Indian Journal of Mental Health and Neurosciences

THE OFFICIAL PUBLICATION OF INDIAN PSYCHIATRIC SOCIETY - TAMIL NADU CHAPTER

ISSN 2581-9445 | Volume 9 Issue 1 | January 2026 | www.ijmhns.com

Published by BOHR Publishers

DOI: 10.54646/ijmhns

Indexed in DOAJ

https://doaj.org/toc/2581-9445

JOURNAL INFORMATION

Indian Journal of Mental Health and Neurosciences was started in 2018. It is the official journal of the Tamil Nadu Chapter of the Indian Psychiatric Society (Reg. No. 114/2016). It is a peer-reviewed, open access journal published Biannually in January and July. The journal publishes articles on psychiatry and other allied neuroscience disciplines

Indian Journal of Mental Health and Neurosciences (IJMHNS)

(AN OFFICIAL JOURNAL OF THE INDIAN PSYCHIATRIC SOCIETY - TAMIL NADU CHAPTER)

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Indian Journal of Mental Health and Neurosciences
Volume 9, Issue 1, 2026, pp. 1–2
DOI: 10.54646/ijmhns.2026.05
www.ijmhns.com

EDITORIAL

A watershed moment in Tamil Nadu's mental health landscape

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The year 2026 marks a defining chapter in the history of mental healthcare in Tamil Nadu and for the psychiatric fraternity across the State. It is a year that symbolizes transformation, aspiration, and renewed responsibility. At the center of this transformation stands a new institution that promises to redefine the future of mental health services in Tamil Nadu—TNIMHANS.

TNIMHANS: a new star is born

The Tamil Nadu Institute of Mental Health and Neurosciences (TNIMHANS) was inaugurated on February 16, 2026, by the then Hon'ble Chief Minister Thiru M.K. Stalin through video conferencing. Built adjacent to the historic Institute of Mental Health (IMH) campus, the institute rises as a modern GF+6 infrastructure housing a 240-bed facility dedicated to neurological and psychiatric care.

Constructed at a cost of ₹40 crores, with an additional allocation of ₹2.5 crores [G.O.(Ms) 69 – MoFHW dated 27.02.2026], TNIMHANS represents more than just an infrastructural achievement. It embodies a vision for integrated, accessible, and future-ready mental healthcare.

The contribution of Prof. Dr. Malaiappan, Director of IMH, and his dedicated team deserves special appreciation. Their vision and perseverance have laid the foundation for what could evolve into a premier institution akin to NIMHANS, Bengaluru.

However, the responsibility of TNIMHANS extends far beyond clinical treatment. As a center of excellence, it must become the nucleus for teaching, training, research, and policymaking in psychiatry and neurosciences. This moment calls for the integration of mental health services functioning under the Directorate of Medical Education (DME), Directorate of Medical Services (DMS), and Directorate of Public Health (DPH).

Equally important is the creation of a robust digital data capture and monitoring system. Evidence-based policymaking backed by dynamic and reliable data can significantly strengthen mental healthcare delivery, improve research output, and expand community mental health services to the last mile. Such initiatives would not only elevate Tamil Nadu's academic contributions globally but also ensure equitable mental healthcare access for its people.

War in the Middle East: its psychological echoes

While Tamil Nadu celebrates progress in mental healthcare, the global political climate paints a deeply unsettling picture. The sudden escalation of conflict involving Israel, the United States, and Iran has destabilized the Middle East, sending ripples far beyond the region.

Wars do not merely destroy cities; they fracture human minds and destabilize societies. Beyond the immediate humanitarian catastrophe, the economic and psychological consequences on developing nations are profound. India, too, is preparing for the repercussions.

For many young Indians, especially in the technology sector, the once-assured promise of stable software employment is rapidly fading. Massive layoffs among global technology giants have generated widespread insecurity and anxiety. Burdened by EMIs, rising living costs, and uncertain futures, many middle-aged individuals are increasingly vulnerable to depression, anxiety disorders, and emotional burnout.

The crisis has already forced countries like Pakistan into energy rationing and continues to strain Sri Lanka's fragile economic recovery. India remains susceptible to these cascading global disruptions.

The psychological impact of war is well documented. Feelings of helplessness, grief, anger, and despair permeate societies exposed to prolonged instability. Children, adolescents, women, and the elderly remain particularly vulnerable. War reshapes emotional resilience, disturbs developmental trajectories, and leaves scars that often persist across generations.

Yet perhaps the most disturbing aspect of modern warfare is the manner in which it is consumed and normalized. Missile strikes, drone assaults, and counterattacks are increasingly packaged as cinematic "war games" across digital platforms. Through carefully curated visuals and sensationalized narratives, the human suffering behind these conflicts is often erased.

Hospitals reduced to rubble, schools destroyed, and rehabilitation centers bombed become fleeting "reels" and "shorts" for endless consumption on social media. Artificial Intelligence and advanced warfare technologies are glorified, while dialogue, diplomacy, and peaceful conflict resolution are relegated to the background.

This desensitization of violence poses a grave psychological and ethical challenge for future generations.

The expanding mental health challenge

Even before the current geopolitical turmoil, humanity was already grappling with unprecedented stressors—climate change, environmental degradation, rapid urbanization, widening economic inequality, migration crises, and the responsible use of digital technology.

Together, these forces continue to shape emotional well-being and societal stability. The present geopolitical volatility only intensifies these challenges, making the role of psychiatrists, psychologists, and mental health professionals more demanding than ever before.

The road ahead will require resilience, collaboration, and innovation. Mental healthcare can no longer remain confined to hospitals and clinics; it must become a central pillar of public policy, education, and community engagement.

A new political chapter

The recently concluded elections in Tamil Nadu have delivered a result that few predicted. The collective consciousness of the electorate has spoken decisively, signaling a clear demand for change.

Actor-turned-politician Mr. Joseph Vijay has been elected as the Chief Minister of Tamil Nadu. The verdict reflects the aspirations of a people seeking new leadership and renewed governance.

As citizens and professionals alike look toward the future, there remains hope that healthcare—particularly mental healthcare—will continue to receive the attention and investment it urgently deserves.

Looking back, looking ahead

As I reflect upon the past 3 years of serving as Editor, I do so with gratitude and optimism. Much has been achieved, and yet there remains much to accomplish.

The Tamil Nadu Journal – IJMHNS has steadily evolved as a platform for academic dialogue, professional reflection, and advocacy in mental health. It is my sincere hope that the journal will continue to grow from strength to strength, contributing meaningfully to the advancement of psychiatry and mental health sciences in Tamil Nadu and beyond.

The times ahead may be uncertain, but they also carry the promise of transformation. And in that promise lies hope.

Indian Journal of Mental Health and Neurosciences
Volume 9, Issue 1, 2026, pp. 3–8
DOI: 10.54646/ijmhns.2026.01
www.ijmhns.com

ORIGINAL RESEARCH

Attitude towards mental illness among healthcare students – a cross-sectional survey

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Received: 16 January 2026; **Accepted:** 12 February 2026; **Published:** 15 May 2026

Abstract

Background: Stigma toward mental illness remains a significant barrier to effective mental health care. Healthcare students, as future professionals, play a crucial role in shaping patient experiences, and their attitudes toward mental illness can influence help-seeking, treatment quality, and recovery outcomes. This study aims to assess attitudes toward mental illness among healthcare students and examine demographic and academic factors associated with stigmatizing attitudes.

Methods: A cross-sectional survey was conducted among 340 healthcare students from a tertiary institution in Tamil Nadu. Participants completed a socio-demographic proforma and the 16-item mental illness: clinicians' attitudes scale – version 4 (MICA-4) questionnaire using an online platform. Data were analyzed using Statistical Package for the Social Sciences (SPSS) version 25. Descriptive statistics, independent t-tests, and one-way analysis of variance (ANOVA) were employed to examine differences in attitudes across demographic and academic variables.

Results: The mean total MICA-4 score was 61.91 $\pm$ 8.94, indicating a moderate level of stigma. A significant difference was observed in Domain 2 (knowledge) across courses of study ($p = 0.002$, 95% CI: 1.12–3.81). Domain 5 (care for patients with mental illness) differed significantly across years of study ($p = 0.003$, 95% CI: 1.26–1.78). Students from urban backgrounds scored higher than rural students in Domain 4 ($p = 0.027$, 95% CI: 1.08–1.68) and in total MICA-4 scores ($p = 0.046$, 95% CI: 1.18–3.88).

Conclusion: Although overall stigma levels were moderate, variations across academic and background factors highlight the need for targeted mental health education and early stigma-reduction strategies within healthcare curricula.

Keywords: social stigma, attitude of health personnel, students, health occupations, mental health education

Introduction

Mental illnesses represent a considerable global health burden, affecting approximately 970 million individuals worldwide (World Health Organization, 2022). Despite advancements in mental health care, stigma continues to impede access to treatment, reduce quality of care, and adversely affect patient recovery and community reintegration (1, 2).

How to Cite this Article:
Sumithra D S, Jeyanthy P S, Usaid S, Uma G B P and Siva Ilango T. Attitude towards mental illness among healthcare students – a cross-sectional survey. *Indian J. Ment. Health Neurosci.* 2026; 9(1): pp. 3–8. DOI: https://doi.org/10.54646/ijmhns.2026.01

Stigma consists of three core elements: ignorance (lack of knowledge), prejudice (negative attitudes), and discrimination (unjust behavior) (3). In healthcare settings, these elements can influence provider behavior, contributing to the marginalization of patients with psychiatric conditions (4).

Alarmingly, several studies have revealed that healthcare professionals, including physicians and nurses, often endorse stigmatizing beliefs towards individuals with mental illness, viewing them as less trustworthy or more dangerous (5–7). These attitudes may stem from inadequate training, limited clinical exposure, cultural factors, or personal biases (8, 9).

Healthcare students form beliefs and clinical frameworks during their formative training years. Consequently, identifying and modifying negative attitudes early is critical. Factors such as gender, academic discipline, clinical exposure, and personal familiarity with mental illness have been shown to influence attitudes (10, 11).

Several tools have been employed to measure mental illness stigma, including the Community Attitudes toward the Mentally Ill (CAMI) and the Attribution Questionnaire (12). However, these were often not designed for healthcare populations. The Mental Illness: Clinicians' Attitudes Scale (MICA) was developed to address this gap, with the mental illness: clinicians' attitudes scale – version 4 (MICA-4) version tailored for students and professionals across disciplines (13).

Previous studies have consistently demonstrated the presence of stigmatizing attitudes toward mental illness among healthcare students and professionals, which may negatively influence clinical interactions and quality of care (14–16). Studies from low- and middle-income countries have similarly highlighted persistent negative attitudes and limited mental health literacy among healthcare trainees (17–19).

Despite growing evidence of stigma toward mental illness among healthcare professionals and students, there remains a paucity of data comparing attitudes across different healthcare disciplines and academic levels within the Indian context. Most existing studies have focused on either medical students alone or practicing professionals, with limited attention to allied health sciences and nursing students, who play a crucial role in patient care. Furthermore, variations in attitudes based on socio-demographic factors such as age, academic year, course of study, and background remain underexplored. Therefore, the present study was conducted to assess attitudes toward mental illness among healthcare students and examine the association between socio-demographic and academic variables and stigmatizing attitudes.

Methodology

A cross-sectional, questionnaire-based study was conducted among healthcare students enrolled at a tertiary care teaching institution in Tamil Nadu. Participants included undergraduate students from medical, dental, nursing, and allied health sciences programs across all academic years, including interns and postgraduates.

Participants were recruited using purposive sampling. The study invitation was disseminated through institutional communication platforms, including WhatsApp groups and official email channels, after obtaining permission from the respective academic coordinators. All currently enrolled healthcare students who were willing to participate were eligible for inclusion.

Data were collected using a self-administered online questionnaire developed using Google Forms. The first page of the survey contained an information sheet explaining the purpose of the study, the voluntary nature of participation, anonymity, and confidentiality. Electronic informed consent was obtained from all participants prior to accessing the questionnaire, and submission of the completed survey was considered as consent. No personally identifiable information was collected.

Attitudes toward mental illness were assessed using the MICA-4, a validated 16-item instrument designed to measure attitudes toward mental illness among healthcare students and professionals (13). The MICA-4 scale has demonstrated good internal consistency and construct validity in multiple international studies, including studies conducted in cultural contexts comparable to India. Prior permission to use the MICA-4 scale for academic research was obtained from the original developers. Higher scores indicated more stigmatizing attitudes toward mental illness.

Statistical analysis was performed using the Statistical Package for the Social Sciences (SPSS), version 25.0 (IBM Corp., Armonk, NY, USA). Descriptive statistics were used to summarize demographic variables and domain-wise scores. Independent t-tests and one-way analysis of variance (ANOVA) were applied to assess differences across demographic and academic variables. A p-value of less than 0.05 was considered statistically significant.

Results

A total of 340 participants were included in the final analysis. The mean age of the study population was 20.85 ± 1.83 years, with a median age of 21 years and an age range of 18–29 years. The socio-demographic characteristics of the participants are presented in **Table 1**.

The mean domain scores were analyzed across demographic variables to explore variations in participants' perceptions and attitudes toward mental health. The five domains assessed included visions of health/mental health fields, knowledge about mental disorders, disclosure attitudes, distinction between physical and mental health, and care for patients with mental illness.

As shown in **Table 2**, participants aged 21–23 years showed slightly higher scores in most domains, while

TABLE 1 | Sociodemographic characteristics of the participants (N = 340).

Variable	Category	Frequency (n)	Percentage (%)
Age (in years)	18–20	170	50
	21–23	145	42.65
	24–26	25	7.35
Course of study	Dental	12	3.53
	Medical	298	87.65
	Nursing	30	8.82
Year of study	1st year	71	20.88
	2nd year	99	29.12
	3rd year	79	23.24
	4th year	70	20.59
	Intern	21	6.18
Accommodation	Day scholar	48	14.12
	Hosteller	292	85.88
Religion	Hindu	292	85.88
	Christian	30	8.82
	Muslim	11	3.24
	No religious inclination	7	2.06
Background	Rural	131	38.53
	Urban	209	61.47
Treatment for mental illness	Yes	14	4.12
	No	326	95.88

the 24–26-year-old group recorded the highest mean in Domain 4 (16.12 ± 3.73). However, no statistically significant differences were found across age categories for any domain ($p > 0.05$). Medical students, who constituted the majority of the sample, had mean scores of 16.53 ± 6.21, 13.77 ± 2.93, 7.17 ± 1.02, 15.50 ± 3.95, and 8.50 ± 2.36 across the respective domains. Nursing students demonstrated comparatively higher mean values in Domain 2 (21.00 ± –) and Domain 4 (17.00 ± –), though these findings should be interpreted cautiously due to the smaller sample size. Differences across courses of study were not statistically significant.

Mean domain scores varied with academic year. First-year students recorded the highest mean in Domain 5 (9.42 ± 2.20), while second-year students had the lowest (8.02 ± 2.07). A statistically significant difference was observed for Domain 5 ($p = 0.003$), indicating variation in attitudes toward care for patients with mental illness across years of study. Differences in mean scores across religious affiliations were minimal; participants with no religious inclination had slightly higher means in Domain 3 (8.29 ± 1.89), though none of these differences were statistically significant ($p > 0.05$).

Participants from urban backgrounds obtained higher mean scores in Domain 4 (15.53 ± 3.64) compared to those from rural areas (14.64 ± 3.55), and this difference was statistically significant ($p = 0.027$). Those who reported a history of treatment for mental illness had marginally lower mean scores across most domains compared to those without such history, but these differences were not statistically significant ($p > 0.05$).

As shown in **Table 3**, the mean total MICA-4 score among participants was generally consistent across age, course, year of study, religion, background, and history of mental illness. Although the mean score across age groups tended to increase with age, the difference was not statistically significant ($p = 0.142$).

Across courses, dental students showed a slightly higher mean score; the overall difference between groups was not statistically significant ($p = 0.252$). When compared across academic years, third-year students had the highest mean score (63.72 ± 13.38), followed by interns (63.29 ± 9.77) and first-year students (62.15 ± 7.09). The lowest mean score was observed among second-year students (60.30 ± 6.56). However, these variations were not statistically significant ($p = 0.152$).

Participants from urban backgrounds had a higher mean total score (62.68 ± 10.26) than those from rural areas (60.72 ± 6.23), and this difference was statistically significant ($p = 0.046$), indicating that urban respondents exhibited more favorable attitudes toward mental illness.

Participants with a history of treatment for mental illness recorded a slightly lower mean score (60.29 ± 8.88) compared to those without such history (61.98 ± 8.95), but this difference was not statistically significant ($p = 0.488$).

Discussion

The present study assessed attitudes toward mental illness among healthcare students and examined their association with selected socio-demographic and academic variables. Overall, the findings indicate a moderate level of stigma, which is consistent with previous studies conducted among healthcare students and professionals globally. Similar levels of stigmatizing attitudes have been reported in international studies using the MICA, suggesting that stigma persists even among individuals receiving formal healthcare training (13, 15).

A significant difference in knowledge-related attitudes toward mental illness was observed across courses of study, with dental students demonstrating higher scores compared to medical and nursing students. This finding aligns with a study done by Knaak et al., indicating that variability in mental health exposure across healthcare curricula may influence attitudes toward mental illness (16). Medical curricula typically provide greater exposure to psychiatry through structured teaching and clinical postings, which may partially explain relatively lower stigma scores among medical students. In contrast, limited mental health training

TABLE 2 | Domain-wise mean scores of participants by demographic variables.

			Visions of health/mental health fields		Knowledge about mental disorders		Disclosure attitudes		Distinction between physical and mental health		Care for patients with mental illness	
Variable	**Group**	**N**	**Mean ± SD**	**p-value**	**Mean ± SD**	**p-value**	**Mean ± SD**	**p-value**	**Mean ± SD**	**p-value**	**Mean ± SD**	**p-value**
Age (years)[a]	18–20	170	15.99 ± 3.16	0.359	14.22 ± 2.94	0.586	7.08 ± 1.89	0.970	15.15 ± 3.66	0.057	8.57 ± 2.27	0.656
	21–23	145	17.01 ± 8.23		14.48 ± 3.20		7.14 ± 1.18		15.14 ± 3.53		8.82 ± 2.20	
	23–26	25	17.52 ± 3.66		14.72 ± 4.23		7.12 ± 0.67		16.12 ± 3.73		8.96 ± 2.09	
Course[a]	Dental	12	17.92 ± 3.78	0.647	17.08 ± 3.92	0.002 (95% CI: 1.12–3.81)	7.25 ± 1.22	0.885	15.42 ± 3.78	0.902	9.33 ± 2.71	0.440
	Medical	298	16.53 ± 6.21		14.28 ± 3.09		7.11 ± 1.61		15.14 ± 3.60		8.72 ± 2.19	
	Nursing	30	16.40 ± 2.72		13.77 ± 2.93		7.17 ± 1.02		15.50 ± 3.95		8.50 ± 2.36	
Year of study[a]	1st year	71	16.83 ± 3.21	0.528	13.86 ± 3.00	0.073	6.96 ± 2.62	0.685	15.08 ± 3.93	0.382	9.42 ± 2.20	0.003 (95% CI: 1.26–1.78)
	2nd year	99	15.91 ± 3.09		14.09 ± 2.75		7.27 ± 1.39		15.01 ± 3.37		8.02 ± 2.07	
	3rd year	79	17.42 ± 10.98		14.99 ± 3.26		7.19 ± 0.85		15.39 ± 3.48		8.73 ± 2.39	
	4th year	70	16.00 ± 2.70		14.60 ± 3.34		6.93 ± 1.02		15.18 ± 3.73		8.92 ± 1.96	
	Intern	21	17.10 ± 3.69		14.33 ± 4.12		7.24 ± 0.77		15.90 ± 3.85		8.71 ± 2.45	
Religion[a]	Hindu	292	16.62 ± 6.27	0.813	14.23 ± 3.16	0.061	7.05 ± 1.56	0.150	15.11 ± 3.62	0.751	8.71 ± 2.22	0.666
	Christian	30	16.52 ± 3.23		15.19 ± 2.59		7.29 ± 1.29		15.77 ± 4.16		8.94 ± 2.02	
	Muslim	11	14.92 ± 2.91		13.83 ± 3.71		7.42 ± 1.44		15.67 ± 2.81		8.00 ± 2.34	
	None	7	16.57 ± 2.82		16.86 ± 4.02		8.29 ± 1.89		14.86 ± 3.19		8.86 ± 2.97	
Background[b]	Urban	209	16.93 ± 7.26	0.135	14.33 ± 2.96	0.886	7.04 ± 1.54	0.263	15.53 ± 3.64	0.027 (95% CI: 1.08 –1.68)	8.85 ± 2.24	0.162
	Rural	131	15.96 ± 2.69		14.39 ± 3.48		7.23 ± 1.55		14.64 ± 3.55		8.50 ± 2.18	
Treatment status[b]	Yes	14	15.86 ± 3.13	0.656	14.79 ± 2.99	0.604	6.93 ± 0.92	0.649	14.14 ± 3.82	0.274	8.57 ± 2.31	0.809
	No	326	16.58 ± 6.01		14.34 ± 3.18		7.12 ± 1.57		15.23 ± 3.62		8.72 ± 2.22	

[a]One way analysis of variance (ANOVA) was used to compare the mean scores of more than two groups
[b]Independent t test was used to compare the mean scores of two groups
p-value of less than 0.05 was considered statistically significant.

TABLE 3 | Total score on mental illness clinicians attitudes - 4 scale (all domains combined).

Variable	Group	N	Total score mean ± SD	p-value
Age[a]	18–20	170	61.02 ± 6.99	0.142
	21–23	145	62.60 ± 10.61	
	23–26	25	64.44 ± 9.69	
Course[a]	Medical	298	61.77 ± 9.17	0.252
	Dental	12	67.00 ± 7.35	
	Nursing	30	61.33 ± 6.57	
Year of study[a]	1st year	71	62.15 ± 7.09	0.152
	2nd year	99	60.30 ± 6.56	
	3rd year	79	63.72 ± 13.38	
	4th year	70	61.63 ± 6.62	
	Intern	21	63.29 ± 9.77	
Religion[a]	Hindu	292	61.72 ± 9.18	0.375
	Christian	30	63.71 ± 8.13	
	Muslim	11	59.83 ± 5.51	
	None	7	65.43 ± 4.93	
Background[b]	Urban	209	62.68 ± 10.26	0.046 (95% CI: 1.18–3.88)
	Rural	131	60.72 ± 6.23	
Mental illness[b]	Yes	14	60.29 ± 8.88	0.488
	No	326	61.98 ± 8.95	

[a]One way ANOVA was used to compare the mean scores of more than two groups
[b]Independent t test was used to compare the mean scores of two groups
p-value of less than 0.05 was considered statistically significant.

in certain allied disciplines may contribute to higher levels of stigma.

Differences in attitudes toward care for patients with mental illness across years of study further support the role of academic exposure and clinical experience in shaping attitudes. Studies done by Thornicroft et al. have shown that increased clinical contact with individuals with mental illness is associated with more favorable attitudes, although such exposure does not uniformly eliminate stigma (14). The present findings suggest that while progression through training may improve certain attitudinal domains, targeted educational interventions are still required.

The study also found significant differences in attitudes based on background, with students from urban settings demonstrating higher total MICA-4 scores compared to those from rural backgrounds. This contrasts with a study done in Maharashtra by Kermode M et al., which reported greater stigma in rural populations, highlighting the complex and context-specific nature of mental health attitudes (17). Factors such as differing sociocultural perceptions, exposure to mental health information, and media representation may contribute to these variations and warrant further exploration.

Overall, the findings highlight existing gaps in the literature, particularly the scarcity of comparative studies examining stigma across multiple healthcare disciplines and academic levels within the Indian context. The results underscore the need for structured, discipline-specific anti-stigma interventions integrated into healthcare education. Future research should focus on longitudinal designs and interventional studies to assess changes in attitudes over time and to evaluate the effectiveness of targeted educational strategies.

The study has some limitations. As a cross-sectional study conducted at a single institution, the findings may not be generalizable to all healthcare students. The use of convenience sampling could introduce selection bias, and some subgroups, such as allied health and postgraduate students, had very small sample sizes, which limits subgroup comparisons. Since the data were collected through a self-reported online questionnaire, responses may have been influenced by social desirability bias, potentially underreporting negative attitudes. Although reverse coding was applied to ensure accurate scoring of the MICA-4 scale, individual interpretation of statements may still have varied.

Conclusion

The present study demonstrates that healthcare students exhibit a moderate level of stigma toward mental illness, with significant variations observed across course of study, year of training, and socio-demographic background. Differences in knowledge-related domains and attitudes toward patient care suggest that exposure to mental health education and clinical experience may influence stigmatizing attitudes, although such exposure alone may be insufficient to eliminate stigma. The findings also highlight existing gaps in the literature, particularly the limited comparative data across diverse healthcare disciplines and academic levels within the Indian context. Future research should focus on longitudinal and interventional studies to evaluate the effectiveness of structured, discipline-specific anti-stigma training modules integrated into healthcare curricula. Such initiatives may help foster more positive attitudes toward mental illness and ultimately improve the quality of mental health care delivered by future healthcare professionals.

Acknowledgement

None.

Funding

The authors declare no financial support was received for the research, authorship, and/or publication of this article.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Declaration regarding the use of Generative AI

The corresponding author has acknowledged the use of AI assistance and has submitted 'AI use declaration form'.

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Indian Journal of Mental Health and Neurosciences
Volume 9, Issue 1, 2026, pp. 9–14
DOI: 10.54646/ijmhns.2026.08
www.ijmhns.com

ORIGINAL

An ambispective study on the determinants of treatment outcome and follow-up of patients with alcohol dependence syndrome in a Tertiary Care Center in Tamil Nadu

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Received: 19 December 2025; **Accepted:** 12 May 2026; **Published:** 18 May 2026

Abstract

Background: Alcohol dependence syndrome (ADS) is a major public health challenge in India, characterized by high relapse rates and poor long-term outcomes. Understanding multifactorial determinants, including personality traits, psychosocial stressors, and clinical factors, can help in improving treatment strategies to get better outcomes.
Aim: To assess determinants of treatment outcome and follow-up compliance among inpatients with ADS at a tertiary care center in Tamil Nadu.
Methods: 116 patients diagnosed with ADS were studied over 9 months (October 2024–June 2025). Retrospective and prospective data, including sociodemographic and clinical factors, personality traits, stressful life events, and treatment adherence, were analyzed using statistical tools.
Results: Relapse rate was high (approximately 95%). Significant predictors of relapse included craving ($p < 0.001$), poor treatment compliance ($p = 0.028$), high severity of dependence (SADQ) ($p < 0.001$), married status ($p = 0.040$), and positive family history ($p = 0.011$). Personality traits showed no significant association with relapse except "Liveliness" correlating with stressful life events ($p = 0.020$). Disulfiram therapy showed better abstinence rates compared to other pharmacotherapies.
Conclusion: Treatment compliance, craving, family history, and psychosocial stressors are critical factors in relapse among ADS patients. Multifaceted intervention models that address these variables are essential for improving long-term outcomes.

Keywords: alcohol dependence syndrome, relapse, treatment outcome, ambispective study, personality traits, India

Introduction

Alcohol Dependence syndrome (ADS) is a chronic, relapsing psychiatric disorder characterized by compulsive alcohol use, impaired control over drinking, physiological withdrawal symptoms, increased tolerance, and persistent drinking despite evidence of harmful consequences. Globally, ADS represents a serious public health concern due to its prevalence, associated comorbidities, and socio-economic impact. The World Health Organization (WHO) estimates

How to Cite this Article:
Ragaramya P A, Jagadeesan M S and Kavitha C. An ambispective study on the determinants of treatment outcome and follow-up of patients with alcohol dependence syndrome in a Tertiary Care Center in Tamil Nadu. *Indian J. Ment. Health Neurosci.* 2026; 9(1): pp. 9–14. DOI: https://doi.org/10.54646/ijmhns.2026.08

nearly 3 million annual deaths attributable to harmful alcohol use, constituting 5.1% of the global disease burden.

The burden of ADS is disproportionately high in low- and middle-income countries such as India, where healthcare accessibility, awareness, and early intervention remain limited. The "Magnitude of Substance Use in India" (2019) reported that 14.6% of the Indian population aged 10–75 years consumed alcohol in the past year, with 5.2% meeting dependence criteria. Despite millions suffering from ADS, treatment engagement is hindered by stigma, poor service reach, and inadequate follow-up.

Treatment of ADS involves pharmacological agents, psychosocial therapies such as cognitive behavioral therapy (CBT) and motivational enhancement therapy (MET), and support groups like Alcoholics Anonymous. However, relapse rates remain discouragingly high, often ranging between 60% and 70% within 6 months post-treatment.

Research highlights various biological, psychological, and social determinants of treatment outcome, including personality traits that predict vulnerability to relapse. Traits like impulsivity, neuroticism, and antisocial features have been associated with early drinking initiation, poor adherence, and repeated relapse. In India, studies also underscore family history and early drinking patterns as adverse prognostic indicators.

Stressful life events significantly affect ADS trajectory. Financial strain, familial discord, bereavements, and occupational challenges exacerbate relapse risk by diminishing coping efficacy.

Despite extensive isolated studies, there is a scarcity of ambispective research integrating retrospective and prospective data to examine multifactorial influences such as personality, stress, and treatment adherence on relapse in an Indian clinical setting.

This study aims to fill this gap by examining the treatment modalities, determinants of treatment outcome, and follow-up in patients with ADS admitted to a tertiary care center in South India. By tracking patients at multiple intervals over 6 months and integrating clinical, psychosocial, and personality assessments, it provides comprehensive insights to guide improved interventions.

Methodology

This study is an ambispective observational study conducted at the Institute of Mental Health, Chennai, over 9 months from October 2024 to June 2025. A total of 116 patients diagnosed with ADS admitted for inpatient care were included using consecutive non-probability sampling. Patients with a diagnosis of ADS as per DSM-5 criteria, who were admitted for the first time for treatment and were willing to participate and provide follow-up data, were included in the study. And patients with severe medical or neurological illness were excluded from the study. Data collection combined retrospective review of records and prospective follow-ups at 1, 2, 3, and 6 months post-discharge. Clinical and demographic variables recorded included age, sex, education, occupation, marital status, socioeconomic status, family history of alcohol use, age at first drink, duration and frequency of alcohol use, severity of dependence (SADQ), presence of craving, pharmacological treatment used, and treatment compliance. Personality assessment was done using the 16PF personality questionnaire. Stressful life events were measured using the presumptive stressful life events scale (PSLES).

Outcome measures

Primary outcome: Relapse status at 6 months' follow-up (relapse vs. abstinence).

Secondary outcomes: Association of relapse with personality traits, craving, treatment compliance, and psychosocial variables.

Statistical analysis

Descriptive statistics summarized baseline variables. Chi-square and Fisher's exact tests assessed categorical variable associations. Odds ratios were computed for abstinence predictors. p-values < 0.05 were considered statistically significant.

Results

Sample characteristics

The mean age of the participants of the study was 38 years, and all participants were male (**Table 1**). About 54% were married, and most of the participants were unemployed or unskilled laborers. More than one third of the study population had completed their high school. Early age of onset of drinking (<21 years) was noted, and most of them had moderate to severe dependence patterns of drinking. Relapse rates were around 95% with only 5% remaining abstinent at the end of the study period (**Table 2**). A positive family history of alcohol use significantly predicted relapse (**Table 3**).

Personality trait "Liveliness" and stressful life events

A significant association ($p = 0.020$) was observed with the "Liveliness" trait and stressful life events (**Table 4**). Patients with medium liveliness exhibited the highest stressful events rates (86.5%) compared to high (60%) or low (63.6%) liveliness. No other personality traits correlated significantly.

TABLE 1 | Sociodemographic variables and relapse status.

Variable	Category	Relapse rate (%)	Abstinent (%)	Odds ratio (abstinence)	p-value
Age	<37 years	66 (92.6)	5 (7.4)	0.099	0.055
	≥38 years	45 (100)	0	—	
Education	≥High school	54 (86.1)	9 (13.9)	0.139	0.134
	<High school	53 (100)	0	—	
Occupation	Unemployed/Unskilled	53 (96.4)	2 (3.6)	0.893	1.000
	Other	59 (96.3)	2 (3.7)		
Marital status	Married	63 (100)	0	—	0.040
	Unmarried/separated/divorced	49 (92.0)	4 (8.0)	11.7	
Type of family	Nuclear	67 (96.5)	2 (3.5)	1.59	0.643
	Joint	45 (95.4)	2 (4.6)		
Socioeconomic status	Lower	100 (95.7)	5 (4.3)	1.08	1.000
	Middle	10 (95.3)	1 (4.7)		

TABLE 2 | Clinical variables and relapse status.

Variable	Category	Relapse rate (%)	Abstinent (%)	Odds ratio (abstinence)	p-value
Age at first drink	<21 years	79 (94.9)	4 (5.1)	—	0.575
	≥21 years	33 (100)	0		
Duration of alcohol use	<16 years	48 (94.7)	3 (5.3)	—	0.619
	≥16 years	64 (98.1)	1 (1.9)		
Frequency of drinking	1–4 days/week	95.8	4.2	—	1.000
	Almost daily	65 (96.8)	2 (3.2)		
Last drink before admission	≤3 days	97.8	2.2	—	0.164
	>3 days	90.5	9.5		
Abstinent days prior to relapse	<36 days	71 (100)	0	—	0.014
	≥36 days	35 (89.7)	1 (10.3)		
Craving at admission	Present	115 (99.1)	1 (0.9)		<0.001
	Absent	0	116 (100)		
Craving during follow-up	Present	112 (100)	0		0.002
	Absent	5 (84)	1 (16)		
Pharmacotherapy	Disulfiram	5 (55.6)	4 (44.4)		<0.001
	Naltrexone/other	82 (100)	0		
Treatment compliance	Good	43 (91.3)	3 (8.7)		0.028
	Poor	64 (100)	0		

TABLE 3 | Family history and stressful life events.

Variable	Category	Relapse rate (%)	Abstinent (%)	Odds ratio (abstinence)	p-value
Family history alcohol	Present	77 (100)	0	—	0.011
	Absent	35 (89.2)	4 (10.8)	0.050	
Stressful life events	Present	93 (96.7)	3 (3.3)	1.53	0.557
	Absent	19 (95.0)	1 (5.0)		

TABLE 4 | Psychiatric comorbidity and personality traits.

Variable	Group/outcome	Rate (%)	p-value
Psychiatric comorbidity	Early relapse (within 1 month)	66–80	—
	Late relapse (6 months; psychosis group)	6.3	—
Personality TRAITS	None show significant association	—	>0.05
Severity	**Relapse rate (%)**	**Abstinent (%)**	**p-value**
Mild	66.7	33.3	<0.001
Moderate	96.7	3.3	
Severe	100	0	

Discussion

This ambispective study conducted at a tertiary care center in South India provides important insights into the clinical, psychosocial, and demographic determinants of relapse in patients with ADS. The findings reinforce the complexity of relapse risk and highlight areas for targeted intervention.

The exclusively male sample mirrors treatment-seeking trends in India, where women with alcohol use disorders are underrepresented due to socio-cultural stigma, gender roles, and limited access to care (1, 2). This gap necessitates gender-sensitive research and services.

The mean age of 37.7 years aligns with established dependence patterns but is younger than those reported in other Indian studies (3, 4). This suggests earlier initiation of alcohol use, which is further supported by the high proportion of participants who began drinking before age 21. Early onset has been linked with a higher risk of chronic dependence and poor outcomes (5).

Marital status was unexpectedly associated with increased relapse risk, with married individuals relapsing more frequently. While some literature suggests marriage may act as a protective factor against substance use (6), this study indicates that marital stress and relationship discord may instead serve as significant relapse triggers, as indicated by some studies (7). Thus, couple and family interventions may be considered in relapse prevention strategies.

Craving emerged as a prominent and statistically significant factor associated with relapse, in line with prior research that identifies craving as a key clinical target in preventing relapse (8, 9). This emphasizes the need for pharmacological agents such as naltrexone and acamprosate and psychosocial interventions including CBT to manage craving effectively (10).

In this study, treatment adherence was another major determinant of outcome. All patients with poor adherence experienced relapse, consistent with literature showing that non-adherence predicts poor long-term outcomes (11, 12). Factors such as socioeconomic burden, family support, motivation, and side effects often influence adherence in chronic conditions like ADS (13).

Pharmacologically, disulfiram was associated with better abstinence outcomes compared to other agents. While this may partly reflect selection bias—since disulfiram is often prescribed to motivated patients with strong supervision. The same results were replicated by existing evidence (14, 15). Careful patient selection remains key for optimal outcomes.

A positive family history of alcohol dependence significantly predicted relapse, in line with prior studies highlighting both genetic predispositions and familial modeling of substance use behavior (16, 17). This underscores the importance of taking family history into account during assessment and designing family-inclusive interventions.

Contrary to international studies that emphasize personality traits like impulsivity and neuroticism as predictors of relapse (18), this study found no significant association, except between the trait of "Liveliness" and increased stressful life events. Differences in sociocultural norms and assessment tools may account for this divergence (19).

The SADQ, as measured by the SADQ, was a strong predictor of relapse. This finding aligns with earlier studies that validate this (20). Greater severity often reflects higher tolerance, compulsivity, and associated psychosocial impairment, necessitating more intensive interventions.

The relapse rate in this study, which is lower when compared to a previous study (21) conducted in South India, is probably due to the severity of alcohol dependence of cases that visit the tertiary care center as most of the patients have severe alcohol dependence.

Conclusion

This study highlights the multifactorial nature of relapse in ADS in India, where craving, poor treatment adherence,

family history, marital status, and SADQ dominate outcomes. Psychosocial factors and personality traits play a major role, necessitating personalized treatment approaches emphasizing craving management, family and marital support, and adherence-promoting strategies. This study provides insight on the determinants playing a significant role in the outcome for patients with alcohol dependence when followed up for 6 months.

Limitations

Single-center study limits generalizability. Lack of biological markers and neurocognitive assessments is also a limitation, and self-reported data may be subject to recall bias.

Future directions

Future studies should include female participants and adopt multicentric or community-based designs to improve generalizability. Incorporating biological markers and neurocognitive assessments may offer deeper insights into relapse predictors.

Data availability statement

Data available on reasonable request from the corresponding author.

Ethics statement

Approved by the Institutional Ethics Committee, Madras Medical College. Written informed consent was obtained from all participants.

Consent for publication

Not applicable.

Funding

The authors declare that no financial support was received for the research, authorship, and/or publication of this article.

Competing interests

The authors declare no competing interests.

Acknowledgments

The authors gratefully acknowledge the support of the Institute of Mental Health, Kilpauk, Chennai, for providing access to the medical records and facilitating this study. We extend our sincere thanks to the administrative authorities who permitted the review of case files and ensured compliance with the procedural requirements.

We also wish to acknowledge the contributions of the medical records staff and the Visitors' Committee members, whose meticulous documentation and assessments made this analysis possible. The authors are indebted to colleagues in the Department of Psychiatry for their valuable discussions and guidance during the preparation of this manuscript.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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Indian Journal of Mental Health and Neurosciences
Volume 9, Issue 1, 2026, pp. 15–23
DOI: 10.54646/ijmhns.2026.06
www.ijmhns.com

REVIEW

The Mental Healthcare Act 2017 and rights of persons with mental illness in India: a doctrinal and policy review

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Received: 11 February 2026; **Accepted:** 05 May 2026; **Published:** 15 May 2026

Abstract

The Mental Healthcare Act 2017 (MHCA 2017) represents a paradigmatic change in India's response to mental health, moving from a primarily custodial model toward a human rights-based framework aligned with international standards, especially the UN Convention on the Rights of Persons with Disabilities (CRPD). This article provides a doctrinal and policy review of MHCA 2017 with particular emphasis on the rights of persons with mental illness (PwMI) and the practical challenges involved in translating these rights into everyday mental healthcare practice. Drawing on primary legislation, policy documents, and secondary literature, the paper traces the historical evolution of mental health law in India, analyzes the key mental healthcare-related rights and entitlements created under the MHCA 2017, and evaluates the extent to which the Act advances India's obligations under the CRPD. To avoid repetition of the statutory scheme, the article does not discuss every provision of the Act in equal detail; instead, it focuses on those rights and mechanisms most relevant to implementation, including access to mental healthcare, informed consent, advance directives, nominated representatives, community living, and Mental Health Review Boards (MHRBs). The analysis highlights that although the Act is progressive in its normative design, its implementation is constrained by inadequate public funding, shortage of trained mental health professionals, weak community-based services, uneven functioning of review boards, limited awareness among patients and families, and persistent stigma. Practice-level difficulties include delayed access to care, limited use of advance directives, uncertainty in documenting capacity and consent, family-dominated decision-making, lack of rehabilitation options after discharge, and difficulties in ensuring rights-based care in resource-constrained settings. The paper concludes that while MHCA 2017 creates a robust normative legal framework, its transformative potential remains under-realized without sustained investment, inter-sectoral coordination, and systematic monitoring. It offers targeted recommendations to strengthen implementation and better safeguard the rights and dignity of PwMI in India.

Keywords: Mental Healthcare Act 2017, persons with mental illness, human rights, mental health law, India, implementation challenges

How to Cite this Article:
Vishnu M and Nalakath A U. The Mental Healthcare Act 2017 and rights of persons with mental illness in India: a doctrinal and policy review. *Indian J. Ment. Health Neurosci.* 2026; 9(1): pp. 15–23. DOI: https://doi.org/10.54646/ijmhns.2026.06

Introduction

In India, mental health problems constitute a major public health and human rights concern. The World Health Organization has reported that disability-adjusted life years due to mental health problems are 2,443 per 100,000 population, while the age-adjusted suicide rate is 21.1 per 100,000 population (1). A severe shortage of mental health professionals, low awareness, persistent stigma, and limited availability of community-based services contribute to an estimated treatment gap of 70–92% (2). Thus, the challenge is not only the legal recognition of mental health rights but also their effective translation into accessible, affordable, and rights-based care in everyday practice.

Mental health legislation in India has historically reflected changing social, medical, and legal attitudes toward persons with mental illness (PwMI). Early colonial laws, beginning with the Indian Lunacy Act of 1858 and related enactments, were largely custodial in character and focused on confinement, institutional control, and administrative management rather than treatment, autonomy, or rights (3). The Indian Lunacy Act of 1912 continued this institutional orientation, although it introduced a more formal administrative framework for mental hospitals (4). The Mental Health Act 1987, which came into effect in 1993, marked a gradual shift from a purely custodial approach toward a medical model of care (5). However, even this legislation remained limited in its rights-based orientation and did not adequately address autonomy, informed consent, community living, access to services, or accountability in mental healthcare delivery. The Mental Healthcare Act 2017 (MHCA 2017) therefore represents a significant legislative departure by recognizing mental healthcare as a statutory right, decriminalizing attempted suicide, and introducing mechanisms such as advance directives, nominated representatives, and Mental Health Review Boards (MHRBs) in alignment with international human rights standards (6).

Evidence from the National Mental Health Survey 2016 further underscores the urgency of strengthening mental healthcare in India. The survey reported a substantial burden of mental morbidity, with approximately 11% of the adult population affected (7). Anxiety and depressive disorders are major contributors, particularly among young adults aged 15–29 years, while the prevalence of mental health problems is also high among persons aged 60 years and above (8). Poor mental health has consequences beyond psychiatric morbidity; it affects physical health, family functioning, productivity, social participation, and suicide risk (9). The COVID-19 pandemic further intensified psychological distress and increased the demand for mental health support (10). Despite this burden, access to timely and quality mental healthcare remains uneven. In routine practice, patients and families often face long travel distances, high out-of-pocket expenditure, limited availability of specialists, lack of rehabilitation services, and poor awareness of available legal rights and entitlements. Mental health services are more visible in urban areas, yet rural and underserved communities continue to experience major gaps in access, continuity of care, and follow-up support (11, 12). These realities show that a rights-based law cannot be evaluated only by its statutory provisions; it must also be assessed by how effectively those provisions operate within India's resource-constrained health system.

Against this backdrop, the MHCA 2017 represents a major legislative milestone in India's efforts to move toward a rights-based and person-centered mental health system. At the same time, the Act raises important practical questions regarding implementation. For example, the right to access mental healthcare depends on the actual availability of affordable services; advance directives and nominated representatives require awareness and procedural clarity; MHRBs require adequate constitution and functioning; and the right to community living requires rehabilitation, housing, family support, and inter-sectoral coordination. Therefore, this review examines the MHCA 2017 not merely as a legal text but as a policy instrument whose success depends on implementation in clinical, institutional, and community settings.

This review aims to:

(i) Describe the objectives and key rights-based provisions of the MHCA 2017;

(ii) Explore the extent to which the Act protects the rights and dignity of PwMI and aligns with global and constitutional standards for mental health legislation;

(iii) Critically analyze practical, institutional, and policy-level barriers in implementing the Act; and

(iv) Suggest measures to strengthen rights-based mental healthcare delivery in India.

Overview of the MHCA 2017

The MHCA 2017 was notified on 7 April 2017 and subsequently brought into force on 29 May 2018, following approval by the President of India (13). The Act is divided into sixteen chapters and one hundred and twenty-six sections, and it emphasizes the dignity, autonomy, and rights of PwMI (14). It represents a major shift toward a rights-based approach and is broadly aligned with the United Nations Convention on the Rights of Persons with Disabilities (CRPD), 2007 (15). For the purpose of this doctrinal and policy review, the Act is not discussed merely as a sequence of statutory provisions but as a legal framework whose effectiveness depends on how far its rights-based guarantees can be translated into mental healthcare practice.

The Act was introduced to protect the rights of PwMI. These include the right to access mental healthcare,

the right to dignity and non-discrimination, the right to confidentiality and privacy, the right to live in the community, the right to free mental healthcare for those who are homeless or below the poverty line and who are covered under notified schemes, and the right to receive information about one's treatment. The Act also aims to ensure access to quality care, promote community-based mental health services, and provide legal safeguards against abuse, neglect, and discrimination. However, these rights require more than statutory recognition. Their implementation depends on the availability of services, trained professionals, functioning review mechanisms, patient and family awareness, and coordination between health, social welfare, disability, and legal systems.

As per the Act, mental healthcare includes the diagnosis, treatment, and management of a person with mental illness, as well as counseling, support, rehabilitation, and promotion of mental well-being. A "mental health establishment" refers to any healthcare facility, including those practicing the Indian systems of medicine, that provides mental health services. In India, healthcare delivery follows a tiered system, where primary care is provided through sub-centers, primary health centers, and community health centers; secondary care is offered at district and sub-district hospitals; and tertiary care is delivered through medical colleges, speciality hospitals, and apex mental health institutes.

A major contribution of the MHCA 2017 is the recognition of autonomy and supported decision-making through mechanisms such as advance directives and nominated representatives. These provisions are intended to allow PwMI to participate meaningfully in decisions about their treatment and care. Yet, their real-world use remains limited in many settings because patients and families may be unaware of these options, professionals may be uncertain about documentation and legal procedures, and emergency care situations may create tension between immediate clinical decision-making and formal rights-based safeguards. Similarly, the creation of MHRBs provides an important procedural safeguard, particularly in relation to supported admissions, review of advance directives, and protection of rights. However, the effectiveness of these Boards depends on timely constitution, adequate staffing, accessibility to patients and families, regular sittings, and awareness among mental health professionals about when and how to refer matters for review.

Implementing the MHCA 2017 in a highly populated and diverse country such as India involves significant practical challenges. An estimated 70–92% of people with mental illness continue to face difficulties in receiving appropriate treatment because of lack of awareness, stigma, shortage of trained mental health professionals, inadequate infrastructure, and limited access to affordable services (2). These resource constraints restrict not only treatment availability but also rights-based implementation, including awareness programs, training of healthcare workers, documentation of consent and capacity, rehabilitation planning, and monitoring of mental health establishments. Thus, the implementation gap is not confined to tertiary psychiatric institutions; it is visible across the continuum of care, from early identification at the primary care level to emergency management, inpatient admission, discharge planning, family reintegration, and long-term community support.

Supplementary Table 1 provides a chapter-wise summary of the statutory focus and practical relevance of the MHCA 2017. To avoid repetition, the present section does not restate each chapter in detail. Instead, it highlights those components of the Act that are most important for understanding the gap between legal rights and implementation: access to mental healthcare, autonomy and decision-making, regulation of mental health establishments, MHRBs, admission and discharge procedures, protection from abuse and restrictive practices, and government duties in service delivery. Chapters dealing with advance directives, nominated representatives, rights of PwMI, government responsibilities, regulatory authorities, review boards, admission procedures, and safeguards against abuse collectively show the Act's ambition to transform mental healthcare from a custodial and institution-centered model to a rights-based and community-oriented system. The central policy question, however, is whether the health system has sufficient resources, workforce capacity, institutional preparedness, and accountability mechanisms to realize these statutory promises in routine practice.

Rights and protection-based approach in the MHCA, 2017

The MHCA 2017 takes a rights-based approach, focusing on protecting the dignity, autonomy, and equality of PwMI throughout their care journey.

Instead of viewing them as passive patients, the Act treats them as individuals with rights—people whose preferences, privacy, and participation in decisions about their own treatment must be respected. These rights broadly fall into four key areas: access to care and community living, autonomy and supported decision-making, dignity and non-discrimination, and protection from abuse, neglect, or restrictive practices.

At its core, the Act guarantees everyone the right to affordable, quality mental healthcare, including services provided or funded by the government. It also upholds the right to live in the community, maintain confidentiality and privacy, receive clear information about one's diagnosis and treatment, and be protected from cruel, inhuman, or degrading practices.

These provisions are important because they shift mental healthcare away from mere institutional custody and place a

clear responsibility on the state to build accessible, humane, and community-based services.

Protection against discrimination

The MHCA 2017 strongly emphasizes non-discrimination. It ensures that PwMI are not discriminated against on grounds of gender, sex, sexual orientation, religion, culture, caste, social or political beliefs, class, or disability.

The Act guarantees equal access to mental healthcare services—primarily through Section 18, read with the rights provisions in Sections 20 and 21—and upholds dignity in living conditions. This includes the right to wear one's own clothes (Section 20(2)(j)). It further provides access to housing, social support, legal services, recreation, education, religious practices, employment, and other essential community-based resources through several rights-based provisions, notably Sections 18, 19, 20, and 27.

Importantly, Section 19(2) explicitly states that no person should be segregated, excluded, or admitted to a mental health establishment solely because they are homeless, lack family support, or have been rejected by their family. This provision strongly affirms their right to live with dignity in the community.

Protection from any form of abuse

The MHCA 2017 offers strong safeguards to protect PwMI from all forms of abuse. It explicitly prohibits cruel, inhuman, or degrading treatment (Section 20) and ensures protection from physical, verbal, emotional, and sexual abuse inside mental health establishments (Section 20(2)(k)).

The Act completely bans chaining in any form. It also prohibits unmodified electroconvulsive therapy (ECT without anesthesia and muscle relaxants) and ECT for minors (with a limited exception requiring guardian consent and prior approval of the MHRB). Psychosurgery is not absolutely banned but is strictly regulated with additional safeguards and consent requirements (Sections 95 and 96).

Physical restraints are permitted only in emergencies and only when they are the least restrictive option to prevent imminent harm to the person or others. The nominated representative must be informed about every instance of restraint within 24 hours, and periodic reporting is mandatory to prevent misuse (Section 97).

Independent (voluntary) admission

The MHCA 2017 promotes independent admission (commonly referred to as voluntary admission) as the preferred and default option. It allows a person with mental illness to be admitted if they have the capacity to make decisions about their mental healthcare and treatment or need only minimal support in doing so (Section 85).

For adults, admission is based on the individual's own informed request and consent (Section 86). Supported admission is permitted only when independent admission is not possible and the specific criteria for supported admission are met (Sections 89 and 90).

An independent patient is expected to follow the rules and regulations of the mental health establishment. They also have the right to request discharge at any time. The establishment must honor this request promptly, except in limited situations—for instance, when there appears to be a significant risk of harm to self or others, in which case the person may be held for up to 24 hours for assessment to determine if supported admission is needed (Section 88).

For minors, admission can only occur on an application by the nominated representative (usually a parent or guardian) and after independent assessments by two qualified mental health professionals (Section 87). If the nominated representative of a minor girl is male, the law requires the appointment of a female attendant during her stay in the establishment (Section 87).

Supported admission

Under the MHCA 2017, supported admission (often referred to as involuntary admission) is not permitted merely because a person has a mental illness. It is allowed only when the person lacks capacity—or has substantially impaired capacity—to make decisions about their mental healthcare and treatment and meets the specific clinical and risk criteria laid down in the Act (Section 89).

In such cases, the nominated representative makes an application for admission. The person is then independently examined by a psychiatrist and another mental health professional (or medical practitioner), who must both conclude that the mental illness is of such severity that the person poses a risk of harm to self or others or is unable to care for themselves to a degree that places them at serious risk.

A person admitted under supported admission cannot be treated as an independent patient, as they require high levels of support from their nominated representative in decision-making (Section 89).

An independently admitted (voluntary) patient who later wishes to leave can be held for up to 24 hours if the mental health professional believes they may cause serious harm to themselves or others or are unable to care for themselves. This short hold allows time for assessment to determine whether supported admission is needed (Section 88).

All supported admissions must be reported to the MHRB within 3 days for women and minors and within 7 days

for other adults. The Board reviews these admissions within prescribed timelines to ensure they remain justified.

Emergency treatment

The Act also allows emergency treatment without prior informed consent when it is immediately necessary to prevent death, irreversible harm to health, serious harm to self or others, or serious damage to property—provided the behavior flows directly from the mental illness. Such treatment is strictly time-limited and subject to safeguards (Section 94).

Changing from supported to independent admission

A person admitted under supported admission can shift to independent admission status once they regain the capacity to make decisions about their mental healthcare and treatment.

When the person is able to understand their condition and meaningfully participate in treatment decisions—and no longer meets the criteria for supported admission—their status should be reviewed promptly and converted to independent admission under Section 86.

Protection of minors under the MHCA 2017

The MHCA 2017 includes special safeguards for children and adolescents with mental illness.

A minor can be admitted to a mental health establishment only on an application by their nominated representative (usually a parent or guardian) (Section 87). To prevent misuse, the law requires that two mental health professionals—typically one psychiatrist and another mental health professional or registered medical practitioner—independently examine the minor (on the day of admission or within the previous 7 days). Both must certify in writing that:

- The minor has a mental illness severe enough to require admission,
- Admission is in the minor's best interests (considering their health, safety, and wishes where possible), and
- Less restrictive community-based options are not adequate.

The MHRB must be informed of every minor's admission within 72 hours. Once admitted, the child must be accommodated in a separate, child-friendly environment away from adults. If the nominated representative of a minor girl is male, a female attendant must be appointed.

Minors also continue to enjoy the general rights under the Act, including the right to education during treatment (Section 20). The Act strictly regulates certain procedures: unmodified ECT without anesthesia and muscle relaxants is prohibited for everyone, and ECT for minors is generally not allowed except in exceptional cases with informed consent of the guardian and prior approval of the MHRB (Section 95). Additionally, children are protected from all forms of physical, verbal, emotional, and sexual abuse within mental health establishments (Section 20(2)(k)).

Rights of persons with mental illness

Chapter V of the MHCA 2017 clearly lays down the rights of PwMI. These rights form the foundation of the Act and apply across all aspects of care.

Every person with mental illness has the right to access quality mental healthcare without discrimination on grounds of gender, sex, sexual orientation, religion, culture, caste, class, disability, or any other status (Section 18).

They also have the right to live in the community and cannot be segregated or excluded solely because of their mental illness or lack of family support (Section 19).

The Act guarantees protection from cruel, inhuman, or degrading treatment, including physical, verbal, emotional, and sexual abuse within mental health establishments (Section 20). It further upholds the right to equality and non-discrimination in all matters relating to mental healthcare (Section 21).

Other important rights include:

- The right to receive clear information about one's diagnosis, treatment, and care in a language and manner the person can understand (Section 22).
- The right to confidentiality and privacy of personal and medical information (Section 23).
- The right to make an advance directive regarding future treatment preferences (Section 5).
- The right to appoint a nominated representative to assist in decision-making when needed (Section 14).

Right to privacy and dignity

The MHCA 2017 recognizes privacy and dignity as fundamental rights for PwMI.

The Act guarantees the right to live in safe, clean, and respectful conditions. It protects privacy during all aspects of treatment and ensures strict confidentiality of personal information and medical records (Section 20 read with Sections 22 and 23).

Every person has the right to wear their own clothes (Section 20(2)(j)) and to be provided with adequate, nutritious food, clean sanitation facilities, sufficient living space, and basic personal hygiene items. Special provisions are made for women during menstruation to ensure comfort and dignity (Section 20(2)(h)).

The Act strictly prohibits forced labor in mental health establishments. If a person chooses to work voluntarily, they must receive fair wages in accordance with minimum wage laws (Section 20(2)(f)).

Additionally, every person has the right to access and inspect their own medical records (Section 25).

Right to informed consent

The MHCA 2017 strongly emphasizes the right to informed consent in all mental healthcare decisions.

An independent patient cannot be given any treatment without their informed consent. They have the full right to accept or refuse treatment (Section 86(5)). They can also seek admission to a mental health establishment on their own, without needing approval from family members or their nominated representative (Section 86(6)).

If an independent patient later loses the capacity to make decisions about their care, the medical officer must seek consent from the nominated representative, and the process shifts to supported admission as per the Act (Section 89).

For minors, treatment can only be provided with the informed consent of the nominated representative (Section 87(7)).

Even during supported admission, the Act requires that treatment should respect the person's wishes to the greatest extent possible. Treatment must be guided by any valid advance directive or given with the person's informed consent, supported by their nominated representative (Section 90(11)).

This framework ensures that every person with mental illness retains as much control as possible over decisions about their own treatment, even when they need high levels of support.

Right to quality and standard treatment

The MHCA 2017 places strong emphasis on the right to quality mental healthcare that is available, accessible, affordable, and acceptable.

The government is responsible for ensuring that good-quality mental health services are provided across the country (Section 18). Every mental health establishment must be registered under the Act and is required to prominently display its registration certificate (Section 70).

The Act lays down clear minimum standards for facilities and services. These include daily cleaning and disinfection of all areas (including toilets and bathrooms), adequate and separate toilets and bathrooms for male and female patients, proper disposal of sanitary napkins, sufficient water supply, regular cleaning of linen, pest control, and safe disposal of biomedical waste.

To promote transparency, the Central or State Mental Health Authority must maintain a publicly accessible digital list of all registered mental health establishments (Section 71). In addition, every mental health establishment is required to prominently display the contact details of the concerned MHRB and provide free access to complaint forms and telephone facilities. This makes it easy for patients or their families to request a review of admission or treatment (Section 72).

Implementation challenges and gaps

The MHCA 2017 signifies a considerable paradigmatic shift toward a rights-based approach within the Indian mental healthcare system; however, the Act's implementation warrants careful evaluation and scrutiny (6). In routine clinical practice, several implementation difficulties are commonly encountered, primarily because the right to access mental healthcare is frequently limited by the uneven distribution of services. Many districts continue to depend on a small number of psychiatrists or tertiary centers, while primary care facilities often lack adequate training, essential medicines, and psychosocial support. From a service-delivery perspective, the challenge is not merely legal awareness but the absence of operational pathways; for a person in crisis, a legal right to treatment may exist, but the nearest functional service often remains geographically or financially inaccessible.

Field-level experience suggests that implementation is further shaped by the practical limitations of rights-affirming provisions such as advance directives. In our clinical experience, patients and families are often unaware of these provisions, and discussions about these rights rarely occur unless actively initiated by clinicians. In busy outpatient settings, the documentation of treatment preferences is frequently perceived as a secondary administrative burden, especially when clear institutional protocols are absent. Furthermore, the nominated representative mechanism, intended to support decision-making, faces unique complexities within the Indian family structure.

Practice-based observations indicate that while families play a central role in care and supervision, significant ethical tensions arise when a patient's preference diverges from family expectations or when a representative is overburdened, leaving clinicians to navigate a difficult balance between autonomy, safety, and family involvement.

The practical enforceability of rights is also weakened by the inconsistent presence and administrative capacity of MHRBs. In practice, patients and families may not know how to approach the Board and clinicians frequently experience delays or a lack of clarity regarding documentation and review procedures. This is particularly evident during emergency presentations in crowded casualty departments. Without regular training and standard operating procedures, clinicians must make rapid decisions about risk and capacity, which can lead to a risk of either excessive caution—resulting in delayed care—or overly defensive admission practices.

Ultimately, the gap between legal deinstitutionalization and actual social reintegration remains a significant hurdle. The right to community living cannot be realized through hospital-based services alone; it requires a robust network of supported housing, vocational rehabilitation, and social welfare linkages. Where these are absent, discharge from the hospital does not translate into genuine community inclusion. Resource limitations, persistent social stigma, and inadequate inter-sectoral coordination between health, legal aid, and housing systems frequently impede the practical realization of rights. Consequently, a significant disparity persists between the legal guarantees enshrined within the Act and the everyday experiences of PwMI and their families.

Implications for clinical practice

For psychiatrists and other mental health professionals practicing in India, the MHCA 2017 requires a decisive shift away from a predominantly paternalistic model—where clinicians act in what they perceive to be the patient's "best interests"—toward a rights-based model grounded in autonomy and informed consent (16). Within this framework, the rights of the individual are central, and clinicians are expected to discuss clinical options transparently, support the patient's understanding, and respect their choices to the greatest extent possible. Practice-based observations indicate that this transition requires moving away from global assumptions of incapacity toward nuanced, point-in-time assessments that honor the patient's voice even during periods of significant distress.

The Act translates this philosophy into concrete clinical obligations, requiring the routine assessment and meticulous documentation of decision-making capacity at admission and at key points throughout care. In our clinical experience, this means that advance directives should be actively discussed and reviewed during treatment planning rather than viewed as a static administrative requirement. When a patient's decision-making capacity is impaired, the nominated representative must be involved in a manner consistent with the person's prior preferences and the best interpretation of their will and wishes. Throughout, clinicians must pay meticulous attention to conditions of care, including privacy, dignity, and non-discrimination.

To implement these requirements in everyday practice, mental health services need sustained training in capacity assessment and supported decision-making. Ultimately, close collaboration with legal services, social work teams, and community-based agencies is essential to ensure that clinical practice is not only therapeutically effective but also ethically robust and legally compliant.

Recommendations

Effective implementation of the MHCA 2017 requires moving beyond the recognition of rights to practical, everyday mechanisms that work on the ground.

- Develop simple, standardized operating procedures in all mental health establishments for key processes such as capacity assessment, supported admission, advance directives, nominated representatives, confidentiality, and referrals to MHRBs.
- Provide regular, practical training to psychiatrists, medical officers, nurses, psychologists, social workers, police personnel, and primary care providers on rights-based care, with special emphasis on objective capacity assessment. Parallel training for caregivers on patient rights is equally important.
- Display information about patient rights prominently in local languages across outpatient departments, inpatient wards, emergency services, and community clinics.
- Strengthen the functioning of MHRBs by ensuring clear contact details, time-bound review processes, and simple, patient-friendly complaint mechanisms.
- Expand and strengthen district-level mental health services with adequate availability of essential medicines, crisis intervention, rehabilitation, supported housing linkages, and robust follow-up systems.
- Promote intersectoral collaboration between health, social welfare, housing, education, labour, and legal services to support community living and social inclusion of PwMI.
- Allocate adequate and sustained budgets based on proper needs assessment and econometric analysis to reduce treatment gaps and ensure equitable access, especially in underserved states and districts.
- Establish robust systems for routine data collection and public reporting on key indicators—including access to care, use of coercive practices, functioning of Review

Boards, availability of medicines, and financing—to enable continuous monitoring and accountability.

Targeted research on implementation challenges, culturally adapted tools for capacity assessment and supported decision-making, and the effectiveness of community-based services should also be prioritized to inform future amendments and guidelines.

Future directions for policy and research

Despite the progressive framework of the MHCA 2017, there remains very limited econometric and policy research on its actual implementation and impact at national and state levels.

A recent study on funding trends for the District Mental Health Program (DMHP) presented a mixed picture: while the enactment of the Act was associated with higher average national approvals, it also coincided with a slowing growth trajectory and persistent cross-state inequalities in mental health financing (17). Rather than triggering sustained acceleration, the MHCA 2017 appears to have stabilized funding at a higher level.

This highlights the urgent need for stronger institutional mechanisms—such as transparent allocation formulas, regular monitoring of fund disbursement and expenditure, and targeted support for lagging states—so that the rights promised in the Act are backed by equitable and reliable financing on the ground.

More broadly, there is a pressing need for rigorous, ongoing evaluation of the MHCA 2017's effects on access, coercion, and quality of care across different states. Equally important is research on culturally adapted capacity assessment tools, practical models of supported decision-making in low-resource settings, and the real-world effectiveness of community-based services.

Such evidence will be crucial to guide future amendments, rules, and guidelines, ensuring the law better reflects the lived realities of PwMI and their caregivers.

Conclusion

The MHCA, 2017, represents a significant shift towards a rights-based framework for mental healthcare in India. By codifying entitlements to access, quality, dignity, and protection from inhuman and degrading treatment and by introducing instruments such as advance directives and nominated representatives, the Act seeks to place the autonomy and preferences of PwMI at the center of care. At the same time, emerging evidence on financing and implementation suggests that, while the Act has helped stabilize mental health funding at a higher level, it has not yet overcome deep cross-state inequalities nor fully translated legal rights into everyday practice. Bridging this gap will require sustained investment in services, robust institutional mechanisms that link legal entitlements to resources, and a concerted focus on training, supervision, and accountability. Ultimately, the promise of the MHCA 2017 will be realized only if its principles are embedded in routine clinical work and supported by equitable, adequately funded community-based systems so that the rights it guarantees are experienced as tangible improvements in the lives of PwMI and their families.

Funding

The authors declare that no financial support was received for the research, authorship, and/or publication of this article.

Acknowledgment

Nil

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Declaration regarding the use of Generative AI

Generative AI and AI-Assisted Technologies in the Writing Process: During the preparation of this manuscript, the built-in AI language editing tool provided by the WPS Office platform was used to improve the clarity and readability of the text. The authors reviewed and approved all edits made by the AI tool.

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Indian Journal of Mental Health and Neurosciences
Volume 9, Issue 1, 2026, pp. 24–27
DOI: 10.54646/ijmhns.2026.04
www.ijmhns.com

CASE REPORT

Acute Marchiafava–Bignami disease with plexiform neurofibroma: a case report

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Received: 16 March 2026; **Accepted:** 02 April 2026; **Published:** 15 May 2026

Abstract

Background: Marchiafava–Bignami disease (MBD) is a rare neurological disorder characterized by demyelination and necrosis of the corpus callosum. It is most commonly associated with chronic alcohol use and nutritional deficiency. Clinical manifestations are variable and may include seizures, altered sensorium, gait disturbance, and speech impairment. Early recognition is often difficult due to the nonspecific nature of presenting symptoms. Magnetic resonance imaging (MRI) plays a crucial role in establishing the diagnosis. Plexiform neurofibroma, a benign peripheral nerve sheath tumor typically associated with neurofibromatosis type 1, is rarely encountered alongside unrelated neurological conditions.

Case description: We report the case of a 37-year-old man with a long history of alcohol dependence who presented with acute confusion, seizures, slurred speech, and gait instability following heavy alcohol intake. MRI of the brain demonstrated symmetrical signal abnormalities involving the corpus callosum consistent with MBD. Physical examination also revealed a long-standing cervical plexiform neurofibroma.

Management and outcome: The patient was treated with high-dose intravenous thiamine along with supportive measures and anticonvulsant therapy. Gradual neurological improvement was observed during hospitalization.

Conclusion: This case highlights the importance of considering MBD in individuals with chronic alcohol use who present with acute neurological symptoms. Prompt neuroimaging and early thiamine administration are essential to improve clinical outcomes.

Keywords: Marchiafava–Bignami disease, corpus callosum, chronic alcohol use, thiamine deficiency, plexiform neurofibroma

Introduction

Marchiafava–Bignami (MBD) is an uncommon neurological disorder characterized by progressive demyelination and necrosis of the corpus callosum, the principal commissural structure connecting the cerebral hemispheres. The condition was first described in 1903 among individuals with chronic alcohol consumption and was historically associated with a poor prognosis due to delayed diagnosis and limited treatment options (1). More recent clinical and radiological studies have improved understanding of the disease and demonstrated that early recognition and treatment can

How to Cite this Article:
Marcel J, Sharon J D and Jayakrishnaveni C. Acute Marchiafava–Bignami disease with plexiform neurofibroma: a case report. *Indian J. Ment. Health Neurosci.* 2026; 9(1): pp. 24–27. DOI: https://doi.org/10.54646/ijmhns.2026.04

significantly improve outcomes (2). The corpus callosum plays a vital role in interhemispheric integration of motor, sensory, and cognitive functions. Damage to this structure can therefore lead to a broad spectrum of neurological manifestations, including confusion, dysarthria, seizures, gait disturbance, cognitive impairment, and behavioral changes (2, 3). In severe cases, patients may develop altered levels of consciousness or interhemispheric disconnection syndromes (3). Chronic alcohol use and malnutrition remain the most commonly recognized risk factors for MBD. However, cases have also been reported in individuals with metabolic disorders, malignancies, and severe nutritional deficiency in the absence of alcohol use (3). Thiamine deficiency is considered a key pathogenic factor, as thiamine functions as an essential cofactor for enzymes involved in cerebral glucose metabolism. Deficiency results in impaired oxidative metabolism, accumulation of lactate, and subsequent neuronal injury (4). In individuals with chronic alcohol dependence, thiamine deficiency may result from poor nutritional intake, impaired intestinal absorption, reduced hepatic storage, and decreased utilization within neural tissue (4). Magnetic resonance imaging (MRI) has become the most important diagnostic tool for MBD. Typical findings include symmetrical lesions involving the corpus callosum, particularly the body and splenium (5). These lesions usually appear hypointense on T1-weighted images and hyperintense on T2-weighted and fluid-attenuated inversion recovery (FLAIR) sequences. Diffusion-weighted imaging (DWI) often demonstrates restricted diffusion in the acute phase, reflecting cytotoxic edema (6). In more severe cases, extracallosal involvement of cortical and subcortical white matter structures may also be present and is often associated with poorer clinical outcomes (7). Patients with chronic alcohol use frequently present with multiple comorbidities that may complicate diagnosis. The presence of neurocutaneous lesions such as plexiform neurofibromas may introduce additional diagnostic considerations. Plexiform neurofibromas are benign tumors arising from peripheral nerve sheaths and are typically associated with neurofibromatosis type 1.

In this report, we describe a patient with acute MBD presenting after heavy alcohol consumption, with coexisting clinical features suggestive of plexiform neurofibroma.

Case report

A 37-year-old married man with a history of chronic alcohol consumption and tobacco use for approximately 18 years was brought to the emergency department following a binge drinking episode. According to family members, he had consumed large quantities of alcohol over several consecutive days prior to presentation. He subsequently developed persistent vomiting, fever, abnormal involuntary movements involving all four limbs, progressive confusion, and reduced responsiveness. The family also reported urinary incontinence and difficulty speaking before hospital admission. On examination, the patient appeared drowsy and confused with a Glasgow Coma Scale score of 10. There were no signs of meningeal irritation. Neurological examination revealed marked dysarthria and impaired coordination suggestive of cerebellar dysfunction. The patient exhibited agitation, bilateral hand tremors, and intermittent involuntary limb movements. Speech was slurred, and he demonstrated difficulty naming objects, indicating possible anomia. Gait was markedly impaired, and he required assistance to maintain posture. General examination revealed pallor and low-grade fever. Multiple firm nodular swellings were noted over the facial region and posterior neck. These lesions were consistent with cutaneous neurofibromas, and the pattern raised suspicion of plexiform neurofibroma. The patient had a documented history of repeated alcohol binges, previous alcohol withdrawal seizures, and occasional jaundice related to alcohol-associated liver disease. Laboratory investigations revealed macrocytic anemia, leukocytosis, and electrolyte abnormalities. Liver function tests showed elevated transaminases consistent with chronic alcohol-related hepatic injury. Given the acute neurological presentation, differential diagnoses included meningoencephalitis, Wernicke encephalopathy, metabolic encephalopathy, and cerebrovascular events. A non-contrast computed tomography (CT) scan of the brain performed at admission did not reveal significant abnormalities. However, due to persistent neurological deficits, MRI of the brain was performed. DWI demonstrated restricted diffusion involving the central fibers of the corpus callosum, suggesting acute cytotoxic injury (**Figure 1**). FLAIR imaging showed hyperintense signal changes within the corpus callosum (**Figure 2**). Sagittal T2-weighted images revealed diffuse signal abnormalities involving the body and splenium of the corpus callosum without mass effect (**Figure 3**). These findings were consistent with acute MBD. Based on the clinical presentation and neuroimaging findings, treatment was initiated immediately with high-dose intravenous thiamine (500 mg twice daily). The patient also received anticonvulsant therapy with phenytoin and supportive management. Empirical antibiotics were started initially while infectious causes were being excluded. Dextrose-containing fluids were administered only after thiamine supplementation to avoid worsening thiamine deficiency. Additional management included vitamin B complex supplementation, correction of electrolyte abnormalities, and supportive care. Over the following 7 days, the patient demonstrated gradual neurological improvement. His level of consciousness improved, speech became clearer, and

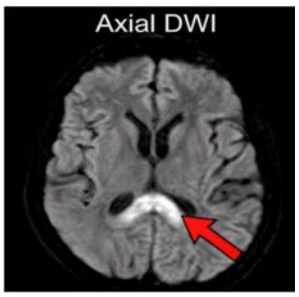

FIGURE 1 | Axial diffusion-weighted imaging (DWI) demonstrating diffusion restriction involving the central fibers of the corpus callosum, predominantly affecting the splenium and body (red arrow), consistent with acute cytotoxic edema seen in Marchiafava–Bignami disease (MBD).

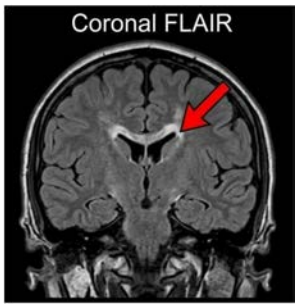

FIGURE 2 | Coronal fluid-attenuated inversion recovery (FLAIR) magnetic resonance imaging (MRI) sequence showing hyperintense signal changes within the body of the corpus callosum (red arrow), reflecting inflammatory and demyelinating involvement typical of the acute phase of MBD.

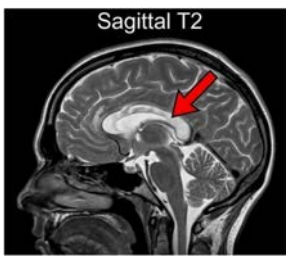

FIGURE 3 | Sagittal T2-weighted MRI showing diffuse hyperintensity involving the corpus callosum (red arrow), predominantly affecting the body and splenium, consistent with toxic-metabolic demyelination seen in acute MBD.

orientation progressively returned. By the time of discharge, he had regained significant cognitive and motor function.

Discussion

Marchiafava–Bignami disease is an uncommon neurological disorder most frequently associated with chronic alcohol use and severe nutritional deficiency. The pathological hallmark of the disease is demyelination and necrosis of the corpus callosum, leading to disruption of interhemispheric communication (1). The pathogenesis of MBD is thought to involve metabolic and nutritional mechanisms, particularly thiamine deficiency. Thiamine plays a critical role in cerebral energy metabolism as a cofactor for enzymes involved in mitochondrial oxidative pathways (4). Deficiency results in impaired energy production, oxidative stress, and neuronal injury. The corpus callosum appears particularly vulnerable to these metabolic disturbances due to its dense concentration of myelinated fibers and high metabolic demand (2). Clinical manifestations are variable and may include confusion, dysarthria, gait disturbance, seizures, behavioural changes, psychosis, or coma (3). Because of this variability, the condition may be mistaken for other alcohol-related neurological disorders such as Wernicke encephalopathy or metabolic encephalopathy (3). Neuroimaging plays a central role in establishing the diagnosis. MRI typically demonstrates symmetrical lesions involving the corpus callosum, particularly the body and splenium (5). DWI frequently reveals restricted diffusion during the acute phase, reflecting cytotoxic edema within affected white matter (6). In the present case, MRI showed diffusion-restricted lesions involving the splenium of the corpus callosum, a finding commonly reported in acute MBD (8). Additional involvement of cortical regions, including the precentral gyrus and bilateral frontoparietal areas, suggested extracallosal extension of the disease process, which has been associated with more severe clinical presentations (7). Another notable feature in this patient was the presence of nodular lesions suggestive of plexiform neurofibroma. Plexiform neurofibromas are benign tumors arising from peripheral nerve sheaths and are typically associated with neurofibromatosis type 1. Although there is no established pathogenic link between neurofibromatosis and MBD, the coexistence of neurocutaneous lesions may complicate clinical evaluation and warrants careful neurological assessment. Early treatment plays a crucial role in determining patient outcomes. High-dose parenteral thiamine remains the cornerstone of therapy and should be initiated promptly when the diagnosis is suspected. Thiamine supplementation helps restore impaired cerebral metabolism and may prevent further neuronal damage (4). Importantly, thiamine must be administered before glucose or dextrose-containing fluids because glucose administration in thiamine-deficient patients may precipitate or worsen Wernicke encephalopathy (9). Supportive management includes correction of electrolyte disturbances, treatment of alcohol withdrawal, seizure control, and nutritional support. Early diagnosis and timely treatment have been associated with favourable neurological recovery in several reported cases (10).

Conclusion

Marchiafava–Bignami disease is a rare but potentially reversible neurological disorder primarily associated with

chronic alcohol use and nutritional deficiency. The condition predominantly affects the corpus callosum and can present with a wide spectrum of neurological manifestations (1). MRI plays a critical role in early diagnosis by demonstrating characteristic callosal lesions, particularly involving the body and splenium of the corpus callosum (5). Early recognition is essential, as prompt treatment with high-dose parenteral thiamine can significantly improve clinical outcomes (4). This case emphasizes the importance of considering MBD in patients with chronic alcohol dependence who present with acute neurological deterioration. Timely neuroimaging and early thiamine therapy may prevent irreversible neurological damage and facilitate recovery (10).

Funding

The authors declare that no financial support was received for the research, authorship, and/or publication of this article.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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Indian Journal of Mental Health and Neurosciences
Volume 9, Issue 1, 2026, pp. 28–34
DOI: 10.54646/ijmhns.2026.02
www.ijmhns.com

VIEW POINT

Borderline personality disorder management - a descriptive online survey of indian psychiatrists

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Received: 21 January 2026; **Accepted:** 04 March 2026; **Published:** 15 May 2026

Abstract

Background: Borderline personality disorder (BPD) is increasingly being recognized in clinical practice in India. This study aims to understand the diagnostic and management practices of psychiatrists in India concerning BPD. We also examined the practice of sharing the diagnosis with patients and caregivers and the factors influencing this.

Methods: The study was conducted as an online cross-sectional survey using a convenience sampling method among practicing psychiatrists across India. A purpose-built online questionnaire was designed and circulated by email and social media groups.

Results: 296 psychiatrists completed the survey. The reported diagnostic and management practices were consistent with the latest guidelines. The psychiatrists felt confident in diagnosing BPD but less confident in managing it. While most of them gained experience in diagnosing and managing the disorder during their training period, they also gained skills and knowledge through other means like continuing medical education events and workshops. The participants of the survey strongly believed in a need for specialized services and more focused practical training in this field.

Conclusions: The discrepancy between confidence in the diagnosis and management of BPD indicates the need for hands-on training in management practices.

Keywords: borderline personality disorder, India, psychiatrist, online survey, diagnosis and management

Introduction

The Diagnostic and Statistical Manual of Mental Disorders the fifth edition (1) describes Borderline personality disorder (BPD) as "a pervasive pattern of instability of interpersonal relationships, self-image, and marked impulsivity, beginning in early adulthood and present in a variety of contexts." BPD is diagnosed in about 6% of primary care patients (2) and in community-based samples with a prevalence of 15–20% of patients in psychiatric hospitals and outpatient clinics (3).

How to Cite this Article:
Lakshmi V, Janaki R, Ashlesha B, Siddhika A and Jothilakshmi D. Borderline personality disorder management - a descriptive online survey of indian psychiatrists. *Indian J. Ment. Health Neurosci.* 2026; 9(1): pp. 28–34. DOI: https://doi.org/10.54646/ijmhns.2026.02

Despite increased awareness, evidence suggests that a sizable proportion of individuals with BPD remain misdiagnosed, undiagnosed, and under-treated (4, 5). Studies show that persons meeting symptoms of BPD and seeking psychiatric treatment may be diagnosed and treated for Axis 1 comorbidity alone or are told that they have a disorder other than BPD, such as bipolar disorder (4).

The importance and relevance of disclosing the diagnosis is immense. One study found that when individuals diagnosed with BPD are educated about the disorder and given new coping strategies, the severity of symptoms decreases over 16 weeks (6).

There have been few studies investigating the extent to which psychiatrists disclose a diagnosis of BPD to their patients. A study examined how psychiatrists disclosed several psychiatric diagnoses and showed that there was a reluctance to disclose BPD compared to other conditions, such as bipolar, panic, and depressive disorders (7). A study by Clafferty and colleagues (8) compared disclosure practices across several diagnoses and found that 90–98% felt comfortable disclosing unipolar depression, bipolar disorder, anxiety disorder, and substance use disorders. However, only a minority (42%) revealed the diagnosis of personality disorder.

Studies on personality disorders have come a long way from justifying their existence in the Indian context (9) to disorders that are acknowledged to be causing significant morbidity (10). However, research into personality disorders in India is still at a nascent stage. In the International Pilot Study of Personality Disorders (IPSPD), the personality disorders frequently seen in the clinical sample in South India were schizotypal (19.1%) and borderline (14.7%) (11). To our knowledge, there are no studies on the diagnostic and management practices for BPD in India as yet.

This study aims to understand the BPD diagnostic and management practices and the practice of sharing diagnoses with patients and caregivers by psychiatrists in India, including the factors influencing this.

Material and methods

Study design and setting

An online cross-sectional descriptive survey was conducted among practicing psychiatrists and psychiatry trainees across India. The data was collected from August to November 2021.

Sample

Practicing and trainee psychiatrists currently working in India were invited to participate and complete the survey after giving online consent.

Questionnaire

A brief survey (version 1) was designed based on a literature review, which was modified (version 2) after discussion amongst the research team. The version 2 survey was piloted with 17 clinicians with expertise in BPD. With their feedback, the survey was further revised and finalized (version 3) for circulation. The survey contained 30 items, including demographic details, clinical practice details, borderline personality diagnostic and management practices, and participants' perception of the need for further training.

Study procedure

An email explaining the study and a link to the SurveyMonkey form were sent to psychiatrists across the country using as many forums as possible (e.g., 5,000 email addresses from the Indian Psychiatric Society (IPS) Directory, psychiatrists registered in a Google group, and reaching out to psychiatrists through various social media groups). All the members listed in the directory were sent the survey along with subsequent reminders. Weekly reminders were sent for 4 weeks, inviting participants to participate in the research. The participants were also requested to share the survey link with their contacts to maximize reach.

Consent for the study

The online survey form had a face sheet providing the study description, confidentiality, and the right to withdraw. The participants were asked to 'click-if-you-agree' to participate before completing the survey.

The Survey Monkey account was password protected, and data was extracted and stored on password-protected computers, and data access was available only to the research team. SurveyMonkey also did not allow duplicate entries thereby reducing the risk of this affecting the data.

The study was approved by the Institutional Ethics Committee. The study was approved by the Institutional Ethics Committee of Schizophrenia Research Foundation (India) with ethics approval number: SRF-CR/12/JUL-2021.

Statistical analysis

Demographic data was analyzed using descriptive statistics, including the mean with standard deviation (SD) for continuous variables and frequencies and percentages for categorical variables. The chi-square test was performed to determine the association between categorical variables and the outcome (e.g., sharing a diagnosis with persons: Yes vs. No groups). Continuous variables were compared

across the groups using an independent t-test. Data was analyzed using STATA version 16.1 software (12).

Report writing

We used the STROBE checklist (13) when writing our report.

Results

A total of 302 participants completed the online survey. Six responses were excluded as the participants were not currently practicing in India.

Table 1 describes the demographic and clinical practice details of the participants.

The respondents had a mean age of 40.93 ± 10.56 with a slight male preponderance (54.7% male), with 13.97 ± 10.53 years being the mean duration of clinical practice. Only 6.1% were trainees, and the rest were all practicing psychiatrists. As seen in the figure (see supplementary material), many participants were from the states of Tamil Nadu, Karnataka, Kerala, and Maharashtra, which are in the southern half of India.

TABLE 1 | Participant demographics and clinical practice details.

	N = 296
Age mean ± SD	40.93 ± 10.56
Gender n (%)	
Male	162 (54.7)
Female	133 (44.9)
Prefer not to say	1 (0.3)
Work status	
Trainee in psychiatry n (%)	18 (6.1)
Practicing psychiatrist n (%)	278 (93.9)
Qualifications n (%)	
MD	198 (66.9)
DPM	35 (11.8)
DNB	37 (12.5)
Foreign qualifications	8 (2.7)
Trainee in psychiatry	18 (6.1)
Duration of experience in years mean ± SD	13.97 ± 10.53
Percentage of borderline personality disorder (BPD) in the caseload reported by the participants	13.4 ± 24.5
Practice setting - rural vs urban	
Rural	5.7%
Urban	76%
Both	18%
Type of clinical practice	
Teaching	126 (42.6%)
Non-teaching	170 (57.4%)

TABLE 2 | Diagnosis sharing practice.

Timing of sharing diagnosis	**N (%)**
In the first visit	44 (15)
After a few visits	180 (61.4)
After psychometric tests	63 (21.5)
Sharing diagnosis with families	
Mostly	212 (72.1%)
Sometimes	59 (20.1%)
Rarely/never	23 (7.8%)
Sharing diagnosis with persons with BPD	
Mostly	164 (56.4%)
Sometimes	98 (33.7%)
Rarely/never	29 (10%)

Current borderline personality disorder diagnostic and management practices

The psychiatrists reported using clinical history from the person or the family or both as the most common way of arriving at a diagnosis of BPD. One-third of the psychiatrists also use psychometric testing to help diagnose BPD. The psychiatrists mostly shared the diagnosis with the persons and their families after a few visits, and they shared the diagnosis almost equally with persons and families, as seen in Table 2.

Reasons for sharing/not sharing diagnosis

The commonest reasons reported by the participants for sharing the diagnosis with persons and families are for families to support persons better (255/296), explain the need for follow-up and long-term treatment (243/296), help persons understand what is happening to them (237), discuss management (227), and for medicolegal reasons (67).

The three most commonly cited reasons for psychiatrists not sharing diagnoses in descending order of frequency are uncertainty about diagnosis (119/296), worry about misuse of diagnosis by persons with BPD and families (80/296), and stigma (64/296).

Management practice

Medications (86.1%) and psychological therapies (86.8%) are the most commonly used treatment options, followed by the

respondents. Psychiatrists provide self-harm management (73.3%) and crisis management (70.9%). Inpatient treatment (27.7%) and referral to other practitioners (8.8%) are the other management practices adopted by the psychiatrists.

Therapies

Psychiatrists have various options to choose from for therapies like supportive psychotherapy (n = 189; 63.9%), dialectical behavior therapy (DBT) (n = 177; 59.8%), cognitive behavior therapy (CBT) (n = 133; 44.9%), and family therapy (n = 126; 42.6%). Eclectic therapy (n = 87; 29.3%), mentalization based therapy (MBT) (n = 41; 13.9%) and psychodynamic psychotherapy (n = 41; 13.9%) are also available. Just under 50% of the participants (n = 143) reported that therapies were delivered by both themselves and the psychologists. Other respondents either delivered therapy themselves (n = 61; 20.6%) or referred to a psychologist (n = 85; 28.7%) for therapy.

Confidence level of psychiatrists in diagnosing and management of BPD

The psychiatrists who completed the survey were more confident in diagnosing BPD compared to managing BPD, as shown in **Table 3**.

Challenges encountered by psychiatrists when managing persons with BPD that affect their diagnostic and management practice included dysfunctional coping (72%), self-harm (69.6%), family conflicts (67.6%), countertransference (48%), and mistrust (42.9%). The other less reported challenges include idealization (23.6%), splitting staff (25%), devaluing people (29.4%), and trauma (26.4%).

TABLE 3 | Confidence level of psychiatrists in diagnosing and management of BPD.

Extent of confidence	N (%)
Confidence in diagnosing BPD	
Extremely/very	192 (65.5)
Somewhat	91 (31.1)
Not confident	10 (3.4%)
Confidence in managing BPD	
Extremely/very	85 (29%)
Somewhat	136 (46.4%)
Not confident	72 (24.6%)

Expectations regarding future for borderline personality disorder services and training

Many respondents (88.5%) felt the need for specialized services for managing persons with BPD.

The experience that the respondents gained in diagnosing and managing BPD was reported to be mainly during postgraduate training (68.2%) and through clinical experience (81.8%). Conferences (30.7%), workshops (21.3%), and continuing medical education programs (36.1%) were the other sources of training. The participants preferred future training to be practical, of whom 74.7% reported wanting practical workshops and 60.1% wanted more hands-on practical training during postgraduation. Participants also wanted more case discussion forums, training programs in specific therapies for BPD, and continuing medical education lectures on BPD management.

As shown in **Table 4**, psychiatrists who reported sharing the diagnosis tended to report greater perceived helpfulness of disclosure and higher confidence in diagnosing and managing BPD ($p < 0.001$). Other characteristics such as age, gender, years of practice, and proportion of BPD cases in clinical practice did not show meaningful differences between the groups.

Discussion

To the best of our knowledge, this is the first study in India to explore the diagnostic and management practices of psychiatrists for BPD. While there are reservations about using online surveys (14), this was the best way to reach out to psychiatrists in different parts of the country, given the limitations of having a contact list for all the psychiatrists in the country in one place. Further restrictions were posed by the COVID-19 pandemic, rendering postal services unreliable for the study.

The clinical practice guidelines (15) advise using structured interviews or assessment scales to diagnose personality disorders. Our study shows that around one-third of psychiatrists use psychometric tests to diagnose, while the remaining rely on clinical history from the patient and their family. The guidelines also say that psychotherapeutic options should be at the center of the management of patients with BPD. Our survey shows that psychiatrists do use psychotherapeutic modalities themselves or practice collaboratively by referral to psychologists. Because most respondents were from an urban background, access to resources like psychologists might have been better. MBT and psychodynamic psychotherapy are reported to be used less commonly compared to other therapies like DBT. The lesser use of the above therapies might be due to the non-availability of certified professionals, lack of training,

TABLE 4 | Association and mean comparison between the share diagnosis groups (yes/no) and independent variables.

Variables	Share diagnosis with patient		
	Yes N (%)	No N (%)	p-value
Gender			
Male	138 (55.4)	13 (46.4)	0.365
Female	111 (44.6)	15 (53.6)	
Psychiatrist category			
Trainee in psychiatry	14 (5.3)	5 (17.2)	0.03
Practicing psychiatrist	248 (94.7)	24 (82.8)	
Location of practice			
Rural	15 (5.7)	2 (6.9)	0.641
Urban	201 (76.7)	20 (69)	
Both	46 (17.6)	7 (24.1)	
Timing of diagnosis sharing			
In the first visit	41 (15.8)	3 (10.3)	<0.001
After a few visits	164 (63.1)	13 (44.8)	
After psychometric tests	55 (21.2)	7 (24.1)	
Never	0 (0)	6 (20.7)	
Perceived need for specialized BPD services			
Yes	234 (90)	24 (82.8)	<0.001
No	26 (10)	5 (17.2)	
Practice of sharing diagnosis with families			
Mostly	198 (75.6)	13 (44.8)	**<0.001**
Sometimes	55 (21)	3 (10.3)	
Rarely/never	9 (3.4)	13 (44.8)	
Practice of sharing diagnosis with patients			
Mostly	164 (62.6)	0 (0)	**<0.001**
Sometimes	98 (37.4)	0 (0)	
Rarely/never	0 (0)	29 (100)	
Perceived helpfulness in sharing diagnosis			
Extremely/very	163 (62.2)	7 (24.1)	**<0.001**
Somewhat	89 (34)	9 (31)	
Not so/	10 (3.8)	13 (44.8)	
Confidence in BPD diagnosis			
Extremely/very	180 (69.2)	10 (34.5)	**<0.001**
Somewhat	73 (28.1)	16 (55.2)	
Not so/	7 (2.7)	3 (10.3)	
Confidence in managing BPD			
Extremely/very	83 (31.9)	2 (6.9)	**<0.001**
Somewhat	125 (48.1)	7 (24.1)	
Not so/	52 (20)	20 (69)	
	Mean ± SD	**Mean ± SD**	
Age	41.1 ± 10.3	38.1 ± 10.6	0.143
Number of years of practice as a psychiatrist	14 ± 10.2	12.5 ± 12.2	0.468
Reported average number of patients of all diagnosis	292.2 ± 573.2	252.9 ± 291.6	0.721
Reported average number of patients with BPD	12.7 ± 18.8	8.8 ± 12.1	0.279
Proportion of BPD in percentage (BPD caseload/all diagnosis caseload*100)	13.4 ± 24.2	14.9 ± 29.4	0.768

Note: p-values indicate statistical significance. Results were significant at $p < 0.001$.

and cost and time involved in training and delivering the interventions. Uptake of therapies, even if available, might also have been a challenge.

The report of the use of medications in persons with BPD appears relatively high. The reasons for the higher use of medications will need to be explored through further studies to understand the reasons behind this. They could be addressed through specific training in BPD assessment and management.

While the clinicians appear to be very confident in diagnosing BPD, the confidence seems to be less in managing the disorder. The clinicians who participated in the study reported that their main training in BPD was during the psychiatry residency period. As postgraduate trainees report less adequate training and supervision in BPD (16), this might be why the confidence level in management could be lower in the study respondents.

The Clinical Practice Guidelines for Assessment and Management of Patients with BPD (15) also recommends that sharing a diagnosis is important for a therapeutic relationship and to support psychoeducation. With collaborative decision-making and a patient-participatory approach to treatment being recognized as necessary, the findings of our study indicate that psychiatrists in India are sharing diagnoses with their patients most of the time in keeping with the guidelines. Psychiatrists who are more confident in diagnosing and managing BPD and when they perceive the sharing to be helpful are more likely to share the diagnosis with patients. Clafferty et al. (8) found the rate of disclosure of personality disorder as a diagnosis was 42% as compared to 90-98% of other Axis 1 psychiatric illnesses. Studies done by McDonald-Scott in 1992 (7) reported that 55% of American psychiatrists and 16% of Japanese psychiatrists would inform patients of a BPD diagnosis. The disclosure rates in our study are similar to those of American psychiatrists (56.4%).

The significant reasons indicated as to why the diagnosis could not be shared were uncertainty about the diagnosis, stigma, and worry about misuse of the diagnosis by persons with BPD and their families. A survey of 134 psychiatrists conducted in the US (2) found that uncertainty about diagnostic validity and stigma were the two leading causes of not disclosing or documenting a diagnosis of BPD. A review of literature by Lequesne et al. (17) done in 2003 reported that uncertainty regarding the validity of the BPD diagnosis, the feeling that the diagnosis is too negative to divulge (stigma), and worries that such a diagnosis would have deleterious effects on the patient's health and morale were major reasons for not disclosing the diagnosis. While the factors cited by psychiatrists in our study are not dissimilar to other studies, the unique factor of worry about misuse of diagnosis by families is reflective of the cultural aspects of medical care in India.

The surveyed psychiatrists are seeking increased emphasis on practical hands-on workshops aimed at the diagnosis and management of BPD in the future. Masland et al. (18) found that even a 1-day training event on general psychiatric management changed the attitude of clinicians towards BPD.

While many surveyed psychiatrists expressed a demand for specialized services to handle BPD cases, the small number of respondents necessitates further surveys among psychiatrists and psychiatric trainees to know if this need is widely felt.

Limitations

Key limitations of the study include reliance on self-reported data from the participating psychiatrists, a primarily regional focus on the southern states leading to issues with generalizability to the whole of India, and a potential selection bias due to the respondents' urban background and their interest in BPD, which may explain the high level of confidence and access to therapies. The authors acknowledge that a study of this nature requires multiple sources of contact, which introduces these biases. Responses may be indicative of people who are more confident with BPD thereby adding to the bias.

Conclusions

This study contributes to the BPD research about Indian psychiatrist practices in diagnosis and management. The discrepancy in the confidence level of diagnosing and managing BPD can be bridged by conducting good quality practical hands-on workshops focussed on the management of BPD for trainees and practising psychiatrists. Practical workshops will ensure that psychiatrists are able to provide good quality care to persons with BPD. As the responses predominantly reflect practices in South India, further studies are required to determine whether patterns are similar in other parts of India. Future research should also explore patient perspectives on diagnosis and management practices.

Data availability

The data supporting the findings of this study are available from the corresponding author upon reasonable request.

Ethics statement

SRF-CR/12/JUL-2021

Author contributions

All authors have contributed significantly to this work.

Consent to participate and publish

Obtained electronically from all participants.

Funding

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Acknowledgments

The authors thank all the experts and participants of the pilot and main survey.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

AI declaration

Grammarly was used solely for spelling and grammar checks. The authors take full responsibility for the content.

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Indian Journal of Mental Health and Neurosciences
Volume 9, Issue 1, 2026, pp. 35–36
DOI: 10.54646/ijmhns.2026.07
www.ijmhns.com

LETTER TO EDITOR

Smartphone addiction among medical students: a silent behavioral epidemic

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Received: 13 April 2026; **Accepted:** 15 April 2026; **Published:** 15 May 2026

To the Editor,

Smartphones have become integral to medical education; however, their excessive use is increasingly being recognized as problematic. Medical students, who are exposed to sustained academic stress and continuous digital engagement, may be particularly vulnerable to maladaptive patterns of use. Problematic smartphone use is now conceptualized as a behavioral addiction, characterized by impaired control, excessive engagement, and continued use despite adverse consequences (1). In this population, such patterns may adversely affect both mental health and academic functioning.

Recent studies have demonstrated associations between excessive smartphone use and poor sleep quality, anxiety, depressive symptoms, and reduced academic performance (1, 2). Night-time usage, prolonged screen exposure, and frequent engagement with social media contribute to circadian disruption and cognitive fatigue, which can significantly impair learning efficiency (2). In academic settings, students often report compulsive checking behaviors, difficulty limiting screen time, and reduced concentration during study periods. These behaviors are frequently normalized and may go unrecognized until they result in significant impairment (3).

Emerging neurobiological evidence suggests involvement of reward-related dopaminergic pathways, indicating similarities with other behavioral addictions (4). Such mechanisms may reinforce habitual use and perpetuate a cycle that is difficult to interrupt without structured intervention. Despite growing recognition of this issue, systematic institutional responses remain limited. There is a need to incorporate digital well-being into medical curricula, introduce routine screening within student health services, and promote norms that encourage balanced technology use.

Practical strategies, including scheduled device-free periods, reinforcement of sleep hygiene, and mindfulness-based approaches, may serve as feasible initial interventions. In conclusion, problematic smartphone use among medical students is an under-recognized but clinically relevant concern that warrants both individual-level and institutional-level attention to safeguard mental health and academic performance (5).

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

How to Cite this Article:
Marcel J. Smartphone addiction among medical students: a silent behavioral epidemic. *Indian J. Ment. Health Neurosci.* 2026; 9(1): pp. 35–36. DOI: https://doi.org/10.54646/ijmhns.2026.07

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