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Treatment Seeking Among Patients with Mental Illnesses During COVID-19: A Retrospective Chart Review

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Abstract

Background: With the onset of the COVID-19 pandemic, we have witnessed that patients with other health conditions were either ignored or unable to avail of specific health services. Mental health issues, especially common mental illnesses (CMI), rose sharply during this period worldwide. Hence, in the current study, we assessed the impact of COVID-19 on the profile of patients availing outpatient department services for psychiatric care as compared to pre-pandemic.

Method: In this retrospective study, we collected data from electronic health records of patients availing of in-person outpatient psychiatry department consultations at a tertiary care hospital. The Institutional Ethics Committee approved the study. Data was collected from August 2020 to January 2021 during COVID-19 and compared with the pre-COVID-19 period during the same month a year before.

Results: Most patients during COVID-19 were between 18 and 60. Patients living in urban settings and nearer (<10 km) to the hospital presented more to OPD. There was an increase in the proportion of patients with psychotic or mood disorders, whereas those with CMI consulted less during COVID-19. Even though the elderly age group visited less during the COVID-19 period, those with psychotic symptoms consulted more.

Conclusion: Patients with CMI avoided going to the hospital or could not access healthcare services. COVID-19 had a significant impact on mental health, and it further widened the treatment gap for CMI. Modalities to address the relevant factors are the need of the hour.

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Introduction

Routine healthcare services were adversely affected during the COVID-19 pandemic.[1] Disruption of mental health services was reported both at the supply and demand level.[2,3] In India, mental health disorders have a prevalence of 10.6%, with a huge treatment gap of almost 83%, and this disruption might have led to an increased morbidity.[4] Further, the general population experienced mental health issues (depressive and anxiety symptoms) during the prolonged pandemic.[5]

Various studies have reported the impact of the COVID-19 pandemic on mental health service utilization, especially a reduction in the number of patients

presenting to a psychiatric emergency.[2,6–9] Even regular psychiatric hospitalizations declined, primarily in older people.[10,11] Although, an increase in the proportion of patients with CMI in comparison to the pre-pandemic period was reported.[6,8,12]

Even in India, most of the studies reported the impact of the pandemic on mental health disorders in emergency settings.[13,14] Though some studies reported that during the pandemic, the psychiatric hospitalization rate decreased due to various factors such as fear of contamination, change in the admission threshold, preference for hospital beds given to COVID-19-infected patients, etc.[10,11] However, there is a scarcity of literature that specifically assessed whether the same impact was observed on outpatient department services that cater to a majority of CMI. The proportion of consultations of patients with CMI should have increased during the pandemic. Nonetheless, we could not find any published study from India that assessed the change in the profile of psychiatric patients after the onset of the pandemic in the routine psychiatric outpatient department. Hence, in the current study, we assessed the impact of COVID-19 on the profile of patients availing outpatient services for psychiatric care as compared to pre-pandemic.

Material and Methods

It was a retrospective study that included a data review of all patients registered under the outpatient department of psychiatry of a tertiary care institute in the western part of India. The Institutional Ethics Committee approved the study, and the confidentiality of the individuals was maintained throughout the study. The data was retrieved through a Computerized Patient Management System. The pandemic period was taken from August 1, 2020, to January 31, 2021 (Group I, During COVID-19), covering the first wave of the COVID-19 pandemic in India, and this data was compared with a similar period of last year i.e. from August 1, 2019, to January 31, 2020 (Group II, Pre-COVID-19). However, after the start of the pandemic, there was a cap on the maximum number of patients who could register in the hospital system, which was not the case pre-pandemic. Hence, we took three alternate months of data for group II (Approximately 2.5 times that of Group I). For both groups, we took data from all new patients (patients contacting our OPD after a gap of at least two years were also considered new patients) consulted under the psychiatry outpatient department. Patients who had no psychiatric illness/diagnosis or incomplete data/visit were excluded. The initial primary diagnosis, as per the International Classification of Diseases 10th Revision (ICD-10) criteria, was recorded at the first visit by the psychiatrist.[15]

Apart from descriptive statistics, Mann Whitney U test for comparison of continuous variables (due to nonnormal data) and the Chi-square test or Fisher's exact test for categorical variables was used. The data analysis was done using Statistical Package for the Social Sciences (SPSS) version 25.0 (IBM, SPSS Inc., Chicago). A two-tailed *p*-value of <0.05 was considered to be significant.

Results

After applying the study criteria, data from 439 patients during COVID-19 and 1228 patients pre-COVID-19 was analysed. (Figure 1)

The age & sex of patients in both groups were comparable. The majority of patients were between the ages of 18 and 60, but the number of elderly patients was significantly lower during COVID-19. The patients residing close to the hospital availed of more outpatient consultations during COVID-19, though there was no change in patients coming from far-away places (> 100 km). Apart from these parameters, most of the patients during the COVID-19 time had been taking some psychiatric treatment and were having less co-morbid physical illness (Table 1).

Among the diagnostic categories as per ICD-10, the majority of the patients had mood or anxiety disorders during both periods. Patients with psychotic or mood disorders presented more, whereas

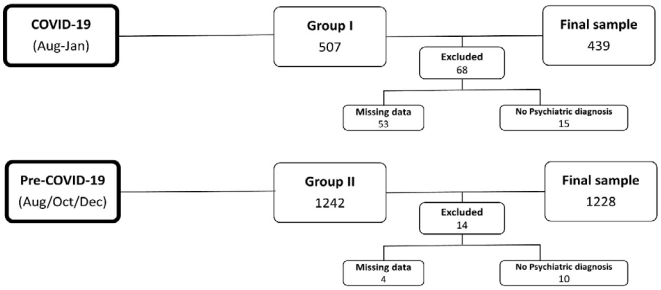

Figure 1: Flowchart of the participants

Table 1: Socio-demographic and clinical characteristics

Variables	*Group I (COVID-19) (N = 439)*	*Group II (Pre-COVID-19) (N = 1228)*	*p-value*
Age (years) (Mean±SD)	33.45 ± 14.36	34.43 ± 15.80	0.596†
	n (%)	n (%)	
Age Group			
<18 years	41 (9.3)	107 (8.7)	0.692
18–60 years	381 (86.8)	1021 (83.1)	0.073
>60 years	17 (3.9)	100 (8.1)	0.003*
Sex			
Male	247 (56.3)	734 (59.8)	0.200
Female	192 (43.7)	494 (40.2)	
Distance from hospital			
<10 KM	169 (38.5)	333 (27.1)	0.000*
10–100 KM	87 (19.8)	335 (27.3)	0.002*
>100 KM	183 (41.7)	560 (45.6)	0.156
Locality			
Urban	237 (54.0)	550 (44.8)	0.001*
Rural	202 (46.0)	678 (55.2)	
Total duration of illness (years)	4.60 ± 6.17	5.00 ± 7.44	0.855†
Receiving psychiatric treatment at presentation	89 (20.3)	183 (15.0)	0.009*
History of previous Psychiatric treatment	83 (20.0)	262 (21.3)	0.281
Family history of psychiatric illness	24 (5.5)	75 (6.1)	0.626
Co-morbid physical illness	47 (10.8)	180 (14.7)	0.038*
Diagnostic Category			
• Organic, including symptomatic, mental disorders	4 (0.9)	22 (1.8)	0.201
• Mental and behavioural disorders due to psychoactive substance use	13 (3.0)	64 (5.2)	0.054
• Schizophrenia, schizotypal and delusional disorders	64 (14.6)	87 (7.1)	0.000*
• Mood [affective] disorders	162 (37.0)	354 (28.8)	0.002*
• Neurotic, stress-related and somatoform disorders	147 (33.5)	522 (42.5)	0.001*
• Behavioural syndromes associated with physiological disturbances and physical factors	16 (3.6)	68 (5.5)	0.120
• Disorders of adult personality and behaviour	6 (1.4)	6 (0.5)	0.093‡
• Mental retardation	14 (3.2)	72 (5.9)	0.030*
• Disorders of psychological development	5 (1.1)	12 (1.0)	0.784‡
• Behavioural and emotional disorders with onset usually occurring in childhood and adolescence	4 (0.9)	16 (1.3)	0.518
• Miscellaneous	4 (0.9)	5 (0.4)	0.254‡

*p <0.05, †Mann–Whitney U test, ‡Fisher exact test (Rest Chi-square test)

patients with neurotic or stress-related disorders presented less during COVID-19. The individuals with intellectual disability also visited less during COVID-19 (5.9 *vs* 3.2%, p = 0.03). Other diagnostic entities were comparable between both groups (Table 1).

In terms of age groups, we found that the young age group (18–60 years) presented more with psychotic or mood disorders but with less anxiety/stress or somatoform disorders. Even though patients with depressive disorders (I:123, II:287, p = 0.052) and bipolar disorders (I:22, II:49, p = 0.363) presented more in the young age group during the COVID-19 period but there was no significant difference. In the elderly age group (>60 years), patients who had psychotic disorders presented more for in-person consultations during the COVID-19 period. Other diagnostic categories were comparable across age groups during both periods (Table 2).

Table 2: Most prevalent diagnostic categories as per age group

Age group	*Group I (COVID-19) n=439*	*Group II (Pre-COVID-19) n=1228*	*p-value*
Mental and behavioural disorders due to psychoactive substance use			
<18 years	0	1	1.000#
18–60 years	13	54	0.143
>60 years	0	9	0.353#
Schizophrenia, schizotypal and delusional disorders			
<18 years	5	2	0.018#
18–60 years	54	75	0.000*
>60 years	5	10	0.043*#
Mood [affective] disorders			
<18 years	3	1	0.065#
18–60 years	154	316	0.001*
>60 years	5	37	0.547
Neurotic, stress-related and somatoform disorders			
<18 years	11	26	0.750
18–60 years	132	470	0.000*
>60 years	4	26	1.000#

**p* <0.05, #Fisher exact test (Rest Chi-square test)

Discussion

The findings of our study indicate that there was a reduced proportion of patients seeking OPD consultation for neurotic and stress-related disorders, which is counterintuitive considering stress related to the COVID-19 pandemic. Most of the studies reported that there was an increment in psychiatric disorders such as depression,[5,16] suicidal ideation,[11] anxiety disorders,[6,8,10,16,17] & psychosis;[7,14] along with an increased rate of relapse and exacerbation of psychiatric symptoms after the pandemic.[5] Other studies in emergency settings have also reported this decline in in-person consultation with neurotic/stress-related disorders.[7,9]

The finding highlights that the treatment-seeking for CMI was less during COVID-19. It is possible that limited awareness about CMI and available treatment options contributed to the already wide treatment gap.[4] In addition, due to the less perceived severity of symptoms (compared to life-threatening COVID-19) and likely to have more COVID-19-related fears, such patients might have avoided hospital visits for consultation. However, CMIs can significantly impact the quality of life of such individuals.[18]

The proportion of patients with psychotic disorders and mood disorders was higher during the pandemic period. In contrast, patients with psychotic disorders and bipolar disorder have more overt symptoms and may disrupt the household, leading to consultation despite COVID-19-related concerns. Similar observations were also reported earlier in the emergency settings.[8,14]

These findings suggest that patients with neurotic disorders were deprived of clinical care during this period, further adding to the treatment gap. Many such patients might have tried self-medication and were deprived of expert consultation, nonpharmacological management, and treatment modification as per the course of illness. We also need to keep the possibility of unnecessary continuation of psychiatric medication due to the lack of clinical supervision in many patients.

In our study, most of the newly registered patients were already taking some treatment for their psychiatric illness, which worsened after the pandemic. It is possible that some of them self-medicated and reported to us when their symptoms didn't improve or had worsened or had side effects due to these medications. Also, due to the government-imposed travel restrictions, most patients avoided hospital travel, and only those living near the hospital availed of outpatient services, as found in the current study.

We found that the proportion of the urban population availing psychiatric outpatient services was higher during the COVID-19 period, which could be due to low digital literacy and limited awareness about the availability of online services among the rural population, as the appointment method was shifted to online mode for outpatient consultation.[19]

The proportion of elderly patients seeking in-person consultation during COVID-19 was reduced, possibly due to a higher risk of contracting COVID-19. Also, the elderly patients presented more with psychotic symptoms during the pandemic. This may reflect the relative reduction in patients with CMI or an increase in psychotic symptoms during COVID-19. A similar increase in psychotic symptoms

during COVID-19 in the elderly population was found in other studies.[20,21] The COVID-19 pandemic was a substantial psychosocial stressor for the elderly due to social isolation, which would cause accelerated brain aging, leading to increased vulnerability to psychosis.[22,23] Furthermore, a possible reduction in consultation for CMI among older people raises serious concerns, as they have a higher prevalence of CMI compared to adults, and if untreated, they can influence other co-morbid physical conditions.[24]

The results from this study should be interpreted in the context of its limitations. First, the information in electronic patient records that we used in the study could be affected by information bias. Second, we excluded almost 10.5% of the sample from Group I vs. 0.3% of the sample from Group II, which might have influenced some of the study's results. However, we found similar findings regarding the CMIs on further analysis, including missing data. Third, the data doesn't reflect the patient seeking teleconsultations. Fourth, this study was conducted at only one center in western India, limiting the generalization of the results.

Conclusion

The present study's findings provide important insight into changes in patient profiles availing outpatient psychiatric services during the pandemic. It highlights the increased treatment gap for the elderly, rural patients, and those with CMI. The findings also highlight the need for having a psychiatric treatment facility in close vicinity, telepsychiatry services, and initiatives to raise awareness about the identification and impact of CMIs.

Author Contribution

Dr. Pankaj Mahal: Design of the study, acquisition of data, drafting of the manuscript; Dr. Dheeraj Goya: Design of the study, acquisition of data, drafting of the manuscript; Dr. Navratan Suthar: Conception, design of study, revised it critically for important intellectual content; Dr. Mukesh Kumar Swami: Conception, design of study, revised it critically for important intellectual content; Dr. Naresh Nebhinani: Conception, design of study, revised it critically for important intellectual content.

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Conflict of interest

None declared

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