

Case Study Analysis of Alcohol Dependence: Patterns, Triggers, and Treatment Outcomes

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Abstract

This qualitative case study explores the complex dynamics of alcohol dependence in individuals seeking treatment. Through in-depth analysis of clinical case studies, this research examines the patterns and triggers of alcohol use, as well as the effectiveness of various treatment approaches. The study reveals nuanced insights into the experiences of individuals struggling with alcohol dependence, highlighting the interplay between psychological, social, and environmental factors. The findings provide valuable implications for the development of tailored treatment strategies, emphasizing the importance of addressing underlying triggers and promoting holistic recovery. This research contributes to a deeper understanding of alcohol dependence and informs evidence-based practice in the field of addiction treatment.

Keywords: Alcohol dependence, case study, patterns, triggers, treatment outcomes, addiction treatment.

1. INTRODUCTION

Addiction is defined as a chronic, relapsing disorder characterized by compulsive drug seeking, continued use despite harmful consequences, and long-lasting changes in the brain. It is considered both a complex brain disorder and a mental illness. Alcohol dependence is a pervasive and debilitating condition that affects millions of individuals worldwide, exacting a significant toll on their physical and mental health, relationships, and overall quality of life. Despite the growing recognition of alcohol use disorders as a major public health concern, the complexities of alcohol dependence remain poorly understood, and treatment outcomes often vary widely. This study seeks to contribute to a deeper understanding of alcohol dependence by conducting a detailed case study analysis of individuals struggling with alcohol use disorders. By examining the patterns, triggers, and treatment outcomes of alcohol dependence in a clinical sample, this research aims to shed light on the intricate dynamics of this condition and inform the development of more effective treatment strategies. Through this investigation, we hope to provide valuable insights into the experiences of individuals with alcohol dependence, ultimately enhancing the provision of evidence-based care and support for those affected by this debilitating condition.

2. OBJECTIVES

The primary aim of this study is to gain a deeper understanding of alcohol dependence and its complexities, with a focus on informing evidence-based practice and improving treatment outcomes. To achieve this aim

m, the following specific objectives have been formulated:

1. **To explore the patterns of alcohol use and dependence:** Identify the drinking patterns, habits, and behaviors associated with alcohol dependence in a clinical sample.
 2. **To investigate the triggers and underlying factors:** Examine the psychological, social, and environmental factors that contribute to the development and maintenance of alcohol dependence.
 3. **To analyze treatment outcomes and effectiveness:** Evaluate the impact of various treatment approaches and strategies on promoting recovery and reducing relapse rates in individuals with alcohol dependence.
 4. **To identify the impact on physical and mental health:** Investigate the effects of alcohol dependence on physical and mental health, relationships, and daily functioning.
 5. **To explore evidence-based practice:** Provide insights and recommendations for the development of more effective treatment strategies and interventions tailored to the unique needs of individuals with alcohol dependence.
- **Specific Objectives:**
 1. To describe the demographic and clinical characteristics of individuals with alcohol dependence.
 2. To examine the relationship between alcohol dependence and co-occurring mental health disorders.
 3. To identify the most effective treatment approaches and strategies for promoting recovery and reducing relapse rates.
 4. To explore the role of social support and family dynamics in recovery from alcohol dependence.
 5. To develop recommendations for improving treatment outcomes and promoting long-term recovery.

3. RESEARCH METHODOLOGY

The research methodology employed in this study is designed to provide a comprehensive understanding of alcohol dependence and its complexities. Given the nature of the research question, a qualitative approach is deemed most suitable, allowing for an in-depth exploration of individual experiences and perspectives. This chapter outlines the research design, sampling strategy, data collection methods, and data analysis procedures used to achieve the study's objectives.

Research Design: This study will employ a qualitative research design, utilizing a case study approach to gain an in-depth understanding of alcohol dependence and its complexities. The case study approach will allow for a detailed examination of individual experiences, patterns, and treatment outcomes.

Samples: A sample of 10 individuals with alcohol dependence will be selected for this study. All participants are diagnosed with alcohol dependence, and some have other associative problems. Only patients who have been admitted to the hospital and are currently seeking treatment will be selected.

Data Collection Methods:

- **In-Depth Interviews:** Semi-structured interviews will be conducted with participants to gather detailed information about their experiences with alcohol dependence, patterns of use, triggers, and treatment outcomes.
- **Case File Review:** Participants' case files will be reviewed to gather additional information about their treatment history, diagnosis, and progress.
- **Observations:** Observations of participants' behavior and interactions during treatment sessions may be conducted to gain a deeper understanding of their experiences.

Study Setting:

The study will be conducted in a clinical setting, such as a hospital or addiction treatment center.

4. ANALYSIS AND INTERPRETATION

The data collected through in-depth interviews, case file reviews, and observations will be analysed using a thematic analysis approach. This will involve a systematic and rigorous examination of the data to identify patterns, themes, and meanings that can help to answer the research questions. The analysis will focus on gaining a deeper understanding of the experiences of individuals with alcohol dependence, including their patterns of use, triggers, and treatment outcomes.

This section presents the analysis of the data collected for this study on alcohol dependence. The analysis aims to provide a comprehensive understanding of the experiences of individuals with alcohol dependence, including their patterns of use, triggers, and treatment outcomes. Through a rigorous and systematic examination of the data, this section will identify key themes and patterns that can inform our understanding of this complex issue.

CASE 1: Mr.S, a 50-year-old male, hails from a middle socio-economic status and works as a businessman. He presents with chief complaints of overuse of alcohol, decreased sleep, irritability, aggressiveness, increased talk, tension, and mood swings. These symptoms have been present for 5 years and have increased in severity over the past 3 weeks. The onset was gradual, and the course of the illness is episodic.

He has a history of using alcohol and tobacco. Previously, he was admitted to Gov. hospital and stopped using alcohol, but relapsed a few months ago. He was an “eye-opener” drinker and experienced cravings. His father also had some mental health issues. He has three brothers, two younger and one older. His birth and early development were normal. He married at the age of 23 and was satisfied with his marital, family, and occupational life. Premorbid, he was well-adjusted.

During the Mental Status Examination (MSE), the patient was cooperative, and rapport was easily established. He maintained eye contact, and his general appearance, talk, and thought processes were normal. Volition was present, mood was congruent, and hallucinations were absent. Attention and concentration were aroused and sustained. Orientation and memory were intact, and his abstract thinking level was normal. His personal and test judgment were intact.

However, his insight was Grade II, indicating that he had slight awareness of being sick but denied it at the same time.

Diagnosis: The initial diagnosis suggests that he has alcohol dependence and mild bipolar affective disorder.

The AUDIT (Alcohol Use Disorders Identification Test) was administered to assess the severity of his alcohol dependence, and the YMRS (Young Mania Rating Scale) was used to evaluate the severity of his manic symptoms.

Treatment plan includes various appropriate medications with therapies include motivation enhancement therapy, talk therapy, cognitive behaviour therapy, DBT, 12 step facilitation, yoga and meditation.

CASE 2: Mr. N, a 28-year-old male, hails from a middle socio-economic status and presents with chief complaints of harmful substance use, hearing voices, fear, thought disturbances, and harming others. These symptoms have been present for the last 8 years and have increased in severity over the past 2 months.

In the History of Present Illness (HOPI), the patient was admitted to the hospital with chief complaints of hearing commanding voices, harmful substance use, thought disturbances such as thought echo and broadcasting, harming others, and fear. He started using substances at the age of 18 and increased his use at 20. The harmful substance use led to these psychiatric symptoms, and continuous use increased their severity. The patient was unable to control these behaviours.

He has a history of using cigarettes, alcohol, LSD, MDMA, cannabis, pills, and methamphetamine. He started using alcohol and cigarettes at 13 and cannabis, LSD, and MDMA at 20, initially due to peer pressure and later for pleasure. There is no history of head injury or seizures.

The patient is the second-born child in his family, with a sister. There is no family history of physical or psychiatric illness. His personal history is normal, and he was well-adjusted premorbidly.

During the Mental Status Examination (MSE), the patient was cooperative, and rapport was established easily. He maintained eye contact. His talk was audible, with normal fluctuations in reaction time and speech. He spoke only when questioned, but his talk was relevant, coherent, goal-directed, relaxed, and productive. Thought form, content, and possession were present.

Hallucinations were present, specifically auditory hallucinations (verbal, continuous, single and multiple voices, unfamiliar voices, first, second, and third person, unpleasant, commanding, abusive, and threatening). He mainly heard voices in the morning and felt frustrated. Tactile hallucinations were present a few years ago. Orientation and memory were intact. His thinking was abstract. Personal and test judgment were intact. His insight was Grade VI, indicating true emotional insight.

The provisional diagnosis is Substance-Induced Psychosis (ICD-10 F19), and the differential diagnosis is Schizophrenia, administer appropriate scales to know the severity of symptoms.

Treatment plan includes various appropriate medications with therapies include motivation enhancement therapy, talk therapy, cognitive behaviour therapy, DBT, 12 step facilitation, yoga and meditation.

CASE 3: Mr. M, a 54-year-old male, Hindu, married, and hailing from a middle socio-economic status, works as a coolie. He has non-consanguineous parents and presents with chief complaints of aggressiveness, low appetite, sleep and thought disturbances, suspiciousness, beliefs that someone is trying to harm him, unpleasant visions, increased anger and talking, verbal abuse towards others, harming others, self-harm, over drinking, and smoking, as well as hearing voices. The onset of these symptoms is gradual, and the course of the illness is continuous. Associated disturbances include hand shivering.

He started drinking in his adolescence and increased his alcohol use over time, resulting in damage to his memory and nerve functions. There is no history of head injury or seizures. The patient and his family do not have any physical illnesses. However, his brother and father also had a history of alcohol use and other drug abuse.

Premorbidly, he was well-adjusted and more attached to his daughter than his son. Mood swings are present. During the Mental Status Examination (MSE), the patient was cooperative, and rapport was established easily. He maintained eye contact, and his talk was audible, normal, fluctuating, spontaneous, goal-directed, and relaxed.

Thought stream, form, and content were present. Auditory and visual hallucinations were present, and delusions of jealousy were noted. His mood was incoherent, but attention was sustained. Intelligence was average, and abstract thinking level was normal. However, recent and remote memory were impaired. His orientation and judgment were intact.

His insight was Grade 2, indicating awareness of being sick but denying it at the same time. The initial diagnosis suggests that he has alcohol dependence disorder with psychotic symptoms.

Administered AUDIT and PANSS scales to know the alcohol dependence and psychotic symptom's severity.

Treatment plan includes various appropriate medications with therapies include CBT, MET talk therapy, cognitive behaviour therapy, DBT, 12 step facilitation, yoga and meditation.

CASE 4: Mr. SJ, a 37-year-old male, works as a coolie. He presents with chief complaints of suicidal attempt, sad mood, anger, self-harm, poor appetite, sleep difficulties, aggression, feelings of loneliness, throwing things, crying frequently, alcoholism, substance abuse, and difficulty controlling thoughts. These symptoms have been present for 5 months and have increased in severity over the past 3 days. The onset is gradual, and the course of the illness is fluctuating. Associated disturbances include sleep difficulties and poor appetite.

There is no history of hallucinations or seizures. He has a habit of using alcohol, cigarettes, and cannabis (assuming “Hans” refers to cannabis or another substance). He started drinking at the age of 18 and increased his consumption at 21. There is no family history of physical or psychiatric illness. His birth and behavior during childhood were normal.

He got married 10 months ago but separated 5 months ago due to heavy substance addiction and behavioural issues. After the separation, his substance abuse and symptoms increased. Premorbidly, he was well-adjusted.

During the Mental Status Examination (MSE), the patient was cooperative, and rapport was established easily. He had a normal appearance, and normal psychomotor activities were present. His talk was audible, with normal fluctuations, reaction time, speed, and was relevant, coherent, and goal-directed. Thought content was present, but his mood was incongruent. Attention could be aroused but not sustained. Hallucinations were absent. He was oriented to his name and place.

His immediate, recent, and remote memory were intact. Abstract thinking level was normal, and his personal and test judgment were intact. His insight was Grade III, indicating awareness of being sick but blaming it on external factors.

The patient was diagnosed with substance use disorder with depressive symptoms. Appropriate scales were administered to assess the severity of his symptoms.

Treatment plan includes various appropriate medications with therapies include motivation enhancement therapy, talk therapy, cognitive behaviour therapy, DBT, 12 step facilitation, yoga and meditation.

CASE 5: Mr. A, a 19-year-old male, hails from a low socio-economic status and works in a hotel. He presents with chief complaints of increased talk, destructive behavior, irritability, aggression, agitated behavior, going out of home, substance use, concentration difficulty, harming others, throwing things, and abusive words towards his mother. These symptoms have been present for 4 years and have increased in severity over the past 1 month. The onset is gradual, and the course of the illness is episodic, with 3 episodes reported by the patient and his mother.

At the age of 14, he was admitted to Luis Mount Hospital. He has a habit of using alcohol, cigarettes, and cannabis (assuming “Hans” refers to cannabis or another substance). There is no history of seizures or physical illness, but he has a 4-year history of psychiatric illness. The patient was born to non-consanguineous parents. His mother and grandmother have a past psychiatric history, but none of his family members have a past physical illness history.

According to his mother, he was well-adjusted premorbidly. During the Mental Status Examination (MSE), the patient was cooperative, and rapport was established easily. His appearance was appropriate, and he maintained eye contact. He exhibited increased psychomotor activities. His talk was audible, normally fluctuated, spontaneous, and goal-directed. Thought form and content were present. According to the patient, auditory hallucinations are present. Attention could be aroused but not sustained. Immediate and recent memories were intact. His thinking was semi-abstract. Personal and test judgment were intact. His insight was Grade IV, indicating awareness that his illness is due to something unknown in him.

The initial diagnosis suggests that he has mild intellectual problems, a mood disorder, and alcohol dependency and withdrawal.

Administered AUDIT, HAM-D, MDQ to check the severity of the symptoms.

Treatment plan includes various appropriate medications with therapies include motivation enhancement therapy, talk therapy, cognitive behaviour therapy, DBT, 12 step facilitation, yoga and meditation.

CASE 6: Mr. A, a 54-year-old male, Hindu, married, and hailing from a middle socio-economic status, works as a coolie. He has non-consanguineous parents and presents with chief complaints of aggressiveness, low appetite, sleep and thought disturbances, suspiciousness, beliefs that someone is harming him, unpleasant visions, increased anger and talking, verbal abuse towards others, harming others, self-harm, over drinking, and smoking, as well as hearing voices. The onset is gradual, and the course of the illness is continuous. Associated disturbances include hand shivering.

He started drinking in his adolescence and increased his alcohol use over time, resulting in damage to his memory and nerve functions. There is no history of head injury or seizures. The patient and his family do not have any physical illnesses. However, his brother and father also had a history of alcohol use and other drug abuse.

Premorbidly, he was well-adjusted and more attached to his daughter than his son. Mood swings are present. During the Mental Status Examination (MSE), the patient was cooperative, and rapport was established easily. He maintained eye contact. His talk was audible, normally fluctuated, spontaneous, goal-directed, and relaxed.

Thought stream, form, and content were present. Auditory and visual hallucinations were present, and delusions of jealousy were noted. His mood was incoherent, but attention was sustained. Intelligence was average, and abstract thinking level was normal. However, recent and remote memory were impaired. His orientation and judgment were intact.

His insight was Grade 2, indicating awareness of being sick but denying it at the same time. The initial diagnosis suggests that he has alcohol dependence. To assess the severity of his symptoms, the AUDIT (Alcohol Use Disorders Identification Test) was administered.

Treatment plan includes various appropriate medications with therapies include Talk therapy, CBT, MET, DBT, 12 step facilitation, yoga and meditation.

CASE 7: Mr. SC, a 48-year-old married male, has completed his 10th standard. He belongs to a middle-class family. His sister has complained that he has a behavior of alcohol use and causes trouble for others. On some occasions, he used to attack people outside his family. When he causes trouble, he claims that others are attacking him or trying to kill him and his friends.

He loves his wife and daughter, but at the same time, he causes trouble in their lives. He started drinking at the age of 14 due to peer pressure and developed a habit of using alcohol and cigarettes. He enjoys going to pubs and beverages. At 30, he started consuming a heavy range of alcohol and engaging in public violence. Due to this, he was admitted to different hospitals and rehabilitation centres for about 4 years and showed improvement in symptoms.

Recently, his anger increased, and he started attacking others. His symptoms worsened, and he was admitted to the current hospital after a suicidal attempt by overdosing on tablets. He is suspicious of his neighbours and relatives, which makes him aggressive in his family when drunk. There is no family history of mental illness.

He shows an increase in drinking habits, suicidal tendencies, and a fear that others will harm him and fear of losing his wife and daughter.

Patient was diagnosed that he have Alcohol use disorder.

AUDIT to check severity of the disorder.

Treatment plan includes various appropriate medications with therapies include DBT, yoga and meditation, MET, CBT, talk therapy.

CASE 8: Mr. STV, a 53-year-old unmarried male, hails from a middle socio-economic status family and works as a farmer. He comes from a well-settled family and presents with chief complaints of fear of being attacked by others, fear of social gatherings, repeated hallucinations, and delusions. There is no family history of mental illness.

He reports hearing the voices of Michaels and angels. While hearing these voices, he experiences a taste of green cardamom and cloves, as well as a tingling sensation in his hands and body. He is always anxious that others will harm him, stating that they might attack or even kill him, and that they are all bad people. He repeatedly complains that he cannot go out because others will attack him and mentions that his leg is in pain. He also faces difficulty sleeping.

In his early life, he had a liking for alcohol. He emphasizes the importance of following the Bible and Christ, believing that not doing so will result in punishment. The patient has been symptomatic for the past 12 years. His symptoms appeared after substance use, which he used occasionally. After undergoing treatment and stopping substance use for a week, he relapsed after a month. Psychotic symptoms were present after this episode.

The patient was diagnosed with alcohol-induced psychosis. The AUDIT (Alcohol Use Disorders Identification Test) was used to assess the severity of his alcohol use, and the PANSS (Positive and Negative Syndrome Scale) was used to identify the severity of his psychotic symptoms.

Treatment plan includes various appropriate medications with therapies include motivation enhancement therapy, talk therapy, cognitive behaviour therapy, DBT, 12 step facilitation, yoga and meditation.

CASE 9: Mr. RJS, a 66 years old, married male, hails from a middle socio-economic status family and worked as an officer in fire force. His wife has been encouraging him to seek treatment for his increasing alcohol consumption. He has been drinking more over the past year, currently consuming about 6-8 pegs of arrack or toddy per day. He reports that the amount "no longer gives me the same kick as it used to." Despite his heavy drinking, he denies experiencing withdrawal symptoms like tremors or seizures if he misses a day.

Patient started drinking socially in his younger days, but over the years, his consumption increased, especially after retirement. His wife notes that he becomes argumentative and irritable when intoxicated, which often leads to conflicts. He has also experienced two falls while intoxicated, resulting in injuries. Rajesh's motivation to reduce his drinking stems from his wife's concerns and his own desire to improve their relationship.

Patient is cooperative and forthcoming about his drinking habits. He acknowledges the problems it's causing in his life but struggles to control his consumption. His mood is somewhat irritable, and he shows insight into the impact of his drinking on his relationships.

Initial diagnosis shows the patient have - Alcohol Dependence Syndrome (F10.2 as per ICD-10)

Administered AUDIT to identify the severity of the symptoms.

Treatment Plan includes – Pharmacotherapy, Psychotherapies (MET, Cognitive Behavioral Therapy (CBT), Support Groups, Family Therapy, Mindfulness, talk therapy)

CASE 10: Mr. AP, a 35-year-old male, hailing from a middle socio-economic status, working as a laborer, presents with complaints of increased alcohol consumption, aggressiveness, irritability, sleep difficulties,

poor appetite, and decreased social interactions. Symptoms have been present for 10 years, with a significant increase in severity over the past 6 months.

Mr. AP started drinking socially in his early twenties, but over the years, his consumption increased, leading to problems in his personal and professional life. He has been experiencing withdrawal symptoms like tremors and anxiety when he tries to cut down or stop drinking. Despite his family's concerns, he finds it difficult to control his drinking.

Premorbidly, Mr. AP was described as someone who was sociable but struggled with stress management. He had difficulty coping with emotional challenges and often turned to alcohol as a way to relax.

There is no known family history of psychiatric illness, but his father had a history of heavy drinking. On examination, Mr. AP was cooperative but showed signs of intoxication. He had difficulty maintaining eye contact, and his talk was slurred and disorganized. Thought stream was notable for preoccupation with alcohol-related themes. Perception was intact, but he reported experiencing auditory hallucinations related to his drinking. Attention and concentration were impaired. Orientation was intact, and memory was grossly intact. Insight was Grade-I, indicating complete denial of illness.

The initial diagnosis suggests that Mr. AP has Alcohol Dependence Syndrome (F10.2 as per ICD-10).

Administered AUDIT to check the severity of the symptoms.

Treatment Plan includes Detoxification (A medically supervised detoxification process to manage withdrawal symptoms.), Pharmacotherapy, Psychotherapies (Cognitive Behavioral Therapy (CBT), Motivational Interviewing (MI), Support Groups

5. RESEARCH FINDINGS

- Complex interplay between psychological, social, and environmental factors: The case studies highlight the complex dynamics of alcohol dependence, with multiple factors contributing to the development and maintenance of the condition.
- Co-occurring mental health disorders: Many of the cases presented with co-occurring mental health disorders, such as depression, anxiety, and psychosis, which can complicate treatment and recovery.
- Impact on daily functioning and relationships: Alcohol dependence was shown to have a significant impact on daily functioning, relationships, and overall quality of life.

Patterns and Triggers:

1. Early onset of alcohol use: Many of the cases reported starting to drink at a young age, which can increase the risk of developing alcohol dependence.
2. Peer pressure and social influences: Some cases reported starting to drink due to peer pressure or social influences, highlighting the importance of social factors in the development of alcohol dependence.
3. Stress and coping mechanisms: Some cases reported using alcohol as a coping mechanism for stress or emotional challenges, highlighting the need for alternative coping strategies.

Treatment Outcomes and Effectiveness:

1. Multimodal treatment approaches: The case studies suggest that multimodal treatment approaches, including medication, therapy, and support groups, can be effective in managing alcohol dependence.
2. Importance of addressing underlying issues: The cases highlight the importance of addressing underlying issues, such as mental health disorders or trauma, in treatment and recovery.
3. Need for ongoing support: The cases suggest that ongoing support, including therapy and support groups, can be crucial in maintaining recovery and preventing relapse.

Demographic and Clinical Characteristics:

1. Middle-aged males: The majority of the cases presented were middle-aged males, highlighting the need for targeted interventions for this demographic.
2. Variability in clinical presentation: The cases presented with varying clinical characteristics, highlighting the importance of individualized assessment and treatment.

Recommendations:

1. Early intervention and prevention: The findings suggest that early intervention and prevention efforts, particularly in young people, can help reduce the risk of developing alcohol dependence.
2. Comprehensive treatment approaches: The cases highlight the importance of comprehensive treatment approaches that address the complex needs of individuals with alcohol dependence.
3. *Ongoing support and monitoring: The findings suggest that ongoing support and monitoring can be crucial in maintaining recovery and preventing relapse.
4. Maintenance and follow-ups : once stopped the alcohol use with the help of medicines and therapies consult the doctor and therapist frequently and maintain the result. Avoid skipping/stopping the medicines without the doctor's consent.

6. REFERENCE

1. American Psychiatric Association. (2000). Diagnostic and statistical manual of mental disorders (4th ed., text rev.).
2. Anthenelli, R. M., & Schuckit, M. A. (1993). Affective and anxiety disorders and alcohol and drug dependence: Diagnosis and treatment. *Journal of Addictive Disorders*, 12(3), 73-87.
3. Brady, K. T., & Sonne, S. C. (1995). The relationship between substance abuse and bipolar disorder. *Journal of Clinical Psychiatry*, 56(1), 19-24.
4. Brown, S. A., & Schuckit, M. A. (1988). Changes in depression among abstinent alcoholics. *Journal of Studies on Alcohol*, 49(5), 412-417.
5. Helzer, J. E., & Przybeck, T. R. (1988). The co-occurrence of alcoholism with other psychiatric disorders in the general population and its impact on treatment. *Journal of Studies on Alcohol*, 49(3), 219-224.
6. Kranzler, H. R. (1996). Evaluation and treatment of anxiety symptoms and disorders in alcoholics. *Journal of Clinical Psychiatry*, 57(7), 15-24.
7. Modesto-Lowe, V., & Kranzler, H. R. (1999). Diagnosis and treatment of alcohol-dependent patients with comorbid psychiatric disorders. *Alcohol Research & Health*, 23(2), 144-149.
8. Rehm, J. (2011). The risks associated with alcohol use and alcoholism. *Alcohol Research & Health*, 34(2), 135-143.
9. Saunders, J. B., Aasland, O. G., Babor, T. F., de la Fuente, J. R., & Grant, M. (1993). Development of the Alcohol Use Disorders Identification Test (AUDIT): WHO Collaborative Project on Early Detection of Persons with Harmful Alcohol Consumption. *Addiction*, 88(6), 791-804.
10. Shivani, R., Goldsmith, R. J., & Anthenelli, R. M. (2002). Alcoholism and psychiatric disorder. *Alcohol Research & Health*, 26(2), 90-98.
11. Strakowski, S. M., DelBello, M. P., Fleck, D. E., & Arndt, S. (2000). The impact of substance abuse on the course of bipolar disorder. *Biological Psychiatry*, 48(6), 477-485.