


# 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

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## 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

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**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.

## 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%.<sup>1</sup> Mental health (MH) resources greatly vary across the states in India.<sup>1,2</sup> 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.<sup>1</sup> Similarly, the treatment gap is as high as 91% in states like Madhya Pradesh.<sup>1</sup> 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.<sup>1,3</sup>

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.<sup>4,5</sup> Literature from India and other low- and middle-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.<sup>6,7</sup> Furthermore, mental illnesses' manifestation also varies as per the socio-demographic characteristics 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.<sup>8-10</sup>

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,<sup>11,12</sup> while neurotic-, stress-related-, and somatoform- disorders, depressive disorders, and sexual dysfunctions are prevalent among the attendees of GHPU.<sup>13-15</sup> 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.<sup>13-15</sup>

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 western<sup>14</sup> and southern parts<sup>13,15</sup> 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.<sup>8</sup> Following

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 themselves 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 over-represented. 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 ( $n =$ ) <sup>a</sup>	$n$ (%)
Age range (years) ( $n = 417$ )	
< 18	45 (10.8)
18–35	197 (47.2)
36–59	144 (34.5)
> 60	31 (7.4)
Gender ( $n = 418$ )	
Male	296 (70.8)
Female	122 (29.2)
Marital status ( $n = 371$ )	
Never married	152 (41.0)
Married	197 (53.1)
Separated/divorced	9 (2.4)
Widow/widower	4 (1.1)
Not applicable (children and adolescents)	9 (2.5)
Educational level ( $n = 371$ )	
Illiterate	41 (11.1)
Up to middle school (8 <sup>th</sup> grade)	111 (33.5)
Up to intermediate (12 <sup>th</sup> 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)
Occupational status ( $n = 418$ )	
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 ( $n = 416$ )	
Rural	162 (38.8)
Urban	254 (60.8)
Distance from treatment facility (hours [ $n = 411$ ])	
< 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 neuro-physicians ( $n = 63$ , 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-third of the patients had comorbid medical illness (– Table 2).

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

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

Further, a significant difference was found with regard to their psychiatric diagnosis/es ( $\chi^2 df(5) = 21.76$ ) 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 (posthoc analysis:  $\chi^2 df(1) = 4.25$ ,  $p = 0.03$ ). Furthermore, self-referred patients had higher odds of suffering from the SMIs (vs. common mental disorders [CMDs]) than those referred by others ( $\chi^2 df(1) = 6.01$ ,  $p = 0.01$ ).

The self-referred patients had a higher odds of having a positive family history of psychiatric disorders than those referred by others ( $\chi^2 df(1) = 4.92$ ,  $p < 0.05$ ). A significant association was found between the source of previous treatment and referral type ( $\chi^2 df(2) = 19.06$ ,  $p < 0.001$ ) with self-referred patients having higher odds of not receiving treatment in the past ( $\chi^2 df(1) = 17.66$ ,  $p < 0.001$ ) or receiving treatment from the THs ( $\chi^2 df(1) = 7.39$ ,  $p < 0.01$ ) than those referred by others. Patients referred by other specialists had higher odds of having comorbid medical illnesses than self-referred individuals ( $\chi^2 df(1) = 4.64$ ,  $p < 0.05$ ) (– 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.<sup>1,10</sup> These findings are consistent with the national epidemiological data from the GHS.<sup>1,10,16</sup> 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.<sup>16,17</sup>

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).<sup>4,18,19</sup>

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).<sup>1,2</sup> 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 a 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.<sup>18–20</sup> 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.<sup>13,15,21</sup> 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.<sup>20,22</sup>

The prevalence of the patients with SMIs was 18.7%, the finding in sync with the previous research.<sup>13,15,16</sup> However, the rate of seeking treatment is higher than the CMDs when compared with their community-level prevalence;

**Table 2** Clinical profiles of the individuals registered in the clinic

Variable (n) <sup>a</sup>	n (%)
<b>Diagnosis (n = 418)</b>	
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 illnesses <sup>b</sup>	26 (5.7)
Others (insomnia, etc.)	10 (2.4)
No psychiatric illness	35 (8.4)
<b>Family history of psychiatric illness (n = 356)</b>	
Yes	84 (23.6)
No	268 (75.3)
Uncertain	4 (1.0)
<b>Duration of illness (years [n = 378])</b>	
< 1	122 (31.8)
1–3	86 (22.4)
3–5	53 (13.8)
> 5	123 (32.1)
<b>Previous treatment history (n = 370)</b>	
Nil	181 (43.3)
Religious healers (RH)	10 (2.7)
Alternative practice of medicine (CAM) <sup>c</sup>	5 (1.4)
General physician and allied specialities	53 (15.7)
Neurologist	10 (2.7)
Mental health professionals	106 (28.6)
<b>Reason to leave previous treatment (n = 98)</b>	
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)
<b>Reasons to visit current treatment facility<sup>d</sup> (n = 160)</b>	
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)

(Continued)

**Table 2** (Continued)

Variable (n) <sup>a</sup>	n (%)
Referred from other specialties within the hospital	32 (20.0)
Referred from treatment provider outside the hospital	16 (10.0)
Logistic reasons	6 (2.8)
For the somatic symptoms	5 (3.8)
To know about the prognosis	7 (4.4)
ADR	5 (3.1)
Others <sup>e</sup>	9 (6.7)
<b>Pathway to care (n = 406)</b>	
Referred from outside	5 (1.2)
Self	220 (54.2)
Family members	19 (4.7)
Screening OPD of the current treatment center	43 (10.6)
Medicine and allied department	68 (16.7)
Surgery and allied department	24 (5.9)
Neurology	16 (3.9)
Emergency	7 (1.7)
Friends	4 (1.0)
<b>Accompanied person (n = 387)</b>	
Parents	73 (18.9)
Siblings	31 (8.0)
Spouse	51 (13.2)
Offsprings	41 (10.6)
Not accompanied by anyone	144 (37.2)
Others (relatives, friends, etc.)	47 (12.2)
<b>Medical comorbidities (n = 404)</b>	
Yes	134 (33.1)
No	270 (66.8)

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

<sup>a</sup>Indicates the number of registered individuals in the clinic whose data were available for the analysis.

<sup>b</sup>Intellectual disability, specific learning disorders, autism spectrum disorders, attention-deficit/hyperactivity disorders.

<sup>c</sup>Ayurveda, yoga, unani, siddha, and homeopathy.

<sup>d</sup>Reason to leave previous treatment: only 98 individuals had left treatment before they visit to the treatment facility.

<sup>e</sup>Others for counselling, just to get prescription, etc.

the community-level prevalence of the CMDs and SMIs has been reported to be 13.6 and 2%, respectively.<sup>1</sup> 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.<sup>1,23</sup>

**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)		
Neurotic, 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				
OBS, schizophrenia, and BPAD (ref.-neurotic illnesses and sexual disorders)	19 (19.6)	78 (80.4)	$\chi^2$ df (1) = 4.25	<0.05 <sup>a</sup>
OBS, schizophrenia, and episodic affective disorder	20 (17.7)	93 (82.3)		
BPAD and RDD (ref.-neurotic illnesses, unipolar depression (single episode) and sexual disorders)			$\chi^2$ df (1) = 6.08	<0.05 <sup>a</sup>
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.)<sup>23,24</sup> 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.<sup>13,25</sup>

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 “recursive pathway.”<sup>7</sup> 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.<sup>26</sup>

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 SMIs with prominent behavioral symptoms).<sup>1,17,19</sup>

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.<sup>12,27</sup> 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 of the supernatural powers or religious misfortune in the rural area, which leads to consulting the religious healers over the MHP.<sup>28–30</sup> We found that individuals with CMDs (vs. SMIs) were often referred from other health specialties, a finding consistent with the previous research.<sup>13,16</sup> Research has shown that CMDs often present with somatic complaints.<sup>12,26,31</sup> Moreover, in the Indian context, psychological distress often manifests as genitourinary problems such as DHAT syndrome (a culture-bound

syndrome) or sexual dysfunctions in males and gastrointestinal problems such as vague abdominal pain, dyspepsia, and heartburn and neurological symptoms headache, unresponsive spells, etc., among females. These results first consult the skin and venereology specialist, urologist, gastroenterologists, neurologists, etc.<sup>29,32</sup>

We found that a positive family history of psychiatric illness was associated with a self-referral pattern. This finding concurs with previous research.<sup>11,28,30</sup> This could be explained by a better awareness about the MH problems and their treatment among individuals with a family history of psychiatric illness. “Explanatory model of illness-studies” have shown that genetics and heredity have been linked to the etiology of the mental disorders in the Indian cultures, thus promoting a direct consultation to an MHP or via an indirect route through the TH.<sup>31,33</sup>

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.<sup>18</sup> 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 persons; however, when the expected improvement is not obtained, patients or their caregivers tend to consult an MHP over non-MHPs.<sup>7,19</sup>

Lastly, the presence of medical comorbidity (vs. no medical illness) was related to a higher referral rate from the other medical specialties (vs. self-referral). Mental illnesses and medical comorbidities are often interrelated, and one condition often complicates the course and outcome of others.<sup>27,34</sup> 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 OPF; 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 liaison 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.

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