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Original Research Article

ASSOCIATION OF PERCEIVED EXPRESSED EMOTION AND PERCEIVED SOCIAL SUPPORT WITH THE SEVERITY OF ALCOHOL DEPENDENCE AMONG PATIENTS ATTENDING A TERTIARY CARE CENTRE: A CROSS-SECTIONAL STUDY

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ABSTRACT

Background: Alcohol dependence affects millions of people, particularly men in India, and is associated with health-related, psychological, and social difficulties. Psychosocial factors, including expressed emotion and social support, may influence treatment outcomes: criticism may exacerbate these difficulties, whereas support may facilitate recovery. In India, the relationship between these factors and dependence severity, from patients' perspectives, remains insufficiently examined. **Objectives:** To assess the severity of alcohol dependence, perceived expressed emotion, and social support among patients with alcohol dependence syndrome, and to examine associations between expressed emotion and social support and dependence severity.

Materials and Methods: We conducted a cross-sectional study of 100 patients with alcohol dependence at Government General Hospital, Vijayawada, using convenience sampling. We collected data using the ICD-11, SADQ, MSPSS, and FEICS. We used Spearman's correlation and Kruskal–Wallis tests to assess associations and differences in expressed emotion and social support across levels of dependence severity. We set statistical significance at $p < 0.05$.

Results: Among 100 male patients with alcohol dependence, 67% had severe or very severe dependence. Perceived criticism was weakly correlated with dependence severity ($\rho = 0.220$, $p = 0.028$), whereas emotional involvement was not significantly associated with severity. Overall perceived social support was not significantly associated with dependence severity ($\rho = 0.087$, $p = 0.389$). Family support showed a weak positive correlation ($\rho = 0.198$, $p = 0.049$); however, this finding should be interpreted cautiously given multiple comparisons.

Conclusion: The study identified a weak positive association between dependence severity and perceived criticism. It found no significant associations with emotional involvement or overall social support. Family support showed a weak positive association, whereas support from friends did not. The cross-sectional design and multiple comparisons limit causal inference. These findings underscore the importance of assessing family emotional climate and social support in psychosocial evaluations.

Key words: Perceived Expressed Emotion, Perceived Social Support, Severity of Alcohol Dependence.

INTRODUCTION

Alcohol dependence is a major public health issue with extensive medical, psychological, and social effects. In 2019, about 400 million people worldwide had alcohol use disorders, including 209 million with alcohol dependence, which were linked to 2.6 million deaths.[1] In India, the National Mental Health Survey found a 4.6% prevalence of alcohol use disorders among adults, higher in men (9%) than in women (0.5%).[2] Alcohol problems affect family, work, and social life. Greater severity of dependence is associated with more psychosocial issues and recovery challenges, making it important to assess severity and psychosocial factors for proper management.[1,2]

Family relationships and social resources are key psychosocial factors in alcohol dependence. Expressed emotion (EE), particularly perceived criticism and emotional involvement, reflects the patient's view of the interpersonal emotional environment. Studies show that EE relates to relapse, with higher perceived EE linked to worse alcohol outcomes.[3,4] The FEICS measures perceived criticism and emotional involvement.[5] Research in India examines perceived EE among alcohol-dependent individuals and differences between relapsed and abstinent people.[6,7] Perceived social support may also affect recovery, with studies linking family EE, social support, and relapse, highlighting the importance of emotional climate and resources.[8,9] The MSPSS assesses perceived support from family, friends, and others separately.[10]

Despite extensive research on expressed emotion and social support in relation to relapse and treatment outcomes, little attention has been paid to their association with the severity of alcohol dependence, particularly from the patient's perspective. Indian literature on expressed emotion is limited; most EE research has been Western-centric, and its link to clinical outcomes in India remains underexplored.[11] Furthermore, Indian research on social support has primarily examined its connection with relapse or recovery, rather than with varying levels of alcohol dependence.[9]

Therefore, it is important to examine whether perceived expressed emotion and perceived social support vary with the severity of alcohol dependence. The study aimed to assess dependence severity, perceived expressed emotion, and perceived social support, and to examine how these factors relate to dependence severity. Specifically, it focused on perceived criticism, emotional involvement, and perceived support from family, friends, and significant others. The results may enhance understanding of psychosocial factors linked to alcohol dependence and could guide more comprehensive psychosocial assessments and family-centred interventions in de-addiction services.

MATERIALS AND METHODS

Place of Study: Department of Psychiatry, Government General Hospital, Siddhartha Medical College, Vijayawada.

Type of Study: Cross-sectional observational study.

Study Subjects: Patients diagnosed with Alcohol Dependence attending GGH, Vijayawada, Andhra Pradesh.

Type of Sampling: Convenience sampling

Sample Size:100

Inclusion Criteria

1. Persons who give consent to participate in the study
2. Persons who qualify for a diagnosis of alcohol dependence as per ICD-11 diagnostic criteria.

Exclusion Criteria

1. Persons who do not give consent to participate in the study
2. Subjects who are too ill to cooperate

Tools:

1. Informed written consent.
2. A semi-structured proforma to collect socio-demographic details.
3. **International Classification of Diseases, 11th Revision (ICD-11)[12]:** To diagnose Alcohol Dependence
4. **Severity of Alcohol Dependence Questionnaire (SADQ)[13,14]:** The SADQ is a 20-item self-report questionnaire assessing the severity of alcohol dependence across five components: physical withdrawal symptoms, affective withdrawal symptoms, withdrawal-relief drinking, alcohol consumption, and rapidity of reinstatement. Each item is scored 0 to 3, with total scores ranging from 0 to 60. We categorise severity as No Dependence (0-3), Mild (4-15), Moderate (16-30), Severe (31-44), and Very Severe (45-60).
5. **The Multidimensional Scale of Perceived Social Support (MSPSS)[10]:** Developed by Zimet et al., the MSPSS comprises 12 items rated on a 7-point Likert scale. The total raw score ranges from 12 to 84, while each subscale ranges from 4 to 28. Scores may also be expressed as mean item scores ranging from 1 to 7, with higher scores indicating greater perceived social support. In the present study, we used mean item scores for analysis and categorisation.
6. **Family Emotional Involvement and Criticism Scale (FEICS)[5]:** A 14-item self-report instrument by Shields et al. to assess expressed emotion from the recipient's view. It has two 7-item subscales: Perceived Criticism (PC) and Emotional Involvement (EI). Even-numbered items form PC, odd-numbered items form EI, with reverse scoring for items 2 and 8. Higher scores indicate greater perceived criticism or emotional involvement.

Study Procedure: After obtaining approval from the Institutional Ethics Committee, we recruited subjects who met the inclusion criteria. We used a semi-structured pro forma to collect subjects'

sociodemographic details, then administered the SADQ, MSPSS, and FEICS.

Statistical Analysis: We analysed data using SPSS Statistics version 28.0. We summarised categorical variables as frequencies and percentages and continuous variables as mean ± standard deviation, or, where appropriate, median and interquartile range. The association between severity of alcohol dependence and perceived expressed emotion and perceived social support was assessed using Spearman's rank-order correlation. Severity of alcohol dependence was treated as an ordinal variable based on SADQ severity categories. We computed Spearman's correlation for FEICS Perceived Criticism, FEICS Emotional Involvement, total MSPSS score, and MSPSS Family, Friends, and Significant Others domain scores. We used the Kruskal–Wallis test to compare FEICS and MSPSS scores across SADQ severity categories. All tests were two-tailed, and we considered $p < 0.05$ statistically significant.

RESULTS

Table 1: Sociodemographic Characteristics of the Study Participants (N = 100)

Variable	Category	Frequency (n)	Percentage (%)
Age (years)	30 or Younger	13	13.0%
	31–40	44	44.0%
	41–50	33	33.0%
	> 50	10	10.0%
Gender	Male	100	100.0%
	Female	0	0.0%
Education Level	Illiterate	25	25.0%
	Primary	22	22.0%
	Secondary	40	40.0%
	Graduate & above	13	13.0%
Occupation	Employed	83	83.0%
	Unemployed	17	17.0%
Marital Status	Single	19	19.0%
	Married	71	71.0%
	Separated	8	8.0%
	Divorced / Widowed	2	2.0%
Family Type	Living Alone / Single	5	5.0%
	Nuclear	82	82.0%
	Joint	13	13.0%
Socioeconomic Status (SES)	Upper	13	13.0%
	Upper Middle	33	33.0%
	Middle	30	30.0%
	Lower Middle	15	15.0%
	Lower	9	9.0%

The mean age was 39.64 ± 8.78 years (median 39), with a range of 21–74 years. Most were aged 31–40 (44%) and 41–50 (33%). Patients aged 30 or younger accounted for 13%; those over 50 accounted for 10%. Educational status: 40% completed secondary education, 25% were illiterate, 22% had primary education, and 13% had graduate or higher education. Most were employed (83%) and married (71%); 19% were single, 8% separated, and 2% divorced or widowed. Family structure: 82% lived in nuclear families, 13% in joint families, and 5% alone. Socioeconomic status: 33% upper-middle class, 30% middle class, 15% lower-middle, 13% upper class, and 9% lower class. Overall, the study population was predominantly middle-aged, employed, married men living in nuclear families, with most participants having secondary-level education and belonging to the upper-middle or middle socioeconomic classes.

Table 2: Severity of Alcohol Dependence (SADQ)

Severity	Frequency (n)	Percentage (%)	Cumulative Percentage (%)
Mild	17	17.0%	17.0%
Moderate	16	16.0%	33.0%
Severe	44	44.0%	77.0%
Very Severe	23	23.0%	100.0%
Total	100	100.0%	—

Severe alcohol dependence was the most frequently observed category (44%), followed by very severe dependence (23%). Mild and moderate dependence accounted for 17% and 16%, respectively. Overall, 67% of participants had severe or very severe alcohol dependence.

Table 3: Distribution of Perceived Expressed Emotion (FEICS)

Perceived Expressed Emotion Domain	Mean ± SD	Median	IQR (Q1 –Q3)
Perceived Criticism (PC)	16.06 ± 6.94	16.50	10.00–21.00
Emotional Involvement (EI)	16.92 ±7.15	18.00	12.00–21.00

The distribution of perceived expressed emotion, as assessed using the Family Emotional Involvement and Criticism Scale (FEICS), showed mean scores of 16.06 ± 6.94 for Perceived Criticism and 16.92 ± 7.15 for Emotional Involvement. The corresponding median scores were 16.50 and 18.00, respectively. The relatively broad interquartile ranges for both domains (11.00 for Perceived Criticism and 9.00 for Emotional Involvement) indicate considerable variability in perceived family emotional climate across participants.

Table 4: Distribution of Perceived Social Support (MSPSS)

Domain	Low (n, %)	Moderate (n, %)	High (n, %)	Mean ± SD	Median	IQR (Q1 –Q3)
Total Support	30 (30.0%)	50 (50.0%)	20 (20.0%)	3.73 ± 1.50	3.79	2.60–5.00
Family Support	18 (18.0%)	46 (46.0%)	36 (36.0%)	4.38 ± 1.63	5.00	3.25–5.75
Friends Support	60 (60.0%)	19 (19.0%)	21 (21.0%)	2.87 ± 1.95	2.00	1.00–5.00
Significant Others Support	29 (29.0%)	38 (38.0%)	33 (33.0%)	3.93 ±1.86	4.62	2.25–5.75

Perceived social support, measured by the MSPSS, varied by source. Overall, 50.0% reported moderate support, 30.0% low, and 20.0% high. The mean total score was 3.73 ± 1.50, and the median was 3.79 (IQR: 2.60–5.00). Family support was highest (36.0%), with a mean of 4.38 ± 1.63 and a median of 5.00 (IQR: 3.25–5.75). Friend support was lowest (60%), with a mean of 2.87 ± 1.95 and a median of 2.00 (IQR: 1.00–5.00). Support from significant others was intermediate, with a mean of 3.93 ± 1.86 and a median of 4.62 (IQR: 2.25–5.75). Among the three MSPSS domains, family support had the highest mean score, while support from friends had the lowest.

Table 5: Association Between Severity of Alcohol Dependence and Perceived Expressed Emotion

FEICS Domain	Spearman's ρ	p-value	Interpretation
Perceived Criticism	0.220	0.028	Significant weak positive association
Emotional Involvement	0.075	0.458	Not Significant

A weak positive correlation was observed between Severity of Alcohol dependence and perceived criticism (Spearman's ρ = 0.220, p = 0.028), indicating that greater severity of alcohol dependence was associated with higher perceived criticism. No statistically significant correlation was observed between Severity of Alcohol dependence and emotional involvement (ρ = 0.075, p = 0.458).

Group comparison

SADQ Severity	n	FEICS-PC Median (IQR)	FEICS-EI Median (IQR)
Mild	17	11.00 (10.50)	15.00 (12.50)
Moderate	16	16.00 (10.25)	18.00 (11.50)
Severe	44	18.00 (12.00)	18.00 (8.75)
Very Severe	23	18.00 (8.00)	18.00 (10.00)
Kruskal–Wallis H	—	**7.792**	**1.834**
Degrees of Freedom (df)	—	**3**	**3**
p-value	—	**0.051**	**0.607**

The median perceived criticism score rose from 11.00 in the mild group to 18.00 in the severe and very severe groups. However, the Kruskal–Wallis test did not show a statistically significant difference in perceived criticism across the four SADQ categories (H = 7.792, df = 3, p = 0.051). Emotional involvement also did not differ significantly across the four groups (H = 1.834, df = 3, p = 0.607). A weak positive correlation was observed between SADQ severity and perceived criticism; however, the difference in perceived criticism scores across the four SADQ severity categories did not reach statistical significance in the Kruskal–Wallis test.

Table 6: Association Between Severity of Alcohol Dependence and Perceived Social Support

MSPSS Domain	Spearman's ρ	p-value	Interpretation
Total Support	0.087	0.389	Not Significant
Family	0.198	0.049	Weak positive association
Friends	0.045	0.655	Not Significant
Significant Others	0.002	0.984	Not Significant

Note: p-values are two-tailed and unadjusted for multiple comparisons. Therefore, interpret the association between SADQ severity and family support (p = 0.049) cautiously.

Severity of Alcohol dependence and total perceived social support were not significantly correlated (ρ = 0.087, p = 0.389). We observed a weak positive correlation between Severity of Alcohol dependence and family support (ρ = 0.198, p = 0.049). However, Severity of Alcohol dependence was not significantly correlated with support from friends (ρ = 0.045, p =

0.655) or with support from significant others (ρ = 0.002, p = 0.984).

SADQ Severity	MSPSS Total Median (IQR)	Family Median (IQR)	Friends Median (IQR)	Significant Others Median (IQR)
Mild	3.42 (2.12–4.92)	3.75 (1.38–5.75)	2.00 (1.00–3.88)	4.75 (2.75–6.00)
Moderate	3.79 (2.54–5.06)	4.38 (3.06–5.19)	2.25 (1.00–5.38)	4.75 (2.19–5.00)
Severe	3.83 (2.81–4.65)	5.00 (4.25–5.75)	2.00 (1.00–4.75)	4.38 (2.38–6.00)
Very severe	3.92 (2.67–5.00)	5.00 (3.50–6.00)	3.00 (1.00–6.00)	4.75 (2.00–6.00)
Kruskal–Wallis H	**0.813**	**4.604**	**0.617**	**0.619**
df	**3**	**3**	**3**	**3**
p-value	**0.846**	**0.203**	**0.893**	**0.892**

The Kruskal–Wallis test found no statistically significant differences in total perceived social support or in any individual domain across the four SADQ severity categories. The results for total support, family support, friends' support and significant others were H = 0.813 (p = 0.846), H = 4.604 (p = 0.203), H = 0.617 (p = 0.893) and H = 0.619 (p = 0.892), respectively. These group-comparison findings differ from the Spearman correlation analysis, which identified a weak positive correlation between SADQ severity and family support (ρ = 0.198, p = 0.049).

Table 7: Association of severity of alcohol dependence with perceived expressed emotion and perceived social support

Variable	Spearman's ρ	p-value	Interpretation
FEICS Perceived Criticism	0.220	0.028	Weak positive association
FEICS Emotional Involvement	0.075	0.458	Not Significant
MSPSS Total	0.087	0.389	Not Significant
MSPSS Family	0.198	0.049	Weak positive association
MSPSS Friends	0.045	0.655	Not Significant
MSPSS Significant Others	0.002	0.984	Not Significant

Note: Spearman's rank-order correlation; two-tailed p-values. p-values were not adjusted for multiple comparisons; therefore, interpret the MSPSS Family finding cautiously.

A weak positive correlation was observed between the severity of alcohol dependence and perceived criticism (Spearman's ρ = 0.220, p = 0.028). No statistically significant correlation was observed between the severity of alcohol dependence and emotional involvement (ρ = 0.075, p = 0.458). Total perceived social support was not significantly correlated with the severity of alcohol dependence (ρ = 0.087, p = 0.389). Among the MSPSS domains, family support showed a weak positive correlation with the severity of alcohol dependence (ρ = 0.198, p = 0.049), whereas support from friends and significant others was not significantly correlated with the severity of alcohol dependence.

DISCUSSION

The present study was conducted among 100 male patients with alcohol dependence attending a tertiary care centre. The majority had higher levels of dependence, with 44% classified as severe and 23% as very severe. Thus, two-thirds (67%) of the participants had severe or very severe alcohol dependence. The predominance of severe dependence may reflect the tertiary-care setting, where individuals with more clinically significant alcohol-related problems are more likely to seek or be referred for specialist treatment. The use of the Severity of Alcohol Dependence Questionnaire (SADQ), which was developed to quantify the severity of dependence across withdrawal symptoms, alcohol consumption and reinstatement behaviour, allowed the psychosocial variables to be examined along an ordinal spectrum of dependence rather than simply as a diagnostic category.[13,14]

Regarding perceived expressed emotion, the principal finding was a weak positive correlation between Severity of Alcohol dependence and perceived criticism (Spearman's ρ=0.220, p=0.028). This suggests that greater severity of alcohol dependence was associated with greater perceived criticism in the patient's interpersonal environment. The finding is consistent with earlier research demonstrating the relevance of expressed emotion, particularly criticism, in alcohol-related outcomes. O'Farrell et al. found that alcoholic patients with high-EE spouses were more likely to relapse, had a shorter time to relapse and had a greater proportion of drinking days, even after accounting for alcohol problem severity and other factors.[3] Similarly, Fichter et al. reported an association between family climate, critical comments and the course of alcoholism.[4] Indian research by Reddy and Jagannathan also examined perceived expressed emotion among persons with alcohol dependence, demonstrating that perceived EE is a relevant psychosocial construct in this population.[6] However, the present study did not demonstrate a significant association between Severity of Alcohol dependence and emotional involvement (ρ=0.075, p=0.458). Furthermore, although median perceived criticism increased from 11 in the mild group to 18 in the severe and very severe groups, the Kruskal–Wallis test did not show a statistically significant difference across the four severity categories (p=0.051). Therefore, the findings indicate a specific

weak association between severity and perceived criticism rather than a consistent relationship between alcohol dependence severity and all dimensions of perceived expressed emotion.

Findings on perceived social support were less consistent. Overall, 50% of participants reported moderate perceived social support, 30% low support, and 20% high support. Family support had the highest mean score (4.38±1.63), whereas support from friends had the lowest (2.87±1.95), with 60% reporting low support from friends. These findings highlight the family's relatively prominent role as a perceived source of support in this sample. Previous Indian research by Dixit et al. demonstrated the importance of perceived social support in alcohol dependence and examined its relationship with treatment outcome among male patients.[9] Similarly, studies have reported relationships between family expressed emotion, perceived social support, and relapse among individuals with substance-use problems.[8] In the present study, however, total perceived social support was not significantly associated with Severity of Alcohol dependence (ρ=0.087, p=0.389), nor were support from friends (ρ=0.045, p=0.655) or from significant others (ρ=0.002, p=0.984). Family support showed a weak positive correlation with severity (ρ=0.198, p=0.049), but the Kruskal–Wallis analysis did not demonstrate significant differences in family support across the four severity groups (p=0.203). The apparent positive direction of the family-support correlation should therefore not be interpreted as evidence that greater family support increases alcohol dependence. It may reflect the complexity of family responses to alcohol dependence, but the cross-sectional design does not permit conclusions regarding directionality. Importantly, the p-values were not adjusted for multiple comparisons, so interpret this borderline association cautiously.

Overall, perceived criticism may be more closely associated with alcohol dependence severity than perceived social support or emotional involvement. This is clinically relevant because prior research has focused on expressed emotion and social support in relation to relapse, abstinence and treatment outcomes, rather than dependence severity. Indian research on expressed emotion is limited: Sadath et al. identified 19 reports from 16 studies and noted that its effects on clinical outcomes remain underexplored.[10] This study adds to the literature by examining perceived criticism, emotional involvement and social support sources in relation to SADQ-defined severity. Findings support assessing interpersonal and psychosocial factors, especially perceived criticism within the family. However, the cross-sectional design, convenience sampling, all-male sample and lack of adjustment for multiple comparisons limit causal conclusions and generalisability. Larger, more diverse longitudinal studies could determine whether these factors change alongside dependence severity and affect treatment and recovery.

CONCLUSION

This study found a weak positive association between alcohol dependence severity and perceived criticism, with no significant associations with emotional involvement or total social support. Family support showed a weak positive association with severity, whereas support from friends and others did not. Interpret the results cautiously, given multiple unadjusted comparisons and the study's cross-sectional design, which limits causal inference. The findings suggest that assessing perceived family emotional climate and social support is valuable in psychosocial evaluations.

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