Section: Psychiatry

Original Research Article

ASSOCIATION OF SOCIODEMOGRAPHIC FACTORS WITH SUICIDAL BEHAVIOR AND SUICIDE RISK AMONG PATIENTS WITH ALCOHOL DEPENDENCE SYNDROME: A CROSS-SECTIONAL STUDY

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ABSTRACT

Background: Alcohol intoxication and chronic dependence may increase vulnerability to suicidal behaviour through impaired judgement, impulsivity, emotional dysregulation, and adverse psychosocial circumstances. This study assessed suicidal behaviour and suicide risk among patients with alcohol dependence syndrome. The aim is to study the association of sociodemographic factors with suicidal behaviour and suicide risk among patients with alcohol dependence syndrome. **Materials and Methods:** A cross-sectional observational study was conducted for six months (October 2025–March 2026) in the Psychiatry Department of a tertiary-care hospital. A total of 220 male patients aged ≥18 years diagnosed with alcohol dependence syndrome were recruited using convenience sampling. Patients with other psychoactive substance dependence, current hospitalization following a suicidal attempt, or unwillingness to provide informed consent were excluded. The Columbia-Suicide Severity Rating Scale (C-SSRS) was used to assess suicidal ideation, suicidal behaviour, and suicide risk. Sociodemographic and clinical variables were recorded and analysed using descriptive statistics, Spearman correlation, chi-square test, and binary logistic regression. A p-value <0.05 was considered statistically significant. **Result:** The mean age was 40.61±10.67 years; 75.9% were married and 71.8% employed. Medical or psychiatric comorbidities were present in 40.9%, and 60% reported a positive family history of alcohol use. On the C-SSRS, 32.3% reported a wish to be dead, 25.9% suicidal thoughts, 25.5% thoughts about methods, and 20.0% suicidal intent with a specific plan. The mean C-SSRS intensity score was 3.34±6.61. Suicidal behaviour and risk were significantly associated with selected sociodemographic and clinical factors. **Conclusion:** Suicidal ideation was common among patients with alcohol dependence syndrome. Routine suicide-risk assessment, particularly among patients with severe alcohol dependence, may facilitate early identification and appropriate psychiatric intervention.

INTRODUCTION

Suicidal behaviour occurs along a continuum ranging from suicidal thoughts and intent to planning, preparatory behaviour, suicide attempts and completed suicide. Suicide risk is multifactorial and is influenced by psychiatric illness, substance use, psychosocial adversity, previous suicidal behaviour and individual vulnerability.[1,2] Identification of individuals at increased risk is therefore an important component of psychiatric and addiction-related clinical care.

Alcohol-use disorders are particularly relevant to suicide prevention. Alcohol dependence is a chronic disorder characterized by impaired control over alcohol use, continued consumption despite adverse consequences, and physiological and psychological dependence. It is associated with substantial medical, psychiatric, social and economic consequences and

contributes significantly to premature morbidity and mortality.[3,4]

The association between alcohol dependence and suicidal behaviour is well established. Chronic alcohol use may contribute to relationship difficulties, financial problems, occupational impairment and social isolation, while acute intoxication can impair judgement, increase impulsivity and aggression, reduce behavioural inhibition and interfere with problem-solving.[2,4] Alcohol use, depression and risk-taking may further interact in the development of suicidal ideation.[5] McCloud et al. reported a strong relationship between alcohol-use disorders and suicidality in a psychiatric population.[6]

Suicidal behaviour in alcohol-dependent individuals may range from passive thoughts of death to active suicidal thoughts, planning, preparatory acts and suicide attempts. Previous suicidal behaviour and psychiatric comorbidity are particularly important determinants of risk. Driessen et al. demonstrated the importance of psychiatric comorbidity, particularly depressive and anxiety disorders, in suicidal ideas and behaviour among alcohol-dependent patients.[1] Thus, assessment restricted only to current suicidal ideation may fail to identify individuals with a history of significant suicidal behaviour.

Comprehensive suicide-risk assessment should consider current ideation, intent, planning, previous attempts, psychiatric comorbidity, substance use, psychosocial stressors and protective factors. Although no single instrument can reliably predict future suicide, standardized instruments facilitate systematic assessment and documentation.[7,8] The Columbia-Suicide Severity Rating Scale (C-SSRS) provides a structured assessment of suicidal ideation and behaviour and is used in both clinical and research settings.[9] Other instruments, such as the Suicidal Ideation Attributes Scale (SIDAS), assess characteristics including frequency, controllability and distress associated with suicidal thoughts.[10]

Indian studies have demonstrated substantial suicidal ideation among patients with alcohol dependence. Vinod et al. reported suicidal ideation in 60% of patients with alcohol dependence syndrome and found associations with socioeconomic status, age at first alcohol use, severity of alcohol dependence and depressive symptoms.[11] Similarly, Rahoof et al. demonstrated the presence of suicidal ideation among persons with alcohol use disorder receiving treatment in India.[12]

In view of the above background, the present study was planned to study the association of sociodemographic factors with suicidal behavior and suicide risk among patients with alcohol dependence syndrome.

Aim: To study the association of sociodemographic factors with suicidal behavior and suicide risk among patients with alcohol dependence syndrome.

MATERIALS AND METHODS

Study Design: The study was a cross-sectional observational study conducted among patients diagnosed with alcohol dependence syndrome. The study was conducted in the Psychiatry Department of a tertiary care hospital over a period of six months, from October 2025 to March 2026. A total of 220 male patients aged 18 years and above diagnosed with alcohol dependence syndrome were included using convenience sampling.

Inclusion Criteria

Male patients aged 18 years and above; diagnosed with alcohol dependence syndrome; willing to provide informed consent; and able to understand and respond to the study instruments.

Exclusion Criteria

Dependence on psychoactive substances other than alcohol; current hospitalization because of a suicide attempt; or unwillingness to provide informed consent.

Study Variables: The study collected sociodemographic and alcohol-related characteristics of participants. Sociodemographic variables included age, marital status, educational status and employment status. Alcohol-related characteristics included duration of alcohol use, reported amount of alcohol intake, family history of alcohol use, and the primary reason reported for alcohol use. Information regarding comorbid medical and psychiatric illnesses was also documented.

Assessment of Suicidal Ideation and Behavior: The Columbia-Suicide Severity Rating Scale (C-SSRS) was used to assess suicidal ideation and suicidal behaviour. The study assessed several components of suicidal ideation, including wish to be dead, suicidal thoughts, thoughts about methods, suicidal intent without a specific plan and suicidal intent with a specific plan. Intensity-related domains included frequency, duration, controllability, deterrents and reasons for suicidal ideation.

Statistical Analysis: Data were initially entered into Microsoft Excel and subsequently imported into IBM SPSS Statistics version 27.0 for statistical analysis. Descriptive statistics were expressed as frequencies and percentages for categorical variables and as mean±standard deviation for continuous variables. The association between selected sociodemographic variables and suicidal ideation was assessed using the chi-square test. Age group, marital status, and employment status were examined in relation to the presence or absence of suicidal ideation.

Binary logistic regression was used to identify alcohol-related predictors of suicidal ideation. Odds ratios, 95% confidence intervals, and p-values were reported. A p-value of <0.05 was considered statistically significant.

Ethical Considerations: Institutional Ethics Committee approval was obtained. Written informed

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consent was obtained from all participants, confidentiality was maintained, and personal identity details were not disclosed.

RESULTS

Results of our study are given in [Table 1] to and [Figures 1].

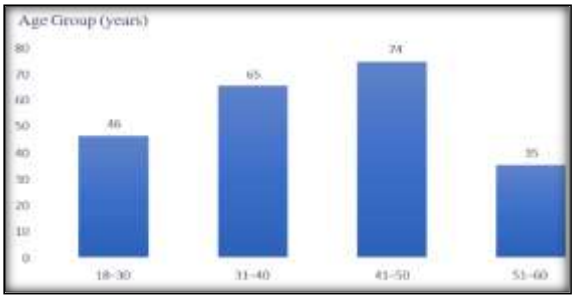


Figure 1: Age Distribution of Study Participants (n = 220)

Out of 220 patients studied, the maximum number of subjects 74(33.6%) belongs to the age group of 41-50 years, 65(29.5%) belongs to the age group of 31-40years, 46(20.9%) belongs to the age group of 18-30 years and 35(15.9%) belongs to the age group of 51-60 years.

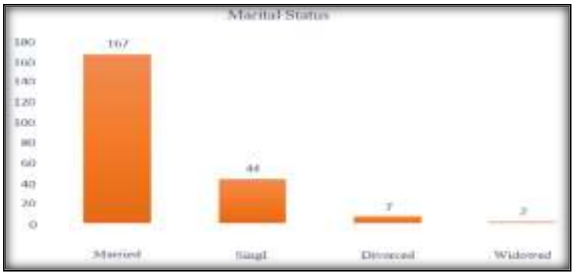


Figure 2: Marital Status Distribution of Study Participants (n = 220)

Out of 220 patients studied 44(20.0%) were single, 167(75.9%) were married, 7(3.2%) were divorced and 2(0.9%) were widowed.

Table 1: Distribution of Study Participants According to Age Group (n = 220)

Age group (years)	Frequency	Percent (%)
18–30	46	20.9
31–40	65	29.5
41–50	74	33.6
51–60	35	15.9
Total	220	100
Mean	Standard Deviation	Range
40.61	10.67	19-60

Table 2: Distribution of Study Participants According to Marital Status (n = 220)

Marital status	Frequency	Percent (%)
Married	167	75.9
Single	44	20
Divorced	7	3.2
Widowed	2	0.9
Total	220	100

Table 3: Distribution of Study Participants According to Educational Status (n = 220)

Educational status	Frequency	Percent (%)
No formal education	59	26.8
Primary	90	40.9
Higher secondary	31	14.1
Graduate	39	17.7
Postgraduate	1	0.5
Total	220	100

Table 4: Distribution of Study Participants According to Employment Status (n = 220)

Employment status	Frequency	Percent (%)
Employed	158	71.8
Unemployed	62	28.2
Total	220	100

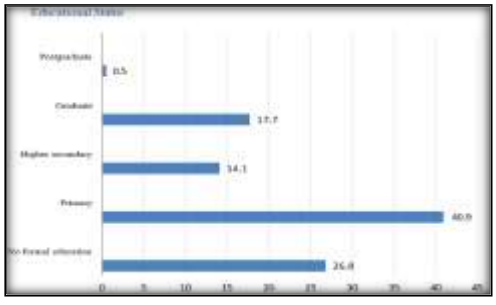


Figure 3: Educational Status Distribution of Study Participants (n = 220)

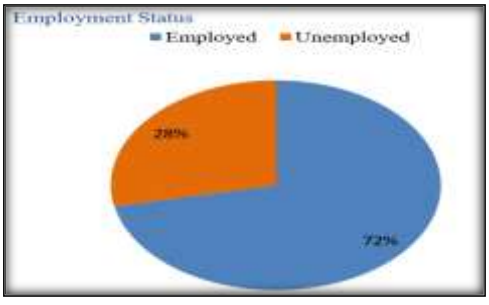


Figure 4: Employment Status Distribution of Study Participants (n = 220)

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Out of 220 patients studied, 59 (26.8%) had no formal education, 90 (40.9%) had primary education, 31 (14.1%) had higher secondary education, 39 (17.7%) had graduate education while only1 (0.5%) had post graduate education.

Out of 220 patients studied, 158 (71.8%) were employed and 62 (28.2% were unemployed.

Table 5: Descriptive Statistics of Alcohol Use Characteristics Among Study Participants (n = 220)

Variables	Frequency	Percentage (%)
Duration of alcohol use(years) 2-10	71	32.27
11-20	79	35.90
21-30	49	22.27
31-40	20	9.09
41-45	1	0.45
Amount of alcohol intake (ml) 75	2	0.9
90	2	0.9
180	52	23.6
375	105	47.7
750	58	26.4
1125	1	0.5

Out of 220 patients, it was observed that 71 (32.27%) participants have 2-10 years, 79 (35.90%) participants have 11-20 years, 49 (22.27%) participants have 21-30 years: 20 (9.09%) participants have 31-40 years, and only 1 (0.45%) participant has 41-45 years of history of alcohol use.

Out of 220 patients, the majority of patients (105; 47.7%) consumed 375 ml of alcohol,, followed by750ml intake in 58 (26.4%) participants and 180ml intake in 52 (23.6%) participants. A smaller proportion of participants reported consuming 75ml and 90ml, each in 2 (0.9%) participants. Only 1 (0.5%) participant reported consuming 1125ml of alcohol.

Table 6: Distribution of Study Participants According to Family History of Alcohol Use (n = 220)

Family history of alcohol use	Frequency	Percent (%)
Yes	132	60
No	88	40
Total	220	100

Table 7: Distribution of Study Participants According to Primary Reason for Alcohol Use (n = 220)

Primary reason for alcohol use	Frequency	Percent (%)
Family issues	47	21.4
Financial problems	49	22.3
Social drinking	34	15.5
Habitual use	27	12.3
Physical exhaustion	24	10.9
Work pressure	14	6.4
Relationship issues	6	2.7
Love failure	7	3.2
Stress	3	1.4
Unemployment	2	0.9
Depression	1	0.5
Loneliness	1	0.5
Bereavement (death in family)	4	1.8
Total	220	100

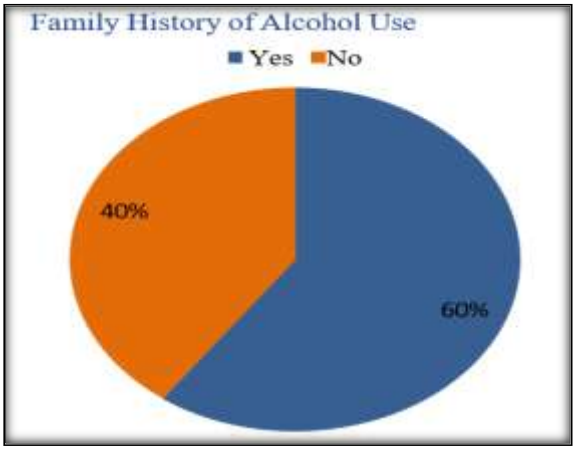


Figure 5: Family History of Alcohol Use Among Study Participants (n = 220)

It was found that 132 (60.0%) participants had a positive family history of alcohol use, whereas 88 (40.0%) participants reported no positive family history of alcohol use.

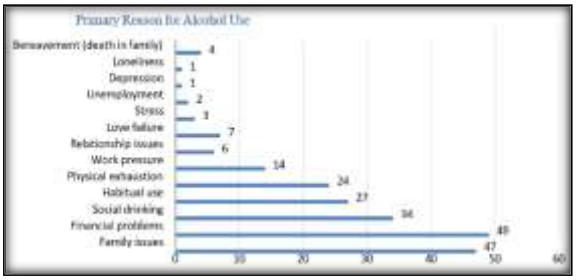


Figure 6: Primary Reasons for Alcohol Use Among Study Participants (n = 220)

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Out of 220 study participants, the most common primary reason for alcohol use was financial problems reported by 49 (22.3%) participants, followed by family issues in 47 (21.4%).
Social drinking was reported by 34 (15.5%) participants, while habitual use was noted in 27 (12.3%). Physical exhaustion accounted for 24 (10.9%) participants, and work pressure was seen in 14 (6.4%). Other less commonly reported reasons included love failure 7 (3.2%), relationship issues 6 (2.7%), bereavement 4 (1.8%), stress 3 (1.4%), unemployment 2 (0.9%), depression 1 (0.5%) and loneliness 1 (0.5%).

Table 8: Distribution of Study Participants According to Co-morbid/Psychiatric Illness (n = 220)

Co-morbid/psychiatric illness	Frequency	Percent (%)
Yes	90	40.9
No	130	59.1
Total	220	100

Table 9: Distribution of Types of Co-morbid/Psychiatric Illness Among Study Participants with Co-morbidity (n = 90)

Type of co-morbid illness	Frequency	Percent (%)
Seizure disorders	43	47.8
Hypertension (with/without DM)	21	23.3
Type 2 Diabetes mellitus	11	12.2
Gastrointestinal disorders	7	7.8
Hepatic disorders	6	6.7
Psychiatric disorders	2	2.2
Neurological conditions	3	3.3
Respiratory conditions	1	1.1
Hematological conditions	1	1.1
Others (rare conditions)	5	5.6
Total	90	100

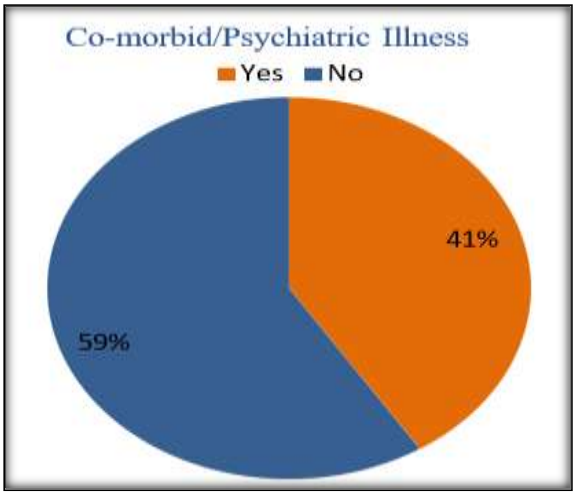


Figure 7: Co-morbid/Psychiatric Illness Distribution Among Study Participants (n = 220)

Out of 220 patients, it was observed that 90 (40.9%) participants had a co-morbid medical/psychiatric illness, while 130 (59.1%) participants did not have any co- morbid medical/psychiatric illness.

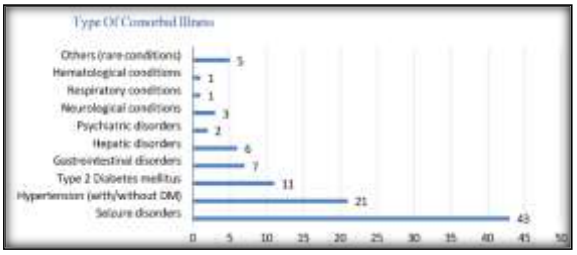


Figure 8: Types of Co-morbid Illness Among Participants with Co-morbidity (n = 90)

Among the 90 participants with co-morbid illnesses, seizure disorder was the most common 43(47.8%). This was followed by hypertension (with/without diabetes)21 (23.3%) and type 2 diabetes mellitus 11(12.2%). Gastrointestinal 7(7.8%) and hepatic disorders 6(6.7%) were also noted. Psychiatric disorders were observed in 2 (2.2%) participants. Neurological conditions were reported in 3 (3.3%) participants. Respiratory, hematological conditions were least common, each seen in 1 (1.1%) participant. Other rare conditions were reported in 5 (5.6%) participants.

Table 10: Distribution of Study Participants According to Suicidal Ideation Components (C-SSRS) (n = 220)

Variable	Category	Frequency	Percent (%)
Wish to be dead	No	149	67.7
	Yes	71	32.3
	Total	220	100
Suicidal thoughts	No	163	74.1
	Yes	57	25.9
	Total	220	100
Thoughts of how to kill yourself	No	164	74.5
	Yes	56	25.5
	Total	220	100
Intent without specific plan	No	216	98.2
	Yes	4	1.8
	Total	220	100

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Intent with specific plan	No	176	80
	Yes	44	20
	Total	220	100

Table 11: Distribution of Study Participants According to C-SSRS Suicidal Behavior (n = 220)

Suicidal behaviour	Frequency	Percent (%)
None	177	80.5
Interrupted attempt	26	11.8
Aborted attempt	12	5.5
Preparatory behaviour	5	2.3
Total	220	100

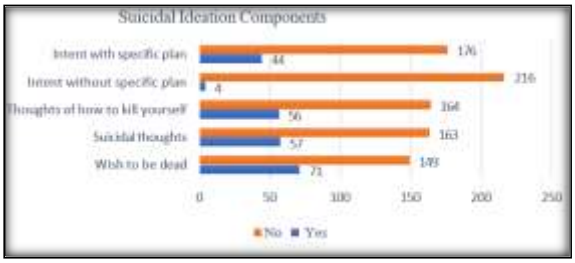


Fig 9: Distribution of Suicidal Ideation Components (C-SSRS) (n = 220)

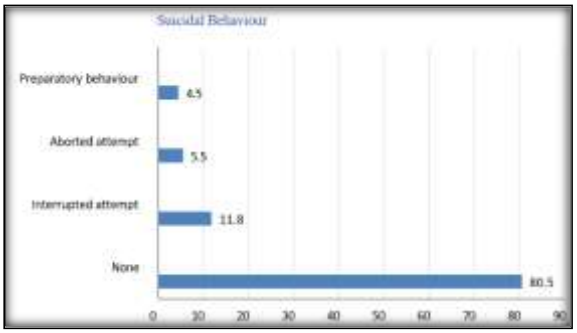


Fig 10: Distribution of Suicidal Behaviour Among Study Participants (n = 220)

Suicidal behavior was assessed using the Columbia Suicide Severity Rating Scale (C-SSRS) among 220 participants.

It was observed that majority of participants 177 (80.5%) reported no suicidal behavior. 26 (11.8%) participants was noted with interrupted attempt, 12 (5.5%) participants reported aborted attempt and preparatory behavior was observed in 5 (2.3%) participant.

DISCUSSION

The present study included 220 male patients with alcohol dependence syndrome, with a mean age of 40.61±10.67 years. The largest proportion belonged to the 41–50-year age group, followed by 31–40 years. Most participants were married (75.9%) and employed (71.8%), while 40.9% had medical or psychiatric comorbidities. Alcohol use had continued for 2–45 years, with the largest proportion reporting 11–20 years of alcohol use. A positive family history of alcohol use was reported by 60% of participants. Financial problems and family issues were among the most frequently reported reasons for alcohol use, highlighting the important psychosocial burden associated with alcohol dependence.

Using the C-SSRS, 32.3% of participants reported a wish to be dead, which was used in the thesis to represent suicidal ideation. Suicidal thoughts were reported by 25.9%, thoughts about how to kill oneself by 25.5%, intent without a specific plan by 1.8%, and intent with a specific plan by 20.0%. Regarding suicidal behaviour, 11.8% reported interrupted attempts, 5.5% aborted attempts and 2.3% demonstrated preparatory behaviour. Although less frequent, these behaviours are clinically important because they represent progression beyond suicidal thinking towards action. C-SSRS risk categorization identified 21.8% of participants as having severe suicide risk, emphasizing the clinical importance of systematic suicide-risk assessment in this population. The findings are consistent with the established association between alcohol-use disorders and suicidal behaviour. Alcohol may contribute through impaired judgement, behavioural disinhibition, impulsivity and aggression during intoxication, while chronic dependence may contribute through financial, occupational, family and interpersonal difficulties.[2,4,6] The interaction of alcohol use with depression and risk-taking may further increase vulnerability to suicidal ideation.[5]

Age group showed a statistically significant association with suicidal ideation (χ^2=10.625, p=0.014), with proportionately higher suicidal ideation among younger participants. In contrast, marital status (p=0.085) and employment status (p=0.091) were not significantly associated with suicidal ideation. The absence of significant associations with marital and employment status may reflect differences in the quality of social support, family relationships and cultural context rather than the simple presence or absence of these characteristics.

Medical or psychiatric comorbidity was present in 40.9% of participants. Psychiatric comorbidity is particularly important because depressive and anxiety disorders may independently increase suicide risk among alcohol-dependent individuals.[1] However, the present study did not quantify individual psychiatric disorders using standardized symptom scales. The coexistence of seizure disorders, hypertension, diabetes mellitus, gastrointestinal and hepatic disorders further demonstrates the considerable clinical burden in this population.

Previous studies have also demonstrated a relationship between severity of alcohol dependence

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and suicidal phenomena. Vinod et al. reported suicidal ideation in 60% of patients with alcohol dependence syndrome and found associations with socioeconomic status, age at first alcohol use, severity of alcohol dependence and depressive symptoms.[11] Rahoof et al. also reported suicidal ideation among persons with alcohol use disorder receiving treatment in India.[12] These findings support the importance of systematic assessment of suicidal ideation in addiction-treatment settings.

The present findings are also consistent with the broader literature demonstrating the relationship between alcohol use and suicidal behaviour. Conner et al. demonstrated an association between drinking and suicidal ideation,[13] while Glantz et al. highlighted the substantial global burden of alcohol-use disorders.[14] Alcohol dependence is associated with significant medical, psychological and social consequences, further emphasizing the need for comprehensive clinical care.[15] Rizk et al. similarly highlighted the relationship between addiction and suicide risk.[16]

Overall, the present findings indicate that suicidal behaviour and severe suicide risk are important clinical problems among patients with alcohol dependence syndrome. Standardized instruments such as the C-SSRS can support systematic assessment, but should complement comprehensive clinical evaluation. Patients with severe alcohol dependence, suicidal intent, previous suicidal behaviour or preparatory behaviour require careful psychiatric evaluation and appropriate risk-management interventions.

CONCLUSION

Suicidal behaviour and clinically significant suicide risk were common among patients with alcohol dependence syndrome. Although 80.5% reported no suicidal behaviour, 19.5% demonstrated some form of suicidal behaviour and 21.8% were categorized as having severe suicide risk. Greater alcohol-dependence severity was associated with greater suicidal-ideation intensity, and SADQ score emerged as the strongest predictor of suicidal ideation. These findings support systematic suicide-risk assessment using standardized instruments in patients with alcohol dependence, particularly those with severe dependence or evidence of previous suicidal behaviour.

Limitations of the Study: This study has a few limitations. Suicidal behaviour and alcohol-related information may be under-reported because of stigma or recall bias. Psychiatric comorbidities were not comprehensively quantified using standardized scales. Psychosocial factors such as family support, relationship quality and financial stress were not measured using standardized instruments.

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REFERENCES

1. Driessen M, Veltrup C, Weber J, John U, Wetterling T, Dilling H. Psychiatric co-morbidity, suicidal behaviour and suicidal ideation in alcoholics seeking treatment. Addiction. 1998;93(6):889-894. doi:10.1046/j.1360-0443.1998.93688910.x.
2. Hufford MR. Alcohol and suicidal behavior. Clin Psychol Rev. 2001;21(5):797-811. doi:10.1016/S0272-7358(00)00070-2.
3. World Health Organization. Suicide: key facts. Geneva: World Health Organization; 2021.
4. Sher L. Alcoholism and suicidal behavior: a clinical overview. Acta Psychiatr Scand. 2006;113(1):13-22. doi:10.1111/j.1600-0447.2005.00643.x.
5. Li J, Bornheimer LA, Fernandez L, Dagher J. The relationships between risk-taking, depression, and alcohol use in the experience of suicidal ideation among adults in the general population. Crisis. 2022;43(3):228-235. doi:10.1027/0227-5910/a000775.
6. McCloud A, Barnaby B, Omu N, Drummond C, Aboud A. Relationship between alcohol use disorders and suicidality in a psychiatric population: in-patient prevalence study. Br J Psychiatry. 2004;184(5):439-445. doi:10.1192/bjp.184.5.439.
7. Andreotti ET, Ipuchima JR, Cazella SC, Beria P, Bortoncello CF, Silveira RC, et al. Instruments to assess suicide risk: a systematic review. Trends Psychiatry Psychother. 2020;42(3):276-281. doi:10.1590/2237-6089-2019-0092.
8. Baldaçara L, Grudtner RR, da Leite VS, Porto DM, Robis KP, Fidalgo TM, et al. Brazilian Psychiatric Association guidelines for the management of suicidal behavior. Part 2. Screening, intervention, and prevention. Braz J Psychiatry. 2021;43(5):538-549. doi:10.1590/1516-4446-2020-1108.
9. Austria-Corrales F, Jiménez-Tapia A, Astudillo-García CI, Arenas-Landgrave P, Xochihua-Tlecuitl T, Cruz-Cruz C, et al. The Columbia-Suicide Severity Rating Scale: validity and psychometric properties of an online Spanish-language version in a Mexican population sample. Front Public Health. 2023;11:1157581. doi:10.3389/fpubh.2023.1157581.
10. Van Spijker BA, Batterham PJ, Calear AL, Farrer L, Christensen H, Reynolds J, et al. The Suicidal Ideation Attributes Scale (SIDAS): community-based validation study of a new scale for the measurement of suicidal ideation. Suicide Life Threat Behav. 2014;44(4):408-419. doi:10.1111/sltb.12084.
11. Vinod A, Saini T, Ainapur K, Mara B, Sanjana T, Shiva Kumar BK. Suicidal ideation among patients of alcohol dependence syndrome: a hospital based case series study. Clin Schizophr Relat Psychoses. 2022. doi:10.3371/CSRP.MMWY.100130.
12. Rahoof FV, Cherian AV, Kandasamy A, Ezhumalai S, Dhanasekara RP. Suicidal ideation among persons with alcohol use disorder: a cross-sectional study. J Psychosoc Well Being. 2021;2(2):30-41. doi:10.55242/jpsw.2021.2206.
13. Conner KR, Li Y, Meldrum S, Duberstein PR, Conwell Y. The role of drinking in suicidal ideation: analyses of Project MATCH data. J Stud Alcohol. 2003;64(3):402-408. doi:10.15288/jsa.2003.64.402.
14. Glantz MD, Bharat C, Degenhardt L, Sampson NA, Scott KM, Lim CCW, et al. The epidemiology of alcohol use disorders cross-nationally: findings from the World Mental Health Surveys. Addict Behav. 2020;102:106128. doi:10.1016/j.addbeh.2019.106128.
15. Wackernah RC, Minnick MJ, Clapp P. Alcohol use disorder: pathophysiology, effects, and pharmacologic options for treatment. Subst Abuse Rehabil. 2014;5:1-12. doi:10.2147/SAR.S37907.
16. Rizk MM, Herzog S, Dugad S, Stanley B. Suicide risk and addiction: the impact of alcohol and opioid use disorders. Curr

ISSN (O): 2687-5365; ISSN (P): 2753-6556

Addict Rep. 2021;8(2):194-207. doi:10.1007/s40429-021-00361-z.
17. Bryan CJ, Mintz J, Clemans TA, Leeson B, Burch TS, Williams SR, et al. Effect of crisis response planning vs. contracts for safety on suicide risk in U.S. Army Soldiers: a randomized clinical trial. J Affect Disord. 2017;212:64-72. doi:10.1016/j.jad.2017.01.028.

ISSN (O): 2687-5365; ISSN (P): 2753-6556