

Original Research Article

SLEEP DISTURBANCE, LIFE DISSATISFACTION AND ADVERSE FAMILY EMOTIONAL CLIMATE AS CORRELATES OF SUICIDAL BEHAVIOUR IN ALCOHOL DEPENDENCE SYNDROME: A CROSS-SECTIONAL STUDY

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ABSTRACT

Background: Alcohol Dependence Syndrome (ADS) is associated with substantial psychiatric morbidity and an increased risk of suicidal behaviour. Sleep disturbances, reduced life satisfaction, and adverse family emotional climate may contribute significantly to suicide risk. However, limited Indian studies have simultaneously examined these psychosocial correlates in patients with ADS. The present study aims to assess suicidal behaviour and its association with sleep quality, life satisfaction, family emotional involvement, and perceived criticism among patients with Alcohol Dependence Syndrome.

Materials and Methods: A hospital-based cross-sectional study was conducted among 110 patients diagnosed with Alcohol Dependence Syndrome according to ICD-10 criteria attending a tertiary care hospital, Tumkur. Sociodemographic and clinical details were collected using a semi-structured proforma. Sleep quality was assessed using the Pittsburgh Sleep Quality Index (PSQI), life satisfaction using the Satisfaction with Life Scale (SWLS), family emotional climate using the Family Emotional Involvement and Criticism Scale (FEICS), and suicidal intent using Beck's Suicide Intent Scale (SIS). Data were analysed using descriptive statistics, Chi-square test, and Student's t-test. A p-value <0.05 was considered statistically significant.

Results: The mean age of participants was 44.03 ± 11.2 years, and the majority were male (97.3%). Suicidal behaviour was reported by 45.4% of participants. Poor sleep quality was observed in 77.3%, life dissatisfaction in 60.9%, low emotional involvement in 52.7%, and high perceived criticism in 48.2% of participants. Suicidal behaviour was significantly associated with poor sleep quality ($\chi^2=26.96$, $p<0.001$), life dissatisfaction ($\chi^2=27.98$, $p<0.001$), low emotional involvement ($\chi^2=10.97$, $p=0.001$), high perceived criticism ($\chi^2=52.51$, $p<0.001$), lower income ($\chi^2=19.42$, $p=0.004$), unemployment ($\chi^2=16.82$, $p=0.005$), and the presence of psychosocial stressors ($\chi^2=10.54$, $p=0.001$). Suicidal intent demonstrated a positive correlation with perceived criticism and a negative correlation with emotional involvement and life satisfaction.

Conclusion: Suicidal behaviour is highly prevalent among patients with Alcohol Dependence Syndrome and is significantly associated with poor sleep quality, life dissatisfaction, low emotional involvement, high perceived criticism, and psychosocial stressors. Comprehensive psychosocial assessment may facilitate early identification and targeted interventions among these individuals.

Keywords: Alcohol Dependence Syndrome; Suicidal Behaviour; Sleep Quality; Life Satisfaction; Family Emotional Climate; Perceived Criticism.

INTRODUCTION

Alcohol Dependence Syndrome (ADS) is a chronic relapsing disorder characterized by impaired control over alcohol consumption, tolerance, withdrawal symptoms, craving, and continued alcohol use despite harmful consequences. Alcohol use disorders constitute a major public health concern and contribute substantially to global morbidity, mortality, disability, and socioeconomic burden.^[1,2] According to the World Health Organization (WHO), harmful alcohol consumption accounts for approximately three million deaths annually and remains one of the leading preventable causes of disease worldwide.^[3] In India, alcohol use continues to represent an important public health challenge, contributing to significant health, social, and economic consequences.^[3-5]

Suicidal behaviour is one of the most serious psychiatric consequences associated with Alcohol Dependence Syndrome. Individuals with alcohol use disorders are at significantly greater risk of suicidal ideation, suicide attempts, and completed suicide than the general population. Darvishi et al., in a meta-analysis, demonstrated that alcohol use disorders are associated with a significantly increased risk of suicidal ideation, suicide attempts, and suicide mortality.⁴ Similarly, Sher highlighted alcoholism as a major risk factor for suicidal behaviour due to its association with impulsivity, hopelessness, psychiatric comorbidity, and impaired judgment.^[5] Pompili et al. further emphasized the complex interaction between alcohol misuse, psychosocial stressors, and suicide risk.^[6] These findings underscore the importance of identifying potentially modifiable factors contributing to suicidality among individuals with Alcohol Dependence Syndrome.

Sleep disturbance has emerged as an important yet often under-recognized contributor. They are highly prevalent among individuals with alcohol dependence and often persist even during periods of abstinence. Brower reported that insomnia and poor sleep quality are among the most common residual symptoms in Alcohol Use Disorders and contribute significantly to relapse and psychological distress.^[7] Alcohol adversely affects sleep architecture by disrupting rapid eye movement sleep, reducing sleep efficiency, and impairing circadian regulation.^[8] Liu et al., in a systematic review and meta-analysis of longitudinal studies, demonstrated that sleep disturbances independently predict future suicidal ideation and suicidal behaviour.^[9] These findings suggest that sleep quality may represent an important and potentially modifiable target for suicide prevention.^[10]

Life satisfaction represents an important dimension of subjective well-being and psychological resilience. Diener et al. conceptualized life satisfaction as a cognitive evaluation of one's overall quality of life and developed the widely used Satisfaction with Life Scale.^[11] Longitudinal

evidence from Koivumaa-Honkanen et al. demonstrated that lower life satisfaction is associated with an increased risk of suicide.^[12] Kocalevent et al. reported significantly reduced life satisfaction among individuals experiencing psychological distress and poorer mental health outcomes.^[13] Subjective well-being has been recognized as a protective factor against psychological morbidity, whereas dissatisfaction with life may increase vulnerability to hopelessness and suicidal behaviour.^[14]

Family emotional climate is another important psychosocial factor influencing mental health outcomes. Vaughn and Leff first introduced the concept of expressed emotion and demonstrated the adverse effects of criticism, hostility, and emotional negativity within family environments on psychiatric outcomes.^[15] Subsequently, Shields et al. developed the Family Emotional Involvement and Criticism Scale (FEICS) to assess perceived criticism and emotional involvement within family relationships.^[16] Among individuals with Alcohol Dependence Syndrome, dysfunctional family interactions and negative emotional environments have been associated with relapse, poor coping, and increased psychological distress. Shanmugam et al. reported that higher levels of expressed emotion were associated with poorer psychosocial outcomes among individuals with alcohol dependence.^[17]

Previous studies have independently demonstrated associations between alcohol dependence and suicidality, sleep disturbances and suicide risk, life satisfaction and psychological well-being, and family emotional climate and treatment outcomes.

Despite growing evidence regarding these factors individually, relatively few studies have simultaneously evaluated sleep quality, life satisfaction, emotional involvement, and perceived criticism in relation to suicidal behaviour among patients with Alcohol Dependence Syndrome. Furthermore, literature from Indian clinical settings examining these psychosocial correlates remains limited. Understanding the relationship between these potentially modifiable factors and suicidal behaviour may facilitate early identification of high-risk individuals and contribute to the development of comprehensive suicide prevention strategies within addiction psychiatry services.

Therefore, the present study was undertaken to assess suicidal behaviour and its association with sleep quality, life satisfaction, emotional involvement, and perceived criticism among patients with Alcohol Dependence Syndrome attending a tertiary care psychiatric centre.

MATERIALS AND METHODS

This hospital-based cross-sectional study was conducted in the Department of Psychiatry, Sri Siddhartha Medical College Hospital, Tumkur. The study was carried out over a period of 24 months (March 2023-March 2025) after obtaining approval

from the Institutional Ethics Committee. Patients attending the inpatient and outpatient services of the Department of Psychiatry who fulfilled the diagnostic criteria for Alcohol Dependence Syndrome were screened for eligibility. A total of 110 patients diagnosed with Alcohol Dependence Syndrome were recruited using consecutive sampling. Patients aged 18 years or above, fulfilling ICD-10 diagnostic criteria for Alcohol Dependence Syndrome,^[17] willing to provide written informed consent were included in the study. Patients with primary psychotic disorders, bipolar affective disorder, dependence on substances other than alcohol (except nicotine), with severe medical or neurological illnesses affecting participation, unable to provide informed consent were excluded.

Eligible participants were identified during routine psychiatric consultations. Written informed consent was obtained from all participants prior to enrolment. Confidentiality and anonymity were maintained throughout the study. Sociodemographic and clinical information was collected using the semi-structured proforma. Participants subsequently completed the PSQI, SWLS, and FEICS. Beck's Suicide Intent Scale was administered to participants reporting self-harm behaviour. Suicidal intent was assessed using Beck's Suicide Intent Scale, a clinician-administered instrument designed to evaluate the severity of suicidal intent associated with self-harm behaviour.^[18] Sleep quality was assessed using the Pittsburgh Sleep Quality Index developed by Buysse et al. The PSQI assesses sleep quality across seven

domains and yields a global score, with higher scores indicating poorer sleep quality.^[10] Life satisfaction was assessed using the Satisfaction with Life Scale developed by Diener et al. The scale measures global cognitive judgments regarding satisfaction with life.^[11] Family emotional climate was assessed using the Family Emotional Involvement and Criticism Scale developed by Shields et al. The scale evaluates perceived criticism and emotional involvement within family relationships.^[12]

Statistical Analysis: Data were entered into Microsoft Excel and analysed using Statistical Package for Social Sciences (SPSS) version 26.0. Continuous variables were expressed as mean $\pm$ standard deviation, whereas categorical variables were presented as frequencies and percentages. Associations between suicidal behaviour and psychosocial variables were examined using Chi-square tests and Student's t-test. A p-value of less than 0.05 was considered statistically significant.

RESULTS

[Table 1] A total of 110 patients diagnosed with Alcohol Dependence Syndrome were included in the study. The mean age of the participants was 44.03 ± 11.2 years, with a standard deviation of 11.2 years. The median age was 42.5 years, with an interquartile range (IQR) of 17.25 years. The age range of the patients was from 24.0 to 69.0 years. The majority were male (97.3%), married (60.9%), and from rural backgrounds (70.9%).

Table 1: Sociodemographic characteristics of study participants (N = 110)

Parameter	Mean (SD)	Median (IQR)	Minimum	Maximum
Age (years)	44.03 (11.20)	42.5 (17.25)	24.0	69.0
Variable				Frequency (%)
Male				107 (97.3)
Female				3 (2.7)
Married				67 (60.9)
Unmarried				43 (39.1)
Rural residence				78 (70.9)
Urban residence				32 (29.1)
Family history of alcoholism				42 (38.2)
Family history of suicide				12 (10.9)
Presence of psychosocial stressors				95 (86.4)
Current suicidal behaviour/self-harm				50 (45.4)

[Table 2] Poor sleep quality was present in 77.3% of participants. More than half of the participants

reported dissatisfaction with life and low emotional involvement within the family environment.

Table 2: Clinical and psychosocial profile of participants

Variable	Frequency (%)
Poor sleep quality	85 (77.3)
Good sleep quality	25 (22.7)
Life dissatisfaction	67 (60.9)
Life satisfaction	43 (39.1)
Low emotional involvement	58 (52.7)
High emotional involvement	52 (47.3)
High perceived criticism	53 (48.2)
Low perceived criticism	57 (51.8)

[Table 3] Among the participants, suicidal intent was identified in 47 (42.7%) individuals. Moderate

suicidal intent was the most commonly observed category.

Table 3: Distribution of suicidal intent among participants

Suicidal Intent Category	Frequency (%)
No suicidal intent	63 (57.3)
Low suicidal intent	14 (12.7)
Moderate suicidal intent	31 (28.2)
High suicidal intent	2 (1.8)

[Table 4] Older age, unemployment, lower monthly income, and the presence of psychosocial stressors were significantly associated with suicidal behaviour.

Table 4: Sociodemographic correlates of suicidal behaviour

Variable	χ^2	p-value
Age group	12.32	0.015*
Occupation	16.82	0.005*
Monthly income	19.42	0.004*
Presence of stressors	10.54	0.001*

[Table 5] Poor sleep quality and dissatisfaction with life demonstrated significant associations with suicidal behaviour. Low emotional involvement and

high perceived criticism were significantly associated with suicidal behaviour.

Table 5: Association of sleep quality and life satisfaction, Family Emotional Climate with suicidal behaviour

Variable	χ^2	p-value
Poor sleep quality	26.96	<0.001*
Life dissatisfaction	27.98	<0.001*
Low emotional involvement	10.97	<0.001*
High perceived criticism	52.51	<0.001*

[Table 6] Suicidal intent demonstrated a significant positive correlation with perceived criticism and

significant negative correlations with emotional involvement and life satisfaction.

Table 6: Correlation between suicidal intent and psychosocial variables

Variable	Correlation coefficient (r)	p-value
Perceived criticism	+0.21	<0.05*
Emotional involvement	-0.27	<0.05*
Life satisfaction	-0.24	<0.05*

*Statistically significant at $p < 0.05$

DISCUSSION

The present study investigated the relationship between suicidal behaviour and psychosocial factors among individuals with Alcohol Dependence Syndrome attending a tertiary care psychiatric centre in Tumkur. The findings demonstrate a high prevalence of suicidality and highlight the significant role of sleep disturbance, life dissatisfaction, perceived criticism, emotional involvement, and psychosocial stressors in influencing suicide risk.

In the present study, suicidal behaviour was reported by 45.4% of participants (Nearly half). This finding is consistent with previous evidence indicating that alcohol use disorders are among the strongest psychiatric predictors of suicide. Darvishi et al., in a meta-analysis involving multiple international studies, reported significantly elevated risks of suicidal ideation, suicide attempts, and completed suicide among individuals with alcohol use disorders.^[4] Similarly, Sher described alcohol dependence as a major contributor to suicidality through mechanisms involving impulsivity, hopelessness, impaired judgment, and co-occurring psychiatric morbidity.^[5] Pompili et al. further emphasized that alcohol misuse lowers behavioural

inhibition and increases vulnerability to suicidal acts, particularly during periods of psychosocial stress.^[6]

One of the most important findings of the present study was the significant association between poor sleep quality and suicidal behaviour. More than three-fourths of participants experienced poor sleep quality, and individuals reporting sleep disturbance demonstrated significantly higher rates of suicidal behaviour. This observation is consistent with the findings of Brower, who reported that insomnia and sleep disturbances are among the most common residual symptoms in alcohol dependence and contribute substantially to relapse and psychological distress.^[7] Ebrahim et al. demonstrated that chronic alcohol consumption adversely affects sleep architecture, resulting in persistent disturbances in REM sleep and sleep continuity.^[8] Furthermore, Liu et al., in a meta-analysis of longitudinal studies, reported that sleep disturbances independently predict future suicidal ideation and suicidal behaviour even after adjustment for psychiatric comorbidity.^[9]

Several mechanisms may explain this association. Sleep deprivation adversely affects emotional regulation, executive functioning, decision-making, and impulse control. Alcohol itself disrupts sleep

architecture and circadian rhythms, leading to persistent sleep disturbances even during abstinence.^[7,8] Consequently, individuals with Alcohol Dependence Syndrome experiencing chronic sleep impairment may be particularly vulnerable to psychological distress and suicidal behaviour.

The present study also demonstrated a significant association between life dissatisfaction and suicidal behaviour. Participants reporting suicidal behaviour had significantly lower levels of life satisfaction, and suicidal intent was negatively correlated with life satisfaction scores. These findings are consistent with those reported by Koivumaa-Honkanen et al., who observed that lower life satisfaction was associated with increased suicide risk in a long-term follow-up study.¹² Similarly, Diener et al. conceptualized life satisfaction as a central component of subjective well-being and psychological resilience.^[11,14] Individuals with alcohol dependence frequently experience occupational dysfunction, financial difficulties, interpersonal conflicts, stigma, and social isolation, all of which may contribute to diminished life satisfaction and increased psychological vulnerability.

Family emotional climate emerged as another significant correlate of suicidality. Participants reporting suicidal behaviour perceived greater criticism and lower emotional involvement within family relationships. These findings are consistent with the expressed emotion model proposed by Vaughn and Leff, who demonstrated that criticism, hostility, and emotional overinvolvement adversely influence psychiatric outcomes.^[15] Shields et al. subsequently operationalized these constructs through the FEICS, enabling assessment of perceived criticism and emotional involvement in family relationships.^[16] Shanmugam et al. reported that dysfunctional family interactions and elevated expressed emotion contribute significantly to relapse and psychosocial distress among individuals with Alcohol Dependence Syndrome.^[17]

Another important finding was the significant association between psychosocial stressors, unemployment, lower income, and suicidal behaviour. These findings support the broader literature demonstrating that socioeconomic adversity contributes substantially to psychological distress and suicide risk. Financial instability, unemployment, interpersonal conflict, and chronic stress may increase feelings of hopelessness and reduce coping capacity, thereby increasing vulnerability to suicidal behaviour.

Taken together, the findings support a biopsychosocial model of suicidality in Alcohol Dependence Syndrome. Biological effects of chronic alcohol use appear to interact with psychosocial adversity, impaired sleep, dissatisfaction with life, and dysfunctional family emotional environments to influence suicide risk. Importantly, many of these factors are potentially modifiable and therefore represent valuable targets for clinical intervention.

The findings of the present study have important clinical implications. Suicide risk assessment in Alcohol Dependence Syndrome should extend beyond traditional psychiatric evaluation and incorporate systematic assessment of sleep quality, subjective well-being, family emotional climate, and psychosocial stressors. Interventions such as Cognitive Behavioural Therapy for Insomnia (CBT-I), family psychoeducation, family-based interventions, relapse prevention programmes, and psychosocial rehabilitation may contribute to reducing suicide risk by addressing these modifiable psychosocial determinants.

The present study contributes to the limited Indian literature examining psychosocial correlates of suicidal behaviour among individuals with Alcohol Dependence Syndrome. By identifying sleep disturbance, life dissatisfaction, perceived criticism, and reduced emotional involvement as significant correlates of suicidality, the study provides clinically relevant targets for comprehensive suicide prevention strategies within addiction psychiatry services.

Strengths of the study

The present study simultaneously evaluated multiple psychosocial correlates of suicidal behaviour, including sleep quality, life satisfaction, emotional involvement, and perceived criticism, thereby providing a comprehensive assessment of factors associated with suicidality among individuals with Alcohol Dependence Syndrome. Standardized and validated instruments, namely the Pittsburgh Sleep Quality Index (PSQI), Satisfaction with Life Scale (SWLS), Family Emotional Involvement and Criticism Scale (FEICS), and Beck Suicide Intent Scale (SIS), were employed enhancing the reliability and validity of the findings. Conducted in a tertiary care psychiatric setting, enabled detailed clinical assessment of participants and improving diagnostic accuracy. Contributes to the limited Indian literature examining psychosocial determinants of suicidal behaviour among individuals with Alcohol Dependence Syndrome. The identification of potentially modifiable factors provides clinically relevant targets for intervention and suicide prevention strategies in addiction psychiatry.

Limitations: The cross-sectional study design precludes determination of causal relationships between psychosocial factors and suicidal behaviour. The study was conducted in a single tertiary care centre, which may limit the generalizability of the findings to community settings and other treatment populations. The sample predominantly consisted of male participants, reflecting the treatment-seeking pattern of Alcohol Dependence Syndrome in the study setting; therefore, extrapolation of findings to female populations should be undertaken with caution. The use of self-report instruments for assessment of sleep quality, life satisfaction, emotional involvement, and perceived criticism may be subject to recall bias. Clinical variables such as severity of alcohol

dependence, co-occurring depressive symptoms, personality traits, and other psychiatric comorbidities were not examined independently and may have influenced the observed associations. The cross-sectional design precludes causal inferences.

Clinical implications & future directions: Routine screening for suicidal behaviour should be incorporated into the assessment of all patients with Alcohol Dependence Syndrome. Sleep quality should be systematically assessed and managed. Assessment of life satisfaction may assist in identifying high-risk individuals. Family-based interventions targeting criticism and emotional disengagement may improve outcomes. Suicide prevention strategies should adopt a comprehensive biopsychosocial approach. Future longitudinal studies involving larger and more diverse populations are required to clarify causal relationships between psychosocial factors and suicidal behaviour in Alcohol Dependence Syndrome. Further research evaluating interventions targeting sleep quality, family emotional climate, and subjective well-being may help identify effective strategies for suicide prevention in this vulnerable population.

CONCLUSION

The present study demonstrates a high prevalence of suicidal behaviour among patients with Alcohol Dependence Syndrome and identifies poor sleep quality, life dissatisfaction, low emotional involvement, high perceived criticism, and psychosocial stressors as significant correlates. These findings underscore the importance of comprehensive psychosocial assessment in addiction psychiatry. Early identification and targeted intervention addressing sleep disturbances, adverse family emotional climate, and reduced subjective well-being may contribute to improved clinical outcomes and reduction of suicide risk among individuals with Alcohol Dependence Syndrome.

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