cases. That antisocial personality disorder appears to affect 12 cases. Anxiety disorder appears to affect 32 cases. Psychosis was seen in 20 cases of anxiety disorder. Mood disorder appears to affect 26 cases.
- Of the 193 cases in the present study, 48 seem to have severity in such cases, and 81 seem to have moderate such cases.
- To investigate the relationship between psychiatric comorbidities like antisocial personality disorder, anxiety disorder, mood disorder, and psychotic disorder and the severity of conditions, a chi-square test of independence was used. If $p > 0.001$, then these variables seem to be statistically non-significant [$p = 0.252$]
- A chi-square test of independence was used to investigate the relationship between the prevalence of psychiatric comorbidities and the severity of conditions. If $p < 0.001$, then these variables seem to be statistically significant.
- A chi-square test of independence was used to investigate the relationship between Age and the severity of conditions. If $p = 0.639$, then these variables do not significantly interact.

- A chi-square test of independence was used to investigate the relationship between Age onset and the severity of conditions. If $p = 0.259$, these variables do not significantly interact.
- To investigate the relationship between sex and the severity of conditions, a chi-square test of independence was used. If $p = 0.526$, then the two variables do not significantly interact.
- A chi-square test of independence was used to investigate the relationship between occupation and the severity of conditions. If $p = 0.585$, then the two variables do not significantly interact.
- A chi-square test of independence was used to investigate the relationship between marital status and the severity of conditions. If $p = 0.535$, then the two variables do not significantly interact.
- A chi-square test of independence was used to investigate the relationship between education and the severity of conditions. If $p = 0.481$, then the two variables do not significantly interact.
- A chi-square test of independence was employed to evaluate the link between related drug usage and the severity of symptoms. If $p < 0.001$, the two variables appear statistically significant.
- A chi-square test of independence was used to investigate the relationship between the area of residence and the severity of conditions. If $p = 0.939$, then the two variables do not significantly interact.
- To investigate the relationship between a family history of alcohol dependence syndrome and the severity of conditions, a chi-square test of independence was used. If $p = 0.845$, then the two variables do not significantly interact.

- A chi-square test of independence was used to investigate the relationship between a family history of psychiatric illness and the severity of conditions. If $p = 0.769$, then the two variables do not significantly interact.

LIMITATIONS

LIMITATIONS AND RECOMMENDATIONS

The present study was limited to an in-patient population in a hospital setting; conclusions cannot be extended to a community context. The Mini Plus measure failed to discriminate between mental issues brought on by alcohol usage and unrelated issues. A mental state could not have a temporal frame attributed to it (lifetime, past, current diagnosis). As a result, this demographic is more vulnerable, requiring extra care to identify comorbidities and control their issues' severity.

This study included inpatient alcohol addicts who were randomly chosen and only questioned once they had recovered from withdrawal symptoms. This eliminated bias resulting from drunkenness or abstinence violation. Using a typical diagnostic interview, the prevalence of mental comorbidity was determined. However, there were certain restrictions in this study. The gap between clinical realities and research is hence extensive. A more controlled study is required to find medications and psychotherapy therapies that are safe and efficient for this group.

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ANNEXURE

ANNEXURE 1:

SOCIO-DEMOGRAPHIC QUESTIONNAIRE AND CLINICAL PROFORMA

Name…….

Age……

Gender: Male/Female

UHID. No: ……

DOA……

Ward……

Mobile/phone number…….

Diagnosis……

Place……..

Background: Rural/urban

Religion: Hindu/Muslim/Christian/ Other

Education: Illiterate/ Primary/ Upto 10TH Std / upto 12th std/Graduate/Post Graduate

Occupation: Professional/Semi-professional/ Skilled worker/ Unskilled worker/

Unemployed/ Others.

Income (Specify amount/ month)…….

Marital status: Unmarried/ Married /Separated / Divorced/ Widowed

Nuclear family/joint family

Presenting Complaints:

Duration:

Age of onset of substance use……. Daily Use……..

Frequency……..Quantity/day……..

Most commonly usedSubstance:

(i) Alcohol(ii) Smoking(iii) Tobacco Chewing

(iv) Any other drug: Yes/No.

If yes, please specify……..

Other medical illness…….

Family H/o alcohol use:Yes/No.

If yes, please specify (disorder……/onset……/duration……)

Family H/o Psychiatric illness:Yes/No.

If yes, please specify (disorder……../onset……/duration……)

ANNEXURE 2:

INFORMED CONSENT FORM

STUDY TITLE: PSYCHIATRIC COMORBIDITIES IN PATIENTS WITH ALCOHOL DEPENDENCE SYNDROME AND ITS CORRELATION WITH SEVERITY OF ADDICTION: A CROSS-SECTIONAL STUDY

Consent form for Literate:

I have read the above information, or it has been read to me. I have had the opportunity to ask questions about it, and any questions I have asked have been answered to my satisfaction. I consent voluntarily for me/my son/brother/husband to participate in this study.

Name of Participant_____

Date_____

Signature of the participant_____

Consent form for illiterate:

I have been chosen as a witness for _____ by him, and I have no connection to the research team. I witnessed the accurate reading of the consent form to the participant, and the individual was given sufficient opportunity to ask questions. I confirm that the individual has given consent freely.

Name of witness_____ Thumb print of the participant

Signature of witness _____

Relationship of witness to participant_____

Date _____

Statement by the researcher/person taking consent:

I have accurately read out the information sheet to the patient and reliable relative of the potential participant, and to the best of my ability, made sure that the person understands that the following will be done: I confirm that the subject was allowed to ask questions about the study, and all the questions asked have been answered correctly and to the best of my ability. I confirm that the individual has not been forced into giving consent, and the consent has been given freely and voluntarily.

Name of Researcher/person taking the consent_____

Signature of Researcher /person taking the consent_____

Date _____

ಮಾಹಿತಿಕಾನ್ಸೆಂಟ್ಫಾರ್ಮ್

ಅಧ್ಯಯನದಶೀರ್ಷಿಕೆ :

ಆಲ್ಕೋಹಾಲ್ಅವಲಂಬನೆಸಿಂಡ್ರೋಮ್ಮತ್ತುವ್ಯಸನದತೀವ್ರತೆಯೊಂದಿಗೆಅದರಕೋರಲೇಷನ್ಹೊಂದಿರುವರೋಗಿಗಳ ಲ್ಲಿಸೈಕಿಯಾಟ್ರಿಕ್ಕಾಂಬೋರ್ಬಿಡಿಟೀಸ್: ಅಡ್ಡವಿಭಾಗೀಯಅಧ್ಯಯನ

ನಾನುಮೇಲಿನಮಾಹಿತಿಯನ್ನುಓದಿದ್ದೇನೆ, ಅಥವಾಅದನ್ನುನನಗೆಓದಲಾಗಿದೆ.

ಅದರಬಗ್ಗೆಪ್ರಶ್ನೆಗಳನ್ನುಕೇಳುವಅವಕಾಶನನಗೆಸಿಕ್ಕಿದೆಮತ್ತುನಾನುಕೇಳಿದಯಾವುದೇಪ್ರಶ್ನೆಗಳಿಗೆನನ್ನತೃಪ್ತಿಗೆಉತ್ತರಿಸಲಾಗಿದೆ. ನನ್ನಮಗ / ವಾರ್ಡ್/ಪತಿ

/ಈಅಧ್ಯಯನದಲ್ಲಿಪಾಲ್ಗೊಳ್ಳಲುನಾನುಸ್ವಯಂಪ್ರೇರಣೆಯಿಂದಒಪ್ಪುತ್ತೇನೆ.

ಭಾಗವಹಿಸುವವರಹೆಸರು_____

ದಿನಾಂಕ_____

ಭಾಗವಹಿಸುವವರ ಸಹಿ _____

ಅನಕ್ಷರಸ್ಥರಾಗಿದ್ದರೆ:

ಅವರುನನ್ನನ್ನು_____

ಗೆಸಾಕ್ಷಿಯಾಗಿಆಯ್ಕೆಮಾಡಿದ್ದಾರೆಮತ್ತುನನಗೆಸಂಶೋಧನಾತಂಡದೊಂದಿಗೆಯಾವುದೇಸಂಪರ್ಕವಿಲ್ಲ.

ಭಾಗವಹಿಸುವವರಪಾಲಕರಿಗೆಒಪ್ಪಿಗೆಯಫಾರ್ಮ್ಅನ್ನುನಿಖರವಾಗಿಓದುವುದಕ್ಕೆನಾನುಸಾಕ್ಷಿಯಾಗಿದ್ದೇನೆಮತ್ತುವ್ಯಕ್ತಿಯುಪ್ರಶ್ನೆಗಳನ್ನುಕೇಳುವಅವಕಾಶವನ್ನುಹೊಂದಿದ್ದಾನೆ.

ವ್ಯಕ್ತಿಯುಮುಕ್ತವಾಗಿಒಪ್ಪಿಗೆನೀಡಿದ್ದಾನೆಎಂದುನಾನುಖಚಿತಪಡಿಸುತ್ತೇನೆ.

ಸಾಕ್ಷಿಯಹೆಸರು_____

ಭಾಗವಹಿಸುವವರಹೆಬ್ಬೆರಳುಮುದ್ರಣ

ಸಾಕ್ಷಿಯಸಹಿ_____

ಭಾಗವಹಿಸುವವರಿಗೆಸಾಕ್ಷಿಯಸಂಬಂಧ _____

ದಿನಾಂಕ_____

ಒಪ್ಪಿಗೆಪಡೆಯುವಸಂಶೋಧಕ / ವ್ಯಕ್ತಿಯಹೇಳಿಕೆ:

ಸಂಭಾವ್ಯಭಾಗವಹಿಸುವವರಪೋಷಕರಿಗೆನಾನುಮಾಹಿತಿಹಾಳೆಯನ್ನುನಿಖರವಾಗಿಓದಿದ್ದೇನೆಮತ್ತುಈಕೆಳಗಿನವುಗಳನ್ನುಮಾಡಲಾಗುವುದುಎಂದುವ್ಯಕ್ತಿಯುಅರ್ಥಮಾಡಿಕೊಂಡಿದ್ದಾನೆಎಂದುನನ್ನಸಾಮರ್ಥ್ಯಕ್ಕೆತಕ್ಕಂತೆಖಚಿತಪಡಿಸಿಕೊಂಡಿದ್ದೇನೆ:

ವಿಷಯದಬಗ್ಗೆಪ್ರಶ್ನೆಗಳನ್ನುಕೇಳುವಅವಕಾಶವನ್ನುನೀಡಲಾಗಿದೆಎಂದುನಾನುಖಚಿತಪಡಿಸುತ್ತೇನೆಅಧ್ಯಯನ, ಮತ್ತುಕೇಳಿದಎಲ್ಲಾಪ್ರಶ್ನೆಗಳಿಗೆಸರಿಯಾಗಿಮತ್ತುನನ್ನಸಾಮರ್ಥ್ಯಕ್ಕೆಉತ್ತರಿಸಲಾಗಿದೆ.

ಒಪ್ಪಿಗೆನೀಡುವಂತೆವ್ಯಕ್ತಿಯನ್ನುಒತ್ತಾಯಿಸಲಾಗಿಲ್ಲಮತ್ತುಒಪ್ಪಿಗೆಯನ್ನುಮುಕ್ತವಾಗಿಮತ್ತುಸ್ವಯಂಪ್ರೇರಣೆಯಿಂದನೀಡಲಾಗಿದೆಎಂದುನಾನುಖಚಿತಪಡಿಸುತ್ತೇನೆ.

ಭಾಗವಹಿಸುವವರಿಗೆಈಐಸಿಎಫ್ನಕಲನ್ನುಒದಗಿಸಲಾಗಿದೆ.

ಸಂಶೋಧಕ / ಒಪ್ಪಿಗೆಪಡೆದವ್ಯಕ್ತಿಯಹೆಸರು_____

ಸಂಶೋಧಕ / ಒಪ್ಪಿಗೆಪಡೆಯುವವ್ಯಕ್ತಿಯಸಹಿ_____ದಿನಾಂಕ_____

ANNEXURE 3:

PATIENT INFORMATION SHEET

STUDY TITLE: PSYCHIATRIC COMORBIDITIES IN PATIENTS WITH ALCOHOL DEPENDENCE SYNDROME AND ITS CORRELATION WITH SEVERITY OF ADDICTION: A CROSS-SECTIONAL STUDY

STUDY SITE: R.L. JALAPPA HOSPITAL AND RESEARCH CENTRE, TAMAKA, KOLAR

Alcohol dependence syndrome is a significant health problem in society. It affects not only the individual but also the community at large. Long-term consumption of alcohol leads to multiple physical ailments and mental disorders. Sometimes, patients with mental disorders tend to abuse alcohol to overcome their distress. Studies have found mental illnesses most often in patients with alcohol dependence syndrome. By treating alcohol dependence syndrome per se, the patient return to his old drinking patterns is relatively high. We intend to analyze the comorbid mental illness among these patients by identifying the comorbid mental illness and treating them. In this way, we provide holistic care for alcohol-dependence patients. By giving consent for this study, we will evaluate you thoroughly for the presence of any comorbid psychiatric illness. This enables us to understand alcohol-dependent patients more effectively and provide better patient care. In this way, you will be benefited, and the same principles can be applied to the community at large.

By participating in this study, do know that you can be confirmed that no personal information of yours will be misused. All your information will be kept strictly confidential in the safe lockers of the Department of Psychiatry. You can choose not to participate in the study if you do not want to answer the questions. Your refusal to participate or withdrawal from the study will not affect any medical or health benefits to which you are otherwise

entitled. You can ask any question regarding the study. If you agree to participate in this study, we will collect your information (as per proforma).

You can ask the investigator if the information is unclear or if you need more information regarding this study. On knowing this information, please read the informed consent and proceed to participate in the study.

Left Thumb Impression/Signature of the Patient

Left Thumb Impression/Signature of the Witness signature of the investigator

For any further clarification, you can contact the study investigator:

Dr. K.VeniNirudya

Mobile no: 9655696136

E-mail id: veninirudya@gmail.com

ರೋಗಿಯಮಾಹಿತಿಹಾಳೆ

ಅಧ್ಯಯನದಶೀರ್ಷಿಕೆ:

ಆಲ್ಕೋಹಾಲ್ಅವಲಂಬನೆಸಿಂಡ್ರೋಮ್ಮತ್ತುವ್ಯಸನದತೀವ್ರತೆಯೊಂದಿಗೆಅದರಕೋರಲೇಷನ್ನೊಂದಿರುವರೋಗಿಗಳ ಲ್ಲಿಸೈಕಿಯಾಟ್ರಿಕ್ಕಾಂಬೋರ್ಬಿಡಿಟೀಸ್: ಅಡ್ಡವಿಭಾಗೀಯಅಧ್ಯಯನ.

ಅಧ್ಯಯನಸೈಟ್: ಆರ್.ಎಲ್. ಜಾಲಪ್ಪ

ಹಾಸ್ಪಿಟಲ್ಮತ್ತುಸಂಶೋಧನಾಕೇಂದ್ರ, ಟಮಕ, ಕೋಲಾರ

ಆಲ್ಕೊಹಾಲ್ಅವಲಂಬನೆಸಿಂಡ್ರೋಮ್ಸಮಾಜದಪ್ರಮುಖಆರೋಗ್ಯಸಮಸ್ಯೆಯಾಗಿದೆ.
ಇದುವ್ಯಕ್ತಿಯಮೇಲೆಮಾತ್ರವಲ್ಲದೆಸಮುದಾಯದಮೇಲೂಪರಿಣಾಮಬೀರುತ್ತದೆ.
ದೀರ್ಘಕಾಲದಆಲ್ಕೊಹಾಲ್ಸೇವನೆಯುಅನೇಕದೈಹಿಕಕಾಯಿಲೆಗಳುಮತ್ತುಮಾನಸಿಕಅಸ್ವಸ್ಥತೆಗಳಿಗೆಕಾರಣವಾಗುತ್ತ ದೆ. ಕೆಲವೊಮ್ಮೆ,
ಮಾನಸಿಕಅಸ್ವಸ್ಥತೆಹೊಂದಿರುವರೋಗಿಗಳುತಮ್ಮತೊಂದರೆಯನ್ನುನಿವಾರಿಸಲುಆಲ್ಕೊಹಾಲ್ಅನ್ನುದುರುಪಯೋ ಗಪಡಿಸಿಕೊಳ್ಳುತ್ತಾರೆ.
ಆಲ್ಕೊಹಾಲ್ಅವಲಂಬನೆಸಿಂಡ್ರೋಮ್ಹೊಂದಿರುವರೋಗಿಗಳಲ್ಲಿಮಾನಸಿಕಕಾಯಿಲೆಗಳುಹೆಚ್ಚಾಗಿಕಂಡುಬರುತ್ತವೆಎಂ ದುಅಧ್ಯಯನಗಳುಕಂಡುಹಿಡಿದಿದೆ. ಆಲ್ಕೊಹಾಲ್ದಿಪೆಂಡೆನ್ಸ್ಸಿಂಡ್ರೋಮ್ಗೆಚಿಕಿತ್ಸೆನೀಡುವಮೂಲಕ, ರೋಗಿಯುತನ್ನಹಳೆಯಕುಡಿಯುವವಿಧಾನಗಳಿಗೆಹಿಂತಿರುಗುವುದುಸಾಕಷ್ಟುಹೆಚ್ಚಾಗಿದೆ.
ಕೊಮೊರ್ಬಿಡ್ಮಾನಸಿಕಅಸ್ವಸ್ಥತೆಯನ್ನುಗುರುತಿಸಿಮತ್ತುಅವರಿಗೆಚಿಕಿತ್ಸೆನೀಡುವಮೂಲಕಈರೋಗಿಗಳಲ್ಲಿಕೊಮೊರ್ಬಿ ಡ್ಮಾನಸಿಕಅಸ್ವಸ್ಥತೆಯನ್ನುವಿಶ್ಲೇಷಿಸಲುನಾವುಉದ್ದೇಶಿಸಿದ್ದೇವೆ. ಈರೀತಿಯಾಗಿ,
ಆಲ್ಕೊಹಾಲ್ಅವಲಂಬಿತರೋಗಿಗಳಿಗೆನಾವುಸಮಗ್ರಆರೈಕೆಯನ್ನುಒದಗಿಸುತ್ತೇವೆ.
ಈಅಧ್ಯಯನಕ್ಕೆಒಪ್ಪಿಗೆನೀಡುವಮೂಲಕ,
ಯಾವುದೇಕೊಮೊರ್ಬಿಡ್ಮನೋವೈದ್ಯಕೀಯಕಾಯಿಲೆಯಉಪಸ್ಥಿತಿಗಾಗಿನಾವುನಿಮ್ಮನ್ನುಸಂಪೂರ್ಣವಾಗಿಮೌಲ್ಯ ಮಾಪನಮಾಡುತ್ತೇವೆ.
ಆಲ್ಕೊಹಾಲ್ಯುಕ್ತಅವಲಂಬನೆಯರೋಗಿಗಳನ್ನುಹೆಚ್ಚುಪರಿಣಾಮಕಾರಿಯಾಗಿಅರ್ಥಮಾಡಿಕೊಳ್ಳಲುಮತ್ತುಉತ್ತಮ ರೋಗಿಗಳಆರೈಕೆಯನ್ನುಒದಗಿಸಲುಇದುನಮಗೆಅನುವುಮಾಡಿಕೊಡುತ್ತದೆ. ಈರೀತಿಯಾಗಿ,
ನಿಮಗೆಪ್ರಯೋಜನವಾಗಲಿದೆಮತ್ತುಅದೇತತ್ವಗಳನ್ನುಸಮುದಾಯಕ್ಕೆದೊಡ್ಡಪ್ರಮಾಣದಲ್ಲಿಅನ್ವಯಿಸಬಹುದು
ಈಅಧ್ಯಯನದಲ್ಲಿಭಾಗವಹಿಸುವಮೂಲಕ,
ನಿಮ್ಮಯಾವುದೇವೈಯಕ್ತಿಕಮಾಹಿತಿಯನ್ನುದುರುಪಯೋಗಪಡಿಸಿಕೊಳ್ಳುವುದಿಲ್ಲಎಂದುನೀವುಸತ್ಯವಂತರುಎಂದುತಿ ಳಿಯಿರಿ.
ನಿಮ್ಮಿಂದಸಂಗ್ರಹಿಸಲಾದಎಲ್ಲಾಮಾಹಿತಿಯನ್ನುಮನೋವೈದ್ಯಶಾಸ್ತ್ರವಿಭಾಗದಸುರಕ್ಷಿತಲಾಕರ್‌ಗಳಲ್ಲಿಕಟ್ಟುನಿಟ್ಟಾಗಿ

ಗೌಪ್ಯವಾಗಿಡಲಾಗುತ್ತದೆ.

ನೀವುಪ್ರಶ್ನೆಗಳಿಗೆಉತ್ತರಿಸಲುಬಯಸದಿದ್ದರೆಅಧ್ಯಯನದಲ್ಲಿಭಾಗವಹಿಸದಿರಲುನೀವುಆಯ್ಕೆಮಾಡಬಹುದು.

ಭಾಗವಹಿಸಲುನೀವುನಿರಾಕರಿಸುವುದುಅಥವಾಅಧ್ಯಯನದಿಂದಹಿಂದೆಸರಿಯುವುದುನಿಮಗೆಅರ್ಹವಾದಯಾವುದೇ ವೈದ್ಯಕೀಯಅಥವಾಆರೋಗ್ಯಪ್ರಯೋಜನಗಳಮೇಲೆಪರಿಣಾಮಬೀರುವುದಿಲ್ಲ.

ಅಧ್ಯಯನಕ್ಕೆಸಂಬಂಧಿಸಿದಂತೆನೀವುಯಾವುದೇಪ್ರಶ್ನೆಯನ್ನುಕೇಳಬಹುದು.

ಈಅಧ್ಯಯನದಲ್ಲಿಭಾಗವಹಿಸಲುನೀವುಒಪ್ಪಿದರೆನಾವುನಿಮ್ಮಿಂದಮಾಹಿತಿಯನ್ನುಸಂಗ್ರಹಿಸುತ್ತೇವೆ (ಪ್ರೊಫಾರ್ಮಾದಪ್ರಕಾರ).

ಮಾಹಿತಿಯುಅಸ್ಪಷ್ಟವಾಗಿದೆಯೇಅಥವಾಈಅಧ್ಯಯನಕ್ಕೆಸಂಬಂಧಿಸಿದಂತೆನಿಮಗೆಹೆಚ್ಚಿನಮಾಹಿತಿಬೇಕಾಎಂದುನೀವುತನಿಖಾಧಿಕಾರಿಯನ್ನುಕೇಳಬಹುದು. ಈಮಾಹಿತಿಯನ್ನುತಿಳಿದನಂತರ, ದಯವಿಟ್ಟುತಿಳುವಳಿಕೆಯುಳ್ಳಒಪ್ಪಿಗೆಯನ್ನುಓದಿಮತ್ತುಅಧ್ಯಯನದಲ್ಲಿಭಾಗವಹಿಸಲುಮುಂದುವರಿಯಿರಿ.

Left Thumb Impression/Signature of the Patient

Left Thumb Impression/Signature of the Witness signature of the investigator

For any further clarification, you can contact the study investigator:

Dr. K.VeniNirudya

Mobile no: 9655696136

E-mail id: veninirudya@gmail.com

ANNEXURE 4:

MINI INTERNATIONAL NEUROPSYCHIATRIC INTERVIEW M.I.N.I. (6.0)

Patient Name:			***Patient Number:***			
Date of Birth:			***Time Interview Began:***			
Interviewer's Name:			***Time Interview Ended:***			
Date of Interview:			***Total Time:***			

	MODULES	TIME FRAME	MEETS CRITERIA	DSM-IV-TR	ICD-10	PRIMARY DIAGNOSIS
A	MAJOR DEPRESSIVE EPISODE	Current (2 weeks)	☐			
		Past	☐			
		Recurrent	☐			
	MAJOR DEPRESSIVE DISORDER	Current (2 weeks)	☐	296.20-296.26 Single	F32.x	☐
		Past	☐	296.20-296.26 Single	F32.x	☐
		Recurrent	☐	296.30-296.36 Recurrent	F33.x	☐
B	SUICIDALITY	Current (Past Month) ☐ Low ☐ Moderate ☐ High	☐			
C	MANIC EPISODE	Current	☐			
		Past	☐			
	HYPOMANIC EPISODE	Current	☐			
		Past	☐	☐ Not Explored		
	BIPOLAR I DISORDER	Current	☐	296.0x-296.6x	F30.x- F31.9	☐
		Past	☐	296.0x-296.6x	F30.x- F31.9	☐
	BIPOLAR II DISORDER	Current	☐	296.89	F31.8	☐
		Past	☐	296.89	F31.8	☐
	BIPOLAR DISORDER NOS	Current	☐	296.80	F31.9	☐
		Past	☐	296.80	F31.9	☐
D	PANIC DISORDER	Current (Past Month)	☐	300.01/300.21	F40.01-F41.0	☐
		Lifetime	☐			
E	AGORAPHOBIA	Current	☐	300.22	F40.00	☐
F	SOCIAL PHOBIA (Social Anxiety Disorder)	Current (Past Month)				
		Generalized	☐	300.23	F40.1	☐
		Non-Generalized	☐	300.23	F40.1	☐
G	OBSESSIVE-COMPULSIVE DISORDER	Current (Past Month)	☐	300.3	F42.8	☐
H	POSTTRAUMATIC STRESS DISORDER	Current (Past Month)	☐	309.81	F43.1	☐
I	ALCOHOL DEPENDENCE	Past 12 Months	☐	303.9	F10.2x	☐
	ALCOHOL ABUSE	Past 12 Months	☐	305.00	F10.1	☐
J	SUBSTANCE DEPENDENCE (Non-alcohol)	Past 12 Months	☐	304.00-.90/305.20-.90	F11.2X-F19.2X	☐
	SUBSTANCE ABUSE (Non-alcohol)	Past 12 Months	☐	304.00-.90/305.20-.90	F11.1-F19.1	☐
K	PSYCHOTIC DISORDERS	Lifetime	☐	295.10-295.90/297.1/	F20.xx-F29	☐
		Current	☐	297.3/293.81/293.82/	293.89/298.8/298.9	
	MOOD DISORDER WITH	Lifetime	☐	296.24/296.34/296.44	F32.3/F33.3/	☐
	PSYCHOTIC FEATURES	Current	☐	296.24/296.34/296.44	F30.2/F31.2/F31.5	
					F31.8/F31.9/F39	☐
L	ANOREXIA NERVOSA	Current (Past 3 Months)	☐	307.1	F50.0	☐
M	BULIMIA NERVOSA	Current (Past 3 Months)	☐	307.51	F50.2	☐
	ANOREXIA NERVOSA, BINGE EATING/PURGING TYPE	Current	☐	307.1	F50.0	☐
N	GENERALIZED ANXIETY DISORDER	Current (Past 6 Months)	☐	300.02	F41.1	☐
O	MEDICAL, ORGANIC, DRUG CAUSE RULED OUT		☐ No	☐ Yes	☐ Uncertain	
P	ANTISOCIAL PERSONALITY DISORDER	Lifetime	☐	301.7	F60.2	☐

IDENTIFY THE PRIMARY DIAGNOSIS BY CHECKING THE APPROPRIATE CHECK BOX.
(Which problem troubles you the most or dominates the others or came first in the natural history?)

The translation from DSM-IV-TR to ICD-10 coding is not always exact. For more information on this topic see Schulte-Markwort. Crosswalks ICD-10/DSM-IV-TR. Hogrefe & Huber Publishers 2006.

A. MAJOR DEPRESSIVE EPISODE

(➡ MEANS : GO TO THE DIAGNOSTIC BOXES, CIRCLE **NO** IN ALL DIAGNOSTIC BOXES, AND MOVE TO THE NEXT MODULE)

A1	a	Were you ever depressed or down, most of the day, nearly every day, for two weeks?	NO	YES
		IF NO, CODE NO TO **A1b**: IF **YES** ASK:		
	b	For the past two weeks, were you depressed or down, most of the day, nearly every day?	NO	YES
A2	a	Were you ever much less interested in most things or much less able to enjoy the things you used to enjoy most of the time, for two weeks?	NO	YES
		IF NO, CODE NO TO **A2b**: IF **YES** ASK:		
	b	In the past two weeks, were you much less interested in most things or much less able to enjoy the things you used to enjoy, most of the time?	NO	YES
			➡	
		IS **A1a** OR **A2a** CODED **YES**?	NO	YES

A3 IF **A1b** OR **A2b** = **YES**: EXPLORE THE **CURRENT** AND THE MOST SYMPTOMATIC **PAST** EPISODE, OTHERWISE
IF **A1b** AND **A2b** = **NO**: EXPLORE ONLY THE MOST SYMPTOMATIC **PAST** EPISODE

Over that two week period, when you felt depressed or uninterested:

		Past 2 Weeks		Past Episode	
a	Was your appetite decreased or increased nearly every day? Did your weight decrease or increase without trying intentionally (i.e., by ±5% of body weight or ±8 lb or ± 3.5 kg, for a 160 lb/70 kg person in a month)? IF **YES** TO EITHER, CODE **YES**.	NO	YES	NO	YES
b	Did you have trouble sleeping nearly every night (difficulty falling asleep, waking up in the middle of the night, early morning wakening or sleeping excessively)?	NO	YES	NO	YES
c	Did you talk or move more slowly than normal or were you fidgety, restless or having trouble sitting still almost every day?	NO	YES	NO	YES
d	Did you feel tired or without energy almost every day?	NO	YES	NO	YES
e	Did you feel worthless or guilty almost every day?	NO	YES	NO	YES
	IF **YES**, ASK FOR EXAMPLES. THE EXAMPLES ARE CONSISTENT WITH A DELUSIONAL IDEA. Current Episode ❒ No ❒ Yes; Past Episode ❒ No ❒ Yes				
f	Did you have difficulty concentrating or making decisions almost every day?	NO	YES	NO	YES
g	Did you repeatedly consider hurting yourself, feel suicidal, or wish that you were dead? Did you attempt suicide or plan a suicide? IF **YES TO EITHER, CODE YES.**	NO	YES	NO	YES
A4	Did these symptoms cause significant problems at home, at work, socially, at school or in some other important way?	NO	YES	NO	YES

A5 In between 2 episodes of depression, did you ever have an interval of at least 2 months, without any significant depression or any significant loss of interest? NO YES

ARE **5** OR MORE ANSWERS (**A1-A3**) CODED **YES** AND IS **A4** CODED YES FOR THAT TIME FRAME?

SPECIFY IF THE EPISODE IS CURRENT AND / OR PAST.

IF **A5** IS CODED **YES**, CODE **YES** FOR RECURRENT.

NO	YES
MAJOR DEPRESSIVE EPISODE	
CURRENT	❒
PAST	❒
RECURRENT	❒

A6 a How many episodes of depression did you have in your lifetime? _____

Between each episode there must be at least 2 months without any significant depression.

B. SUICIDALITY

				Points
	In the past month did you:			
B1	Have any accident? This includes taking too much of your medication accidentally. IF NO TO B1, SKIP TO B2; IF YES, ASK B1a:	NO	YES	0
B1a	Plan or intend to hurt yourself in any accident either actively or passively (e.g. by not avoiding a risk)? IF NO TO B1a, SKIP TO B2: IF YES, ASK B1b:	NO	YES	0
B1b	Intend to die as a result of any accident?	NO	YES	0
B2	Feel hopeless?	NO	YES	1
B3	Think that you would be better off dead or wish you were dead?	NO	YES	1
B4	Think about hurting or injuring yourself or have mental images of harming yourself, with at least some intent or awareness that you might die as a result?	NO	YES	4
B5	Think about suicide (killing yourself)?	NO	YES	6
	IF NO TO B5, SKIP TO B7. OTHERWISE ASK:			

Frequency		Intensity	
Occasionally	❒	Mild	❒
Often	❒	Moderate	❒
Very often	❒	Severe	❒

B6	Have difficulty restraining yourself from acting on these impulses?	NO	YES	8
B7	Have a suicide method in mind (e.g. how)?	NO	YES	8
B8	Have a suicide plan in mind (e.g. when or where)?	NO	YES	8
B9	Intend to act on thoughts of killing yourself?	NO	YES	8
B10	Intend to die as a result of a suicidal act?	NO	YES	8
B11	Take any active steps to prepare to injure yourself or to prepare for a suicide attempt in which you expected or intended to die? This includes times when you were going to kill yourself, but were interrupted or stopped yourself, before harming yourself. IF NO TO B11, SKIP TO B12.	NO	YES	9
B11a	Take active steps to prepare to kill yourself, but you did not start the suicide attempt?	NO	YES	
B11b	Start a suicide attempt, but then **you stopped yourself** before harming yourself (aborted attempt)?	NO	YES	
B11c	Start a suicide attempt, but then **someone or something stopped you** before harming yourself (interrupted attempt)?	NO	YES	
B12	Injure yourself on purpose without intending to kill yourself?	NO	YES	4
B13	Attempt suicide (to kill yourself)?	NO	YES	10

A suicide attempt means you did something where you could possibly be injured, with at least a slight intent to die.

IF NO, SKIP TO B14:

Hope to be rescued / survive ❒
Expected / intended to die ❒

In your lifetime:

B14	Did you ever make a suicide attempt (try to kill yourself)?	NO	YES	4

"A suicide attempt is any self injurious behavior, with at least some intent (> 0) to die as a result or if intent can be inferred, e.g. if it is clearly not an accident or the individual thinks the act could be lethal, even though denying intent." (C-CASA definition). Posner K et al. Am J Psychiatry 164:7, July 2007.

IS AT LEAST **1** OF THE ABOVE (EXCEPT B1) CODED **YES**?

IF YES, ADD THE TOTAL POINTS FOR THE ANSWERS (B1-B14) CHECKED 'YES' AND SPECIFY THE SUICIDALITY SCORE AS INDICATED IN THE DIAGNOSTIC BOX:

MAKE ANY ADDITIONAL COMMENTS ABOUT YOUR ASSESSMENT OF THIS PATIENT'S CURENT AND NEAR FUTURE SUICIDALITY IN THE SPACE BELOW:

NO **YES**

SUICIDALITY CURRENT

1-8 points	Low	❒
9-16 points	Moderate	❒
≥ 17 points	High	❒

C. MANIC AND HYPOMANIC EPISODES

(➡ MEANS : GO TO THE DIAGNOSTIC BOXES, CIRCLE NO IN MANIC AND HYPOMANIC DIAGNOSTIC BOXES, AND MOVE TO NEXT MODULE)

Do you have any family history of manic depressive illness or bipolar disorder, or any family member who had mood swings treated with a medication like lithium, sodium valproate (Depakote) or lamotrigine (Lamictal)? NO YES

THIS QUESTION IS NOT A CRITERION FOR BIPOLAR DISORDER, BUT IS ASKED TO INCREASE THE CLINICIAN'S VIGILANCE ABOUT THE RISK FOR BIPOLAR DISORDER .

IF YES, PLEASE SPECIFY WHO:_____

C1	a	Have you **ever** had a period of time when you were feeling 'up' or 'high' or 'hyper' or so full of energy or full of yourself that you got into trouble, - or that other people thought you were not your usual self? (Do not consider times when you were intoxicated on drugs or alcohol.) IF PATIENT IS PUZZLED OR UNCLEAR ABOUT WHAT YOU MEAN BY 'UP' OR 'HIGH' OR 'HYPER', CLARIFY AS FOLLOWS: By 'up' or 'high' or 'hyper' I mean: having elated mood; increased energy; needing less sleep; having rapid thoughts; being full of ideas; having an increase in productivity, motivation, creativity, or impulsive behavior; phoning or working excessively or spending more money.	NO	YES
		IF NO, CODE NO TO **C1b**: IF **YES** ASK:		
	b	Are you currently feeling 'up' or 'high' or 'hyper' or full of energy?	NO	YES
C2	a	Have you **ever** been persistently irritable, for several days, so that you had arguments or verbal or physical fights, or shouted at people outside your family? Have you or others noticed that you have been more irritable or over reacted, compared to other people, even in situations that you felt were justified?	NO	YES
		IF NO, CODE NO TO **C2b**: IF **YES** ASK:		
	b	Are you currently feeling persistently irritable?	NO	YES
			➡	
		IS **C1a** OR **C2a** CODED **YES**?	NO	YES

C3 IF **C1b** OR **C2b** = **YES**: EXPLORE THE **CURRENT** AND THE MOST SYMPTOMATIC **PAST** EPISODE, OTHERWISE
IF **C1b** AND **C2b** = **NO**: EXPLORE ONLY THE MOST SYMPTOMATIC **PAST** EPISODE

During the times when you felt high, full of energy, or irritable did you:

		Current Episode		Past Episode	
a	Feel that you could do things others couldn't do, or that you were an especially important person? IF **YES**, ASK FOR EXAMPLES. THE EXAMPLES ARE CONSISTENT WITH A DELUSIONAL IDEA. Current Episode ❒ No ❒ Yes Past Episode ❒ No ❒ Yes	NO	YES	NO	YES
b	Need less sleep (for example, feel rested after only a few hours sleep)?	NO	YES	NO	YES
c	Talk too much without stopping, or so fast that people had difficulty understanding?	NO	YES	NO	YES
d	Have racing thoughts?	NO	YES	NO	YES

		Current Episode		Past Episode	
e	Become easily distracted so that any little interruption could distract you?	NO	YES	NO	YES
f	Have a significant increase in your activity or drive, at work, at school, socially or sexually or did you become physically or mentally restless?	NO	YES	NO	YES
g	Want so much to engage in pleasurable activities that you ignored the risks or consequences (for example, spending sprees, reckless driving, or sexual indiscretions)?	NO	YES	NO	YES
C3	SUMMARY: WHEN RATING CURRENT EPISODE: IF C1b IS NO, ARE 4 OR MORE C3 ANSWERS CODED YES? IF C1b IS YES, ARE 3 OR MORE C3 ANSWERS CODED YES? WHEN RATING PAST EPISODE: IF C1a IS NO, ARE 4 OR MORE C3 ANSWERS CODED YES? IF C1a IS YES, ARE 3 OR MORE C3 ANSWERS CODED YES? CODE YES ONLY IF THE ABOVE 3 OR 4 SYMPTOMS OCCURRED DURING THE SAME TIME PERIOD. RULE: ELATION/EXPANSIVENESS REQUIRES ONLY THREE C3 SYMPTOMS, WHILE IRRITABLE MOOD ALONE REQUIRES 4 OF THE C3 SYMPTOMS.	NO	YES	NO	YES
C4	What is the longest time these symptoms lasted?				
	a) 3 days or less		❒		❒
	b) 4 to 6 days		❒		❒
	c) 7 days or more		❒		❒
C5	Were you hospitalized for these problems?	NO	YES	NO	YES
	IF YES, STOP HERE AND CIRCLE YES IN MANIC EPISODE FOR THAT TIME FRAME.				
C6	Did these symptoms cause significant problems at home, at work, socially in your relationships with others, at school or in some other important way?	NO	YES	NO	YES

ARE **C3** SUMMARY AND **C5** AND **C6** CODED **YES**?

OR

ARE **C3** SUMMARY AND **C4c** AND **C6** CODED **YES** AND IS **C5** CODED **NO**?

SPECIFY IF THE EPISODE IS CURRENT AND / OR PAST.

NO	**YES**
MANIC EPISODE	
CURRENT	❒
PAST	❒

Is C3 SUMMARY **CODED YES** AND ARE **C5** AND **C6** CODED **NO** AND IS EITHER **C4b** OR **C4c** CODED **YES**?

OR

ARE **C3** SUMMARY AND **C4b** AND **C6** CODED **YES** AND IS **C5** CODED **NO?**

SPECIFY IF THE EPISODE IS CURRENT AND / OR PAST.

IF **YES** TO CURRENT MANIC EPISODE, THEN CODE CURRENT HYPOMANIC EPISODE AS **NO.**

IF **YES** TO PAST MANIC EPISODE, THEN CODE PAST HYPOMANIC EPISODE AS **NOT EXPLORED.**

HYPOMANIC EPISODE

CURRENT ❒ **NO**
❒ **YES**

PAST ❒ **NO**
❒ **YES**
❒ **NOT EXPLORED**

ARE **C3** SUMMARY AND **C4a** CODED **YES** AND IS **C5** CODED **NO**?

SPECIFY IF THE EPISODE IS CURRENT AND / OR PAST.

IF **YES** TO CURRENT MANIC EPISODE OR HYPOMANIC EPISODE,
THEN CODE CURRENT HYPOMANIC SYMPTOMS AS **NO.**

IF **YES** TO PAST MANIC EPISODE OR YES TO PAST HYPOMANIC EPISODE,
THEN CODE PAST HYPOMANIC SYMPTOMS AS **NOT EXPLORED.**

HYPOMANIC SYMPTOMS

CURRENT ❒ **NO**
❒ **YES**

PAST ❒ **NO**
❒ **YES**
❒ **NOT EXPLORED**

C7 a) IF MANIC EPISODE IS POSITIVE FOR EITHER CURRENT OR PAST ASK:
Did you have 2 or more of these (manic) episodes lasting 7 days or more (**C4c**) in your lifetime (including the current episode if present)? NO YES

b) IF MANIC OR HYPOMANIC EPISODE IS POSITIVE FOR EITHER CURRENT OR PAST ASK:
Did you have 2 or more of these (hypomanic) episodes lasting just 4 to 6 days (**C4b**) in your lifetime (including the current episode)? NO YES

c) IF THE PAST "HYPOMANIC SYMPTOMS" CATEGORY IS CODED POSITIVE ASK:
Did you have these hypomanic symptoms lasting only 1 to 3 days (**C4a**) 2 or more times in your lifetime, (including the current episode if present)? NO YES

D. PANIC DISORDER

(➔ MEANS : CIRCLE NO IN D5, D6 AND D7 AND SKIP TO E1)

D1	a	Have you, on more than one occasion, had spells or attacks when you **suddenly** felt anxious, frightened, uncomfortable or uneasy, even in situations where most people would not feel that way?	➔ NO	YES
	b	Did the spells surge to a peak within 10 minutes of starting?	➔ NO	YES
D2		At any time in the past, did any of those spells or attacks come on unexpectedly or occur in an unpredictable or unprovoked manner?	➔ NO	YES
D3		Have you ever had one such attack followed by a month or more of persistent concern about having another attack, or worries about the consequences of the attack - or did you make a significant change in your behavior because of the attacks (e.g., shopping only with a companion, not wanting to leave your house, visiting the emergency room repeatedly, or seeing your doctor more frequently because of the symptoms)?	NO	YES
D4		**During the worst attack that you can remember:**		
	a	Did you have skipping, racing or pounding of your heart?	NO	YES
	b	Did you have sweating or clammy hands?	NO	YES
	c	Were you trembling or shaking?	NO	YES
	d	Did you have shortness of breath or difficulty breathing?	NO	YES
	e	Did you have a choking sensation or a lump in your throat?	NO	YES
	f	Did you have chest pain, pressure or discomfort?	NO	YES
	g	Did you have nausea, stomach problems or sudden diarrhea?	NO	YES
	h	Did you feel dizzy, unsteady, lightheaded or faint?	NO	YES
	i	Did things around you feel strange, unreal, detached or unfamiliar, or did you feel outside of or detached from part or all of your body?	NO	YES
	j	Did you fear that you were losing control or going crazy?	NO	YES
	k	Did you fear that you were dying?	NO	YES
	l	Did you have tingling or numbness in parts of your body?	NO	YES
	m	Did you have hot flushes or chills?	NO	YES
D5		ARE BOTH **D3,** AND **4** OR MORE **D4** ANSWERS, CODED **YES**? IF YES TO D5, SKIP TO D7.	NO	YES *PANIC DISORDER LIFETIME*
D6		IF **D5** = **NO,** ARE ANY D4 ANSWERS CODED **YES**? THEN SKIP TO **E1.**	NO	YES *LIMITED SYMPTOM ATTACKS LIFETIME*
D7		In the past month, did you have such attacks repeatedly (2 or more), and did you have persistent concern about having another attack, or worry about the consequences of the attacks, or did you change your behavior in any way because of the attacks?	NO	YES *PANIC DISORDER CURRENT*

E. AGORAPHOBIA

E1	Do you feel anxious or uneasy in places or situations where help might not be available or escape might be difficult, like being in a crowd, standing in a line (queue), when you are alone away from home or alone at home, or when crossing a bridge, or traveling in a bus, train or car or where you might have a panic attack or the panic-like symptoms we just spoke about?	NO YES

IF **E1** = **NO**, CIRCLE **NO** IN **E2**.

E2	Do you fear these situations so much that you avoid them, or suffer through them, or need a companion to face them?	NO YES *AGORAPHOBIA CURRENT*

IS **E2** (CURRENT AGORAPHOBIA) CODED **YES**

and

IS **D7** (CURRENT PANIC DISORDER) CODED **YES**?

NO **YES**

PANIC DISORDER with Agoraphobia CURRENT

IS **E2** (CURRENT AGORAPHOBIA) CODED **NO**

and

IS **D7** (CURRENT PANIC DISORDER) CODED **YES**?

NO **YES**

PANIC DISORDER without Agoraphobia CURRENT

IS **E2** (CURRENT AGORAPHOBIA) CODED **YES**

and

IS **D5** (PANIC DISORDER LIFETIME) CODED **NO**?

NO **YES**

AGORAPHOBIA, CURRENT without history of Panic Disorder

F. SOCIAL PHOBIA (Social Anxiety Disorder)

(➡ MEANS : GO TO THE DIAGNOSTIC BOX, CIRCLE NO AND MOVE TO THE NEXT MODULE)

F1	In the past month, did you have persistent fear and significant anxiety at being watched, being the focus of attention, or of being humiliated or embarrassed? This includes things like speaking in public, eating in public or with others, writing while someone watches, or being in social situations.	➡ NO	YES
F2	Is this social fear excessive or unreasonable and does it almost always make you anxious?	➡ NO	YES
F3	Do you fear these social situations so much that you avoid them or suffer through them most of the time?	➡ NO	YES
F4	Do these social fears disrupt your normal work, school or social functioning or cause you significant distress?		

SUBTYPES

Do you fear and avoid 4 or more social situations?

If YES Generalized social phobia (social anxiety disorder)

If NO Non-generalized social phobia (social anxiety disorder)

EXAMPLES OF SUCH SOCIAL SITUATIONS TYPICALLY INCLUDE

- INITIATING OR MAINTAINING A CONVERSATION,
- PARTICIPATING IN SMALL GROUPS,
- DATING,
- SPEAKING TO AUTHORITY FIGURES,
- ATTENDING PARTIES,
- PUBLIC SPEAKING,
- EATING IN FRONT OF OTHERS,
- URINATING IN A PUBLIC WASHROOM, ETC.

NOTE TO INTERVIEWER: PLEASE ASSESS WHETHER THE SUBJECT'S FEARS ARE RESTRICTED TO NON-GENERALIZED ("ONLY 1 OR SEVERAL") SOCIAL SITUATIONS OR EXTEND TO GENERALIZED ("MOST") SOCIAL SITUATIONS. "MOST" SOCIAL SITUATIONS IS USUALLY OPERATIONALIZED TO MEAN 4 OR MORE SOCIAL SITUATIONS, ALTHOUGH THE DSM-IV DOES NOT EXPLICITLY STATE THIS.

NO **YES**

SOCIAL PHOBIA
(Social Anxiety Disorder)
CURRENT

GENERALIZED ❒

NON-GENERALIZED ❒

G. OBSESSIVE-COMPULSIVE DISORDER

(➡ MEANS: GO TO THE DIAGNOSTIC BOX, CIRCLE NO AND MOVE TO THE NEXT MODULE)

G1	In the past month, have you been bothered by recurrent thoughts, impulses, or images that were unwanted, distasteful, inappropriate, intrusive, or distressing? - (For example, the idea that you were dirty, contaminated or had germs, **or** fear of contaminating others, **or** fear of harming someone even though it disturbs or distresses you, or fear you would act on some impulse, **or** fear or superstitions that you would be responsible for things going wrong, **or** obsessions with sexual thoughts, images or impulses, **or** hoarding, collecting, **or** religious obsessions.) (DO NOT INCLUDE SIMPLY EXCESSIVE WORRIES ABOUT REAL LIFE PROBLEMS. DO NOT INCLUDE OBSESSIONS DIRECTLY RELATED TO EATING DISORDERS, SEXUAL DEVIATIONS, PATHOLOGICAL GAMBLING, OR ALCOHOL OR DRUG ABUSE BECAUSE THE PATIENT MAY DERIVE PLEASURE FROM THE ACTIVITY AND MAY WANT TO RESIST IT ONLY BECAUSE OF ITS NEGATIVE CONSEQUENCES.)	NO YES ↓ SKIP TO **G4**
G2	Did they keep coming back into your mind even when you tried to ignore or get rid of them?	NO YES ↓ SKIP TO **G4**
G3	Do you think that these obsessions are the product of your own mind and that they are not imposed from the outside?	NO YES obsessions
G4	In the past month, did you do something repeatedly without being able to resist doing it, like washing or cleaning excessively, counting or checking things over and over, or repeating, collecting, arranging things, or other superstitious rituals?	NO YES compulsions
	IS **G3** OR **G4** CODED **YES**?	➡ NO YES ➡
G5	At any point, did you recognize that either these obsessive thoughts or these compulsive behaviors were excessive or unreasonable?	NO YES
G6	In the past month, did these obsessive thoughts and/or compulsive behaviors significantly interfere with your normal routine, your work or school, your usual social activities, or relationships, or did they take more than one hour a day?	**NO** **YES** ***O.C.D. CURRENT***

H. POSTTRAUMATIC STRESS DISORDER

(➡ MEANS : GO TO THE DIAGNOSTIC BOX, CIRCLE NO, AND MOVE TO THE NEXT MODULE)

H1	Have you ever experienced or witnessed or had to deal with an extremely traumatic event that included actual or threatened death or serious injury to you or someone else? EXAMPLES OF TRAUMATIC EVENTS INCLUDE: SERIOUS ACCIDENTS, SEXUAL OR PHYSICAL ASSAULT, A TERRORIST ATTACK, BEING HELD HOSTAGE, KIDNAPPING, FIRE, DISCOVERING A BODY, WAR, OR NATURAL DISASTER, WITNESSING THE VIOLENT OR SUDDEN DEATH OF SOMEONE CLOSE TO YOU, OR A LIFE THREATENING ILLNESS.	➡ NO	YES
H2	Did you respond with intense fear, helplessness or horror?	➡ NO	YES
H3	During the past month, have you re-experienced the event in a distressing way (such as in dreams, intense recollections, flashbacks or physical reactions) or did you have intense distress when you were reminded about the event or exposed to a similar event?	➡ NO	YES

H4	**In the past month:**			
a	Have you avoided thinking about or talking about the event ?		NO	YES
b	Have you avoided activities, places or people that remind you of the event?		NO	YES
c	Have you had trouble recalling some important part of what happened?		NO	YES
d	Have you become much less interested in hobbies or social activities?		NO	YES
e	Have you felt detached or estranged from others?		NO	YES
f	Have you noticed that your feelings are numbed?		NO	YES
g	Have you felt that your life will be shortened or that you will die sooner than other people?		NO	YES
	ARE **3** OR MORE **H4** ANSWERS CODED **YES**?	➡	NO	YES
H5	**In the past month:**			
a	Have you had difficulty sleeping?		NO	YES
b	Were you especially irritable or did you have outbursts of anger?		NO	YES
c	Have you had difficulty concentrating?		NO	YES
d	Were you nervous or constantly on your guard?		NO	YES
e	Were you easily startled?		NO	YES
	ARE **2** OR MORE **H5** ANSWERS CODED **YES**?	➡	NO	YES

		NO	YES
H6	During the past month, have these problems significantly interfered with your work, school or social activities, or caused significant distress?	***POSTTRAUMATIC STRESS DISORDER CURRENT***	

I. ALCOHOL DEPENDENCE / ABUSE

(➡ MEANS: GO TO DIAGNOSTIC BOXES, CIRCLE NO IN BOTH AND MOVE TO THE NEXT MODULE)

		➡ NO	YES
I1	**In the past 12 months**, have you had 3 or more alcoholic drinks, - within a 3 hour period, - on 3 or more occasions?		

I2 **In the past 12 months**:

a	Did you need to drink a lot more in order to get the same effect that you got when you first started drinking or did you get much less effect with continued use of the same amount?	NO	YES
b	When you cut down on drinking did your hands shake, did you sweat or feel agitated? Did you drink to avoid these symptoms (for example, "the shakes", sweating or agitation) or to avoid being hungover? IF **YES** TO ANY, CODE **YES**.	NO	YES
c	During the times when you drank alcohol, did you end up drinking more than you planned when you started?	NO	YES
d	Have you tried to reduce or stop drinking alcohol but failed?	NO	YES
e	On the days that you drank, did you spend substantial time obtaining alcohol, drinking, or recovering from the effects of alcohol?	NO	YES
f	Did you spend less time working, enjoying hobbies, or being with others because of your drinking?	NO	YES
g	If your drinking caused you health or mental problems, did you still keep on drinking?	NO	YES

ARE **3** OR MORE **I2** ANSWERS CODED **YES**?

* IF YES, SKIP I3 QUESTIONS AND GO TO NEXT MODULE. "DEPENDENCE PREEMPTS ABUSE" IN DSM IV TR.

NO	YES*
ALCOHOL DEPENDENCE **CURRENT**	

I3 **In the past 12 months:**

a	Have you been intoxicated, high, or hungover more than once when you had other responsibilities at school, at work, or at home? Did this cause any problems? (CODE **YES** ONLY IF THIS CAUSED PROBLEMS.)	NO	YES
b	Were you intoxicated more than once in any situation where you were physically at risk, for example, driving a car, riding a motorbike, using machinery, boating, etc.?	NO	YES
c	Did you have legal problems more than once because of your drinking, for example, an arrest or disorderly conduct?	NO	YES
d	If your drinking caused problems with your family or other people, did you still keep on drinking?	NO	YES

J. SUBSTANCE DEPENDENCE / ABUSE (NON-ALCOHOL)

(➡ MEANS : GO TO THE DIAGNOSTIC BOXES, CIRCLE NO IN ALL DIAGNOSTIC BOXES, AND MOVE TO THE NEXT MODULE)

Now I am going to show you / read to you a list of street drugs or medicines.

			➡	
J1	a	**In the past 12 months**, did you take any of these drugs more than once, to get high, to feel elated, to get "a buzz" or to change your mood?	NO	YES

CIRCLE EACH DRUG TAKEN:

Stimulants: amphetamines, "speed", crystal meth, "crank", "rush", Dexedrine, Ritalin, diet pills.

Cocaine: snorting, IV, freebase, crack, "speedball".

Narcotics: heroin, morphine, Dilaudid, opium, Demerol, methadone, Darvon, codeine, Percodan, Vicodin, OxyContin.

Hallucinogens: LSD ("acid"), mescaline, peyote, psilocybin, STP, "mushrooms", "ecstasy", MDA, MDMA.

Phencyclidine: PCP ("Angel Dust", "Peace Pill", "Tranq", "Hog"), or ketamine ("Special K").

Inhalants: "glue", ethyl chloride, "rush", nitrous oxide ("laughing gas"), amyl or butyl nitrate ("poppers").

Cannabis: marijuana, hashish ("hash"), THC, "pot", "grass", "weed", "reefer".

Tranquilizers: Quaalude, Seconal ("reds"), Valium, Xanax, Librium, Ativan, Dalmane, Halcion, barbiturates, Miltown, GHB, Roofinol, "Roofies".

Miscellaneous: steroids, nonprescription sleep or diet pills. Cough Medicine? Any others?

SPECIFY THE MOST USED DRUG(S): _____

WHICH DRUG(S) CAUSE THE BIGGEST PROBLEMS?: _____

FIRST EXPLORE THE DRUG CAUSING THE BIGGEST PROBLEMS AND MOST LIKELY TO MEET DEPENDENCE / ABUSE CRITERIA.

IF MEETS CRITERIA FOR ABUSE OR DEPENDENCE, SKIP TO THE NEXT MODULE. OTHERWISE, EXPLORE THE NEXT MOST PROBLEMATIC DRUG.

J2 **Considering your use of (NAME OF DRUG / DRUG CLASS SELECTED), in the past 12 months:**

	a	Have you found that you needed to use much more (NAME OF DRUG / DRUG CLASS SELECTED) to get the same effect that you did when you first started taking it?	NO	YES
	b	When you reduced or stopped using (NAME OF DRUG / DRUG CLASS SELECTED), did you have withdrawal symptoms (aches, shaking, fever, weakness, diarrhea, nausea, sweating, heart pounding, difficulty sleeping, or feeling agitated, anxious, irritable, or depressed)? Did you use any drug(s) to keep yourself from getting sick (withdrawal symptoms) or so that you would feel better?	NO	YES
		IF **YES** TO EITHER, CODE **YES**.		
	c	Have you often found that when you used (NAME OF DRUG / DRUG CLASS SELECTED), you ended up taking more than you thought you would?	NO	YES
	d	Have you tried to reduce or stop taking (NAME OF DRUG / DRUG CLASS SELECTED) but failed?	NO	YES
	e	On the days that you used (NAME OF DRUG / DRUG CLASS SELECTED), did you spend substantial time (>2 HOURS), obtaining, using or recovering from the drug, or thinking about the drug?	NO	YES
	f	Did you spend less time working, enjoying hobbies, or being with family or friends because of your drug use?	NO	YES
	g	If (NAME OF DRUG / DRUG CLASS SELECTED) caused you health or mental problems, did you still keep on using it?	NO	YES

ARE **3** OR MORE **J2** ANSWERS CODED **YES**?

SPECIFY DRUG(S): _____

***** IF YES, SKIP J3 QUESTIONS, MOVE TO NEXT DISORDER.
"DEPENDENCE PREEMPTS ABUSE" IN DSM IV TR.

NO **YES ***

SUBSTANCE DEPENDENCE
CURRENT

Considering your use of (NAME THE DRUG CLASS SELECTED), in the past 12 months:

J3	a	Have you been intoxicated, high, or hungover from (NAME OF DRUG / DRUG CLASS SELECTED) more than once, when you had other responsibilities at school, at work, or at home? Did this cause any problem? (CODE **YES** ONLY IF THIS CAUSED PROBLEMS.)	NO	YES
	b	Have you been high or intoxicated from (NAME OF DRUG / DRUG CLASS SELECTED) more than once in any situation where you were physically at risk (for example, driving a car, riding a motorbike, using machinery, boating, etc.)?	NO	YES
	c	Did you have legal problems more than once because of your drug use, for example, an arrest or disorderly conduct?	NO	YES
	d	If (NAME OF DRUG / DRUG CLASS SELECTED) caused problems with your family or other people, did you still keep on using it?	NO	YES

ARE **1** OR MORE **J3** ANSWERS CODED **YES**?

SPECIFY DRUG(S): _____

NO **YES**

SUBSTANCE ABUSE
CURRENT

K. PSYCHOTIC DISORDERS AND MOOD DISORDER WITH PSYCHOTIC FEATURES

ASK FOR AN EXAMPLE OF EACH QUESTION ANSWERED POSITIVELY. CODE **YES** ONLY IF THE EXAMPLES CLEARLY SHOW A DISTORTION OF THOUGHT OR OF PERCEPTION OR IF THEY ARE NOT CULTURALLY APPROPRIATE. BEFORE CODING, INVESTIGATE WHETHER DELUSIONS QUALIFY AS "BIZARRE".

DELUSIONS ARE "BIZARRE" IF: CLEARLY IMPLAUSIBLE, ABSURD, NOT UNDERSTANDABLE, AND CANNOT DERIVE FROM ORDINARY LIFE EXPERIENCE.
HALLUCINATIONS ARE SCORED "BIZARRE" IF: A VOICE COMMENTS ON THE PERSON'S THOUGHTS OR BEHAVIOR, OR WHEN TWO OR MORE VOICES ARE CONVERSING WITH EACH OTHER.
THE PURPOSE OF THIS MODULE IS TO EXCLUDE PATIENTS WITH PSYCHOTIC DISORDERS. THIS MODULE NEEDS EXPERIENCE.

					BIZARRE
		Now I am going to ask you about unusual experiences that some people have.			
K1	a	Have you ever believed that people were spying on you, or that someone was plotting against you, or trying to hurt you? **NOTE**: ASK FOR EXAMPLES TO RULE OUT ACTUAL STALKING.	NO	YES	YES
	b	**IF YES OR YES BIZARRE:** do you currently believe these things?	NO	YES	YES →**K6**
K2	a	Have you ever believed that someone was reading your mind or could hear your thoughts, or that you could actually read someone's mind or hear what another person was thinking?	NO	YES	YES
	b	**IF YES OR YES BIZARRE:** do you currently believe these things?	NO	YES	YES →**K6**
K3	a	Have you ever believed that someone or some force outside of yourself put thoughts in your mind that were not your own, or made you act in a way that was not your usual self? Have you ever felt that you were possessed? CLINICIAN: ASK FOR EXAMPLES AND DISCOUNT ANY THAT ARE NOT PSYCHOTIC.	NO	YES	YES
	b	**IF YES OR YES BIZARRE:** do you currently believe these things?	NO	YES	YES →**K6**
K4	a	Have you ever believed that you were being sent special messages through the TV, radio, internet, newspapers, books, or magazines or that a person you did not personally know was particularly interested in you?	NO	YES	YES
	b	**IF YES OR YES BIZARRE:** do you currently believe these things?	NO	YES	YES →**K6**
K5	a	Have your relatives or friends ever considered any of your beliefs odd or unusual? INTERVIEWER: ASK FOR EXAMPLES. ONLY CODE **YES** IF THE EXAMPLES ARE **CLEARLY** DELUSIONAL IDEAS NOT EXPLORED IN QUESTIONS K1 TO K4, FOR EXAMPLE, SOMATIC OR RELIGIOUS DELUSIONS OR DELUSIONS OF GRANDIOSITY, JEALOUSY, GUILT, RUIN OR DESTITUTION, ETC.	NO	YES	YES
	b	**IF YES OR YES BIZARRE:** do they currently consider your beliefs strange?	NO	YES	YES
K6	a	Have you ever heard things other people couldn't hear, such as voices?	NO	YES	
		IF YES TO VOICE HALLUCINATION: Was the voice commenting on your thoughts or behavior or did you hear two or more voices talking to each other?	NO		YES
	b	**IF YES OR YES BIZARRE TO K6a:** have you heard sounds / voices in the past month?	NO	YES	
		IF YES TO VOICE HALLUCINATION: Was the voice commenting on your thoughts or behavior or did you hear two or more voices talking to each other?	NO		YES →**K8b**

K7 a Have you ever had visions when you were awake or have you ever seen things other people couldn't see? NO YES
CLINICIAN: CHECK TO SEE IF THESE ARE CULTURALLY INAPPROPRIATE.

b **IF YES:** have you seen these things in the past month? NO YES

CLINICIAN'S JUDGMENT

K8 b IS THE PATIENT CURRENTLY EXHIBITING INCOHERENCE, DISORGANIZED SPEECH, OR MARKED LOOSENING OF ASSOCIATIONS? NO YES

K9 b IS THE PATIENT CURRENTLY EXHIBITING DISORGANIZED OR CATATONIC BEHAVIOR? NO YES

K10 b ARE NEGATIVE SYMPTOMS OF SCHIZOPHRENIA, E.G. SIGNIFICANT AFFECTIVE FLATTENING, POVERTY OF SPEECH (ALOGIA) OR AN INABILITY TO INITIATE OR PERSIST IN GOAL-DIRECTED ACTIVITIES (AVOLITION), PROMINENT DURING THE INTERVIEW? NO YES

K11 a ARE 1 OR MORE « a » QUESTIONS FROM K1a TO K7a CODED **YES OR YES BIZARRE** AND IS EITHER:

MAJOR DEPRESSIVE EPISODE, (CURRENT, RECURRENT OR PAST)
OR
MANIC OR HYPOMANIC EPISODE, (CURRENT OR PAST) CODED **YES**? NO YES
↳ **K13**

IF NO TO K11 a, CIRCLE NO IN BOTH 'MOOD DISORDER WITH PSYCHOTIC FEATURES' DIAGNOSTIC BOXES AND MOVE TO K13.

b You told me earlier that you had period(s) when you felt (depressed/high/persistently irritable).

Were the beliefs and experiences you just described (SYMPTOMS CODED **YES** FROM **K1**a TO **K7**a) restricted exclusively to times when you were feeling depressed/high/irritable?

IF THE PATIENT EVER HAD A PERIOD OF AT LEAST 2 WEEKS OF HAVING THESE BELIEFS OR EXPERIENCES (PSYCHOTIC SYMPTOMS) WHEN THEY WERE NOT DEPRESSED/HIGH/IRRITABLE, CODE NO TO THIS DISORDER.

IF THE ANSWER IS NO TO THIS DISORDER, ALSO CIRCLE NO TO K12 AND MOVE TO K13

NO **YES**

MOOD DISORDER WITH PSYCHOTIC FEATURES

LIFETIME

K12 a ARE 1 OR MORE « b » QUESTIONS FROM K1b TO K7b CODED **YES OR YES BIZARRE** AND IS EITHER:

MAJOR DEPRESSIVE EPISODE, (CURRENT)
OR
MANIC OR HYPOMANIC EPISODE, (CURRENT) CODED **YES**?

IF THE ANSWER IS YES TO THIS DISORDER (LIFETIME OR CURRENT), CIRCLE NO TO K13 AND K14 AND MOVE TO THE NEXT MODULE.

NO **YES**

MOOD DISORDER WITH PSYCHOTIC FEATURES

CURRENT

K13 ARE 1 OR MORE « b » QUESTIONS FROM K1b TO K6b, CODED **YES BIZARRE**?

OR

ARE 2 OR MORE « b » QUESTIONS FROM K1b TO K10b, CODED **YES** (RATHER THAN **YES BIZARRE**)?

AND DID AT LEAST TWO OF THE PSYCHOTIC SYMPTOMS OCCUR DURING THE SAME 1 MONTH PERIOD?

NO **YES**

PSYCHOTIC DISORDER
CURRENT

K14 IS **K13** CODED **YES**

OR

ARE 1 OR MORE « a » QUESTIONS FROM K1a TO K6a, CODED **YES BIZARRE**?

OR

ARE 2 OR MORE « a » QUESTIONS FROM K1a TO K7a, CODED **YES** (RATHER THAN **YES BIZARRE**)

AND DID AT LEAST TWO OF THE PSYCHOTIC SYMPTOMS OCCUR DURING THE SAME 1 MONTH PERIOD?

NO **YES**

PSYCHOTIC DISORDER
LIFETIME

L. ANOREXIA NERVOSA

(➡ MEANS : GO TO THE DIAGNOSTIC BOX, CIRCLE NO, AND MOVE TO THE NEXT MODULE)

L1	a	How tall are you?	❑ ft ❑❑ in. ❑❑❑ cm
	b.	What was your lowest weight in the past 3 months?	❑❑❑ lb ❑❑❑ kg
	c	IS PATIENT'S WEIGHT EQUAL TO OR BELOW THE THRESHOLD CORRESPONDING TO HIS / HER HEIGHT? (SEE TABLE BELOW)	NO YES

In the past 3 months:

L2		In spite of this low weight, have you tried not to gain weight?	NO YES
L3		Have you intensely feared gaining weight or becoming fat, even though you were underweight?	NO YES
L4	a	Have you considered yourself too big / fat or that part of your body was too big / fat?	NO YES
	b	Has your body weight or shape greatly influenced how you felt about yourself?	NO YES
	c	Have you thought that your current low body weight was normal or excessive?	NO YES
L5		ARE 1 OR MORE ITEMS FROM **L4** CODED **YES**?	NO YES
L6		FOR WOMEN ONLY: During the last 3 months, did you miss all your menstrual periods when they were expected to occur (when you were not pregnant)?	NO YES

FOR WOMEN: ARE **L5 AND L6** CODED **YES**?

FOR MEN: IS **L5** CODED **YES**?

NO **YES**

ANOREXIA NERVOSA
CURRENT

HEIGHT / WEIGHT TABLE CORRESPONDING TO A **BMI THRESHOLD** OF **17.5** KG/M^2

Height/Weight														
ft/in	4'9	4'10	4'11	5'0	5'1	5'2	5'3	5'4	5'5	5'6	5'7	5'8	5'9	5'10
lb	81	84	87	89	92	96	99	102	105	108	112	115	118	122
cm	145	147	150	152	155	158	160	163	165	168	170	173	175	178
kg	37	38	39	41	42	43	45	46	48	49	51	52	54	55

Height/Weight					
ft/in	5'11	6'0	6'1	6'2	6'3
lb	125	129	132	136	140
cm	180	183	185	188	191
kg	57	59	60	62	64

The weight thresholds above are calculated using a body mass index (BMI) equal to or below 17.5 kg/m^2 for the patient's height. This is the threshold guideline below which a person is deemed underweight by the DSM-IV and the ICD-10 Diagnostic Criteria for Research for Anorexia Nervosa.

M. BULIMIA NERVOSA

(➡ MEANS : GO TO THE DIAGNOSTIC BOXES, CIRCLE NO IN ALL DIAGNOSTIC BOXES, AND MOVE TO THE NEXT MODULE)

M1	In the past three months, did you have eating binges or times when you ate a very large amount of food within a 2-hour period?	➡ NO	YES
M2	In the last 3 months, did you have eating binges as often as twice a week?	➡ NO	YES
M3	During these binges, did you feel that your eating was out of control?	➡ NO	YES
M4	Did you do anything to compensate for, or to prevent a weight gain from these binges, like vomiting, fasting, exercising or taking laxatives, enemas, diuretics (fluid pills), or other medications?	➡ NO	YES
M5	Does your body weight or shape greatly influence how you feel about yourself?	➡ NO	YES
M6	DO THE PATIENT'S SYMPTOMS MEET CRITERIA FOR ANOREXIA NERVOSA?	NO ↓ Skip to M8	YES
M7	Do these binges occur only when you are under (____lb/kg)? INTERVIEWER: WRITE IN THE ABOVE PARENTHESIS THE THRESHOLD WEIGHT FOR THIS PATIENT'S HEIGHT FROM THE HEIGHT / WEIGHT TABLE IN THE ANOREXIA NERVOSA MODULE.	NO	YES
M8	IS **M5** CODED **YES** AND IS EITHER **M6** OR **M7** CODED **NO**?		

NO **YES**

BULIMIA NERVOSA
CURRENT

IS **M7** CODED **YES**?

NO **YES**

ANOREXIA NERVOSA
Binge Eating/Purging Type
CURRENT

N. GENERALIZED ANXIETY DISORDER

(➡ MEANS : GO TO THE DIAGNOSTIC BOX, CIRCLE NO, AND MOVE TO THE NEXT MODULE)

N1	a	Were you excessively anxious or worried about several routine things, over the past 6 months? IN ENGLISH, IF THE PATIENT IS UNCLEAR ABOUT WHAT YOU MEAN, PROBE BY ASKING (Do others think that you are a "worry wart"?) AND GET EXAMPLES.	➡ NO	YES
	b	Are these anxieties and worries present most days?	➡ NO	YES
		ARE THE PATIENT'S ANXIETY AND WORRIES RESTRICTED EXCLUSIVELY TO, OR BETTER EXPLAINED BY, ANY DISORDER PRIOR TO THIS POINT?	NO	➡ YES
N2		Do you find it difficult to control the worries?	➡ NO	YES
N3		FOR THE FOLLOWING, CODE **NO** IF THE SYMPTOMS ARE CONFINED TO FEATURES OF ANY DISORDER EXPLORED PRIOR TO THIS POINT.		
		When you were anxious over the past 6 months, did you, most of the time:		
	a	Feel restless, keyed up or on edge?	NO	YES
	b	Have muscle tension?	NO	YES
	c	Feel tired, weak or exhausted easily?	NO	YES
	d	Have difficulty concentrating or find your mind going blank?	NO	YES
	e	Feel irritable?	NO	YES
	f	Have difficulty sleeping (difficulty falling asleep, waking up in the middle of the night, early morning wakening or sleeping excessively)?	NO	YES
		ARE **3** OR MORE **N3** ANSWERS CODED **YES?**	➡ NO	YES
N4		Do these anxieties and worries disrupt your normal work, school or social functioning or cause you significant distress?	**NO**	**YES**

GENERALIZED ANXIETY DISORDER
CURRENT

O. RULE OUT MEDICAL, ORGANIC OR DRUG CAUSES FOR ALL DISORDERS

IF THE PATIENT CODES POSITIVE FOR ANY CURRENT DISORDER ASK:

Just before these symptoms began:

O1a	Were you taking any drugs or medicines?	❒ No	❒ Yes ❒ Uncertain
O1b	Did you have any medical illness?	❒ No	❒ Yes ❒ Uncertain
	IN THE CLINICIAN'S JUDGMENT: ARE EITHER OF THESE LIKELY TO BE DIRECT CAUSES OF THE PATIENT'S DISORDER? IF NECESSARY ASK ADDITIONAL OPEN-ENDED QUESTIONS.		
O2	**SUMMARY**: HAS AN ORGANIC CAUSE BEEN RULED OUT?	❒ No	❒ Yes ❒ Uncertain

P. ANTISOCIAL PERSONALITY DISORDER

(➡ MEANS : GO TO THE DIAGNOSTIC BOX AND CIRCLE NO)

P1 **Before you were 15 years old, did you:**

a	repeatedly skip school or run away from home overnight?	NO	YES
b	repeatedly lie, cheat, "con" others, or steal?	NO	YES
c	start fights or bully, threaten, or intimidate others?	NO	YES
d	deliberately destroy things or start fires?	NO	YES
e	deliberately hurt animals or people?	NO	YES
f	force someone to have sex with you?	NO	YES
		➡	
	ARE **2** OR MORE **P1** ANSWERS CODED **YES**?	NO	YES

DO NOT CODE **YES** TO THE BEHAVIORS BELOW IF THEY ARE EXCLUSIVELY POLITICALLY OR RELIGIOUSLY MOTIVATED**.**

P2 **Since you were 15 years old, have you:**

a	repeatedly behaved in a way that others would consider irresponsible, like failing to pay for things you owed, deliberately being impulsive or deliberately not working to support yourself?	NO	YES
b	done things that are illegal even if you didn't get caught (for example, destroying property, shoplifting, stealing, selling drugs, or committing a felony)?	NO	YES
c	been in physical fights repeatedly (including physical fights with your spouse or children)?	NO	YES
d	often lied or "conned" other people to get money or pleasure, or lied just for fun?	NO	YES
e	exposed others to danger without caring?	NO	YES
f	felt no guilt after hurting, mistreating, lying to, or stealing from others, or after damaging property?	NO	YES

ARE **3** OR MORE **P2** QUESTIONS CODED **YES**?

NO	YES
ANTISOCIAL PERSONALITY DISORDER **LIFETIME**	

THIS CONCLUDES THE

MOOD DISORDERS: DIAGNOSTIC ALGORITHM

Consult Modules:
- A Major Depressive Episode
- C (Hypo)manic Episode
- K Psychotic Disorders

MODULE K:

1a	IS **K11b** CODED YES?	NO	YES
1b	IS **K12a** CODED YES?	NO	YES

MODULES A and C:		Current	Past
2	a CIRCLE YES IF A DELUSIONAL IDEA IS IDENTIFIED IN **A3e**	YES	YES
	b CIRCLE YES IF A DELUSIONAL IDEA IS IDENTIFIED IN **C3a**	YES	YES

c Is a Major Depressive Episode coded YES (current or past)?
and
is Manic Episode coded NO (current and past)?
and
is Hypomanic Episode coded NO (current and past)?
and
is **"**Hypomanic Symptoms" coded NO (current and past)?

Specify:
- If the depressive episode is **current** or **past** or both
- **With Psychotic Features** Current: If 1b or 2a (current) = YES
  With Psychotic Features Past: If 1a or 2a (past) = YES

MAJOR DEPRESSIVE DISORDER

	current	past
MDD	❑	❑

With Psychotic Features

Current	❑
Past	❑

d Is a Manic Episode coded YES (current or past)?

Specify:

- If the Bipolar I Disorder is **current** or **past** or both
- With **Single Manic Episode**: If Manic episode (current or past) = YES and MDE (current and past) = NO
- **With Psychotic Features** Current: If 1b or 2a (current) or 2b (current) = YES
  With Psychotic Features Past: If 1a or 2a (past) or 2b (past) = YES
- If the **most recent episode** is manic, depressed, mixed or hypomanic or unspecified (all mutually exclusive)
- **Unspecified** if the Past Manic Episode is coded YES AND Current (C3 Summary AND C4a AND C6 AND O2) are coded YES

BIPOLAR I DISORDER

	current	past
Bipolar I Disorder	❑	❑
Single Manic Episode	❑	❑

With Psychotic Features

Current	❑
Past	❑

Most Recent Episode

Manic	❑
Depressed	❑
Mixed	❑
Hypomanic	❑
Unspecified	❑

e Is Major Depressive Episode coded YES (current or past)
and
Is Hypomanic Episode coded YES (current or past)
and
Is Manic Episode coded NO (current and past)?

Specify:

- If the Bipolar Disorder is **current** or **past** or both
- If the most recent mood episode is **hypomanic** or **depressed** (mutually exclusive)

BIPOLAR II DISORDER

	current	past
Bipolar II Disorder	❑	❑

Most Recent Episode

Hypomanic	❑
Depressed	❑

f Is MDE coded NO (current and past)
and
Is Manic Episode coded NO (current and past
and
Is C4b coded YES for the appropriate time frame
and
Is C7b coded YES?

or

Is Manic Episode coded NO (current and past)
and
Is Hypomanic Episode coded NO (current and past)
and
Is C4a coded YES for the appropriate time frame
and
Is C7c coded YES?

Specify if the Bipolar Disorder NOS is **current** or **past** or both.

BIPOLAR DISORDER NOS

	current	past
Bipolar Disorder NOS	❑	❑

M.I.N.I. PLUS

The shaded modules below are additional modules available in the MINI PLUS beyond what is available in the standard MINI. The un-shaded modules below are in the standard MINI.

These MINI PLUS modules can be inserted into or used in place of the standard MINI modules, as dictated by the specific needs of any study.

	MODULES	TIME FRAME
A	MAJOR DEPRESSIVE EPISODE	Current (2 weeks) Past Recurrent
	MAJOR DEPRESSIVE DISORDER	Current (2 weeks) Past Recurrent
	MDE WITH MELANCHOLIC FEATURES	Current (2 weeks)
	MDE WITH CATATONIC FEATURES	Current (2 weeks)
	MDE WITH ATYPICAL FEATURES	Current (2 weeks)
	MAJOR DEPRESSIVE DISORDER WITH PSYCHOTIC FEATURES	Current Past
	MINOR DEPRESSIVE DISORDER (DEPRESSIVE DISORDER NOS)	Current (2 weeks) Past Recurrent
	MOOD DISORDER DUE TO A GENERAL MEDICAL CONDITION	Current (2 weeks) Past
	SUBSTANCE INDUCED MOOD DISORDER	Current (2 weeks) Past
AY	DYSTHYMIA	Current
B	SUICIDALITY	Current (Past Month) ☐ Low ☐ Moderate ☐ High
C	MANIC EPISODE	Current Past
	HYPOMANIC EPISODE	Current Past
	BIPOLAR I DISORDER	Current Past
	BIPOLAR II DISORDER	Current Past
	BIPOLAR DISORDER NOS	Current Past
	BIPOLAR I DISORDER WITH PSYCHOTIC FEATURES	Current Past
	MANIC EPISODE DUE TO A GENERAL MEDICAL CONDITION	Current (2 weeks) Past
	HYPOMANIC EPISODE DUE TO A GENERAL MEDICAL CONDITION	Current (2 weeks) Past
	SUBSTANCE INDUCED MANIC EPISODE	Current (2 weeks) Past

	SUBSTANCE INDUCED HYPOMANIC EPISODE	Current (2 weeks) Past
	MOOD DISORDER NOS	Lifetime
D	PANIC DISORDER	Current (Past Month) Lifetime
	ANXIETY DISORDER WITH PANIC ATTACKS DUE TO A GENERAL MEDICAL CONDITION	Current
	SUBSTANCE INDUCED ANXIETY DISORDER WITH PANIC ATTACKS	Current
E	AGORAPHOBIA	Current
F	SOCIAL PHOBIA (Social Anxiety Disorder)	Current (Past Month) Generalized Non-Generalized
FA	SPECIFIC PHOBIA	Current
G	OBSESSIVE-COMPULSIVE DISORDER (OCD)	Current (Past Month)
	OCD DUE TO A GENERAL MEDICAL CONDITION	Current
	SUBSTANCE INDUCED OCD	Current
H	POSTTRAUMATIC STRESS DISORDER	Current (Past Month)
HL	POSTTRAUMATIC STRESS DISORDER	Lifetime
I	ALCOHOL DEPENDENCE ALCOHOL ABUSE	Past 12 Months Past 12 Months
IL	ALCOHOL DEPENDENCE ALCOHOL ABUSE	Lifetime Lifetime
J	SUBSTANCE DEPENDENCE (Non-alcohol) SUBSTANCE ABUSE (Non-alcohol)	Past 12 Months Past 12 Months
JL	SUBSTANCE DEPENDENCE (Non-alcohol) SUBSTANCE ABUSE (Non-alcohol)	Lifetime Lifetime
K	PSYCHOTIC DISORDERS	Lifetime Current
	MOOD DISORDER WITH PSYCHOTIC FEATURES	Current
	MOOD DISORDER WITH PSYCHOTIC FEATURES	Lifetime
	SCHIZOPHRENIA	Current Lifetime
	SCHIZOAFFECTIVE DISORDER	Current Lifetime
	SCHIZOPHRENIFORM DISORDER	Current Lifetime
	BRIEF PSYCHOTIC DISORDER	Current Lifetime
	DELUSIONAL DISORDER	Current Lifetime
	PSYCHOTIC DISORDER DUE TO A GENERAL MEDICAL CONDITION	Current Lifetime

	SUBSTANCE INDUCED PSYCHOTIC DISORDER	Current Lifetime
	PSYCHOTIC DISORDER NOS	Current Lifetime
L	ANOREXIA NERVOSA	Current (Past 3 Months)
M	BULIMIA NERVOSA	Current (Past 3 Months)
	BULMIA NERVOSA, PURGING TYPE	Current
	BULMIA NERVOSA, NON-PURGING TYPE	Current
	ANOREXIA NERVOSA, BINGE EATING/PURGING TYPE	Current
	ANOREXIA NERVOSA, RESTRICTING TYPE	Current
N	GENERALIZED ANXIETY DISORDER (GAD)	Current (Past 6 Months)
	GAD DUE TO A GENERAL MEDICAL CONDITION	Current
	SUBSTANCE INDUCED GAD	Current
O	SOMATIZATION DISORDER	Current Lifetime
P	HYPOCHONDRIASIS	Current
Q	BODY DYSMORPHIC DISORDER	Current
R	PAIN DISORDER	Current
S	CONDUCT DISORDER	Current (past 12 months)
T	ATTENTION DEFICIT/ HYPERACTIVITY DISORDER	Current (Past 6 months) (Children /Adolescents)
	ADHD COMBINED	
	ADHD INATTENTIVE	
	ADHD HYPERACTIVE / IMPULSIVE	
TA	ATTENTION DEFICIT/ HYPERACTIVITY DISORDER	Current (Past 6 months) (Adults)
	ADHD COMBINED	
	ADHD INATTENTIVE	
	ADHD HYPERACTIVE / IMPULSIVE	
U	PREMENSTRUAL DYSPHORIC DISORDER	Current
V	MIXED ANXIETY DEPRESSIVE DISORDER	Current
W	ADJUSTMENT DISORDERS	Current
X	MEDICAL, ORGANIC, DRUG CAUSE RULED OUT	
Y	ANTISOCIAL PERSONALITY DISORDER	Lifetime

SEVERITY OF ALCOHOL DEPENDENCE QUESTIONNAIRE (SADQ-C)

NAME: AGE: GENDER: DATE:

Please recall a typical period of heavy drinking in the last 6 months.

When was this? Month:……Year……

Please answer all the following questions about your drinking by circling your most appropriate response.

During that period of heavy drinking

1. The day after drinking alcohol, I woke up feeling sweaty.

ALMOST NEVER SOMETIMES OFTEN NEARLY ALWAYS

2. The day after drinking alcohol, my hands shook first thing in the morning.

ALMOST NEVERSOMETIMES OFTEN NEARLY ALWAYS

3. The day after drinking alcohol, my whole body shook violently first thing in the morning if I did not have a drink.

ALMOST NEVER SOMETIMES OFTENNEARLY ALWAYS

4. The day after drinking alcohol, I woke up absolutely drenched in sweat.

ALMOST NEVER SOMETIMES OFTEN NEARLY ALWAYS

5. The day after drinking alcohol, I dread waking up in the morning.

ALMOST NEVER SOMETIMES OFTEN NEARLY ALWAYS

6. The day after drinking alcohol, I was frightened of meeting people first thing in the morning.

ALMOST NEVER SOMETIMES OFTEN NEARLY ALWAYS

7. The day after drinking alcohol, I felt at the edge of despair when I awoke.

ALMOST NEVER SOMETIMES OFTEN NEARLY ALWAYS

8. The day after drinking alcohol, I felt very frightened when I awoke.

ALMOST NEVERSOMETIMES OFTEN NEARLY ALWAYS

9. The day after drinking alcohol, I liked to have an alcoholic drink in the morning.

ALMOST NEVERSOMETIMES OFTEN NEARLY ALWAYS

10. The day after drinking alcohol, I always gulped my first few alcoholic drinks down as quickly as possible.

ALMOST NEVER SOMETIMES OFTEN NEARLY ALWAYS

11. The day after drinking alcohol, I drank more alcohol to get rid of the shakes.

ALMOST NEVER SOMETIMES OFTEN NEARLY ALWAYS

12. The day after drinking alcohol, I had a very strong craving for a drink when I awoke.

ALMOST NEVER SOMETIMES OFTEN ALMOST ALWAYS

13. I drank more than a quarter of a bottle of spirits in a day (OR 1 bottle of wine OR 7 beers).

ALMOST NEVER SOMETIMES OFTEN ALMOST ALWAYS

14.I drank more than half a bottle of spirits per day (OR 2 bottles of wine OR 15 beers).

ALMOST NEVER SOMETIMES OFTEN ALMOST ALWAYS

15.I drank more than one bottle of spirits per day(OR 4 bottles of wine OR 30 beers).

ALMOST NEVER SOMETIMES OFTEN ALMOST ALWAYS

16.I drank more than two bottles of spirits per day (OR 8 bottles of wine OR 60 beers)

ALMOST NEVER SOMETIMES OFTEN ALMOST ALWAYS

Imagine the following situation:

1. You have been **completely off drink for a few weeks**

2. You then drink **very heavily** for **two days**

How would you feel the morning after those two days of drinking?

17. I would start to sweat.

NOT AT ALL SLIGHTLY MODERATELY QUITE A LOT

18. My hands would shake.

NOT AT ALL SLIGHTLY MODERATELY QUITE A LOT

19. My body would shake.

NOT AT ALL SLIGHTLY MODERATELY QUITE A LOT

20.I would be craving a drink.

NOT AT ALL SLIGHTLY MODERATELY QUITE A LOT

SCORE CHECKED BY:

ALCOHOL DETOX PRESCRIBED: YES/NO

NOTES ON THE USE OF THE SADQ

The Severity of Alcohol Dependence Questionnaire was developed by the Addiction Research Unit at the Maudsley Hospital. It is a measure of the severity of dependence. The AUDIT questionnaire, by contrast, is used to assess whether there is a problem with dependence.

The SADQ questions cover the following aspects of dependency syndrome:

- physical withdrawal symptoms
- affective withdrawal symptoms
- relief drinking
- frequency of alcohol consumption

- speed of onset of withdrawal symptoms.

Scoring Answers to each question are rated on a four-point scale:

- Almost never - 0
- Sometimes 1
- Often 2
- Nearly always 3

✓ A score of 31 or higher indicates **"severe alcohol dependence".**

✓ A score of 16 -30 indicates **"moderate dependence."**

✓ A score of below 16 usually indicates only a "**mild physical dependency".**

A chlordiazepoxide detoxification regime is usually indicated for someone who scores **16 or over.**

It is essential to take into account the amount of alcohol that the patient reports drinking before admission as well as the result of the SADQ.

There is no correlation between the SADQ and such parameters as the MCV or GGT.

ANNEXURE 5:

KEY TO MASTER CHART

SEX	M- Male F-Female
OCC	Occupation SP-Semiprofessional UE-Unemployed USW-Unskilled Worker P-Professional SW-Skilled Worker
MS	Marital Status UM-Unmarried M-Married S-Separated D-Divorced W-Widowed
EDU	Education Ill-Illiterate P-Primary SSLC 2^{nd} PUC G-Graduate PG-Postgraduate
A-ONS	Age Of Onset of Alcohol Use
ASSO-SU	Associated Substance Use
BG	Background R-Rural U-Urban
F.H.PSY-I	Family history of psychiatry illness P-Present A-Absent

F.H.ADS	Family history of Alcohol dependence syndrome P-Present A-Absent
FAM-TYPE	Family Type NF-Nuclear Family JF-Joint Family
PREVAL	Prevalence Of Psychiatric Comorbidity P-Present A-Absent
PSY-COM **ASPD**	Type Of Psychiatric Comorbidities Anti-Social Personality Disorder
BPAD	Bipolar Affective Disorder
DYSTHY	Dysthymia
GAD	Generalized Anxiety Disorder
MDD	Major Depressive Disorder
ME	Manic Episode
PD	Panic Disorder
PSY	Psychosis
SP	Social Phobia
SEVERITY	Severity Of Alcohol Dependence Syndrome Mild Mod-Moderate Severe

MASTER CHART

S NO	UHID NO	AGE	SEX	OCC	MS	EDU	A-ONS	ASSO-SU	BG	F.H.ADS	F.H.PSY-I	FAM-TYPE	PREVAL	PSY-COM	SEVERITY
1	928990	52	M	SP	M	G	24	TC	R	P	A	NF	P	GAD	MOD
2	942112	33	M	UE	UM	SSLC	20	TC	U	P	A	NF	P	PD	MOD
3	54376	55	M	USW	M	ILL	28	NIL	R	P	A	JF	A	A	MILD
4	59959	47	M	P	S	G	27	TC,CAN	R	P	A	NF	P	ASPD	MOD
5	932967	57	M	UE	M	PRIMARY	25	TC	R	A	P	JF	A	A	SEVERE
6	39599	20	M	USW	UM	ILL	17	NIL	R	A	A	NF	P	GAD	MOD
7	60343	36	M	UE	M	ILL	20	NIL	R	P	A	JF	A	A	SEVERE
8	60337	28	F	USW	UM	2ND PUC	21	TC	U	A	A	NF	A	A	MILD
9	57937	53	M	UE	M	SSLC	28	TC	R	P	A	NF	A	A	MILD
10	92625	42	M	UE	M	PRIMARY	20	TC,CAN	R	A	A	NF	P	ASPD	MOD
11	946131	19	M	UE	UM	2ND PUC	17	TC	R	A	A	JF	A	A	MOD
12	94551	22	M	P	UM	G	18	CAN,TC	R	P	P	NF	P	PSY	MOD
13	925026	43	M	USW	S	SSLC	23	TC	U	A	A	JF	A	A	SEVERE
14	921764	51	M	UE	M	ILL	29	TC	R	A	A	JF	P	ME	MOD
15	524933	23	M	UE	UM	PRIMARY	20	TC	R	P	A	JF	P	PD	MOD
16	52879	56	M	USW	M	ILL	25	TC	R	A	A	JF	A	A	MILD
17	49441	45	M	UE	M	2ND PUC	23	CAN,TC	U	P	A	NF	P	PSY	MOD
18	50826	56	M	SP	M	G	24	TC	R	P	A	NF	A	A	MILD
19	49880	24	M	UE	UM	PRIMARY	20	TC	R	P	A	JF	P	PD	SEVERE
20	943211	31	M	USW	M	SSLC	26	TC	R	A	A	NF	P	ASPD	MOD
21	48537	60	M	UE	M	SSLC	27	TC	R	A	P	JF	A	A	MOD
22	46480	25	F	UE	M	2ND PUC	20	NIL	R	A	P	JF	A	A	MILD
23	46357	55	M	P	W	G	23	TC	R	A	P	NF	A	A	MILD
24	44332	27	M	UE	M	2ND PUC	23	CAN,TC	U	A	A	NF	P	PSY	MOD
25	41954	45	M	USW	D	SSLC	28	NIL	R	P	P	JF	A	A	MILD
26	41835	27	M	UE	UM	G	21	TC,CAN	R	P	A	JF	P	PSY	MOD
27	40522	43	M	UE	S	PRIMARY	23	TC	R	A	P	NF	A	A	SEVERE
28	92532	30	M	SW	UM	G	24	CAN,TC	R	A	A	JF	P	PSY	MOD
29	37258	46	M	UE	M	ILL	25	TC	R	P	P	NF	P	ME	MOD
30	38036	28	M	UE	M	2ND PUC	21	TC	U	A	A	JF	A	A	MILD
31	951238	48	M	SP	S	G	25	CAN,TC	R	A	P	NF	P	PSY	MOD
32	949493	29	M	UE	UM	G	26	TC	R	A	P	JF	A	A	MOD
33	949409	63	M	USW	M	ILL	29	CAN,TC	R	A	A	NF	P	PSY	MOD
34	949431	49	M	UE	M	PRIMARY	25	TC	R	P	A	JF	A	A	MILD

35	949209	58	M	UE	M	2ND PUC	27	TC	R	A	A	NF	A	A	MILD
36	948833	33	M	P	UM	G	23	CAN,TC	U	P	A	NF	P	PSY	MOD
37	949071	54	M	UE	M	PRIMARY	23	CAN,TC	U	A	P	NF	P	PSY	MOD
38	947959	37	M	UE	M	2ND PUC	24	TC	R	P	A	JF	A	A	MOD
39	936422	21	M	SW	UM	G	18	TC	R	P	P	NF	P	GAD	SEVERE
40	14037	64	M	UE	M	ILL	28	TC	R	P	A	JF	P	ASPD	MOD
41	88856	38	M	USW	M	PRIMARY	28	NIL	R	A	A	NF	A	A	MILD
42	53898	19	M	UE	UM	SSLC	17	TC	R	A	A	NF	P	PSY	MOD
43	59210	62	M	USW	M	ILL	26	TC	R	P	P	JF	A	A	SEVERE
44	59117	39	M	UE	M	2ND PUC	24	TC	R	A	P	JF	A	A	MOD
45	899077	20	M	P	UM	G	17	TC	R	P	A	NF	P	PD	MOD
46	900354	56	M	UE	M	PRIMARY	26	NIL	U	A	A	JF	A	A	MILD
47	62343	21	M	UE	UM	SSLC	20	NIL	R	P	P	NF	A	A	MILD
48	932069	50	M	SP	M	G	27	TC	R	A	A	JF	P	GAD	MOD
49	935497	65	M	UE	M	ILL	24	TC	R	P	A	JF	A	A	MILD
50	937390	37	M	USW	S	PRIMARY	25	TC	R	A	A	NF	P	DYSTHY	MOD
51	63682	22	M	UE	UM	G	19	TC	R	A	A	JF	A	A	MILD
52	856548	51	M	UE	M	PRIMARY	23	CAN,TC	U	P	A	NF	P	PSY	MOD
53	934304	36	M	SW	M	SSLC	30	TC	R	A	P	JF	A	A	MILD
54	900028	23	M	UE	UM	2ND PUC	21	TC	R	P	P	NF	P	SP	MOD
55	922154	55	M	USW	M	PRIMARY	31	CAN,TC	R	P	A	JF	P	DYSTHY	SEVERE
56	924042	35	M	UE	UM	2ND PUC	26	TC	U	A	A	NF	P	ASPD	MOD
57	934224	57	M	SP	M	G	28	NIL	R	A	A	JF	A	A	MILD
58	863153	24	M	UE	UM	G	21	NIL	R	P	P	NF	A	A	MILD
59	932544	43	M	P	M	G	32	TC	R	A	P	JF	P	PD	MOD
60	924057	26	M	UE	M	ILL	21	TC	R	P	P	NF	A	A	MOD
61	928535	25	M	SW	UM	G	20	TC	U	A	A	JF	P	DYSTHY	MOD
62	928777	23	M	UE	UM	PRIMARY	21	CAN,TC	R	P	A	JF	A	A	SEVERE
63	981299	45	M	USW	S	SSLC	22	TC	R	A	A	NF	P	GAD	MOD
64	877646	62	M	UE	W	ILL	28	NIL	U	P	A	JF	A	A	MILD
65	932968	27	M	SW	M	G	23	CAN,TC	R	P	A	NF	P	PD	SEVERE
66	932010	22	M	UE	UM	SSLC	18	NIL	R	A	P	JF	A	A	MOD
67	826275	26	M	USW	UM	SSLC	19	TC	R	A	P	NF	P	DYSTHY	SEVERE
68	911213	34	M	UE	M	PRIMARY	27	TC	R	A	P	JF	A	A	MILD
69	936999	58	M	SW	M	2ND PUC	32	TC	R	A	A	NF	P	PSY	MOD

70	937818	50	M	UE	D	PRIMARY	27	TC	U	A	A	JF	A	A	SEVERE
71	886993	24	M	USW	UM	ILL	21	CAN,TC	R	A	P	NF	P	BPAD	MOD
72	872625	52	M	UE	M	ILL	26	NIL	R	P	A	JF	A	A	MILD
73	924427	35	M	P	M	G	24	TC	U	P	P	NF	P	DYSTHY	MOD
74	934260	21	M	UE	UM	ILL	20	NIL	R	A	A	NF	A	A	MILD
75	20336	38	M	SW	M	G	28	CAN,TC	R	A	P	JF	P	PSY	MOD
76	927162	60	M	UE	M	ILL	26	NIL	U	A	P	JF	A	A	MILD
77	944321	21	M	UE	UM	G	20	NIL	R	P	A	NF	P	PD	MOD
78	98305	59	M	SP	M	G	29	TC	R	A	A	NF	A	A	MILD
79	46883	32	M	UE	M	G	25	TC	U	A	P	NF	A	A	MILD
80	42760	54	M	SW	M	PRIMARY	34	TC	R	A	P	JF	P	GAD	MOD
81	42237	36	M	UE	M	2ND PUC	25	NIL	R	A	A	JF	P	ME	MOD
82	950307	57	M	UE	M	ILL	32	NIL	R	P	A	NF	A	A	MOD
83	57988	48	M	SW	M	2ND PUC	26	TC	U	A	A	JF	P	PD	MOD
84	50310	63	M	UE	M	SSLC	32	TC	R	P	A	NF	A	A	MILD
85	62469	45	M	UE	M	2ND PUC	31	TC	R	P	A	JF	A	A	SEVERE
86	929016	56	M	P	M	G	26	TC	R	A	A	JF	P	DYSTHY	MOD
87	910830	39	F	UE	S	SSLC	19	TC,CAN	U	A	A	NF	P	ASPD	MOD
88	57244	42	M	USW	M	2ND PUC	22	TC	R	A	P	NF	A	A	MILD
89	888310	54	M	UE	M	PRIMARY	24	CAN,TC	R	P	P	NF	P	PSY	MOD
90	927661	40	M	SP	S	G	26	TC	R	P	P	JF	P	PD	SEVERE
91	927875	57	M	UE	M	ILL	32	TC	R	A	P	JF	A	A	SEVERE
92	944055	32	F	SW	UM	2ND PUC	19	TC	R	A	A	NF	A	A	MILD
93	25074	54	M	UE	M	2ND PUC	32	TC	U	P	A	NF	P	DYSTHY	SEVERE
94	891465	41	M	USW	M	PRIMARY	29	TC	R	A	A	NF	A	A	MILD
95	929438	65	M	UE	M	ILL	29	TC	R	P	P	JF	P	MDD	MOD
96	950412	37	M	SW	M	2ND PUC	23	TC	R	A	P	NF	A	A	MILD
97	37215	64	M	UE	M	PRIMARY	27	TC	R	A	P	JF	P	PD	SEVERE
98	943111	49	M	P	M	G	21	TC	R	P	A	NF	A	A	MOD
99	47250	53	M	UE	M	2ND PUC	29	NIL	R	A	A	JF	P	SP	SEVERE
100	899635	43	M	USW	S	SSLC	26	TC	R	P	A	NF	A	A	MILD
101	654321	56	M	UE	M	SSLC	28	NIL	U	A	A	NF	A	A	MOD
102	930017	23	M	SP	UM	G	21	TC	R	P	A	NF	P	GAD	MOD
103	945412	52	M	UE	M	2ND PUC	27	NIL	R	A	P	JF	A	A	MOD
104	947584	47	M	UE	M	PRIMARY	29	TC	R	P	P	NF	A	A	MOD

105	853212	27	M	SW	UM	G	21	TC	R	P	P	NF	P	MDD	SEVERE
106	949410	58	M	UE	M	PRIMARY	26	NIL	R	A	A	NF	A	A	MILD
107	946785	36	M	USW	S	SSLC	25	TC	R	A	A	NF	P	PD	MOD
108	958802	45	M	UE	D	2ND PUC	23	TC	R	A	A	NF	A	A	MILD
109	94112	25	M	UE	UM	SSLC	21	NIL	U	A	A	NF	A	A	MILD
110	42870	63	M	SW	M	ILL	25	CAN,TC	R	P	A	NF	P	ASPD	MOD
111	42542	46	M	UE	M	PRIMARY	31	TC	R	P	A	NF	P	DYSTHY	SEVERE
112	42813	59	M	USW	M	SSLC	28	TC	R	A	A	NF	A	A	MOD
113	48771	27	M	UE	UM	SSLC	23	TC	R	A	P	NF	A	A	MOD
114	52484	50	M	SW	M	ILL	27	NIL	R	P	P	NF	P	PD	MOD
115	945540	52	M	UE	S	2ND PUC	24	TC	R	A	A	NF	A	A	MILD
116	943858	46	M	USW	M	ILL	32	TC	R	A	A	NF	P	DYSTHY	MOD
117	944080	24	M	UE	UM	PRIMARY	20	TC	R	A	P	NF	A	A	MILD
118	945193	57	F	USW	M	ILL	32	TC	U	A	P	NF	P	PD	MOD
119	913241	48	M	UE	S	G	29	TC	R	A	P	NF	A	A	MILD
120	949988	22	M	SW	UM	2ND PUC	18	TC	R	P	P	NF	P	GAD	MOD
121	926886	50	M	USW	M	PRIMARY	28	NIL	R	A	A	NF	A	A	MOD
122	59262	42	M	USW	M	PRIMARY	31	TC	R	P	A	NF	P	ASPD	SEVERE
123	55941	21	M	UE	UM	2ND PUC	18	NIL	U	A	A	NF	P	MDD	MOD
124	929822	59	M	UE	M	PRIMARY	28	TC	R	P	A	NF	A	A	MILD
125	55462	49	M	SW	M	2ND PUC	37	TC	R	A	P	NF	A	A	MILD
126	60007	37	M	USW	M	SSLC	21	CAN,TC	R	A	P	NF	P	PSY	MOD
127	938702	57	M	UE	M	PRIMARY	31	TC	R	P	A	NF	A	A	MOD
128	928298	47	M	SP	M	G	28	TC	R	A	A	NF	P	SP	SEVERE
129	866312	64	M	UE	M	2ND PUC	29	TC	R	P	P	NF	A	A	MOD
130	934640	44	M	USW	S	SSLC	34	TC	U	A	P	NF	P	PD	SEVERE
131	937793	20	M	UE	UM	PRIMARY	19	TC	R	A	A	NF	A	A	MILD
132	873667	65	M	SW	W	ILL	28	CAN,TC	R	A	A	NF	P	ASPD	SEVERE
133	890428	35	M	UE	M	PRIMARY	25	TC	U	A	A	NF	A	A	MILD
134	926869	53	M	USW	S	SSLC	23	NIL	R	A	P	NF	A	A	MILD
135	63645	48	M	UE	M	G	27	TC	R	A	P	NF	P	MDD	SEVERE
136	87877	52	M	UE	M	SSLC	26	TC	R	P	P	NF	A	A	MOD
137	945412	60	F	SW	M	2ND PUC	34	TC	U	P	A	NF	A	A	MILD
138	937609	32	M	UE	M	PRIMARY	27	TC	R	P	P	JF	A	A	MOD
139	933702	57	M	USW	M	ILL	26	NIL	R	P	A	NF	P	GAD	SEVERE

140	924205	19	M	UE	UM	2ND PUC	17	TC	R	A	P	JF	A	A	MOD
141	864961	57	M	SP	W	G	27	TC	R	A	A	NF	P	PD	SEVERE
142	949763	31	M	UE	M	2ND PUC	23	TC	R	A	A	NF	A	A	MOD
143	948921	55	M	SW	M	SSLC	32	TC	U	A	A	NF	P	DYSTHY	SEVERE
144	943838	29	M	USW	UM	PRIMARY	25	CAN,TC	R	A	A	NF	P	BPAD	SEVERE
145	885502	54	M	UE	M	PRIMARY	28	TC	R	P	P	JF	A	A	MOD
146	938756	46	M	SW	M	2ND PUC	24	TC	U	A	P	NF	P	PSY	SEVERE
147	937583	28	M	UE	UM	PRIMARY	19	MA,TC	R	P	P	JF	A	A	MILD
148	923075	64	M	USW	M	ILL	29	CAN,TC	R	A	P	NF	P	ASPD	SEVERE
149	940126	43	M	UE	M	SSLC	28	TC	R	A	P	JF	A	A	MILD
150	936054	62	M	SP	M	G	29	TC	R	P	A	NF	A	A	MILD
151	930372	39	F	UE	M	2ND PUC	28	CAN,TC	R	A	A	JF	P	BPAD	SEVERE
152	890212	60	M	SW	M	SSLC	32	TC	U	P	A	JF	A	A	MILD
153	943211	38	M	UE	S	PRIMARY	27	TC	R	A	P	NF	P	GAD	SEVERE
154	948763	24	M	UE	UM	2ND PUC	21	TC	R	A	P	JF	A	A	MILD
155	37275	52	M	SW	M	2ND PUC	28	TC	U	P	P	NF	A	A	MILD
156	93125	40	M	UE	S	SSLC	27	TC	R	A	A	NF	P	PD	SEVERE
157	44400	65	M	UE	W	SSLC	28	NIL	R	P	A	NF	A	A	MILD
158	50758	42	M	P	D	G	24	TC	U	P	P	NF	A	A	MILD
159	51489	61	M	UE	M	SSLC	26	CAN,TC	R	A	P	NF	P	PSY	SEVERE
160	51209	23	M	USW	UM	PRIMARY	21	TC	R	A	P	NF	A	A	MILD
161	920361	59	M	UE	S	2ND PUC	31	CAN,TC	R	A	A	NF	P	ASPD	SEVERE
162	926676	47	M	USW	S	PRIMARY	28	TC	R	A	A	JF	A	A	MILD
163	946735	55	M	SW	M	2ND PUC	23	TC	U	P	P	NF	P	DYSTHY	SEVERE
164	46187	49	M	UE	M	PRIMARY	25	TC	R	A	P	NF	A	A	MILD
165	923194	56	M	USW	M	ILL	24	TC	R	P	A	NF	A	A	MOD
166	891851	43	M	UE	M	PRIMARY	26	TC	U	A	A	JF	P	MDD	SEVERE
167	928552	49	M	USW	S	SSLC	23	TC	R	A	P	NF	A	A	MILD
168	952173	52	M	UE	M	2ND PUC	28	CAN,TC	R	A	P	NF	P	PSY	SEVERE
169	59810	37	M	SP	S	G	23	TC	R	P	A	JF	A	A	MOD
170	923151	58	M	UE	D	PRIMARY	28	TC	R	A	A	NF	A	A	MOD
171	938110	19	M	SW	UM	2ND PUC	18	TC	R	P	A	JF	A	A	MILD
172	927406	21	M	UE	UM	PRIMARY	17	CAN,TC	R	A	P	NF	P	PSY	SEVERE
173	932941	57	M	USW	M	SSLC	26	NIL	R	A	P	JF	A	A	MILD
174	923414	38	M	UE	M	ILL	24	TC	U	P	P	JF	P	DYSTHY	SEVERE

175	921289	60	M	UE	M	ILL	28	TC	R	A	P	NF	A	A	MOD
176	44542	35	M	SW	M	2ND PUC	24	TC	R	P	A	JF	A	A	MILD
177	56437	23	M	UE	UM	2ND PUC	21	NIL	R	P	A	JF	A	A	MILD
178	973221	61	M	USW	M	ILL	23	TC	R	P	A	NF	P	GAD	SEVERE
179	948581	32	M	UE	M	ILL	25	TC	R	A	P	JF	A	A	MOD
180	85321	19	M	P	UM	G	17	CAN,TC	U	P	P	NF	P	ASPD	SEVERE
181	42229	24	M	SW	UM	G	21	TC	R	A	P	JF	A	A	MILD
182	38582	27	M	USW	UM	PRIMARY	23	TC	R	P	A	NF	A	A	MILD
183	905657	62	M	UE	S	ILL	32	CAN,TC	R	A	A	JF	P	PSY	SEVERE
184	92721	34	M	SP	UM	G	21	TC	R	P	A	JF	A	A	MOD
185	58450	63	M	USW	M	ILL	32	TC	U	A	P	NF	A	A	MILD
186	53918	26	M	UE	UM	PRIMARY	21	TC	R	P	P	JF	P	GAD	SEVERE
187	944698	23	M	SW	UM	2ND PUC	19	TC	R	A	A	NF	A	A	MOD
188	923976	29	M	UE	UM	ILL	23	TC	R	P	A	JF	P	SP	SEVERE
189	933447	19	F	SP	UM	G	16	LSD,TC	R	A	P	NF	P	DYSTHY	SEVERE
190	927162	64	M	UE	W	ILL	25	TC	R	P	P	JF	A	A	MOD
191	62459	50	M	USW	S	PRIMARY	28	NIL	R	P	A	NF	A	A	MILD
192	50310	26	M	SW	UM	G	21	CAN,TC	U	A	A	JF	P	BPAD	MOD
193	57988	42	M	SP	S	G	24	CAN,TC	R	P	A	NF	P	MDD	SEVERE