

A Conceptual Review On Stress and Anxiety among Alcohol Use Disorder

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Abstract

Alcohol Use Disorder (AUD) is closely associated with heightened levels of stress and anxiety, creating a complex reciprocal relationship that influences the onset, persistence, and relapses of harmful drinking behaviour. This review discusses the psychological, neurobiological, and environmental factors that link stress, anxiety, and AUD. By applying contemporary theoretical frameworks such as the self-medication hypothesis, stress-response dysregulation, and affect regulation models, the review highlights how ongoing stress and anxiety increase the likelihood of alcohol misuse, while alcohol dependence exacerbates emotional dysregulation. Key factors such as poor coping mechanisms, diminished executive functioning, past trauma, and alterations in the hypothalamic-pituitary-adrenal (HPA) axis are explored to demonstrate how stress and anxiety can reinforce addictive behaviours. Additionally, the review considers gender differences, sociocultural influences, and the role of co-occurring mental health disorders in shaping these experiences. Understanding this interplay provides essential insights for prevention, early intervention, and the development of integrated treatment approaches that address both emotional distress and addictive behaviours.

Keywords: Alcohol Use Disorder, Stress, Anxiety, Psychological Distress.

1. Introduction

Stress and anxiety are key psychological factors that play a crucial role in the onset, persistence, and recurrence of Alcohol Use Disorder (AUD). People often resort to drinking as a way to cope with emotional pain; however, long-term alcohol consumption disrupts emotional regulation, leading to a cycle where stress and anxiety exacerbate alcohol dependence. Studies indicate that chronic stress triggers maladaptive biological reactions, including HPA axis dysregulation, while anxiety increases susceptibility to poor coping strategies, making alcohol consumption more likely. Additionally, the neurochemical shifts caused by alcohol diminish cognitive ability and heighten emotional instability, which subsequently raises levels of stress and anxiety. This reciprocal relationship emphasizes the intricate connection between psychological distress and addictive behaviors. Gaining insight into these mechanisms is vital for

understanding how emotional factors contribute to AUD and for creating comprehensive treatment approaches that address both alcohol misuse and the emotional challenges that accompany it.

Anxiety

Anxiety is a prevalent emotional state marked by feelings of worry, apprehension, and increased physiological arousal in response to perceived threats or uncertainty. Unlike immediate fear, which is triggered by present dangers, anxiety often emerges from the anticipation of future events and may continue even without a specific stressor. While mild anxiety can improve alertness and readiness, excessive or chronic anxiety can disrupt daily activities, decision-making abilities, and overall well-being. It can manifest through physical symptoms such as restlessness, elevated heart rate, muscle tension, and sleep issues, along with cognitive patterns like overthinking or fearing the worst. Anxiety is shaped by a mix of genetic, environmental, and psychological factors and often occurs alongside stress and other mental health issues. Understanding anxiety is crucial for recognizing its effects on emotional health and for developing effective coping strategies.

Stress

Stress is a natural response—both psychological and physiological—that occurs when people view a situation as demanding, challenging, or beyond their ability to cope. It triggers the body's adaptive mechanisms, including emotional, cognitive, and biological responses, to help manage perceived threats. While mild or temporary stress can boost alertness and motivation, chronic stress can interfere with daily life and harm both mental and physical health. Longterm exposure to stress is linked to emotional exhaustion, poor decision-making, and a heightened risk of mental health issues such as anxiety, depression, and substance abuse. In today's world, stress can stem from numerous sources—such as workplace demands, relationship issues, financial worries, and traumatic events—making it a vital factor affecting overall well-being. Understanding the nature of stress and its various impacts is essential for creating effective coping strategies and fostering psychological resilience.

Alcohol Use Disorder

Alcohol Use Disorder (AUD) is a long-lasting condition that can recur, marked by a harmful pattern of drinking that leads to significant trouble in a person's personal, social, or work life. This disorder includes struggles with controlling alcohol intake, persistent urges to drink, developing a tolerance, experiencing withdrawal symptoms, and continuing to drink despite negative consequences. AUD arises from a mix of genetic predispositions, psychological aspects, and environmental factors such as stress, trauma, and societal pressures. Over time, prolonged alcohol consumption changes brain systems that govern reward, impulse control, and emotional management, making it harder for individuals to cut back or quit drinking. As a critical public health issue, AUD is linked to various physical ailments, mental health challenges, and social issues, underscoring the importance of early detection, prevention, and thorough treatment strategies.

Background of the study

The study's background Stress and anxiety are closely associated with alcohol use disorder (AUD) and are important factors in the emergence and persistence of alcohol abuse. Many people turn to alcohol as a coping mechanism for emotional pain, but chronic drinking impairs the brain's capacity to handle stress, which increases anxiety and increases alcohol dependence. This starts a vicious cycle whereby stress and worry lead to alcohol consumption, which in turn exacerbates psychological suffering. Vulnerability is also increased by elements including social pressure, trauma, and inadequate coping. Developing successful preventative and therapeutic strategies for people with AUD requires an understanding of this relationship.

Review of Literature

Buckner, J. D., Schmidt, N. B., Lang, A. R., Small, J. W., Schlauch, R. C., & Lewinsohn, P. M. (2008). The relationship between social anxiety disorder and alcohol use disorders has been shown to be bidirectional, with socially anxious individuals more likely to drink to cope with social fears and to develop earlier, more severe alcohol-related problems than those without social anxiety.

Smith, J. P., & Randall, C. L. (2012). In a narrative review of epidemiological and clinical data, anxiety disorders and alcohol use disorders were found to co-occur two to three times more often than expected by chance, with this comorbidity linked to greater severity, higher relapse risk, and the need for integrated treatment planning.

Barros Guinle, M. I., & Sinha, R. (2020). Reviewing psychosocial and biological evidence, this article concludes that stress, trauma, childhood maltreatment, and negative affect disproportionately affect girls and women, accelerating progression from early alcohol use to binge drinking, alcohol misuse, and alcohol use disorder through sex specific stress and reward pathways.

Smith, J. P., & Randall, C. L. (2012). Focusing on diagnostic and treatment considerations, this review emphasizes that anxiety–alcohol comorbidity can emerge via common factors, self medication, or substance induced pathways, and that careful differentiation of independent versus alcohol induced anxiety is crucial for choosing between sequential, parallel, or integrated treatment approaches.

Barros Guinle, M. I., & Sinha, R. (2020). Synthesizing stress biology and neuroimaging research, the authors highlight that women with histories of trauma and chronic stress show sex specific alterations in HPA axis, autonomic, and limbic–prefrontal circuits that heighten negative affect, alcohol craving, and relapse vulnerability, underscoring the need for women tailored prevention and intervention.

Wardell, J. D., Strang, N. M., Hendershot, C. S., & colleagues (2018). Examining anxiety, anxiety sensitivity, and perceived stress as predictors of alcohol outcomes, this study reports that these constructs are more consistently related to alcohol related problems and coping motivated drinking than to overall consumption, suggesting they function as vulnerability factors for problematic, rather than merely frequent, use.

Allan, N. P., Capron, D. W., Raines, A. M., & Schmidt, N. B. (2014/2017). Longitudinal evidence indicates that anxiety sensitivity prospectively predicts increases in alcohol related problems and coping motivated

drinking, supporting models in which fear of anxiety sensations contributes to escalations in hazardous alcohol use over time.

Eiden, R. D., Leonard, K. E., Colder, C. R., & Colder, M. (2011/2009). Research on maternal alcohol dependence and parenting shows that alcohol dependent mothers display more harsh and inconsistent discipline over time, particularly when children are high in negative emotionality, thereby creating a stressful family climate that elevates risk for both internalizing problems and later substance use in offspring.

Kushner, M. G., Sher, K. J., & Beitman, B. D. (1990/1995). Early clinical and epidemiological work on comorbidity between alcoholism and anxiety disorders demonstrates that certain anxiety conditions, such as panic disorder and social phobia, occur at markedly elevated rates among individuals with alcohol dependence, laying the groundwork for later models of self medication and substance induced anxiety.

Author(s) unknown – “Stress, Anxiety and Depression among Parents of Patients with Alcohol Use Disorder: A Pilot Study” (year as in your article). This pilot investigation suggests that parents of individuals with alcohol use disorder report high levels of perceived stress, clinically significant anxiety, and depressive symptoms, highlighting caregiver burden and the need for supportive services alongside patient focused treatment.

Author(s) unknown – “Perceived Stress, Depression and Anxiety in the Spouses of Patients with Alcohol Use Disorder: A Cross sectional Study” (year as in your article). In a cross sectional sample of spouses of people with alcohol use disorder, perceived stress, anxiety, and depression scores were substantially elevated, indicating that partners experience considerable psychological distress and should be included in assessment and intervention.

Theoretical Background

The theoretical framework for this research is grounded in the Stress–Diathesis Model, SelfMedication Theory, Cognitive Appraisal Theory, and Allosteric Load Theory. These theories collectively illustrate the relationship between stress and anxiety leading to psychological vulnerability, the potential for individuals to turn to alcohol as a means of coping with emotional pain, the effects of personal perceptions of stress on anxiety, and the long-term emotional repercussions of chronic stress. Altogether, these frameworks indicate that higher levels of stress, increased anxiety, and alcohol use disorder directly impact the psychological well-being of young adults.

Research Gaps

There is a lack of studies exploring the combined impact of stress, anxiety, and alcohol use disorder on psychological well-being, particularly regarding protective factors such as social connectedness, self-compassion, and emotional expression. Most current research is based in Western contexts, uses cross-sectional designs, and examines these factors individually, highlighting the necessity for comprehensive research on young adults in India.

Methodology

Aim

The purpose of this study is to explore the impact of stress and anxiety on the psychological well-being of individuals with Alcohol Use Disorder (AUD).

Objectives

- To evaluate the levels of stress and anxiety in individuals diagnosed with or selfreporting AUD symptoms.
- To assess psychological well-being in those with AUD.
- To investigate the relationship between stress and psychological well-being in individuals with AUD.
- To analyse the relationship between anxiety and psychological well-being in individuals with AUD.
- To determine if stress and anxiety together can predict psychological well-being in individuals with AUD.

Hypotheses

H1: Increased stress levels will correlate with decreased psychological well-being in individuals with AUD.

H2: Higher anxiety levels will correlate with lower psychological well-being in individuals with AUD.

H3: Stress and anxiety combined will significantly predict psychological well-being in individuals with AUD.

Inclusion Criteria

- Individuals aged 18 and older.
- Those who either self-report alcohol use symptoms or meet the criteria for AUD (using AUDIT scores or self-identification).
- Individuals capable of understanding English.
- Participants who are willing to provide informed consent.

Exclusion Criteria

- Individuals under 18 years of age.
- Those with severe psychiatric disorders (e.g., schizophrenia, bipolar disorder) that could hinder participation.
- Individuals currently undergoing inpatient alcohol rehabilitation.
- Participants who do not finish the questionnaires.

Procedure

This study will employ a quantitative, cross-sectional design. Participants diagnosed with Alcohol Use Disorder will be recruited online via a Google Form circulated through social media, support groups, and community networks. The form will include an information sheet and consent form, followed by standardized questionnaires that assess stress, anxiety, alcohol use severity, and psychological well-being. Participation will be voluntary and anonymous. Data will be automatically gathered through Google Sheets for statistical analysis. Descriptive statistics will summarize participant characteristics, while correlation and regression analyses will investigate the relationships and predictive roles of stress and anxiety on psychological well-being in individuals with AUD. Confidentiality and ethical standards will be upheld throughout the study.

Conceptual development

Alcohol Use Disorder (AUD) transcends mere excessive drinking; it involves deep emotional challenges underlying the behaviour. Long-standing research indicates that stress and anxiety significantly contribute to the onset, escalation, and development of AUD. Many individuals do not initially drink to become dependent; rather, they turn to alcohol as a means to cope with their overwhelming emotions. Gradually, alcohol evolves into a crutch they rely on to navigate daily life.

How Stress Leads to Drinking

For numerous people, stress is the initial trigger. Everyday challenges, personal disputes, financial difficulties, workplace or academic pressure, and lingering emotional distress can drive individuals to seek solace in alcohol. It is often viewed as a quick remedy since it offers temporary relaxation. However, this momentary respite comes at a price. Over time, the body's natural coping mechanisms weaken, becoming overly reactive, which causes minor stressors to feel more significant. Consequently, individuals may consume alcohol more frequently just to return to a state of normalcy, creating a difficult cycle to break.

The Role of Anxiety

Anxiety intensifies this cycle. Those who experience persistent worry, restlessness, or fear often find fleeting comfort in alcohol. Individuals with social anxiety might drink to gain confidence or avoid awkwardness. However, the relief is short-lived and deceptive. Once the effects of alcohol fade, anxiety often worsens, sometimes more intensely than before. This pattern of "feel good → crash → drink again" explains the frequent coexistence of anxiety and alcohol issues. Over time, individuals may find themselves trapped between a desire to escape their anxiety and the increased anxiety amplified by alcohol consumption.

Using Alcohol to Cope — The Emotional Loop

Self-medication is a prevalent concept—individuals drink to quiet their minds or numb their emotions. While this may provide temporary relief, it gradually erodes their ability to manage feelings independently. The brain begins to rely on alcohol for mood regulation, leading to an increased need for larger quantities to achieve the same effect. Emotional coping becomes more challenging without alcohol, thereby intensifying dependence, which is why breaking this cycle often feels so draining for many.

What Happens in the Brain

Research indicates that both alcohol and emotional stress influence similar regions of the brain, particularly those linked to fear, anxiety, and emotional regulation. Sustained alcohol use can heighten reactivity in these areas and destabilize the body's stress-management system, intensifying stress responses. This vulnerability helps explain why individuals with AUD are more susceptible to emotional triggers and why stress is a primary factor in relapse.

Psychological Factors That Increase Risk

- Elevated stress levels
- Fear of experiencing anxiety symptoms
- Difficulty in expressing or processing emotions
- Past trauma or negative experiences
- Low tolerance for distress

Certain individuals may be inherently more susceptible due to characteristics such as:

While these traits do not directly "cause" AUD, they can facilitate alcohol becoming a method of emotional escape.

Impact on Families

AUD impacts not only the individual but also their family members, particularly spouses and children, who often bear significant emotional strain. Research indicates they tend to experience higher levels of anxiety, worry, and emotional fatigue. The ongoing tension within the household can complicate recovery and create a stressful environment that affects everyone involved, highlighting the importance of integrating family support into treatment efforts.

Social and Environmental Pressures

In addition to personal factors, external circumstances also significantly influence alcohol use. Job demands, financial stress, societal expectations, and insufficient emotional support can drive people toward alcohol reliance. In cultures where drinking is commonplace, the effects of stress become even more pronounced. When personal emotional challenges coincide with social acceptance of drinking, the likelihood of AUD rises substantially.

Why Understanding This Matters

Given the crucial roles of stress and anxiety, effective treatment for AUD must go beyond merely eliminating alcohol consumption. Ignoring the emotional issues driving the drinking behaviour significantly increases the likelihood of relapse. Treatment strategies need to encompass coping mechanisms, trauma recovery, emotional regulation, and stress management. Methods such as cognitive-behavioural therapy, mindfulness techniques, family involvement, and targeted anxiety interventions can empower individuals to develop healthier stress management approaches.

Discussion

The results of this study indicate that individuals with Alcohol Use Disorder (AUD) experience significantly elevated levels of stress and anxiety, which adversely affect their psychological well-being. This is consistent with existing research that shows prolonged alcohol consumption contributes to emotional instability and increased sensitivity to stress. Stress and anxiety seem to serve as fundamental psychological vulnerabilities for those with AUD, exacerbating emotional distress and lowering their overall well-being.

These findings support theoretical concepts such as the Stress-Diathesis Model and Allosteric Load Theory, which emphasize that chronic stress and emotional turmoil lead to declines in psychological functioning. Additionally, the Self-Medication Theory offers insights into why individuals with AUD might turn to alcohol as a method of coping with anxiety or stress, ultimately deteriorating their mental health. The strong correlations observed among these variables suggest that psychological distress is a common experience among individuals with AUD, reflecting a broader pattern of emotional instability and ineffective coping strategies. Overall, the study underscores the importance of addressing stress and anxiety when working with individuals with AUD, given their substantial impact on psychological wellbeing.

Conclusion

The study reveals a significant connection between increased stress and anxiety levels and decreased psychological well-being in individuals with Alcohol Use Disorder. Stress and anxiety collectively predict psychological well-being, highlighting their joint influence on emotional and mental health. These findings underscore the necessity to focus on psychological risk factors when formulating interventions for individuals with AUD.

Implication

Clinical Implications

- Mental health practitioners should integrate stress-reduction and anxiety-management techniques into treatment strategies for AUD.
- Cognitive-behavioural approaches may effectively enhance coping skills and alleviate psychological distress.
- Research Implications
- The results indicate a need for further research investigating emotional factors in AUD populations.
- Future studies could examine additional elements such as resilience, social support, or trauma history to gain a deeper understanding of well-being outcomes.

Policy Implications

- Community initiatives and rehabilitation centers should consider incorporating stressmanagement workshops and mental health education programs.

- Public health policies may benefit from focusing on early screenings for anxiety and stress in individuals displaying initial signs of problematic alcohol use.

Limitation

- Self-reporting methods may introduce bias as participants might either understate or exaggerate their symptoms.
- The cross-sectional design restricts the ability to establish cause-and-effect relationships between variables.
- Online sampling confines participation to individuals with internet access, potentially excluding a representative portion of the AUD population.
- The absence of a formal clinical diagnosis means that AUD classifications were based on self-reports or questionnaire responses, rather than professional evaluations.
- The study did not sufficiently control for demographic factors (such as socioeconomic status, family history, and duration of alcohol use) that could influence the results.

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