

The Use of Telepsychiatry during Coronavirus Disease 2019: A Cross-sectional Study on Demographic and Clinical Profile of Those who Sought Help by Using this Facility

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ABSTRACT

Aim: We aimed to study the demographic and clinical profile of patients who sought teleconsultation for psychiatric disorders from August 2020 to January 2021.

Materials & Methods: In this cross-sectional descriptive study, data was retrieved from the telepsychiatry services and was analyzed to examine the demographic and clinical parameters of patients.

Results: A total of 3444 teleconsultations were sought with a mean age of 37.78 ± 15.08 . About 80% of the patients were in the age group of 20-60 years. Females outnumbered males with 1938 (56.3%) females and 1538 (43.7%) males. Mood disorders were the most frequent diagnosis with Major Depressive Disorder in 1572 (45.6%) and Bipolar Disorder in 636 (18.5%). Co-morbidity was present in 234 (6.8%) of the study group. The mean psychotropics prescribed were 1.95 ± 0.84 . One, two, three and four psychotropics were prescribed in 918 (26.7%), 1470 (42.7%), 900 (26.1%) and 42 (1.2%) respectively. Those aged < 20 years or ≥ 60 years prescribed psychotropics at lower rates in comparison to the 20-60 years age group. Female patients had a significantly higher rate of psychotropic prescription than male patients. Three or four psychotropics were prescribed to those with co-morbidity at a significantly higher rate.

Conclusion: Demographic and clinical profile of patients seeking treatment through telepsychiatry was found to be comparable with face-to-face outpatient consultations.

Clinical Significance: With the development of clinical, operational, legal, and ethical guidelines for telepsychiatry practice, the systematic application of Information and Communication Technologies to the practice of mental healthcare is being rapidly adopted.

Keywords: Telepsychiatry, Teleconsultation, Mood disorders, Psychotropics
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INTRODUCTION

With the start of the coronavirus disease 2019 (COVID-19) pandemic, the functioning of various health care facilities was overtaken by this new challenge. Nationwide lockdowns were implemented which further affected the health care system and there were additional challenges to seek routine care. The poor doctor-population ratio in India became even more daunting.¹ The current pandemic provided an opportunity and showed that technology can facilitate access to mental health care. WHO defines telemedicine as “The delivery of health care services, where distance is a critical factor, by all health care professionals using information and communication

technologies for the exchange of valid information for the diagnosis, treatment and prevention of disease and injuries, research and evaluation, and for the continuing education of health care providers, all in the interests of advancing the health of individuals and their communities”.² American Psychiatric Association defines Telemedicine as the process of providing health care from a distance through technology, often using videoconferencing and

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telepsychiatry, as a subset of telemedicine which can involve providing services such as psychiatric evaluations, therapy, patient education, and medication management.³ Telemedicine has been demonstrated to have good acceptability among patients and clinicians, as well as effectiveness comparable to face-to-face interventions.⁴ A randomized clinical trial demonstrated that telepsychiatry treatment through videoconference has equivalent efficacy to face-to-face conventional psychiatric treatment and an effective means of delivering mental health services to psychiatric outpatients living in remote areas with limited resources.⁵ In the difficult times during this pandemic, our patients couldn't wait for a long time to get access to a psychiatric facility, and telepsychiatry was the only tool that was adopted to overcome the obstacles that this pandemic imposed. After realizing the potential in telemedicine, for healthcare delivery, the "Telemedicine Practice Guidelines" were adopted by the Board of Governors of the Medical Council of India (MCI). Accordingly, the same was included as an amendment to the Indian Medical Council (Professional Conduct, Etiquette and Ethics) Regulations, 2002, and were approved by the Ministry of Health and Family Welfare, Government of India officially on March 25, 2020.⁶ With the adoption of telepsychiatry by our department, we aimed to study the demographic and clinical profile of patients who sought teleconsultation from August 2020 to January 2021.

MATERIAL AND METHODS

This was a cross-sectional descriptive study. For the study, data was collected through retrieval of telepsychiatry consultations data. Tele-Psychiatry consultation services were provided through WhatsApp-based video conference mode. A WhatsApp number was provided for the general public to register themselves to seek telepsychiatry consultations from specialists from the Department of Psychiatry. A patient registering himself for teleconsultation was considered as implied consent of the patient. A technician would then fix an appointment based on the availability of a consultant psychiatrist who would then provide video consultations for their patients using Prescrip via its seamless WhatsApp integration and is a highly secure channel. Prescrip is an app available on Android or iOS smartphone, tablet, or even on the laptop/desktop that helps to create clean, legible

prescriptions in seconds and also maintain digital records of the patient's data. Patients need not download a new app as long as they have WhatsApp and would receive an e-copy of the prescription post the consultation. The average time for a single consultation ranged from 15 to 20 minutes. For the study, data was collected through a review of telepsychiatry consultations data. Data were analyzed with SPSS 20.0 software (IBM, Armonk, NY, USA) using descriptive statistical methods. Categorical data were expressed as frequency and percent, and continuous data were presented as mean $\pm$ standard deviation. The Chi-square test was applied to analyze the differences between prescription of psychotropics and demographic and clinical variables.

RESULTS

A total of 3444 teleconsultations were sought during the study period with a mean age of 37.78 ± 15.08 . About 80% of the patients were in the age group of 20-60 years. Females outnumbered males with 1938 (56.3%) females and 1538 (43.7%) males. (Table 1) No diagnosis was established in 528 (15.3%). Co-morbidity was present in 234 (6.8%) of the study group. Table 2 and Table 3 respectively show the psychiatric morbidity and co-morbidity in our subjects. The mean psychotropics prescribed were 1.95 ± 0.84 . One, two, three and four psychotropics were prescribed in 918 (26.7%), 1470 (42.7%), 900 (26.1%) and 42 (1.2%) respectively. 114 (3.3%) were not prescribed any psychotropic. Table 4 shows the comparison of psychotropic prescription among demographic and clinical variables. For psychotropic prescription, significant differences were observed in different age groups ($\chi^2 = 2.23$, $p = 0.001$) with those aged < 20 years or ≥ 60 years prescribed psychotropics at lower rates in comparison to 20-60 years age group. Results showed that female patients had a significantly higher rate of psychotropic prescription than male patients ($\chi^2 = 14.31$; $p = 0.006$). Three or four psychotropics were prescribed to those with co-morbidity at a significantly higher rate ($\chi^2 = 62.81$; $p = 0.001$).

Table 1: Demographics (N= 3444)

Age Group	Frequency (percent)	
<20 years	396	(11.5%)
20-40 years	1764	(51.2%)
40-60 years	990	(28.7%)
60 years or above	294	(8.5%)
Gender	Frequency (percent)	
Males	1506	(43.7%)
Females	1938	(56.3%)

Table 2: Psychiatric Morbidity (N= 3444)

Psychiatric morbidity	Frequency (percent)
Major Depressive Disorder	1572 (45.6%)
Bipolar Disorder	636 (18.5%)
Obsessive compulsive disorder	342 (9.9%)
Schizophrenia	90 (2.6%)
Depressive of Attention's type	84 (2.4%)
Anxiety Disorders	60 (1.7%)
Epilepsy	30 (0.9%)
Intellectual Disability	24 (0.7%)
Substance Use disorder	18 (0.5%)
Somatic symptom Disorder	18 (0.5%)
Schizo-affective disorder	18 (0.5%)
Illness Anxiety Disorder	6 (0.2%)
Trichotillomania	6 (0.2%)
Post-traumatic stress Disorder	6 (0.2%)
Night Terror	6 (0.2%)
Undiagnosed/ no psychiatric morbidity	528 (15.3%)

Table 3: Psychiatric Co-morbidity (N= 3444)

Co-morbidity	Frequency (percent)
Major Depressive Disorder	84 (2.4%)
Obsessive compulsive disorder	72 (2.1%)
Epilepsy	36 (1.0%)
Restless leg Syndrome	12 (0.3%)
Anxiety Disorders	12 (0.3%)
Substance Use Disorders	6 (0.2%)
Post-Traumatic Stress Disorder	6 (0.2%)
Night Terror	6 (0.2%)
No Co-morbidity	3210 (93.2%)

Table 4: Comparison of Psychotropic Prescription among Demographic and Clinical Variables (N= 3444)

Variable	Psychotropics						Chi-square; p value
Age group	None	One	Two	Three	Four	Total	
<20 years	48	84	132	126	6	396	$\chi^2 = 2.23$; p = 0.001
20-40 years	42	510	816	390	6	1764	
40-60 years	18	210	408	330	24	990	
> 60 years	6	114	114	54	6	294	
Total	114	918	1470	900	42	3444	
Gender	None	One	Two	Three	Four	Total	Chi-square; p value
Males	54	372	684	372	24	1506	$\chi^2 = 14.31$; p = 0.006
Females	60	546	786	528	18	1938	
Total	114	918	1470	900	42	3444	
Co-morbidity	None	One	Two	Three	Four	Total	Chi-square; p value
Present	0	60	72	90	12	234	$\chi^2 = 62.81$; p = 0.001
Absent	114	858	1398	810	30	3210	
Total	114	918	1470	900	42	3444	

DISCUSSION

There is a huge treatment gap for overall mental morbidity in India as reported by the National Mental Health Survey of India (NMHS 2016).⁽⁷⁾ This gap was further exacerbated during the lockdown phase of the COVID-19 pandemic when most services deemed to be nonessential were closed and it was difficult to get access to services related to routine health. Mental Healthcare Act (MHCA 2017) mandated the government to ensure every citizen has access to mental health services. In this context, telepsychiatry was a potential option to implement provisions of the MHCA during the pandemic period.⁸ Before the pandemic as well, delivery of mental health services in India was found to be hampered by inadequate human resources and inequitable distribution of available resources. In a situation where capacity building is time-consuming, telepsychiatry could prove a potential option to address the poor accessibility issue efficiently.⁹ Although it has been there for a long time to utilize technology to increase the accessibility to medical services; however, its uptake was prevented by many barriers like skepticism from clinicians, inadequate data on cost-effectiveness, and administrative and legal concerns.^{9,10} Recently, The Indian Psychiatric Society (IPS) and Telemedicine Society of India (TSI) in collaboration with the National Institute of Mental Health and Neurosciences (NIMHANS) released Telepsychiatry operational guidelines in May 2020.⁸ With these guidelines, the legal and administrative concerns present in practicing telepsychiatry were removed. Besides being acceptable and feasible, data also suggests that telepsychiatry is more economical than the face to face in-person clinical care.^{11,12}

Due to the disruption of the traditional practice of psychiatric assessment and treatment via face-to-face interaction during COVID-19 in our Valley, telepsychiatry helped us to provide psychiatric care remotely through telecommunications technology and to minimize disruption to patient care. Utilizing these telepsychiatry services, there was a good response from the general public with 3444 patients sought consultation in six months period. The mean age of our patients was 37.78 years with about half of them in the 20-40 years age group. In outpatient psychiatry visits, studies have consistently found maximum patients in the age group of 20- 40 years.^{13,14} There was a slight female predominance in our study with 56% of our subjects being

females. This is in contradiction to other studies from India which have found slight male preponderance in outpatient settings.^{15,16} The greater stigma attached to women's mental illness in India restricts help-seeking in public health facilities which are further exacerbated by the lower importance accorded to women's health in Indian society. This results in the under-utilization of services by women suffering from mental disorders in India. However, concerted efforts at social, political, economic, and legal levels changes have been brought in the lives of Indian women and have contributed to the increased help-seeking and improvement of the mental health of these women.¹⁷ Most common diagnoses was mood disorders, that is, major depressive disorder and bipolar disorder. In outpatient settings in India, studies have reported mood disorders being the most common diagnosis.^{15,16} About 97% of our subjects were prescribed psychotropics with a mean number of psychotropics prescribed per patient as 1.95 ± 0.84 . In outpatient studies on prescription patterns of psychotropics in India, it has been found to range from 2.3-3 psychotropics per prescription.^{13,18-20} However, few studies are there have shown that the average number of psychotropics prescribed per patient is less than two.¹⁵ The differences in psychotropic prescription could be influenced by many factors like prescribing practices, co-morbid conditions, etc.¹⁵ Three or more psychotropics were prescribed to around 30% of our subjects. Concurrent prescription of many psychotropics to a patient can lead to poor compliance, drug interactions, adverse drug reactions, under-use of effective treatments, and medication errors.^{21,22} Those with less than 20 years or ≥ 60 years were being prescribed less psychotropic than the patients in the 20-60 year age group. The prevalence of prescribing psychotropic medications to older adults is still high and inappropriate prescribing of psychotropic drugs and polypharmacy are present in institutionalized as well as in non-institutionalized older adults and can cause adverse health events, and might significantly reduce the quality of life of these vulnerable groups.^{23,24} Psychopharmacology in elderly people is quite specific, besides the risk of interaction with other drugs being prescribed for multiple physical conditions, there is the tendency of older people to develop side effects to psychotropics due to physiological changes associated with aging, altered pharmacokinetics, and pharmacodynamics.²⁵ However, in our subjects 60 years or

above, we prescribed either one or two psychotropics in most of them. In our study, men have prescribed two or more psychotropics more frequently in comparison to females but when it comes to prescription of single psychotropics, females were more commonly prescribed. It has been shown in previous studies that females are more frequently prescribed psychotropics than males but polypharmacy is more common in males.²⁶ In our study, those with comorbidity were significantly prescribed three or four psychotropics at a higher rate. It has been previously found that patients are more likely to receive a prescription of two or more psychotropic medications if they were with comorbid psychiatric disorders in comparison to those with a single diagnosis.^(27,28) Our study suggests that the results of telepsychiatry are similar to previously conducted face-to-face consultations. Thus, telepsychiatry could be one of the patient-friendly options for non-emergency routine psychiatric consultations. However, there are limitations to our study. Most important being the cross-sectional study based on a single consultation. The actual effectiveness needs a direct comparison with face-to-face consultations. Neither the acceptance by patients nor the clinical outcome of this service was assessed. Similarly, the professional satisfaction of those providing these services needs to be assessed using structured instruments, which was also ignored in this study.

CONCLUSION

The demographic and clinical profile of patients seeking treatment through telepsychiatry was found to be comparable with face-to-face outpatient consultations. With the development of clinical, operational, legal, and ethical guidelines for telepsychiatry practice, the systematic application of Information and Communication Technologies to the practice of mental healthcare is being rapidly adopted. The release of the telepsychiatry guidelines by IPS and TSI in collaboration with NIMHANS, Bengaluru, in May 2020 came as a timely measure during the pandemic which helped to reach the unreachable during the restrictions. In the future, studies with better methods of assessing various aspects of telepsychiatry including cost-effectiveness need to be done to guide us for optimal approaches in implementing and sustaining telepsychiatry services.

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