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Mental Health Correlates of Alcohol Dependence: A Study of Psychological Distress and Self-esteem in Odisha, India Running Title: Self-Esteem Among Individuals with Alcohol Dependence

Mrs. Ritarani Nayak
Siksha O Anusandhan University
Puspanjali Mohapatro
Siksha O Anusandhan University
Kabita Puhan
kabitapuhan@soa.ac.in

Siksha O Anusandhan University
Rubi Pradhan
Siksha O Anusandhan University
Itishree Pradhan
Siksha O Anusandhan University
Krishna Samantaray
Siksha O Anusandhan University

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Abstract

Background

Alcohol use disorder is a major public mental health concern associated with significant psychological and social consequences. Psychological distress and low self-esteem are common among individuals with alcoholism, yet these factors remain insufficiently explored in hospital-based settings in India.

Objective

This study aimed to assess the levels of psychological distress & self-esteem among patients with alcohol dependence & to examine their association with selected socio-demographic variables.

Methods

A descriptive cross-sectional study was conducted among 100 patients diagnosed with alcohol dependence syndrome and admitted to selected hospitals in Bhubaneswar, Odisha, India. Participants were selected using a non-probability convenience sampling technique. Data were collected using a socio-demographic questionnaire, Kessler Psychological Distress Scale (K10), & Rosenberg Self-Esteem Scale. Descriptive & inferential statistics were used for data analysis.

Results

The findings revealed a high prevalence of psychological distress and low self-esteem among patients with alcohol dependence. A positive correlation was observed between psychological distress and low self-esteem ($\chi^2 = 0.429$, $p = 0.746$). However, no statistically significant association was found between socio-demographic variables & psychological distress or self-esteem levels.

Conclusion

This paper draws attention to the significant psychological problems faced by people suffering from alcohol dependence. Incorporating mental assessments and psychological interventions, such as cognitive behavioural therapy and psychosocial interventions, as part of their regular treatment plan may enhance the success rates in their recovery process. Further studies should be conducted for more psychosocial determinants that impact mental health of people with alcohol use disorder.

Background

Alcohol use disorder (AUD) has emerged as one of the critical public health issues globally and is linked with adverse effects physically, psychologically, and socially. Alcohol misuse results in many adverse outcomes for society and leads to an increase in the disease burden. [1, 2] Along with physical health issues, people suffering from AUD also suffer from several mental health issues, including anxiety, depression, emotional disturbance, and low self-worth.[3, 4] Psychological aspects related to AUD are often overlooked in many cases, especially in low- and middle-income nations.[5]

Psychological distress can be described as a general phrase that refers to negative emotions, which are associated with feelings of stress, anxiety, and depression.[6] People who experience psychological distress find it difficult to cope with everyday life and sustain healthy social relationships. Drinking alcohol is considered an unhealthy mechanism for dealing with emotional pain, stress, and negative feelings.[7] Nevertheless, constant alcohol abuse can lead to increased psychological issues.[8]

Another psychological problem that is often found among people who are dependent on alcohol is low self-esteem. Self-esteem is described as the perception that a person has about his or her worth or value.[9] People with low self-esteem usually feel inadequate, guilty, ashamed, and hopeless. Such negative feelings might make one vulnerable to substance abuse.[10] Moreover, alcohol dependence might lower one's self-esteem because of poor social interactions, problems at work, disputes within the family, and social stigma related to being an addict.[11]

Several studies have indicated the close association between psychological distress & self-esteem in patients suffering from substance abuse disorders.[12, 13] Stressful experiences, economic hardships, issues in personal relationships, joblessness, and the absence of social networks have been found as causes of alcohol dependence and its psychological ramifications.[14] While substantial literature is available about the psychological aspects of alcoholism, little has been done in terms of examining the relationship between psychological distress and self-esteem among hospitalized patients with alcoholism in India, especially in Odisha.[15]

An understanding of the psychological factors behind alcohol dependency is crucial for the development of effective and personalized treatment strategies. The early detection of psychological problems, including poor self-esteem, can assist health care professionals in offering proper psychological support along with medical treatment.[16] Psychological treatments, including cognitive behavioral therapy, counseling, motivational enhancement therapy, and psychosocial support, can prove to be effective for people suffering from alcohol dependency.[17–19]

Therefore, the present study aimed to assess the levels of psychological distress and self-esteem among alcoholic patients admitted to selected hospitals in Bhubaneswar, Odisha. The study also sought to examine the association between these psychological variables and selected socio-demographic factors. The findings may contribute to the existing literature on mental health aspects of alcohol dependence and support the development of holistic mental health and addiction care services.[20]

Methods

Study design

A descriptive cross-sectional study was conducted to assess psychological distress and self-esteem among patients with alcohol dependence syndrome from may 2025 to July 2025.

Setting and facility characteristics

The study was conducted at the psychiatric wards and rehabilitation units of IMS and SUM Hospital, a tertiary care teaching hospital providing specialized mental health & addiction treatment services in eastern India. The facility offers inpatient and outpatient psychiatric care, de-addiction services, psychological counselling, and rehabilitation programs for individuals with substance use disorders.

Participants

The population of the study included patients diagnosed with alcohol dependence syndrome who were admitted to the psychiatric wards and rehabilitation centres during the data collection period. A total of 100 participants were recruited using a non-probability convenience sampling technique. Participants were included if they were aged 18 years or older, diagnosed with alcohol dependence syndrome, available during the data collection period, and willing to participate in the study. Patients who were critically ill, unable to communicate effectively, or unwilling to provide informed consent were excluded.

Sample size

The sample size was estimated using the Yamane formula with a 5% margin of error

N= $\frac{N}{1+N(\mathrm{e})^2}$

[Where:

- *n* = Required sample size
- *N* = Total population size
- *e* = Margin of error (0.05)]

Based on a target population of 133 patients, the calculated sample size was approximately 100 participants.

Data collection

Data were collected through face-to-face interviews using a structured questionnaire prepared and conducted by the researcher. The questionnaire comprised three parts, namely: socio-demographic profile, psychological distress evaluation, and self-esteem measurement. Socio-demographic measures

comprised age, gender, education level, marital status, place of living, family income, and drinking habit. Psychological distress was evaluated via Kessler Psychological Distress Scale (K10), a standard 10-item scale for measuring presence of anxiety & depressive symptoms. Self-esteem was measured via Rosenberg Self-Esteem Scale, which is a commonly used 10-item measure of general self-regard. Before conducting the main investigation, a try out was performed on ten patients diagnosed with alcoholism to check the feasibility, clearness, comprehension, and required time needed for the data collection process. Each interview took approximately 30 minutes.

Outcome measures

Outcome measurements for this study included psychological distress and levels of self-esteem for individuals diagnosed with alcohol dependence syndrome. The level of psychological distress was assessed using the K10 scale, whereby high scores indicated a high level of psychological distress. On the other hand, the level of self-esteem was determined using the Rosenberg Self-Esteem Scale, with low scores denoting low self-esteem. Associations between outcome variables and socio-demographic characteristics were also evaluated.

Reliability and validity

Content validation of the study instruments was done through peer evaluation by five experts on nursing and mental health to ensure their relevance and accuracy. Reliability analysis was done on 20 alcoholic participants using the Cronbach alpha reliability test for standardized scales.

Statistical analysis

Data were analysed using descriptive and inferential statistical methods. Descriptive statistics such as frequency, percentage, mean, & standard deviation, were used to summarize socio-demographic variables and outcome measures. Inferential statistics, including chi-square tests, were used to assess associations between psychological distress, self-esteem, and socio-demographic characteristics. Statistical significance was considered at a p-value of < 0.05.

Results

Demographic characteristics of participants

A total of 100 patients with alcohol dependence syndrome participated in the study. The majority of participants were aged 18–38 years (61%), followed by 39–59 years (29%) and ≥ 60 years (10%). Most participants were male (95%), while females constituted 5% of the sample. The majority were Hindu (90%), followed by Christians (6%) and Muslims (4%). More than half of the participants resided in rural areas (56%), and 60% were married. Regarding educational status, 27% were graduates, 21% were postgraduates, 20% were illiterate, 16% had matriculation-level education, 12% had higher secondary

education, and 4% were PhD scholars. Slightly more than half of the participants belonged to nuclear families (53%).Regarding lifestyle-related characteristics, 39% of participants reported sleeping less than 6 hours per day, while 32% reported sleeping less than 8 hours. Moderate physical activity was reported by 72% of participants, whereas 18% were physically active and 10% had sedentary lifestyles. With respect to occupation, 30% of participants were self-employed, 28% were employed in private jobs, 19% were government employees, 19% were involved in business, and 4% were unemployed. Most participants had a monthly family income between ₹10,000 and ₹50,000 (40%). The majority of participants (59%) reported consuming alcohol more than four days per week, whereas 33% consumed alcohol one to four days per week.

Table 1
Association between the Level of Psychological Distress and Self-Esteem among Alcoholic Patients Admitted in Psychiatric Wards Using Ronald C. Kessler Psychological Distress Scale

SL.NO	VARABLES	df	Chi-Square	P Value
1	Age	56	70.047	.98
2	Gender	28	11.731	.99
3	Religion	56	54.792	.52
4	Place of residence	56	38.124	.96
5	Marital status	28	34.536	.18
6	Educational qualification	140	170.197	.04
7	Family structure	84	114.685	.06
8	Sleeping pattern	84	109.280	.03
9	Physical activity	84	135.019	.99
10	Occupation	112	56.723	.06
11	Family in come	69	73.585	.72
12	Frequency of drinking	84	70.047	.78
P < 0.05 = significant				

Table 1 represents the association between socio-demographic characteristics & psychological distress was assessed using the Kessler Psychological Distress Scale (K10). Educational qualification (χ^2 = 170.197, p = 0.04) and sleeping pattern (χ^2 = 109.280, p = 0.03) demonstrated statistically significant associations with psychological distress and self-esteem levels among alcoholic patients. No statistically significant associations were observed between psychological distress and other socio-demographic variables, including age, gender, religion, place of residence, marital status, family structure, physical activity, occupation, family income, and frequency of alcohol consumption (p > 0.05).

Table 2
Association between the Level of Psychological Distress and Self-Esteem among Alcoholic Patients Admitted in Psychiatric Wards Using Rosenberg Self-Esteem Scale

SL.NO	VARABLES	df	Chi-Square	P Value
1	Age	32	43.57	0.85
2	Gender	16	32.83	0.008
3	Religion	32	29.99	0.56
4	Place of residence	32	29.07	.061
5	Marital status	16	19.31	0.25
6	Educational qualification	80	63.71	0.91
7	Family structure	48	27.81	0.99
8	Sleeping pattern	48	66.51	0.40
9	Physical activity	48	57.51	0.16
10	Occupation	64	56.72	0.72
11	Family income	48	39.49	0.80
12	Frequency of drinking	32	60.19	0.002
P < 0.05 = significant*				

Table 2 presents the associations between socio-demographic variables & self-esteem were analyzed using the Rosenberg Self-Esteem Scale. Gender ($\chi^2 = 32.83$, $p = 0.008$) and frequency of alcohol consumption ($\chi^2 = 60.19$, $p = 0.002$) were significantly associated with self-esteem levels among participants.However, no statistically significant associations were identified between self-esteem & variables such as age, religion, place of residence, marital status, educational qualification, family structure, sleeping pattern, physical activity, occupation, or family income ($p > 0.05$).

Correlation between psychological distress and self-esteem

Correlation analysis was performed to examine the relationship between psychological distress and self-esteem among alcoholic patients. Pearson's correlation coefficient revealed a weak positive correlation ($r = 0.080$, $p = 0.429$). Similarly, Spearman's correlation coefficient indicated a weak association ($r = 0.033$, $p = 0.746$) shown in Figure-1.

As the p values exceeded the level of statistical significance, no significant correlation was observed between psychological distress and self-esteem among the study participants. These findings suggest

that although psychological distress and low self-esteem were prevalent among alcoholic patients, the relationship between the two variables was weak within the present study population.

Discussion

The present study examined psychological distress and self-esteem among patients with alcohol dependence syndrome admitted to psychiatric wards in a tertiary care hospital in Bhubaneswar, Odisha. The findings demonstrated that psychological distress and low self-esteem were highly prevalent among alcoholic patients, highlighting the substantial psychological burden associated with alcohol dependence.

Association between the Levels of Psychological Distress & Self-Esteem among Alcoholic Patients

The present study identified significant associations between educational qualification and psychological distress, as well as between sleeping pattern and psychological distress among alcoholic patients. The above observations are supported by recent studies which have shown the impact that socio-demographic and behavioural variables may exert on mental health among patients with a diagnosis of substance abuse disorder.[21] A cohort study has shown that hazardous alcohol intake and physical inactivity are significantly correlated with elevated distress.[22]

Consequently, recently available studies exploring sleeping disorders occurring during the acute withdrawal stage of alcohol use disorder found a strong correlation between sleep disturbances and emotional instability, anxiety, & psychological distress in people suffering from alcohol dependence. [23] This finding agrees with the current study, as disturbed sleeping habits exhibited a statistically significant relationship with psychological distress.

In addition, one study conducted on people suffering from addiction found that the severity of insomnia was correlated with increased feelings of depression, anxiety, stress, and general psychological distress. [24] The authors stressed that addressing sleep problems could enhance the psychological well-being of patients with substance abuse disorders. This evidence further supports the current findings regarding the relationship between poor sleep patterns and psychological distress among alcoholic patients.

In addition, Danielson et al. reported that stress-related responses and coping-related drinking behaviours were significantly associated with psychological distress and problematic alcohol use among young adults. [25] Their findings suggest that emotional stress and maladaptive coping strategies may contribute to the development and persistence of alcohol dependence and associated psychological problems. Collectively, these studies support the findings of the present study and highlight the need for comprehensive psychosocial assessment & integrated mental health interventions among individuals with alcohol dependence syndrome.

Association between socio-demographic factors and self-esteem among alcoholic patients

The present study demonstrated significant associations between gender, frequency of alcohol consumption, and self-esteem among alcoholic patients admitted to psychiatric wards. These findings are supported by recent literature emphasizing the role of socio-demographic and behavioural factors in influencing self-esteem among individuals with substance use disorders. [26]

The research conducted by Yang et al. indicated that problematic drinking was strongly linked with low self-esteem and poor psychosocial functioning among patients suffering from alcohol dependence. [27] The researchers assumed that alcohol drinking on multiple occasions, stigma of such a condition, as well as poor interpersonal relations might have caused this trend.

In addition, in their cross-sectional study, Chodkiewicz et al. found out that those people who had alcohol use disorder showed significantly lower self-esteem than the general public, whereas the frequency of alcohol use was negatively correlated with better psychological adaptation and quality of life. [28] This work emphasized that poor self-esteem could be both a cause and an outcome of alcohol dependence.

In addition, Kim and Park have identified that gender played a critical role in influencing self-esteem and mental status among the patients undergoing treatment for substance use disorder. [29] The men experienced higher alcohol problems with their social functioning and work, leading to negative impacts on self-esteem and mental health. These results are similar to the current study in that gender was found to be statistically significant in relation to self-esteem.

Besides, Martinez et al. identified psychosocial predictors of alcohol dependence patients, indicating that alcohol use frequency was independently related to lower self-esteem, depression, and coping.[30] According to the researchers, effective counselling and behavioural interventions could be very helpful in the improvement of self-esteem and recovery from alcohol use disorders.

Overall, it can be concluded that the above discussion supports the current study, as it suggests that the issue of self-esteem of alcoholic patients depends on the intricate connection between gender, drinking behaviour, social and psychological stress factors, and emotional well-being. Thus, adding self-esteem assessment and psychosocial counselling to the treatment of alcoholism can positively influence the well-being of addicted people.

However, the key recommendations derived from the results obtained through the current research include the necessity to incorporate mental health assessments into addiction treatment programs. Systematic mental health testing can lead to early detection of those people who suffer from psychological issues and allow the development of effective psycho-social treatments. Some methods that can be applied in such cases include cognitive behavioural therapy, motivational enhancement therapy, counselling, sleep improvement techniques, and family-oriented interventions.

Strengths and limitations

The key strength of this study was the application of standardized tools such as K10 and the Rosenberg Self-Esteem Scale, which enhanced the validity and reliability of the results. The study also explored an under-researched area within the Indian population, especially the psychology of alcohol dependence within hospitalized patients. In addition, the analysis of numerous socio-demographic variables gave an insight into aspects that affected psychological distress and self-esteem.

However, there are various limitations that should be kept in mind when interpreting the results of this study. Firstly, this study used a non-probability convenience sampling methodology, thus introducing some kind of sampling bias and making the research findings less generalizable. Secondly, the study is limited to a single tertiary care hospital and hence suffers from low external validity due to the sample size involved. Thirdly, the use of a cross-sectional study design does not permit drawing any conclusions about the causality between psychological distress, self-esteem, and alcohol dependency. Finally, the possibility of recall and social desirability bias in self-reports cannot be ruled out.

Implications for mental health systems and nursing practice

The findings have important implications for mental health systems, nursing practice, & addiction care services. There is a need for regular assessments of psychological problems and self-esteem among people suffering from alcoholism by mental health specialists and nurses to facilitate holistic treatment. The incorporation of psychological intervention measures in rehabilitation centres will benefit treatment plans, reduce chances of relapse, and promote recovery.

The nursing curriculum needs to be improved to include addiction psychiatry, psychological assessments, and counselling measures to equip nurses with the skills necessary for holistic mental health care delivery. There is also need to develop awareness and mental health services for psychological disorders within the community.

Conclusion

This study illustrates the psychological stress faced by individuals with alcohol dependence syndrome. In addition, low self-esteem is another psychological challenge that affects patients with this syndrome. Education level, sleep patterns, gender, and drinking alcohol were found to be important variables affecting the psychological well-being of such patients. This study underscores the importance of providing integrated psychological support to patients with alcohol dependence syndrome. This can lead to better recovery and quality of life for these patients.

Declarations

Ethics Approval and Consent to Participate

Ethical approval for the study was obtained from the Institutional Review Board of Siksha 'O' Anusandhan University (Reference No. SOADU/SNC/IRB/351/2025). The study was conducted in accordance with the ethical principles outlined in the Declaration of Helsinki and its subsequent amendments. Administrative permission was obtained from the hospital authorities prior to data collection. Written informed consent was obtained from all participants before participation. Confidentiality, anonymity, and privacy of participant information were strictly maintained throughout the study. Participants were informed of their right to withdraw from the study at any time without any penalty or adverse consequences.

Consent for Publication

Not applicable

Competing Interests

There is no conflict of interest

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Author Contribution

KP, PM, RN, RP, IP and KS conceived and designed the study. KP developed the methodology, conducted the formal analysis, interpreted the data, and prepared the original draft of the manuscript. PS and RN contributed to data collection and data duration. IP and RP reviewed and critically revised the manuscript for important intellectual content. KS supervised the study and contributed to project administration. All authors read and approved the final version of the manuscript and agreed to its submission for publication.

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Availability of Data and Materials

The datasets generated & analysed during the current study are available from the corresponding author on reasonable request.

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Figures

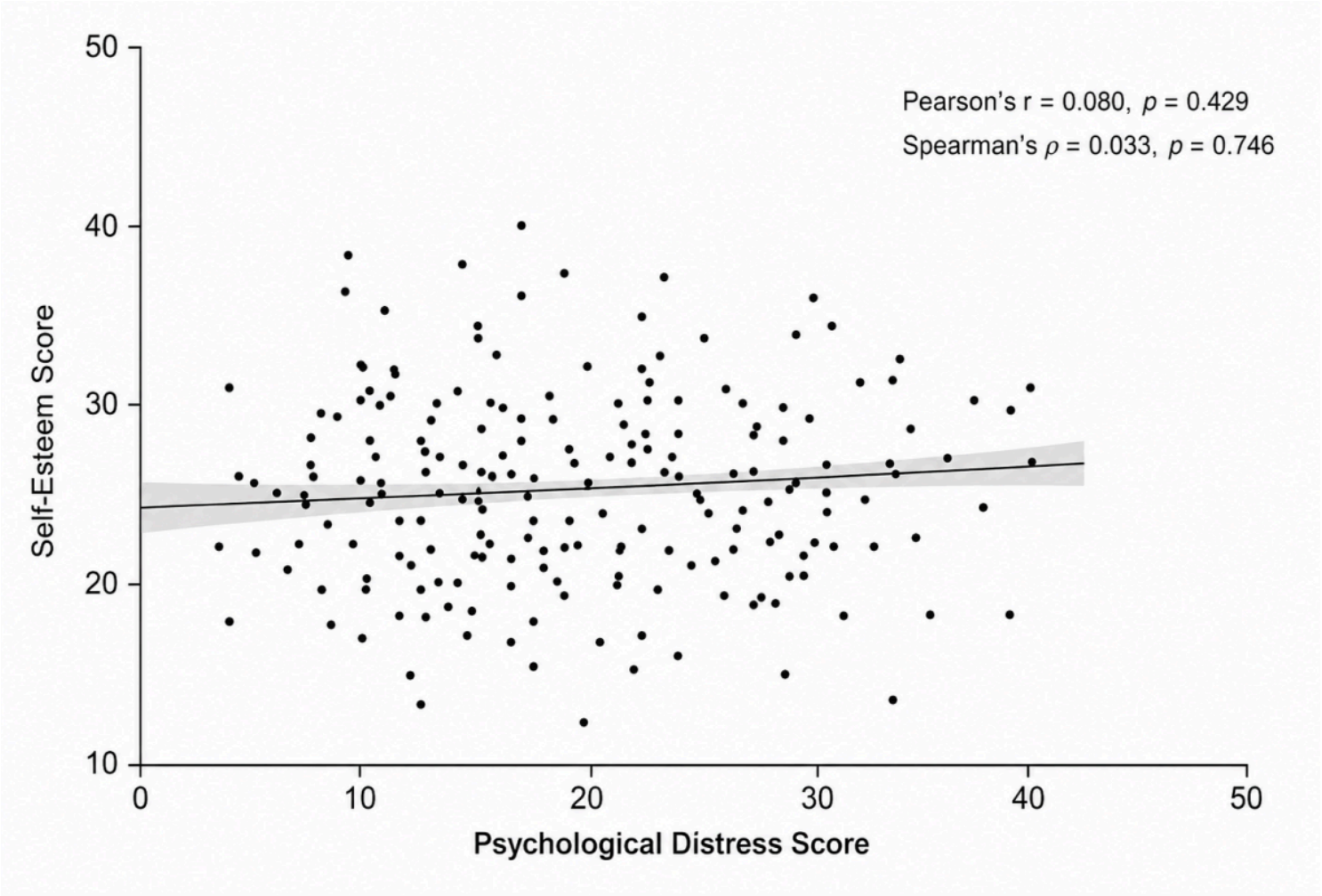


Figure 1

Correlation between psychological distress and self-esteem