

Original Research Article

Knowledge, attitude and practices of medical residents towards patients with substance use disorder in Jammu and Kashmir

Athiya Fahiem Khan*, Mehwish Imtiaz, Sabah Younis

Department of Psychiatry, Government Medical College, Srinagar, Jammu and Kashmir, India

Received: 24 June 2025

Revised: 23 July 2025

Accepted: 25 July 2025

*Correspondence:

Dr. Athiya Fahiem Khan,

E-mail: khanathiya708@gmail.com

Copyright: © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT

Background: Substance use disorder (SUD) has emerged as a major public health concern in Jammu and Kashmir. With increasing clinical encounters, medical residents play a vital role in early recognition and management of SUDs.

Methods: A cross-sectional online survey was conducted in January 2021 among medical residents across tertiary care hospitals in Jammu and Kashmir. The pretested questionnaire comprised four sections: sociodemographic profile, knowledge, attitudes, and practices related to SUD. Data were collected over three days using social media platforms and analysed using Microsoft Excel 2016.

Results: A total of 162 residents participated, with 65.4% aged 20-30 years and 56.2% females. Most (86.4%) were from clinical specialties. While 92.6% agreed that addiction is a mental illness, only 50.6% were aware of opioid substitution therapy (OST). Notably, 51.8% admitted to avoiding patients with SUD, and 75% reported needing psychiatric assistance for such cases. While 69.1% routinely assessed toxicology history, 58.4% could interpret drug screen results. Most (89.5%) felt the need for further training in managing SUDs.

Conclusions: Medical residents demonstrated good baseline knowledge and awareness of SUDs. However, gaps in training, especially in OST and emergency management, highlight the need for targeted educational interventions.

Keywords: Attitude, Jammu and Kashmir, Knowledge, Medical residents, Practice, Substance use disorder

INTRODUCTION

Substance use disorder has emerged as one of the growing public health problems of the contemporary societies cutting across all sorts of socio-religious and politico-economic boundaries. As per the national household survey, more than one crore people in the country were suffering from alcohol or drug dependence.¹ Substance use-related emergencies constitute a major chunk of the psychiatric emergencies attended.² The union territory of Jammu and Kashmir is no exception to this phenomenon. One of the major challenges associated with the increased prevalence of substance use is an increased burden on the health care system. The limited number of tertiary care hospitals in the valley are the only facilities where such patients can be catered to. The

failure to identify addiction problems by the medical community may lead to complications of medical illnesses and poor response to conventional therapies, therefore leading to poor outcomes.³ As such, it is important for the residents working in these hospitals to be well acquainted with these disorders, the comorbidities, emergencies, and treatments associated with them.

Objective

The present study aimed to assess the knowledge, attitudes, and practices of medical residents across tertiary care hospitals in Jammu and Kashmir regarding patients with substance use disorders.

METHODS

Study type

This study was a cross-sectional descriptive survey designed to assess the knowledge, attitudes, and practices of medical residents regarding substance use disorder.

Study place and period

The study was conducted across tertiary care hospitals in the union territory of Jammu and Kashmir, including Government Medical College (GMC) Srinagar, SKIMS Soura, GMC Anantnag, GMC Baramulla, GMC Jammu, and affiliated institutions. Data collection took place over three days in January 2021.

Inclusion criteria

Residents currently enrolled in postgraduate medical training programs at any tertiary care hospital in Jammu and Kashmir. Residents from both clinical and non-clinical branches. Access to social media platforms such as WhatsApp and Facebook. Provided informed consent to participate in the study

Exclusion criteria

Interns and undergraduate students. Incomplete or duplicate survey submissions.

Procedure

A pretested, semi-structured questionnaire was developed and hosted on Google forms. The questionnaire included four sections: sociodemographic details, knowledge regarding substance use disorders, attitudinal aspects toward patients with SUD, practice-related responses and experiences.

The questionnaire was shared digitally through Facebook and WhatsApp groups that included residents from different institutions in the region. A preliminary pilot test was conducted among 20 resident doctors, and subsequent linguistic and structural modifications were made to improve clarity and ensure content validity. The survey link was kept active for 72 hours, and reminders were periodically sent to improve the response rate. A feature preventing multiple submissions from the same respondent was enabled.

Sampling technique and sample size

This study employed a convenience sampling technique, targeting medical residents who were accessible via online platforms such as WhatsApp and Facebook groups specific to resident doctors in Jammu and Kashmir. This method was chosen due to the feasibility of quick data collection during the COVID-19 period and limited physical access across institutions.

A formal sample size calculation was not performed as the study was exploratory in nature. However, previous literature and expert consultations suggested that a sample size of at least 150 participants would be adequate to observe general trends in knowledge, attitudes, and practices among medical residents. Ultimately, 162 eligible residents responded to the online survey within the 3-day data collection period.

Data collection instrument

A structured, pretested questionnaire was developed using Google Forms and distributed online. The questionnaire consisted of four sections:

Sociodemographic details- like age, gender, qualification, specialty, institution, and personal experience with SUD.

Knowledge- 12 statements assessing factual understanding of substance use disorders, including etiology, complications, treatment options, and trends.

Attitude- 8 statements measuring perceptions, empathy, moral beliefs, and readiness to engage with SUD patients.

Practice- 7 statements evaluating screening behaviour, clinical decision-making, and training adequacy.

Most items in the KAP sections were framed using a 3-point Likert scale: agree, disagree, don't know/not sure.

Some practice items used binary responses (yes/no). The survey was pilot tested on 20 resident doctors for clarity, face validity, and timing. Necessary modifications were made based on feedback before final dissemination.

Scoring and interpretation

For descriptive analysis, responses on the Likert scale were summarized as frequencies and percentages in each category (agree, disagree, don't know). No composite scores were calculated, as the primary objective was to examine response distribution across individual KAP domains rather than assess total knowledge or attitude scores.

Procedure

The final questionnaire was disseminated through resident-specific WhatsApp and Facebook groups. Participation was voluntary, and only one response per participant was allowed. The survey remained open for three days, with two follow-up reminders sent to encourage participation.

Ethical approval

Prior to initiating data collection, ethical clearance was obtained from the institutional ethical committee of Government Medical College, Srinagar. An introductory

note outlining the study's objectives, voluntary participation, anonymity, and contact information of the investigators was provided on the first page of the online form.

Statistical analysis

Data obtained from the Google forms were downloaded in Microsoft Excel 2016. Categorical variables such as age, gender, qualification, and responses to knowledge, attitude, and practice questions were expressed as

frequencies and percentages for each Likert-scale response. No inferential statistical tests were applied due to the descriptive nature of the study.

RESULTS

This study included responses from 162 medical residents across various tertiary care hospitals in Jammu and Kashmir. The analysis is presented in accordance with the knowledge-attitude-practice (KAP) model using a 3-point Likert scale: agree, disagree, and don't know/unsure.

Table 1: Sociodemographic characteristics of participants (n=162).

Variables	Category	Frequency	Percentage
Age Group	20-30 years	106	65.4
	31-40 years	50	30.9
	>40 years	6	3.7
Gender	Male	71	43.8
	Female	91	56.2
Qualification	MBBS	77	47.5
	MD	83	51.2
	DM	2	1.2
Specialty	Clinical	140	86.4
	Non-clinical	22	13.5
Institution	GMC Srinagar	110	67.9
	SKIMS	17	10.5
	Others (ASCOMS, etc.)	35	21.6
Personal experience of SUD in family or friends	Yes	49	30.2
	No	113	69.8

Table 2: Knowledge questions assessed participants' awareness of clinical, biological, and public health aspects of SUD. The majority demonstrated high factual understanding.

Knowledge Item	Agree (%)	Disagree (%)	Don't Know (%)
Addiction is a mental illness known as substance use disorder	92.6	5.6	1.9
Substance use has a biopsychosocial model	97.5	0	2.5
Substance use leads to serious medical/psychiatric complications	100	0	0
Patients with SUD can recover completely	69.1	15.4	15.4
Aware of regional substance use trends	69.8	12.3	17.9
Alarming rise in opioid use in region	92.9	0.6	6.4
Shift from medicinal opioids to injectable heroin	83.3	0	16.7
Significant rise in opioid overdose/deaths	83.3	0.6	16.0
Aware of signs/symptoms of opioid overdose	90.9	4.5	4.5
Aware of opioid substitution therapy (OST)	50.6 (Yes)	49.4 (No)	–
OST is an addiction equivalent	33.9	27.6	35.8
OST is a harm reduction practice	61.5	7.7	30.8

Table 1 summarizes the sociodemographic profile of the 162 medical residents who participated in the study. The majority of respondents (65.4%) were aged between 20-30 years, and 56.2% were female. Over half held an MD degree (51.2%), and most (86.4%) belonged to clinical specialties. GMC Srinagar was the most represented

institution (67.9%), followed by SKIMS (10.5%) and others.

Notably, 30.2% of participants reported having a personal or family history of substance use disorder, a factor that may influence attitudes and engagement with affected patients.

Knowledge of substance use disorder (SUD)*Interpretation*

Awareness was highest for fundamental knowledge (biopsychosocial model, consequences of SUD, and opioid trends). OST-related knowledge showed major gaps, with nearly half unaware of its existence and confusion about its therapeutic role (Table 2).

Attitudes toward patients with SUD*Interpretation*

While most residents endorsed non-stigmatizing and empathic attitudes, nearly 1 in 3 still believed substance use is a moral failing. There was high support for integrated care, but nearly half were unsure whether OST supports or hinders abstinence, reflecting ambivalence and education needs (Table 3).

Table 3: Attitude items explored moral judgments, empathy, and perspectives on treatment equity.

Attitude Statement	Agree (%)	Disagree (%)	Don't know (%)
Substance use is a moral problem more than an illness	37.7	52.5	9.9
Patients with SUD are an unnecessary burden on healthcare	27.2	67.9	4.9
SUD requires a multidisciplinary treatment approach	98.8	1.2	0
Patients with SUD deserve equal attention as other chronic illness patients	95.7	3.7	0.6
I have the same empathy for patients with SUD as for other medical/psychiatric issues	75.0	16.0	9.0
OST reduces chances of full abstinence	31.4	22.4	46.2
Relapse in SUD is demotivating	75.6	16.7	7.7
Important to understand clinical phenomenology of SUD	98.8	1.2	0

Table 4: Practice-related questions examined actual behaviour and self-reported competency in SUD management.

Practice Statement	Agree/yes (%)	Disagree/no (%)	Don't know (%)
I try to avoid patients with SUD and refer them elsewhere	51.8	48.1	–
I often ask patients about toxicology history	69.1	25.9	4.9
I can interpret rapid urine drug screen results	58.4 (Yes)	41.6 (No)	–
I can manage opioid overdose in emergency settings	59.4	25.8	14.8
I have to make a psychiatry call to manage SUD patients	75.0	19.2	5.8
I received sufficient undergraduate/postgraduate training in addiction	45.1	48.7	6.2
I need additional training in SUD management for my clinical work	89.5	8.0	2.5

Practices toward managing patients with SUD*Interpretation*

While basic screening practices (e.g., toxicology history) were moderately high, confidence in interpreting results and managing emergencies was limited. More than half of the residents tend to avoid managing patients with SUD, despite recognizing its importance. There was a strong demand for further education, with nearly 90% seeking specialized training in addiction medicine (Table 4).

Summary across KAP domains

Knowledge: strong baseline understanding of SUD's nature and consequences; OST remains poorly understood.

Attitudes: encouraging levels of empathy and equity; but residual stigma persists among one-third of residents.

Practices: screening behaviours present but confidence in intervention is suboptimal; avoidance of SUD patients is common.

DISCUSSION

This study explored the knowledge, attitudes, and practices of medical residents in Jammu and Kashmir toward patients with substance use disorder (SUD). The findings indicate a high level of conceptual knowledge regarding the nature and complications of SUD, with a generally positive attitude among residents. However, significant gaps were observed in clinical confidence and practical management skills, underscoring the need for curricular and systemic interventions.

Most participants recognized addiction as a chronic mental illness with a biopsychosocial etiology, reflecting alignment with the brain disease model of addiction⁴. This is consistent with global shifts in the conceptualization of substance use disorders, which emphasize neurobiological, psychological, and environmental factors.⁵ Universally, residents acknowledged the serious medical and psychiatric consequences of substance use, reinforcing that foundational knowledge is being effectively imparted.⁶

Despite strong theoretical understanding, residents demonstrated ambivalence regarding recovery and harm reduction. Only 69.1% believed that patients with SUD could recover completely, while others expressed uncertainty. Similar attitudes have been documented in previous studies, suggesting that therapeutic pessimism remains a barrier to compassionate care.⁷ Furthermore, although opioid use was widely recognized as a rising concern in the region, knowledge and acceptance of opioid substitution therapy (OST) were limited. Almost half of the participants were unaware of OST, and a significant proportion were unsure of its role in abstinence or harm reduction. This finding mirrors other Indian studies reporting low familiarity with pharmacological interventions like buprenorphine and methadone.^{8,9}

Attitudes toward SUD were largely non-stigmatizing. The majority of residents disagreed with statements labelling substance use as a moral failing or suggesting that such patients were a burden on the healthcare system. These attitudes are encouraging and demonstrate progress toward destigmatization.⁹ Nonetheless, about one-third still endorsed moralistic views, revealing persistent cultural biases. Literature shows that even among healthcare professionals, implicit biases against individuals with SUD can affect clinical decision-making and reduce the quality-of-care.¹⁰

A critical gap was observed in practical competencies. While most residents routinely screened for substance use, fewer than 60% were confident interpreting urine drug screens or managing opioid overdose. Over half admitted to avoiding patients with SUD or referring them elsewhere. Such findings reflect a disconnect between knowledge and clinical application. Previous studies have emphasized that lack of hands-on training contributes to avoidance behaviour and reduced empathy in real-world settings.¹¹ Encouragingly, nearly 90% of residents in our sample expressed the need for additional training in addiction management. This willingness represents an opportunity to enhance SUD education during both undergraduate and postgraduate medical training.¹²

Our findings also suggest that personal or family exposure to substance use- reported by 30.2% of residents- may influence empathy and engagement. Literature supports that lived experience often contributes to more accepting and nuanced views of addiction.¹³

Finally, the high agreement on the importance of a multidisciplinary approach and clinical phenomenology signals readiness among young clinicians to integrate evidence-based care, provided structural support and education are strengthened.

This study used convenience sampling and an online survey distributed over a short period (3 days), which may limit generalizability. Social desirability bias could have influenced participants' responses, particularly regarding attitudes. Additionally, the absence of inferential statistics restricts conclusions to descriptive interpretations.

CONCLUSION

Although medical residents in this region possess encouraging knowledge and attitudes toward SUD, significant deficits remain in clinical practice skills, particularly around OST and emergency management. Medical training curricula should integrate structured modules on addiction science, practical simulations, and stigma reduction to bridge these gaps and ensure holistic, compassionate care for patients with substance use disorders.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

REFERENCES

1. Ray R. The extent, pattern and trends of drug abuse in India, National Survey. New Delhi, India: Ministry of Social Justice and Empowerment, Government of India and UNODC; 2004.
2. Modak T, Singh Sukumar S, Deep R. Substance use related emergencies in a tertiary care hospital setting: Observations and discussion. *Indian J Psychol Med*. 2019;41:595-7.
3. Gili Miner M, Giner J, Lacalle JR, Franco D, Velasco A. Detection of alcohol-related problems in primary care. *Gac Sanit*. 1990;4(19):135-9.
4. Volkow ND, Koob GF, McLellan AT. Neurobiologic Advances from the Brain Disease Model of Addiction. *N Engl J Med*. 2016;374(4):363-71.
5. American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders, 5th edn (DSM-5). Arlington, VA: APA; 2013.
6. McLellan AT, Lewis DC, O'Brien CP, Kleber HD. Drug dependence, a chronic medical illness. *JAMA*. 2000;284(13):1689-95.
7. van Boekel LC, Brouwers EP, van Weeghel J, Garretsen HF. Stigma among health professionals towards patients with substance use disorders. *Subs Use Misuse*. 2013;48(5):329-36.
8. Rao R, Agrawal A, Ambekar A. Training needs assessment among medical professionals on

- substance use disorders: Findings from a multicentric survey. *Indian J Psychol Med*. 2021;43(5):418-25.
9. Ambekar A, Agrawal A, Rao R, Mishra AK, Khandelwal SK. Magnitude of substance use in India. New Delhi: Ministry of Social Justice and Empowerment, Government of India and NDDTC, AIIMS; 2019.
 10. van Ryn M, Burke J. The effect of patient race and socioeconomic status on physicians' perceptions of patients. *Soc Sci Med*. 2000;50(6):813-28.
 11. Ayu AP, El-Guebaly N, Schellekens AFA, De Jong CAJ. CORE Addiction medicine: a multinational description of core competencies for addiction medicine. *Subs Abuse*. 2015;36(2):246-54.
 12. Wakeman SE, Barnett ML. Primary care and the opioid-overdose crisis- buprenorphine myths and realities. *N Engl J Med*. 2018;379(1):1-4.
 13. Earnshaw VA, Smith LR, Copenhaver MM. Drug addiction stigma in the context of methadone maintenance therapy: an investigation into understudied sources of stigma. *Int J Ment Health Addict*. 2013;11(1):110-22.

Cite this article as: Khan AF, Imtiaz M, Younis S. Knowledge, attitude and practices of medical residents towards patients with substance use disorder in Jammu and Kashmir. *Int J Community Med Public Health* 2025;12:3718-23.