Profiles of the Patients and Their Referral Patterns Visiting the Psychiatry Clinic of a General Hospital Setting Located in a Mental Health Resource Deficient Region of India: A Retrospective Observational Study

Snehil Gupta1 Abhijit R. Rozatkar1 Pooja Chaudhary1 Adhil K1 Sai Sreeja Vullangi1 Gaurav Kachhawaha1

1 Department of Psychiatry, All India Institute of Medical Sciences (AIIMS), Saket Nagar, Bhopal, Madhya Pradesh, India

Abstract

Objectives Treatment for mental health problems is determined by cultural, health infrastructure, and illness-related factors. Literature is sparse from India, particularly from the mental health resources-deficient regions of the country such as central India. Therefore, the current study is aimed at assessing the profile of the patients visiting the psychiatry outpatient facility (OPF) of a tertiary-care general hospital setting (GHS), their referral patterns, and their determinants.

Materials and Methods A retrospective chart review of the newly registered individuals (October 2019 to March 2020) in the psychiatry OPF of the GHS from Central India was used in the study. Data (sociodemographic profiles, illness characteristics, and referral patterns) were extracted as per the standard guidelines.

Statistical Analysis Descriptive statistics were used to represent sociodemographic, illness-, and past treatment-related characteristics of the participants. Chi-squared test was used to compare the referral characteristics of the two groups (self-referred patients vs. those referred by others, dependent variable) with regard to characteristics of the patients (independent variables).

Results A total of 418 individuals were registered in the clinic. Most individuals suffered from the neurotic, stress-related, and somatoform group of disorders (n = 231, 39.5%). More than halves were self-referred; most were referred from the internal medicine and allied departments. Being male, having at least graduate degree ($\chi^2$ df(1) = 4.25 to 6.79, $p < 0.05$), suffering from organic mental-, psychotic-, and recurrent affective-disorders, and positive family history ($\chi^2$ df(1) = 4.91 to 21.76, $p < 0.05$ to <0.001) along with first treatment attempt or previous treatment from the traditional healers, and absence of co-occurring medical illness were associated with self-referral (vs. referred by others) ($\chi^2$ df(1) = 4.64 to 17.6, $p < 0.05$ to <0.001).

Keywords► patient’s profile
► referral pattern
► treatment-seeking
► general hospital setting
► retrospective

DOI https://doi.org/10.1055/s-0042-1749455.
ISSN 0976-3147.

© 2022. Association for Helping Neurosurgical Sick People. All rights reserved.
This is an open access article published by Thieme under the terms of the Creative Commons Attribution-NonDerivative-NonCommercial-License, permitting copying and reproduction so long as the original work is given appropriate credit. Contents may not be used for commercial purposes, or adapted, remixed, transformed or built upon. (https://creativecommons.org/licenses/by-nc-nd/4.0/)
Thieme Medical and Scientific Publishers Pvt. Ltd., A-12, 2nd Floor, Sector 2, Noida-201301 UP, India
Introduction

The burden of mental-, neurological-, and substance use disorders (MNS) is huge in India with the lifetime prevalence of any of the MNS being 10.6%.¹ Mental health (MH) resources greatly vary across the states in India.¹,² For instance, states like Kerala and Gujrat have higher and separate MH budgets; consequently, the availability of mental health professionals (MHPs) is much higher here (Kerala has 1.2 MHP per 1 lakh population). In contrast, other states have much lesser health budgets and fewer MHPs; for instance, Madhya Pradesh has 0.05 psychiatrists per 1 lakh population, similarly, Uttar Pradesh has only 0.2 psychiatrists per 1 lakh population.¹ Similarly, the treatment gap is as high as 91% in states like Madhya Pradesh.¹ Apart from poor MH resources, poor literacy in general, and MH literacy in particular, and stigma attached to the mental illness also widen this treatment gap.¹,³

Currently in India, general hospitals cater to a huge proportion of persons with mental illnesses (PwMI) where MH services (both out-patient and in-patient) are provided as a part of general health-care services.⁴,⁵ Literature from India and other low-and middle-income income countries (LMICs) suggest that cultural factors, including the explanatory model of illness, and availability of MH resources shape patients’ (and their caregivers’) perspectives about the etiology and treatment of the mental disorders.⁶,⁷ Furthermore, mental illnesses’ manifestation also varies as per the socioeconomic demographics of the patients. For instance, females more often present with somatic complaints (headache, urogenital problems, etc.), while behavioral manifestations (irritability, substance use, etc.) are more prominent among males.⁸–¹⁰

Literature from India suggests a differential profile of the PwMI seeking treatment from mental hospitals/institutions vis-à-vis general hospital psychiatry units (GHPUs). Research suggests, the proportion of persons with severe mental illnesses (SMIs) such as schizophrenia, and bipolar affective disorders are higher in a mental hospital,¹¹,¹² while neurotic-, stress-related-, and somatoform- disorders, depressive disorders, and sexual dysfunctions are prevalent among the attendees of GHPU.¹³–¹⁵ Furthermore, the majority of the psychiatric referral in a GHPU comes from the department of neurology medicine (patients presenting with headache, pseudoseizures, etc.), skin and venereal disease (sexual dysfunction, DHAT syndrome), gastroenterology (pain abdomen, heartburn, etc.), representing the cultural form of distress.¹³–¹⁵

Despite the importance of sociocultural- and health infrastructural factors in determining the knowledge and attitude about the illness and pathway to care, very few Indian studies have delved into it. Moreover, the available literature is limited to the western¹⁴ and southern parts¹,³,¹⁵ of the country, which have better MH resources, while the data are scarce from central India.

Hence, the current study was aimed at assessing the profiles of the patients with MH problems and their referral patterns visiting the outpatient facility (OPF) of a general hospital. The primary objectives of the study were (1) assessment of the sociodemographic and clinical profiles of the patients visiting the psychiatry OPF, and (2) assessment of the referral patterns that the individuals with MH problems follow. The secondary objective was to compare the sociodemographic-, clinical-, and referral patterns of the self-referred patients versus those referred by others.

Methods

Study Design and Setting

The current study was a retrospective review of the individuals registered in our OPF, a public-funded multispecialty hospital located in central India, between October 2019 and March 2020 (6 months). The patients visit the OPF for consultation either by themselves or getting referred from the other departments.

Study Participants and Sampling Method

The study followed a convenient sampling method; all newly registered individuals (operationalized as “those coming to the OPF for the first time or re-seeking treatment after a gap of at least one year and currently not on any treatment”) were eligible for the study. However, (1) individuals registered beyond the study period and (2) individuals registered during this period, but whose records were not available were excluded.

Data Collection

Data were extracted from the digital clinical records of the registered patients by one of the investigators (SG) as per the recommendations for the retrospective study.¹³ Following

Conclusions

GHS has a characteristic referral pattern. The referral patterns of the patients for various psychiatric problems are determined by their sociodemographic, illness, and cultural characteristics; particularly, poor mental health literacy (among the patients-caregivers), stigma related to mental disorders, and unavailability of the mental health services act as major determinants. Sensitizing the patients-caregivers and health-care professionals concerning this could facilitate an early engagement with the psychiatric treatment. Future research needs to explore this phenomenon in greater detail, maybe by qualitative methods.
information were extracted from the patients’ records: sociodemographic details; diagnosis, duration of illness, and duration of treatment; details of the previous treatment attempts, and reason to discontinue previous treatment, if applicable; reason behind visiting the current OPF; family history of any psychiatric illness; referral characteristics; the accompanied person to the OPF; and presence of any comorbid medical illness.

**Statistical Analysis**

The sociodemographic-, illness-related-, and past treatment characteristics of the participants were represented in form of descriptive statistics such as frequency and percentages (n, %) and the mean (standard deviation) or median (interquartile range). The comparisons of the referral characteristics of the two groups (self-referred patients vs. those referred by others, dependent variables) based on the independent variables (categorical) were analyzed by the chi-squared test. All variables were tested for normality by the Shapiro–Wilk test. The level of statistical significance was kept at p < 0.05. Missing data were excluded from the analysis. The analysis was performed using the licensed SPSS statistical package, version 21).<sup>9</sup>

The study had a waiver of informed consent of the patients for it being a retrospective review. The study had the approval of the institutes’ research review board.

**Results**

A total of 418 records were found to be eligible for the current study. Slightly more than half (n = 220) of the registered individuals were self-referred (visited OPF by themself or brought by families).

**Sociodemographic Profiles of the Individuals Registered in the Clinic**

Young adults (18–35 years; n = 197, 47.2%), males (n = 296, 70.8%), and married (n = 197, 53.1%) individuals were overrepresented. Two-thirds of the individuals (n = 237) had attained at least a secondary level of education; about same proportion was currently employed (n = 229). Majority of the individuals hailed from urban backgrounds (n = 254, 60.8%). Importantly, as high as 41.6% (n = 174) and 23.8% (n = 98) of the individuals had to travel at least 3 and 5 hours respectively to receive the treatment. Neurotic-, stress-related-, and somatoform disorders (n = 165, 39.5%) followed by Schizophrenia and related disorder (n = 56, 13.4%) were the common psychiatric diagnoses entertained (<Table 1>).

**Clinical Profiles of the Individuals Registered in the Clinic**

About one-third (n = 123) of the patients had an illness duration of > 5 years; one-fourth (n = 84) of the patients had a family history of psychiatric illness. For about half (n = 181/370) of the individuals, it was their first treatment attempt. In rest, MHPs were the most common initial contact

---

<Table 1> Sociodemographic profiles of the individuals registered in the clinic

| Variable (n = 418) | n (%) |
|--------------------|-------|
| Age range (years) (n = 417) | n (%) |
| < 18 | 45 (10.8) |
| 18–35 | 197 (47.2) |
| 36–59 | 144 (34.5) |
| > 60 | 31 (7.4) |
| Gender (n = 418) | n (%) |
| Male | 296 (70.8) |
| Female | 122 (29.2) |
| Marital status (n = 371) | n (%) |
| Never married | 152 (41.0) |
| Married | 197 (53.1) |
| Separated/divorced | 9 (2.4) |
| Widow/widower | 4 (1.1) |
| Not applicable | 9 (2.5) |
| Educational level (n = 371) | n (%) |
| Illiterate | 41 (11.1) |
| Up to middle school (8th grade) | 111 (33.5) |
| Up to intermediate (12th grade) | 58 (15.6) |
| At least graduate level (includes diploma and PG) | 137 (36.9) |
| Not applicable (age less than 5 yr) | 14 (3.7) |
| Occupation status (n = 418) | n (%) |
| Student/trainee (age >18 yr) | 91 (21.8) |
| Currently unemployed | 68 (16.3) |
| Full-time employment (unskilled workers) | 12 (2.9) |
| Full-time employment<sup>b</sup> | 174 (41.6) |
| Homemaker | 66 (15.8) |
| Not applicable (age <18 yr) | 18 (4.3) |
| Residence (n = 416) | n (%) |
| Rural | 162 (38.8) |
| Urban | 254 (60.8) |
| Distance from treatment facility (hours [n = 411]) | n (%) |
| < 1 | 180 (43.8) |
| 1–3 | 57 (13.9) |
| 3–5 | 76 (18.5) |
| > 5 | 98 (23.8) |

<sup>a</sup>Number in parentheses represents the number of registered individuals in the clinic whose information was available.

<sup>b</sup>Includes skilled workers, businessman, and professionals.
personnel \( (n = 106, 28.6\%) \) followed by general and neurophysicians \( (n = 63, 18.4\%) \) and traditional healers (TH; religious healers and practitioners of complementary and alternative medicine) \( (n = 15, 4.1\%) \).

Slightly more than half had cited “non-response” as the reason for discontinuation of the previous treatment. Commonly cited reasons for current visits were to obtain a second opinion \( (n = 41, 25.6\%) \) and seek treatment following the previous nonresponse to treatment \( (n = 20, 12.8\%) \).

Most common within hospital referrals came from department of internal medicine \( (n = 68, 34.3\%) \), community and family medicine \( (n = 43, 21.7\%) \), neurology \( (n = 16, 8.0\%) \), and surgery and allied disciplines \( (n = 24, 12.1\%) \). Most of the individuals were lone visitors \( (n = 144, 37.2\%) \), while parents \( (n = 73, 30\%) \), spouses \( (n = 51, 21\%) \), and offsprings \( (n = 41, 16.8\%) \) were common accompaniments among rests. Notably, one-thirds of the patients had comorbid medical illness \( (\sim Table 2) \).

**Comparison of the Profiles of the Self-Referral Individuals versus Those Referred by Others**

Males had higher odds of being self-referred (vs. referred by others) \( (\chi^2df(1) = 4.25, p < 0.05) \). A significant difference was found concerning the educational status of two groups of the patients \( (\chi^2df(3) = 8.00, p < 0.05) \); graduates or those with higher education versus illiterate have higher odds of self-referral than “referred by others” \( (\text{posthoc analysis: } \chi^2df(1) = 6.79, p < 0.01) \). However, no significant difference was found concerning the occupational status and residence type \( (\chi^2df(1) = 0.01 \text{ to } 0.57, p > 0.05) \) \( (\sim Table 3) \).

Further, a significant difference was found with regard to their psychiatric diagnosis/es \( (\chi^2df(5) = 21.76) \) with self-referred individuals had higher odds of suffering from the organic brain syndrome, psychotic-, and bipolar affective disorders combined (vs. neurotic-, stress-related, and somatoform disorders, sexual dysfunction) than those referred by others \( (\text{posthoc analysis: } \chi^2df(1) = 4.25, p < 0.03) \). Furthermore, self-referred patients had higher odds of suffering from the SMIs (vs. common mental disorders [CMDs]) than those referred by others \( (\chi^2df(1) = 6.01, p = 0.01) \).

The self-referred patients had a higher odds of having a positive family history of psychiatric disorders than those referred by others \( (\chi^2df(1) = 4.92, p < 0.05) \). A significant association was found between the source of previous treatment and referral type \( (\chi^2df(2) = 19.06, p < 0.001) \) with self-referred patients having higher odds of not receiving treatment in the past \( (\chi^2df(1) = 17.66, p < 0.001) \) or receiving treatment from the THs \( (\chi^2df(1) = 7.39, p < 0.01) \) than those referred by others. Patients referred by other specialists had higher odds of having comorbid medical illnesses than self-referred individuals \( (\chi^2df(1) = 4.64, p < 0.05) \) \( (\sim Table 3) \).

**Discussion**

The present study was conducted to assess the profiles of the patients with MH problems visiting a psychiatric OPF of the GHS and their referral patterns. We found that most of the registered patients were adults (19–35 years). Most of the individuals were males.\(^1,10\) These findings are consistent with the national epidemiological data from the GHS.\(^1,10,16\) A higher rate of self-referral to MH facilities among the males (vs. females) with MH problems could be attributed to males often presenting with the externalizing symptoms. Moreover, the functional impairments including social functioning among the males, who usually are the chief earner in the Indian families, often get noticed early by the patients themselves or their significant others. On the contrary, females, especially those suffering from neurotic-, stress-, and depressive disorders, often present with internalizing symptoms (anxiety, headache, and other somatic complaints including gastric and genitourinary problems, etc.), thus they often tend to consult a physician or a gynecologist.\(^16,17\)

We also found that majority of the individuals were occupationally active, despite having an underlying mental illness and associated distress. This can be understood by the fact that most of them were suffering from the CMDs (neurotic disorders, stress-related, and somatoform disorders, and depressive disorders) that are less disabling than SMIs (schizophrenia and bipolar affective disorders).\(^4,18,19\)

A sizeable proportion (23.8\%) of the individuals had to travel for >5 hours (coming from other cities) to seek treatment for their MH problems. This adds to illness- and caregiving-related burden. This finding is consistent with available research on this area that has highlighted the poor status of community MH services of the country (only 3\% of community health centers and 12\% of district hospitals have MH facilities).\(^1,2\) Hence these findings underscore the need to improve MH infrastructure at the community level.

We also observed that two-thirds of the patients were suffering from the CMDs with the prevalence of the neurotic-, stress-related-, and somatoform group of the disorders were 39.5\% and that of depressive disorders were 11.0\%, again these findings are in agreement with previous literature from the GHS.\(^18–20\) Further, we found the prevalence of substance use disorders (SUDs), including tobacco use disorders, was 6.7\%. This figure was lower than previous studies from GHS that have reported a prevalence ranging from 10.3 to 12.1\%. This lower prevalence could be partly attributed to the setting of the present study that was limited to the OPFs, while the previous studies also involved inpatient referrals, which also comprised of individuals with SUDs getting admitted with substance-related complications or concurrent medical illnesses.\(^13,15,21\) The lower prevalence of the SUDs to the OPF is consistent with the findings of the national survey on the magnitude of substance use that has reported that despite the high prevalence of substance use (10.6–31.4\%) in this particular part of the country, seeking treatment is abysmally low.\(^10,22\)

The prevalence of the patients with SMIs was 18.7\%, the finding in sync with the previous research.\(^13,15,16\) However, the rate of seeking treatment is higher than the CMDs when compared with their community-level prevalence;
Community-level prevalence of the CMDs and SMIs has been reported to be 13.6 and 2%, respectively. This finding reiterates the need to strengthen community-based MH services and improve MH literacy in the country so that the less-recognizable manifestations of the CMDs could be identified by the patient/caregiver and non-MHPs.1,2,3

Table 2 Clinical profiles of the individuals registered in the clinic

| Variable (n)* | n (%) |
|---------------|-------|
| **Diagnosis (n = 418)** |       |
| Organic brain syndromes | 15 (3.3) |
| Substance use disorders | 40 (6.7) |
| Schizophrenia and related disorder | 56 (13.4) |
| Unipolar depressive disorder | 51 (11.0) |
| Bipolar affective disorders | 23 (5.3) |
| Neurotic-stress disorders | 231 (39.5) |
| Sexual dysfunction | 25 (3.1) |
| Personality disorder | 11 (1.2) |
| Childhood psychiatric illnessesb | 26 (5.7) |
| Others (insomnia, etc.) | 10 (2.4) |
| No psychiatric illness | 35 (8.4) |
| **Family history of psychiatric illness (n = 356)** |       |
| Yes | 84 (23.6) |
| No | 268 (75.3) |
| Uncertain | 4 (1.0) |
| **Duration of illness (years [n = 378])** |       |
| < 1 | 122 (31.8) |
| 1–3 | 86 (22.4) |
| 3–5 | 53 (13.8) |
| > 5 | 123 (32.1) |
| **Previous treatment history (n = 370)** |       |
| Nil | 181 (43.3) |
| Religious healers (RH) | 10 (2.7) |
| Alternative practice of medicine (CAM)c | 5 (1.4) |
| General physician and allied specialities | 53 (15.7) |
| Neurologist | 10 (2.7) |
| Mental health professionals | 106 (28.6) |
| **Reason to leave previous treatment (n = 98)** |       |
| Logistic reasons | 8 (8.0) |
| No improvement | 51 (51.0) |
| Adverse drug reactions | 7 (7.0) |
| Perceived improvement | 18 (18.0) |
| Referred | 4 (4.0) |
| Medical illness of self or others in the family | 10 (10.0) |
| **Reasons to visit current treatment facility* (n = 160)** |       |
| No improvement in symptoms | 20 (12.8) |
| To seek the second opinion | 41 (25.6) |
| Residual symptoms | 5 (3.1) |
| Relapse of the symptoms | 14 (8.7) |
| **Family history of psychiatric illness (n = 356)** |       |
| Yes | 84 (23.6) |
| No | 268 (75.3) |
| Uncertain | 4 (1.0) |
| **Duration of illness (years [n = 378])** |       |
| < 1 | 122 (31.8) |
| 1–3 | 86 (22.4) |
| 3–5 | 53 (13.8) |
| > 5 | 123 (32.1) |
| **Previous treatment history (n = 370)** |       |
| Nil | 181 (43.3) |
| Religious healers (RH) | 10 (2.7) |
| Alternative practice of medicine (CAM)c | 5 (1.4) |
| General physician and allied specialities | 53 (15.7) |
| Neurologist | 10 (2.7) |
| Mental health professionals | 106 (28.6) |
| **Reason to leave previous treatment (n = 98)** |       |
| Logistic reasons | 8 (8.0) |
| No improvement | 51 (51.0) |
| Adverse drug reactions | 7 (7.0) |
| Perceived improvement | 18 (18.0) |
| Referred | 4 (4.0) |
| Medical illness of self or others in the family | 10 (10.0) |
| **Reasons to visit current treatment facility* (n = 160)** |       |
| No improvement in symptoms | 20 (12.8) |
| To seek the second opinion | 41 (25.6) |
| Residual symptoms | 5 (3.1) |
| Relapse of the symptoms | 14 (8.7) |

The community-level prevalence of the CMDs and SMIs has been reported to be 13.6 and 2%, respectively.1 This finding reiterates the need to strengthen community-based MH services and improve MH literacy in the country so that the less-recognizable manifestations of the CMDs could be identified by the patient/caregiver and non-MHPs.1,2,3

Abbreviations: ADR, adverse drug reaction; CAM, complementary and alternative medicine; OPD, outpatient department.

*Indicates the number of registered individuals in the clinic whose data were available for the analysis.

bIntellectual disability, specific learning disorders, autism spectrum disorders, attention-deficit/hyperactivity disorders.
cAyurveda, yoga, unani, siddha, and homeopathy.

dReason to leave previous treatment: only 98 individuals had left treatment before they visit to the treatment facility.

eOthers for counselling, just to get prescription, etc.
**Table 3** Comparison of the sociodemographic and clinical characteristics, and pathway to care of self-referred individuals (vs. those referred by others)

| Independent variables | Referred by others n (%) | Self-referred n (%) | Chi-squared test | p-Value |
|------------------------|--------------------------|---------------------|------------------|---------|
| Gender, male (ref.-female) | 103 (35.6) | 186 (64.4) | $\chi^2$ df(1) = 4.25 | <0.05<sup>a</sup> |
| Education level | | | $\chi^2$ df(3) = 8.00 | <0.05<sup>a</sup> |
| Illiterate | 20 (51.3) | 19 (48.7) | | |
| Educated up to middle school | 32 (41.6) | 45 (58.4) | | |
| Educated up to intermediate | 38 (38.4) | 61 (61.6) | | |
| Graduate or higher | 38 (28.8) | 94 (71.2) | | |
| Posthoc | | | $\chi^2$ df(1) = 6.79 | <0.01<sup>b</sup> |
| Graduate or higher (ref. Illiterate) | 38 (28.8) | 94 (71.2) | | |
| Full-time employment (skilled work, businessman, and professionals) (ref-unemployed or involved in the unskilled job) | 60 (70.6) | 100 (65.8) | $\chi^2$ df(1) = 0.57 | 0.44 |
| Residence | | | $\chi^2$ df(1) = 0.01 | 0.94 |
| Urban (ref. rural) | 95 (38.6) | 151 (61.4) | | |
| Primary diagnosis | | | | |
| OBS, schizophrenia, and BPAD | 19 (30.2) | 44 (69.8) | $\chi^2$ df(5) = 21.76 | <0.01<sup>b</sup> |
| Substance use disorders | 11 (19.6) | 45 (80.4) | | |
| Depressive disorders (incl. RDD) | 16 (34.8) | 30 (65.2) | | |
| Neurorictic, stress-related, and somatoform disorders | 73 (45.3) | 88 (54.7) | | |
| Sexual dysfunction | 5 (41.7) | 7 (58.3) | | |
| Childhood psychiatric illnesses | 16 (66.7) | 8 (33.7) | | |
| Posthoc | | | $\chi^2$ df (1) = 4.25 | <0.05<sup>a</sup> |
| OBS, schizophrenia, and BPAD | 19 (19.6) | 78 (80.4) | | |
| (ref.-neurorictic illnesses and sexual disorders) | | | | |
| OBS, schizophrenia, and episodic affective disorder | 20 (17.7) | 93 (82.3) | | |
| BPAD and RDD | | | $\chi^2$ df (1) = 6.08 | <0.05<sup>a</sup> |
| (ref.-neurorictic illnesses, unipolar depression (single episode) and sexual disorders) | | | | |
| Family history of psychiatric illness | | | | |
| Yes (ref-no) | 23 (28.4) | 58 (71.6) | $\chi^2$ df (1) = 4.92 | 0 < 0.05<sup>a</sup> |
| Previous treatment | | | | |
| Nil | 71 (40.6) | 104 (59.4) | $\chi^2$ df (2) = 19.06 | <0.001<sup>b</sup> |
| Traditional healers (TH)<sup>c</sup> | 5 (33.3) | 10 (66.7) | | |
| Non-mental health professional (non-MHP) | 48 (70.6) | 20 (29.4) | | |
| Posthoc | | | | |
| Nil (ref.- non-MHP) | 71 (40.6) | 104 (59.4) | $\chi^2$ df (1) = 17.66 | <0.001<sup>d</sup> |
| TH (ref.- non-MHP) | 5 (33.3) | 10 (66.7) | $\chi^2$ df (1) = 7.39 | <0.01<sup>b</sup> |
| Medical comorbidity | | | | |
| Present (ref: absent) | 64 (40.5) | 75 (30.1) | $\chi^2$ df (1) = 4.64 | <0.05<sup>a</sup> |

Abbreviations: CAM, complementary and alternative medicine; MHP, mental health professional; OBS, organic brain syndrome; ref.- in reference to; TH, traditional healer.

<sup>a</sup>p < 0.05.

<sup>b</sup>p < 0.01.

<sup>c</sup>TH includes CAM and religious healers.

<sup>d</sup>p < 0.001; Primary diagnosis for which treatment sought; BPAD: bipolar affective disorders; RDD, recurrent depressive disorders.
About half of the patients were first-time treatment seekers. Moreover, of those who received treatment in the past, about half of them consulted the non-MHP. This can be attributed to the various factors: (1) cultural factors, where patients and their family members consider the ongoing MH problems to be the part of some underlying bodily imbalance (calor, phlegm, etc.) or environmental causation (psychosocial stress, supernatural causation, etc.); (2) poor MH literacy particularly in the rural areas and among the less-educated; and (3) stigma attached with the mental disorders, particularly in females.13,25

Further, the rate of referral from outside the hospital was very low with a prevalence of 7.4%. This could be attributed to the lack of awareness about mental illness and treatment options among the patients and their caregivers and the non-MHP including the THs as well as inadequate MH services. An explanatory model of illness studies from India has reported that those seeking treatment from the THs tend to have a greater delay in getting a professional MH service “recursively.”7 Literature also suggests a higher referral rate from the non-MHP to the MHP in places where the availability and accessibility of the MHP are adequate.26

An interesting finding was that roughly two-thirds of the patients were self-referred or brought by their significant others. This could be attributed to the predominance of the male enrollees, their relatively better educational profile (including a sizeable proportion of the college students with better MH awareness), urban background, and to certain extent nature of their illnesses (one-fifth of the patients were suffering SMI with prominent behavioral symptoms).1,11,13,17

We also found a relationship between the male gender and self-referral to our facility. Further, significantly higher proportions of the self-referred patients had at least graduate level of education (vs. illiterate). Awareness about mental illness has been linked with the educational level of an individual.12,27 This finding underscores the importance of incorporating the MH aspect of health in our academic curriculum (both in school and colleges) to improve MH literacy among the students.

An association was found between the urban residence and self-referral pattern for one’s MH concerns. This could be attributed to the better MH literacy, availability, and accessibility of MH services in the urban setting (as compared with rural settings), which might have facilitated the direct consultation with us than seeking treatment from the non-MHP and subsequently getting referred. Explanatory model of illness studies from India and other LMICs have suggested mental illnesses are more often considered to be an outcome of some external factors for which the THs are considered to have better knowledge and attitude concerning mental illnesses, although this categorization is expected to better represent the Indian culture, where the family is actively involved in the patients’ care and both patients and their caregivers share similar knowledge and attitude concerning mental illnesses, such oversimplistic categorization may miss different attributes of both the parties, thus may confound the result. Lastly, the presence of medical comorbidity (vs. no medical illness) was related to a higher referral rate from the other medical specialities (vs. self-referral). Mental illnesses and medical comorbidities are often interrelated, and one condition often complicates the course and outcome of others.27,34

Interestingly, we found that previous treatment from the THs compared with previous treatment from the non-MHPs was associated with the self-referral pattern. This finding is consistent with another multicentric study from India.18 Studies have shown that mental illnesses with prominent behavioral deviations (as in schizophrenia, mania, or even dissociative disorders) are often considered to be an outcome of some external factors for which the THs are first-contact personalis; however, when the expected improvement is not obtained, patients or their caregivers tend to consult an MHP over non-MHPs.7,19

Lastly, the presence of medical comorbidity (vs. no medical illness) was related to a higher referral rate from the other medical specialities (vs. self-referral). Mental illnesses and medical comorbidities are often interrelated, and one condition often complicates the course and outcome of others.27,34 Patients with chronic medical conditions, particularly diabetes mellitus, hypothyroidism, dementia, etc., with co-occurring MH problems are often referred to MHP. These findings again emphasize the need for a better liaison between MHPs and other health specialties.

The study has certain important limitations. First, the study being a retrospective design could only establish the association, but not the directionality of the patients’ profiles and their referral patterns. Second, we only assessed the referral patterns in the individuals visiting our OPD; hence, the findings cannot be generalized to the inpatient referral services. Third, we categorized those visiting by themselves and those brought by their caregivers under one category (self-referral) rather than considering them separately. Although this categorization is expected to better represent the Indian culture, where the family is actively involved in the patients’ care and both patients and their caregivers share similar knowledge and attitude concerning mental illnesses, such oversimplistic categorization may miss different attributes of both the parties, thus may confound the result. Lastly, some of the variables had relatively high missing values (family history: 14.8%, n = 62); although we performed missing data imputation, it still might not provide accurate findings.

To conclude, among the attendees of the psychiatry clinic of GHS, CMDs are the most common. Various sociodemographic
and clinical profiles of the patients along with some of the cultural- and MH resource-related factors determine their treatment-seeking and referral patterns. Awareness campaigns and sensitization activities need to be undertaken by the MHPs and policymakers to sensitize the patients-caregivers, public, and non-MHPs, including practitioners of the complementary and alternative medicine. A better liaising between the MHP and non-MHPs along with a proper referral system needs to be established especially in the GHS. More studies, including the qualitative studies to explore the beliefs of the patients and non-MHP from the GHS and the different settings (of the out-, in-patient, day-care, etc.) are warranted.

Authors' Contributions
S.G. was involved in conceptualization, development or design of methodology, maintaining research data, and writing initial draft. ARR conceptualized and reviewed the draft. P.C. and A.A. were involved in data collection, data analysis, and writing the results. S.S.V. and G.K. were involved in data collection and writing the initial draft.

Ethical Approval
The study proposal has the approval of institute human ethics committee (All India Institute of Medical Sciences, Bhopal) and the research has been conducted as per the Declaration of Helsinki.

Conflict of Interest
None declared.

References
1 Gururaj G, Varghese M, Benegal V, et al. National Mental Health Survey of India. 2015–16: Prevalence, patterns and outcomes. Published online 2016. Accessed March 26, 2022. http://indiamhss.nimhans.ac.in/Docs/Report1.pdf
2 Gupta S, Sagar R. National mental health programme-optimism and caution: a narrative review. Indian J Psychol Med 2018;40 (06):509–516
3 World Health Organisation. Mental Health Services in Developing Countries, Technical Report Series, 564. Published online 1975.
4 Sood M, Chadda RK. Psychosocial rehabilitation for severe mental illnesses in general hospital psychiatric settings in South Asia. BJPsych Int 2015;12(02):47–48
5 Agarwal SP, Goel DS India. eds. Mental Health: An Indian Perspective, 1946–2003. Published for Directorate General of Health Services, Ministry of Health & Family Welfare, [by] Elsevier2004
6 Eisenbruch M. Classification of natural and supernatural causes of mental distress. Development of a mental distress explanatory model questionnaire. J Nerv Ment Dis 1990;178(11):712–719
7 Gater R, de Almeida e Sousa B, Barrientos G, et al. The pathways to psychiatric care: a cross-cultural study. Psychol Med 1991;21(03):761–774
8 Sarkar S, Seshadri D. Conducting record reviews study in clinical practice. J Clin Diagn Res 2014;8(09):GJ01–GJ04
9 IBM Statistical Package for the Social Sciences (SPSS) for Mac. IBM Corp., Armonk, New York 2012
10 Kokane A, Pakhare A, Gururaj G, et al. Mental health issues in Madhya Pradesh: insights from National Mental Health Survey of India 2016. Healthcare (Basel) 2019;7(02):53
11 Chadda RK, Agarwal V, Singh MC, Raheja D. Help seeking behaviour of psychiatric patients before seeking care at a mental hospital. Int J Soc Psychiatry 2001;47(04):71–78
12 Lahariya C, Singhal S, Gupta S, Mishra A. Pathway of care among psychiatric patients attending a mental health institution in central India. Indian J Psychiatry 2010;52(04):333–338
13 Bhogale GS, Katte RM, Heble SP, Sinha UK, Patil BA. Psychiatric referrals in multispeciality hospital. Indian J Psychiatry 2000;42 (02):188–194
14 Dhavale HS, Barve RG. Psychiatric referral pattern in general hospital. J Postgrad Med 1990;36(04):199–202
15 Keerthi N, Sathyanaarayana MT, Kumar BGH, Singh N, Udagave K. Pattern of psychiatric referrals in a tertiary care teaching hospital in southern India. J Clin Diagn Res 2013;7(08):1689–1691
16 Parekh HC, Deshmukh DK, Bagadia VN, Vahia NS. Analysis of indoor psychiatric referrals in a general hospital. Indian J Psychiatry 1968;10(01):81
17 Arjaria V, Mishra BN, Chouhan DS. Mental health status: a cross sectional study on rural economically productive population of field practice area of a tertiary medical care institute in Ujjain, Madhya Pradesh. Int J Community Med Public Health 2018;5(12):5212–5218
18 Gadermann AM, Alonso J, Vilagut G, Zaslavsky AM, Kessler RC. Comorbidity and disease burden in the National Comorbidity Survey Replication (NCS–R). Depress Anxiety 2012;29(09):797–806
19 Baughman KR, Bonfine N, Dugan SE, et al. Disease burden among individuals with severe mental illness in a community setting. Community Ment Health J 2016;52(04):424–432
20 Ambekar A, Agrawal A, Rao R, Mishra AAK Khandelwal S, Chadda R. Magnitude of Substance Use in India: National. Ministry of Social Justice and Empowerment, Government of India. 2019
21 Singh PM, Vaidya L, Shrestha DM, Tahjya R, Shaiya S. Consultation liaison psychiatry at Nepal Medical College and Teaching Hospital. Nepal Med Coll J 2009;11(04):272–274
22 Tobacco Free Initiative (TFI) Global Adult Tobacco Survey (2016–17). Factsheet. https://www.who.int/tobacco/surveillance/survey/ gats/GATS_India_2016-17_FactSheet.pdf?ua=1. Accessed March 26, 2022
23 Patel V, Mann A. Etic and emic criteria for non-psychotic mental disorder: a study of the CISR and care provider assessment in Harare. Soc Psychiatry Psychiatr Epidemiol 1997;32(02):84–89
24 Chakraborthy K, Das G, Dan A, Bandyopadhyay G, Chatterjee R. Perceptions About the Cause of Psychiatric Disorders and Subsequent Help Seeking Patterns Among Psychiatric Outpatients in a Tertiary Care Centre in Eastern India. German J of Psychiatry 2013;6(01):7–14
25 Grover S, Avasthi A, Kalita K, et al. IPS multicentric study: functional somatic symptoms in depression. Indian J Psychiatry 2010;52(04):806–811
26 Anderson KK, Fuhrer R, Malla AK. The pathways to Health care in South India and their socio-demographic and attitudinal correlates. BMC Proc 2012;6(04):13. Doi: 10.1186/1753-6561-6-34-P13
Kendler KS. Is seeking treatment for depression predicted by a history of depression in relatives? Implications for family studies of affective disorder. Psychol Med 1995;25(04):807–814

Shankar BR, Saravanan B, Jacob KS. Explanatory models of common mental disorders among traditional healers and their patients in rural south India. Int J Soc Psychiatry 2006;52(03):221–233

Singh A, Tripathi A, Gupta B, Agarwal V. Pathways to Care for Dhat (Semen Loss Anxiety) syndrome: a study from North India. Int J Ment Health 2016;45(04):253–261

Druss BG, Walker ER, Walker ER, Mat M. Mental disorders and medical comorbidity. Synth Proj Res Synth Rep 2011;(21):1–26