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Mental health literacy and recovery patterns among clients with substance use disorder: A cross-sectional study

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Abstract:
Substance use disorder is a chronic relapsing condition in which inadequate mental health literacy may hinder recovery and long-term treatment adherence. Therefore, it is of interest to assess the mental health literacy and recovery progress among 100 clients with substance use disorder attending the outpatient department of a tertiary psychiatric hospital in Chennai using the Mental Health Literacy Scale (MHLS) and the Recovery Assessment Scale (RAS-24). Most participants showed moderate mental health literacy (85%) and moderate recovery progress (78%), while a significant positive correlation was observed between mental health literacy and recovery progress ($r = 0.32$, $p = 0.01$). Mental health literacy was significantly associated with age, gender and relapse history, whereas recovery progress was significantly associated with age, education and relapse history. Thus, data shows that improving mental health literacy may enhance recovery outcomes and support better treatment adherence among individuals with substance use disorder.

Keywords: Substance use disorder (SUD), mental health literacy (MHL), recovery, relapse, cross-sectional study, psychiatric nursing

Background:
Substance use disorder (SUD) is a significant public health issue, typified by compulsive substance use despite negative consequences. Millions of people are affected worldwide, but many remain untreated because of stigma, ignorance and restricted access to care **[1]**. The treatment gap for SUD is particularly wide in low and middle income countries, where mental health services are limited and help-seeking is delayed by social and structural barriers **[2]**. Help seeking behaviour and treatment adherence are significantly influenced by mental health literacy (MHL), defined as the knowledge and beliefs about mental disorders that aid in their recognition, management and prevention **[3]**. People with low MHL frequently miss symptoms, delay seeking help and show poor treatment compliance, all of which have a detrimental effect on recovery outcomes **[4]**. MHL interventions have been shown to reduce stigma, increase help seeking and support behavioral change across diverse populations. Recovery from SUD is intricate and multifaceted, with biological, psychological and social components. Relapse remains frequent despite therapeutic advancements, which emphasizes the need to identify modifiable factors such as MHL that can enhance recovery pathways **[5]**. Recovery oriented frameworks emphasize hope, personal responsibility and engagement in self- management, all of which are enabled by adequate health literacy **[6]**. Indian and broader Asian data show that MHL levels remain suboptimal among clinical populations, while structural stigma further delays treatment seeking **[7]**. Therefore, it is of interest to evaluate the association between mental health literacy and recovery patterns among clients with SUD attending a tertiary psychiatric hospital in Chennai.

Materials and Methods:
A quantitative descriptive cross-sectional design was adopted. The study was conducted in the outpatient department of a tertiary psychiatric hospital in Chennai, Tamil Nadu and India. One hundred clients diagnosed with substance use disorder were recruited through non-probability convenience sampling. Inclusion criteria were adults aged 18–60 years diagnosed with SUD, able to read Tamil or English and willing to provide written informed consent. Exclusion criteria were significant cognitive impairment and comorbid severe psychiatric illness that would interfere with response validity. Data were collected using a sociodemographic and clinical proforma, the Mental Health Literacy Scale (MHLS) and the Recovery Assessment Scale (RAS-24). Both the MHLS and the RAS-24 showed satisfactory reliability (Cronbach's alpha > 0.7) and content validity established through expert review. Ethical approval was obtained from the Institutional Ethics Committee of Madras Medical College. Written informed consent was obtained from all participants. Data were analysed using SPSS; descriptive statistics, Pearson's correlation coefficient and chi-square tests

were applied, with $p \leq 0.05$ considered statistically significant.

Results:

Of the 100 clients with SUD, the majority demonstrated moderate mental health literacy (85.00%), while 15.00% showed high MHL; none of the participants scored in the low MHL category. With respect to recovery, most clients showed moderate recovery progress (78.00%), 22.00% showed low recovery progress and none reached the high recovery category. The level distributions of MHL and recovery progress are summarized in **Table 1.** Pearson's correlation revealed a statistically significant positive association between mental health literacy and recovery progress ($r = 0.32$, $p = 0.01$), indicating that higher MHL was accompanied by greater recovery progress. Chi-square analysis **(Table 2)** showed that mental health literacy was significantly associated with age, gender and relapse history, while recovery progress was significantly associated with age, education and relapse history. Younger participants and those without a relapse history tended to show better recovery outcomes.

Table 1: Distribution of mental health literacy and recovery progress score levels among clients with substance use disorder (n = 100)

Variable	Level	n	%
Mental Health Literacy Scale (MHLS)	Low	0	0.00%
	Moderate	85	85.00%
	High	15	15.00%
Recovery Assessment Scale (RAS-24)	Low	22	22.00%
	Moderate	78	78.00%
	High	0	0.00%

Table 2: Significant socio-demographic and clinical associations of mental health literacy and recovery progress among clients with substance use disorder (n = 100)

Outcome variable	Level distribution n (%)	Significant associations ($p \leq 0.05$)
Mental Health Literacy Scale (MHLS)	Low: 0 (0.00%); Moderate: 85 (85.00%); High: 15 (15.00%)	Age; Gender; Relapse history
Recovery Assessment Scale (RAS-24)	Low: 22 (22.00%); Moderate: 78 (78.00%); High: 0 (0.00%)	Age; Education; Relapse history
Outcome variable	**Level distribution n (%)**	**Significant associations ($p \leq 0.05$)**
Correlation (MHL vs Recovery)	Pearson r = 0.32, p = 0.01 (significant positive correlation)	—

Note: Chi-square tests with $p \leq 0.05$ considered statistically significant.

Discussion:

The present study showed that most participants had moderate mental health literacy (85%) and moderate recovery progress (78%), indicating that although participants possessed a basic understanding of mental health, their knowledge may be insufficient to support optimal recovery. A significant positive correlation between mental health literacy and recovery progress ($r = 0.32$, $p = 0.01$) suggests that individuals with greater mental health literacy are more likely to recognize symptoms, adhere to treatment and actively participate in recovery oriented behaviours. These findings are consistent with previous studies showing that improved health literacy enhances treatment engagement, self-management and help-seeking behaviour among individuals with mental illness. The absence of participants with high recovery scores further reflects the chronic, relapsing nature of substance use disorder and emphasizes the need for sustained recovery-oriented interventions **[8].** Recovery progress was significantly associated with education and relapse history, suggesting that educational attainment and previous treatment experiences influence long-term recovery outcomes. Similar findings have been reported in earlier studies, where higher educational status and lower relapse frequency were associated with better treatment adherence and sustained remission **[9].** Younger participants and those without a history of relapse demonstrated comparatively better recovery, which may be explained by shorter illness duration and greater neurocognitive resilience. Mental health literacy was also significantly associated with age, gender and relapse history, indicating that demographic and clinical characteristics influence patients' ability to understand and manage their illness **[10]**. Stigma, poor awareness and delayed treatment seeking remain important barriers to successful recovery among individuals with substance use disorder. Previous research has shown that inadequate mental health literacy contributes to stigma, reduced help-seeking and poor engagement with treatment services, whereas literacy enhancing interventions improve knowledge, reduce stigma and promote recovery oriented behavior's **[11].** The predominance of moderate mental health literacy observed in the present study is comparable with reports from other Asian populations, highlighting the continuing need for structured psychoeducational programmers **[12, 13].** The strengths of this study include the use of validated assessment instruments and the simultaneous evaluation of mental health literacy and recovery progress in individuals with substance use disorder. However, the findings should be interpreted considering certain limitations. The single-centre convenience sample limits generalizability, the cross-sectional design prevents causal inference and self-reported responses may introduce reporting bias. Future multicentre longitudinal studies are warranted to validate these findings and evaluate the effectiveness of mental health literacy based interventions in improving long-term recovery outcomes among individuals with substance use disorder **[14, 15].**

Conclusion:

Mental health literacy was positively associated with recovery progress among clients with substance use disorder. Most participants demonstrated moderate mental health literacy and recovery, highlighting the need for continued support during treatment. Structured, nurse-led psycho education may improve treatment engagement and recovery outcomes, warranting further evaluation through longitudinal studies.

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