Original Article

Help-Seeking Pathways and Determinants of Treatment-Seeking Among Patients with Opioid Dependence: A Comparative Study of Tertiary Care and Outreach Settings in North-western Rajasthan

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Abstract

Background: Opioid dependence syndrome (ODS) presents a severe clinical challenge across North-Western Rajasthan. While raw opium (Amal/Doda Post) and street heroin (Smack) dominate conventional substance use patterns, the unmonitored use of over-the-counter (OTC) traditional formulations containing raw opium—specifically Kamini Vidrawan Ras and Barshasha—has emerged as an iatrogenic route to dependence among patients seeking health or vitality remedies. The aim is to observe the help-seeking pathways, delays in help-seeking and the underlying motivations of ODS patients attending the directly operated psychiatric hospital of the regional tertiary care centre in Bikaner (Sardar patel medical college) and ODS patients attending the rural outreach camp of the District Mental Health Program (DMHP) in Nagaur district. **Material and Methods:** A cross sectional comparative study design was followed in the study with 250 Male patients of Nagaur district with ODS (ICD-10) were selected. The participants were split randomly into 2 groups of equal size of Bikaner Tertiary Care OPD (n=125) and DMHP Nagaur Outreach Camps (n=125). Structured questionnaires were used to document socio-demographic, clinical, pathway nodes and care motivators. **Results:** Only 38.0% (n = 95) consulted a mental health professional as their initial contact. Unintentional dependence stemming from OTC AYUSH remedies (Kamini Ras / Barshasha) accounted for 24.0% (n = 60) of primary ODS cases, being significantly higher among rural DMHP outreach attendees (30.4%) compared to tertiary OPD attendees (17.6%, $p < 0.001$). Patients traveling to Bikaner reported escalating financial expenditure (41.6%) and marital discord (38.4%) as primary treatment drivers, whereas DMHP camp attendees cited physical ill-health (46.4%) and local camp proximity (33.6%). The mean treatment delay from dependence onset was 33.5 ± 17.1 months, being significantly prolonged in the DMHP outreach group (38.6±18.5months). **Conclusion:** Patients with ODS in Nagaur experience substantial delays before reaching formal psychiatric care, frequently traversing multiple general medical, pharmacy, and traditional health nodes. Over-the-counter AYUSH preparations constitute a notable iatrogenic factor. Outreach camps in rural areas effectively bridge geographical and economic barriers for rural agrarian populations.

Keywords: Opioid Dependence Syndrome (ODS), Help Seeking Pathway, Kamini and Barshasha.

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Introduction

Opioid dependence syndrome (ODS) represents a persistent public health problem across India, with northern and north-western states reporting elevated rates of both traditional and synthetic opioid consumption.[1,2] In North-Western Rajasthan, the epidemiological picture is defined by a combination of traditional raw opium consumption and an increasing presence of refined and manufactured opioids.[3-6] Nagaur district is located in the central part of Marwar belt which has a large population living in rural areas who are mainly engaged in agriculture, high traffic and is dependent on the regional tertiary medical hubs like Bikaner which offers specialized medical care, making it an important study point on the patterns of substance use in Marwar belt.[2] The use of raw opium (Amal) and crushed poppy husk (Doda Post) was traditionally done in known, socio-cultural settings while working in the field, attending events, and during customary habits in western Rajasthan during the past.[5] Changes in the regulatory environment under the Narcotic Drugs and Psychotropic Substances (NDPS) Act and changes in the supply situation, have however, impacted substance availability.[14] Many patients seeking treatment today in psychiatric facilities in North-Western Rajasthan are addicted to heroin, or other opioids such as street heroin (Smack), pharmaceutical opioids (Tramadol, Buprenorphine), or there are

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growing number of patients who are dependent on traditional medicinalopioids that are readily available over the counter (OTC).[6,7]

It is an important clinical development in this region that the misuse of over the counter ayurvedic and Unani polyherbal medicines containing raw opium (Ahifena), most notably Kamini Vidrawan Ras and Barshasha, primarily.[7,8] Kamini Vidrawan Ras is a classical ayurvedic formulation consisting of raw opium and mineral compound like Hingula (cinnabar) that is traditionally used for sexual weakness, premature ejaculation and for providing debility.[7,9] Barshasha is a classical preparation of Unani medicine which is a mixture of opium and various other ingredients and is widely used in Unani as a remedy for chronic cough, general pain and insomnia.[8] In rural Nagaur these are commonly being sold without any prescription.[9]

The higher the public trust on traditional medicine system, the more consumers consider AYUSH medicine as safe, natural and non-addictive.[12] medicine. People, therefore, consume these for prolonged periods of time to treat their illnesses, unaware that they are ingesting active opium.[7,8] Physical dependence is a gradual process, and most patients are aware of addiction only when they try to stop, at which time they will experience the characteristic opioid withdrawal symptoms (severe restlessness, tearing, body ache, gastrointestinal symptoms and disturbances).[11] Patients think they are recurring to what they had originally been prescribed, and continue to and may increase their doses to create chronic dependence.[11]

When individuals decide to seek treatment, their help-seeking pathway is often indirect.[4] Patients from Nagaur district may either travel approximately 110–200 km to seek tertiary care or attend rural de-addiction outreach camps organized locally.[3] Before reaching formal psychiatric care, patients frequently consultgeneral medical practitioners, local chemists, AYUSH practitioners, and faith healers.[3]

Mapping these care pathways, quantifying care delays, and evaluating treatment motivators are necessary steps for refining district mental health delivery in North-Western Rajasthan.[3,12-15]

Materials and Methods

Study design: Comparative cross-sectional observational study.

Study Setting and Collaboration: This cross-sectional, comparative, observational study was conducted over a 12-month period (January 2025 to December 2025)

1. Bikaner Tertiary Care OPD Setting: Psychiatric Outpatient Department at SP Medical College, Bikaner.
2. DMHP Nagaur Outreach Setting: Peripheral de-addiction outreach camps organized systematically at Community Health Centers (CHCs) across sub-divisional blocks of Nagaur district.

Sample Size and Participant Allocation: A total of N = 250 male patients meeting ICD-10 criteria for Opioid Dependence Syndrome (ODS) were enrolled using consecutive sampling. Participants were allocated into two equal, mutually exclusive cohorts based on their presentation point:

- Bikaner Tertiary OPD Cohort (n = 125): Patients presenting directly to the psychiatry OPD at SP Medical College, Bikaner.
- DMHP Nagaur Outreach Cohort (n = 125): Patients attending peripheral DMHP de-addiction camps within Nagaur district.

Eligibility Criteria

Inclusion Criteria: Male patients aged 18 to 60 years; diagnosis of ODS as per ICD-10 criteria; seeking formal medical de-addiction treatment for the first time; accompanied by a reliable family informant; and providing written informed consent.

Exclusion Criteria: Primary dependence on substances other than nicotine or caffeine; active psychotic disorders or severe organic brain disease; severe cognitive impairment preventing comprehension; or presenting in acute medical distress or severe unmanaged withdrawal.

Assessment Tools

Assessments were conducted using structured proformas:

1. Socio-Demographic Sheet: Age, rural/urban locality, occupation, formal education, and monthly household income.
2. Clinical & Opioid Profile Sheet: Primary substance used (raw opium/Amal/Doda, OTC Kamini Ras/ Barshasha, street heroin/Smack, or pharmaceutical opioids), route of intake, duration of dependence, daily expenditure, and initial intent of use.
3. Pathway to Care Questionnaire (Adapted WHO Format): Sequential mapping of all care providers consulted prior to current psychiatric contact, measuring total care delay in months.
4. Treatment Motivators Questionnaire: Personal, medical, financial, and family triggers prompting treatment seeking.

Ethical approval: Ethical clearance was obtained from the Institutional Ethics Committee. Written informed consent was obtained from all participating patients and their accompanying persons before inclusion in the study. Participation was voluntary, and confidentiality of the information collected was maintained.

Statistical Analysis: Data were analyzed using SPSS Version 25.0. Continuous variables were presented as Mean± SD and compared using independent sample t-tests. Categorical variables were expressed as frequencies and percentages, analyzed using Chi-square (χ^2) or Fisher's exact tests. $p < 0.05$ was considered statistically significant.

Results

All 250 enrolled male patients completed the assessment. Comparative data between the Bikaner Tertiary OPD cohort (n = 125) and Nagaur outreach camps cohort (n = 125) are presented across five structured statistical tables.

Socio-Demographic Characteristics: The overall mean age was 34.25 ± 8.2 years. Outreach camp attendees were significantly older than Bikaner tertiary OPD attendees (36.1 ± 8.4 vs. 32.4 ± 7.8 years, $p < 0.001$). Rural residence was higher in the Outreach camp cohort (81.6%) than in the Bikaner OPD cohort (41.6%, $p < 0.001$). Farming was the primary occupation among rural outreach attendees (54.4%), whereas transport driving (25.6%)

and daily wage labor (22.4%) were common in the Bikaner OPD sample.

Table 1: Socio-Demographic Comparison Between Bikaner Tertiary OPD and DMHP Nagaur Outreach Cohorts (N = 250)

Variable	Bikaner OPD	Outreach camp	Total(N=250)	TestStat	p-value
	(n=125)				
		(n=125)			
Mean Age (Years±SD)	32.4±7.8	36.1±8.4	34.25±8.2	t=3.61	<0.001*
Locality					
Rural	52(41.6%)	102(81.6%)	154(61.6%)	χ^2=42.61	<0.001*
Semi-Urban/Urban	73(58.4%)	23(18.4%)	96(38.4%)		
Primary Occupation					
Agriculture/Farming	38(30.4%)	68(54.4%)	106(42.4%)	χ^2=18.24	<0.001*
Transport/Driving	32(25.6%)	21(16.8%)	53(21.2%)		
Daily Wage Labor	28(22.4%)	24(19.2%)	52(20.8%)		
Business/Self-Employed	27(21.6%)	12(9.6%)	39(15.6%)		
Education Level					
Illiterate/No schooling	21(16.8%)	42(33.6%)	63(25.2%)	χ^2=12.89	0.005*
Primary/Middle School	49(39.2%)	51(40.8%)	100(40.0%)		
High School &Above	55(44.0%)	32(25.6%)	87(34.8%)		
Monthly Income(INR)					
<₹10,000	28(22.4%)	54(43.2%)	82(32.8%)	χ^2=12.44	0.002*
₹10,000–₹25,000	66(52.8%)	51(40.8%)	117(46.8%)		
>₹25,000	31(24.8%)	20(16.0%)	51(20.4%)		

Opioid Sub-Types and Prevalence of OTCAYUSH Misuse: Traditional unrefined opioids (Amal/Doda Post) were the single largest primary substance overall (35.2%). Dependence on OTC preparations containing raw opium (Kamini Ras and Barshasha) constituted 24.0% (n = 60) of primary ODS cases, matching the proportion of illicit street heroin/Smack (24.0%). Misuse of Kamini Ras / Barshasha was significantly higher among DMHP outreach attendees (30.4%) than Bikaner OPD attendees (17.6%, $p < 0.001$). Overall, 21.2% initiated opioids for sexual performance enhancement, and 12.8% started self-medication for chronic pain or cough.

Table 2: Clinical Profile and Opioid Sub-Type Profiles(N=250)

Clinical Parameter	Bikaner OPD (n=125)	Outreach camp (n=125)	Total (N=250)	Test Stat	p-value
Primary Opioid Used					
Raw Opium/Amal/Doda	30(24.0%)	58(46.4%)	88(35.2%)	χ^2=28.65	<0.001*
Kamini Ras / Barshasha(AYUSH)	22(17.6%)	38(30.4%)	60(24.0%)		
Heroin/Smack(Street)	48(38.4%)	12(9.6%)	60(24.0%)		
Pharmaceutical Opioids	25(20.0%)	17(13.6%)	42(16.8%)		
Self-Medication (Pain/Cough)	12(9.6%)	20(16.0%)	32(12.8%)		
Social/Peer Influence	72(57.6%)	42(33.6%)	114(45.6%)		
Occupational Endurance	23(18.4%)	28(22.4%)	51(20.4%)		
Mean Dependence Duration(Yrs)	6.2±3.1	8.8±4.2	7.5±3.8	t=5.56	<0.001*
Daily Cost (INR±SD)	₹580±210	₹320±140	₹450±220	t=11.52	<0.001*

First Point of Contact and Treatment Delays: Only 38.0% (n = 95) consulted a qualified psychiatrist or specialized de-addiction facility on their first help-seeking attempt. The remaining 62.0% sought help through non-psychiatric providers, including local general practitioners (26.4%), retail chemists (15.6%), AYUSH/traditional folk practitioners (13.2%), and faith healers (6.8%). The mean treatment delay was 33.5 ± 17.1 months, being significantly longer in the outreach cohort (38.6 ± 18.5 months) than in the Bikaner OPD cohort (28.4 ± 14.2 months, $p < 0.001$).

Table 3: First Point of Contact Traversed and Delay in Seeking Treatment (N=250)

First Contact Node	Bikaner OPD (n=125)	Outreach camp (n=125)	Total(N=250)	Test Stat	p-value
Psychiatrist/Specialized Center	52(41.6%)	43(34.4%)	95(38.0%)	χ^2=1.39	0.238
General Practitioner / MBBS Doctor	28(22.4%)	38(30.4%)	66(26.4%)	χ^2=2.11	0.146
Retail Pharmacist/Chemist Shop	18(14.4%)	21(16.8%)	39(15.6%)	χ^2=0.27	0.603
AYUSH/Traditional Practitioner	15(12.0%)	18(14.4%)	33(13.2%)	χ^2=0.31	0.575
Faith Healer/Temple/Dargah	12(9.6%)	5(4.0%)	17(6.8%)	χ^2=3.07	0.080
Mean Delay (Months±SD)	28.4±14.2	38.6±18.5	33.5±17.1	t=4.88	<0.001*

Motivators and Triggers for Seeking De-Addiction Care: Treatment-seeking motivators differed between cohorts. Bikaner OPD patients reported escalating daily financial expenses (41.6%) and marital discord (38.4%) as primary motivators. Conversely, outreach camp attendees reported physical health complications (46.4%), family property disputes (36.8%), and the physical convenience/proximity of the outreach camp (33.6%) as primary motivators.

Table 4: Key Motivators and Triggers for Seeking Treatment (N=250)

Motivator/Trigger Category	Bikaner OPD (n=125)	Outreach camp (n=125)	Total (N=250)	Test Stat	p-value
Personal & Health Triggers					
High Daily Drug Expenses	52(41.6%)	24(19.2%)	76(30.4%)	χ^2=14.88	<0.001*
Physical Health	32(25.6%)	58(46.4%)	90(36.0%)	χ^2=11.68	0.001*
Unintentional OTC Addiction Realization	27 (21.6%)	35(28.0%)	62(24.8%)	χ^2=1.36	0.243
Job Loss / Occupational Strain	21(16.8%)	15(12.0%)	36(14.4%)	χ^2=1.18	0.277
Family & Social Triggers					
Marital Discord / Separation Threats	48(38.4%)	22(17.6%)	70(28.0%)	χ^2=13.24	<0.001*
Interpersonal Family Conflict	42(33.6%)	31(24.8%)	73(29.2%)	χ^2=2.33	0.127
Property/Financial Disputes	22(17.6%)	46(36.8%)	68(27.2%)	χ^2=11.58	0.001*
Proximity of DMHP Outreach Camp	12(9.6%)	42(33.6%)	54(21.6%)	χ^2=21.05	<0.001*

Care Pathway Nodes Transversed Prior to Specialist Care: Evaluation of consultation sequences showed that 38.0% reached a psychiatrist at Node 1, while 34.0% consulted two nodes, and 28.0% consulted three or more nodes prior to formal psychiatric evaluation.

Table 5: Distribution of Care Pathway Nodes Traversed Before Reaching Psychiatric Care(N=250)

Number of Nodes Traversed	Bikaner OPD (n=125)	Outreach camp (n=125)	Total (N=250)	Test Stat	p-value
1 Node (Direct Psychiatric Contact)	52(41.6%)	43(34.4%)	95(38.0%)	χ^2=1.39	0.238
2Nodes(1PriorContact)	45(36.0%)	40(32.0%)	85(34.0%)	χ^2=0.44	0.505
3Nodes(2PriorContacts)	20(16.0%)	27(21.6%)	47(18.8%)	χ^2=1.28	0.257
≥4Nodes(3+PriorContacts)	8(6.4%)	15(12.0%)	23(9.2%)	χ^2=2.32	0.127
Mean Number Nodes (Mean ± SD)	1.88±0.91	2.11±1.04	1.99±0.98	t=1.86	0.064

Discussion

The present study is a comparative study of help seeking pathways, treatment delays and motivators among 250 patients with Opioid Dependence Syndrome attending the reach camps at SP Medical College, Bikaner (regional tertiary care) and localised DMHP camps at Nagaur (localized tertiary care), district Nagaur.[3,4]

A significant use of unregulated ayurvedic and unani medicines prepared from raw opium (Kamini Vidrawan Ras and Barshasha) is observed, which acts as an initial step towards unintentional dependence.

This was the most common pattern with 24.0% of primary ODS cases overall and 30.4% of the DMHP rural outreach cohort (30.4%). Traditional medicines are considered as safe and organic in the rural areas of Nagaur.[7,8] A number of products such as Kamini Ras are sold without prescription for sexual vitality or debility.[9] The users do not know that there is opium in them and due to that, they gradually become physiologically dependent. Patients make an attempt to stop when they try,

Halting their intake of drugs often results in withdrawal symptoms and they are likely to use drugs again to alleviate their pain, viewing their original complaint as a recurrence of it.[11]

Pathway mapping revealed that more than 62% of patients had attended other health care, non-psychiatrical, services before seeking specialist assessment.[4] Common first points of contact are general medical practitioners, retail chemists and traditional practitioners. These organizations are easy to find and typically have little formal expertise in addiction treatment, yet they are a component of the average treatment-seeking delay of almost three years (33.5 months).[3]

The differences in treatment motivators reflect the variability in socio-economic status between cohorts.[3] Higher rates of street heroin (Smack) use were reported by patients arriving at Bikaner and these patients indicated that the factors which led them directly to use were the high daily cost of drugs, and marital disruption.[2,5] Rural outreach camp participants, on the other hand, were mainly driven by health issues such as physical problems and the convenience of attending local outreach camps.[3] This illustrates the effectiveness of outreach camp schemes to overcome geographical and economic challenge to agrarian communities in the rural areas.[12]

Limitations: The sample was limited to the male participants because of the socio-cultural stigma limiting the representation of women in de-addiction facilities in rural Rajasthan. Recall bias may be present in the retrospective reporting of consultation sequences and times. Last, data were collected from patients from a single district (Nagaur) which could be representative of regional particularities.

Conclusion

There is significant delay in accessing formal psychiatric care by ODS patients in Nagaur district, who most often seek help from non-psychiatric providers.

A unique clinical problem in this region is dependence caused by use of OTC traditional preparations like Kamini Vidrawan Ras and Barshasha. Rural outreach camps is one effective way to decrease care delays and making treatment accessible to rural people.

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Conflicts of interest

There are no conflicts of interest.

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