

# Level of Patient Satisfaction with Online Psychiatric Outdoor Services

Удовлетворенность пациентов телепсихиатрической помощью

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Original research

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## ABSTRACT

**BACKGROUND:** The COVID-19 global pandemic exposed gaps in the treatment of common physical and mental disorders that had to do with things like lockdowns, poor convenience, fear of contracting COVID, and economic constraints. Hence, to address these treatment gaps while also limiting exposure to the COVID-19 infection, telemedicine in the form of telephone and internet consultations has increasingly become the recourse around the world. Our center adopted this trend and also launched a telepsychiatry initiative in order to better cater to the needs of patients with pre-existing mental health disorders and to ensure regular follow-ups and compliance with prescription regimens.

**AIM:** The present study aimed to assess the level of patient satisfaction with the online psychiatric services/telepsychiatry.

**METHODS:** The sample consisted of 100 patients with pre-existing mental health disorders. This was a cross-sectional study lasting 6 months. The DigiDoc app by Hospital Information Software (HIS) software, which is used to manage a patient's appointment schedule, relevant clinical and lab details, along with follow-up prescriptions, was used to follow the selected patients for the purpose of this study. This software also provides a digital platform for video calls for online consultation. The Client Satisfaction Questionnaires-8 (CSQ-8) was employed to collect patient data for analysis.

**RESULTS:** The mean total CSQ-8 score of the study sample was  $21.01 \pm 5.80$  (8–32), which corresponds to a low-to-moderate level of satisfaction with online psychiatric services/telepsychiatry. Most patients (45%) reported low satisfaction levels, followed by 37% who reported moderate levels of satisfaction. Only 18% of patients reported higher satisfaction with telepsychiatry.

**CONCLUSION:** Despite the psychiatrists ability to provide adequate professional advice and psychoeducation through online psychiatric services, patients' level of satisfaction proved moderate-to-low. This suggests a need to design standard protocols and guidelines in the search and provision of consultation services on online psychiatric service platforms that could help enhance patients' levels of satisfaction.

## АННОТАЦИЯ

**ВВЕДЕНИЕ:** Глобальная пандемия COVID-19, в частности, такие факторы как необходимость соблюдения режима ограничения по перемещению граждан (локдаун), неудобство оказания помощи, боязнь заражения

коронавирусной инфекцией и экономические трудности, выявили слабые места в ведении пациентов с распространенными соматическими и психическими заболеваниями. Для устранения этих слабых мест, а также для ограничения контакта с инфекцией COVID-19, во всем мире все чаще прибегают к телемедицинским технологиям в виде телефонных и онлайн-консультаций. Наш центр последовал примеру и также запустил программу телепсихиатрической помощи, чтобы лучше удовлетворять потребности пациентов с ранее диагностированными психическими расстройствами, обеспечивать регулярное наблюдение и соблюдение назначенных схем лечения.

**ЦЕЛЬ:** Данное исследование ставило целью оценку уровня удовлетворенности пациентов работой онлайн-службы психиатрической помощи/телепсихиатрии.

**МЕТОДЫ:** Выборка включала 100 пациентов с ранее диагностированными психическими расстройствами. Данное исследование было кросс-секционным с одной точкой исследования. Набор участников исследования осуществлялся на протяжении 6 месяцев. Данные были собраны с помощью приложения DigiDoc, являющегося частью программного обеспечения Hospital Information System, которое использовалось для записи пациентов на прием пациентов, просмотра важных клинических и лабораторных данных, а также врачебных назначений. В данном приложении также имелась платформа для видеозвонков для проведения онлайн-консультаций. Для сбора данных использовался Опросник удовлетворенности клиентов (CSQ-8).

**РЕЗУЛЬТАТЫ:** В исследуемой выборке средний балл по опроснику CSQ-8 составил  $21,01 \pm 5,80$  (8–32), что свидетельствует о низком или среднем уровне удовлетворенности от работы онлайн-службы психиатрической помощи/телепсихиатрии. У большинства пациентов (45%) уровень удовлетворенности по данным опроса был низким; 37% сообщили о среднем уровне удовлетворенности. Лишь у 18% пациентов уровень удовлетворенности психиатрической помощью в формате телепсихиатрии был высоким.

**ВЫВОДЫ:** Несмотря на доступность информации и возможность врача-психиатра предоставить адекватную профессиональную консультацию с помощью онлайн-технологий, уровень удовлетворенности пациентов оказался умеренным или низким. Это свидетельствует о необходимости разработки стандартных протоколов и руководств по поиску и предоставлению телепсихиатрических консультационных услуг, которые могли бы способствовать повышению уровня удовлетворенности пациентов.

**Keywords:** *level of patient satisfaction; telepsychiatry; telemedicine; online psychiatry; digital psychiatry*

**Ключевые слова:** *уровень удовлетворенности пациентов; телепсихиатрия; телемедицина; онлайн-психиатрия; цифровая психиатрия*

## INTRODUCTION

COVID-19 has been declared a global pandemic by the World Health Organization since 2019. Even 2 years after the start of the pandemic, COVID-19 continues to spread in waves across different geographical areas of the world. To help check the spread of the virus, most countries have adopted specific protocols such as social distancing, home quarantine, closure of nonessential businesses, and intermittent travel restrictions<sup>1</sup>. Due to the adoption of

COVID-19-weighted behavior, many aspects of people's lives have been affected, including the healthcare needs of those who are suffering from chronic medical, surgical, or mental illnesses due to difficulty in accessing healthcare services and the reduced availability of healthcare professionals who are themselves trying to avoid COVID-19 self-infection [1]. This has resulted in the breakdown of the traditional in-person, face-to-face physical consultation model, which has resulted in a global explosion in online consultation.

1 WHO Director-General's opening remarks at the media briefing on COVID-19. [Internet]. 2020 March 11. [cited 2021 Nov 10]. Available from: <https://www.who.int/director-general/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020>.

To close this treatment gap while minimizing exposure to the COVID-19 infection, online psychiatry consultation/telepsychiatry has been adopted to cater to the needs of patients with mental health disorders [2].

Patient satisfaction is a general psychological condition that results from emotions surrounding the expectations, coupled with the prior experiences of patients, as they interface with healthcare services [3]. In the past few decades, patients' satisfaction with healthcare services has gained importance for patients with mental illness, seeing as it is an important aspect of management protocol, which positively affects treatment adherence and overall outcomes [4]. This also points to weaknesses and flaws in the delivery of healthcare and helps as we explore the determinant of quality in healthcare, which is important as policymakers seek to design more effective mental health programs [5]. Therefore, the level of satisfaction with healthcare services is considered a reliable indicator of improvement and change in the existing healthcare provision infrastructure [6] and could be beneficial as we explore new ways of providing healthcare services, such as online psychiatric services.

Although a good deal of studies [7–10] have revealed good levels of client satisfaction as relates to in-person, face-to-face psychiatric services, there is a dearth of information regarding the state of play as regards online psychiatric services/telepsychiatry in India. Although there is a study that assesses the level of satisfaction with telepsychiatry in India, the sample in that study consisted of only patients with substance-abuse disorders [11]. Similarly, another study during the covid pandemic assessed the level of client satisfaction using semi-structured scales, with a sample consisting of both psychotic and neurotic disorders [12].

In this era of accelerated spread of digital technologies, online consultation/telepsychiatry would, theoretically, seem to be an easier, more convenient, and cost-effective way of providing medical services to remotely located populations. It could also be considered a good alternative for consultations and follow-up for psychiatric patients, who usually require years of treatment [13]. This highlights the importance of the present study, the findings of which could be helpful to policymakers in designing tools and guidelines for online Psychiatric services/telepsychiatry.

During the pandemic, online psychiatric services were launched at the Study Center, using video conferencing and the mobile application DigiDoctor App of Hospital

Information Software (HIS). This raised the question of the level of patient satisfaction relative to the newly introduced online psychiatric services/telepsychiatry. This led, in turn, to the launch of a study designed to assess the level of satisfaction of those suffering from psychiatric disorders who were consumers of our online psychiatric services. The primary objective was to assess their level of satisfaction as patients using the Client Satisfaction Questionnaire (CSQ-8).

## **METHODS**

### **Study design**

This study had a cross-sectional design. Data was collected during six months.

### **Setting**

After the start of the COVID-19 pandemic in 2019, all patients with psychiatric disorders who had enrolled in the previous two years using the HIS software were informed via text message and phone calls by the department of electronic medical record about the availability of online psychiatric services for the purpose of consultation and follow-up, with the goal of minimizing instances of discontinuation of ongoing psychiatric treatment.

Those patients, who had until then been consulted in-person at the Department of Psychiatry, were asked to download the mobile application of the HIS from Google Play store and advised to log in with their registered mobile number or with their old registration number, which had already been sent to them via text messages. Following that, the patient was instructed to book an appointment with their consulting psychiatrist from Monday to Saturday between 9 am and 2 pm.

The DigiDoctor App of HIS was designed and developed by Criterion Tech Pvt Ltd. This App covers most aspects related to patient care, from the registration of patient, to out-patient department (OPD)/in-patient department (IPD) care, and follow-up. This involves the registration of patients, patient sociodemographic and clinical details, options for offline and online (video) consultation, lab reports generation, imaging reports generation, billing, pharmacy, referrals to other specialists, prescription filling, and dietary management for each patient.

After the launch of online psychiatric services/telepsychiatry, an influx of patients seeking follow-up care ensued. The recruitment of patients as per the study protocol began on March 1, 2021 and ended on August 30, 2021.

Through the psychiatrist on duty, on three specified days (Monday, Wednesday, and Friday), all scheduled patients seeking online consultation were screened as per the predesigned selection criteria. During the assessment, the on-duty psychiatrist was advised not to wear a face mask or headgear while conducting the online consultations. This was in keeping with the view that masks might conceal facial expression, scramble a voice, or negatively affect the quality of the consultation, which would be an important factor in determining the level of satisfaction of the patient. This was made possible by sanitizing the rooms where OPD videoconferencing was taking place and requiring only one individual in the room at a time, so as to avoid contact/spread of COVID-19. No such instructions were applied to patients/informants.

### Participants

A total of 110 patients were screened, out of which 10 were excluded during the study procedure. Of the excluded patients, 6 refused to provide verbal consent while the remainder had comorbid substance abuse disorders.

*Inclusion criteria:* (a) a patients with follow-up cases of major depressive disorder, bipolar disorders, anxiety disorders, obsessive compulsive disorder, or tension-type headaches with subsyndromal psychiatric symptoms who had undergone in-person face-to-face consultation at the Study Center and were willing to provide verbal consent to be part of the study and (b) reliable family member/overseers.

*Exclusion criteria:* patients with mental retardation, psychosis (acute psychosis, schizophrenia, mood disorder with psychosis), substance-abuse disorders, bipolar disorder current episode mania, and lacking a reliable family member/overseer. Patients who refused to provide verbal consent were also excluded.

### Procedure

Patients between 18–60 years of age, males and females, who met the inclusion criteria were selected for further assessment after providing verbal informed consent. The informed consent form designed for the study was approved by the Ethics Committee of the Study Center, where it was mentioned that, due to the ongoing COVID-19 pandemic, the only way to secure the informed consent was through a verbal response by the participant, after the participant had been made to read and understand the risks and benefits of the study.

After a participant had provided her/his verbal consent to be included in the study, a text message stating ‘You have given your informed consent to participate in the study’ was sent to their mobile phone number for record purposes. The recruited patients had been promised that after completing the research study and after the lockdowns/isolation orders had been lifted, they would be allowed to choose between in-person and online consultations. Patients were also informed that regardless of whether they completed the study, neither their right to both types of consultations nor the management protocol for their illness would be affected in the future.

As per scheduled appointment, a psychiatrist consulted the patient remotely using the HIS software mobile application. The duration of each consultation was set at 15–20 minutes. The consultation protocol consisted in an adequate psychiatric assessment that included history, a brief mental status examination, psychoeducation and professional advice, and prescription of medications. During the online consultation, patients were probed by the Psychiatrist. A semi-structured proforma was used to collect information regarding the socio-demographic and clinical profiles of the patient. After completion of the very first online consultation, the patient was given a second online appointment for follow-up consultation, usually 2 weeks later. On the second scheduled online follow-up consultation, besides the assessment of any clinical progress, the Client Satisfaction Questionnaire-8 (CSQ-8) scale [14] was administered by the Psychiatrist to gauge the level of satisfaction of the patient with the online psychiatric services/telepsychiatry experience. The reason the CSQ-8 was introduced during the second scheduled online consultation was that the two-week time interval allowed the patient to become familiar with the technical aspects of online provision of psychiatric services, and his level of satisfaction with such a service could reasonably be assessed. Thus, the patient was now in a better position to use the CSQ scale to rate the quality of the service provided him. In theory, it is reasonable to assume that patient satisfaction after the first appointment may not be as high as that after the second appointment, when the patient is expected to have become comfortable and more familiar with the online delivery of psychiatric services.

The CSQ-8 has shown high internal consistency, along with high reliability and relevance [12]. Patients’ responses were recorded on an eight-point Likert scale, and the

scoring was categorized as low satisfaction (8–20), medium satisfaction (21–26), and high satisfaction (27–32).

The semi-structured proforma for the collection of patient-related data and CSQ-8 scores were converted into Google Forms for an easier and contactless assessment of the recruited patients. Patients' data were converted in the Excel format for an analysis of the results. Relevant statistical tests were used to analyze the data; e.g., continuous variables were analyzed using Pearson correlation coefficients; means and standard deviations were compared using the unpaired t-test and One-way ANOVA.

## RESULTS

### Sample characteristics

The sample consisted of 100 patients, of which 40 suffered from major depressive disorders (MDD); 31 — from anxiety spectrum disorder (ASD); 18 — from obsessive-compulsive disorder (OCD), and 11 patients — from tension-type headaches with subsyndromal depressive symptoms. The average age of the sample was  $31.0 \pm 11.56$  (95% CI: 28.71 to 33.29).

### Main results

Although there was a positive correlation between the age of the patient and level of satisfaction, it was weak and insignificant (Pearson correlation  $r=0.16$ ,  $df=98$ ,  $P=0.12$ ). Further, there was an approximately equal male/female ratio in the sample, with the mean CSQ-8 score of males being around  $20.75 \pm 5.73$  and that of females being around  $21.30 \pm 6.01$ . Statistically, there was no significant difference in the level of satisfaction between the male and female participants ( $t=0.46$ ,  $df=98$ ,  $P=0.65$ ). Similarly, there was no difference in the level of satisfaction as per religion ( $t=1.0399$ ,  $df=98$ ,  $P=0.31$ ), marital status ( $t=1.36$ ,  $df=98$ ,  $P=0.18$ ), years of formal education ( $F=2.18$ ,  $df=02$ ,  $P=0.12$ ), occupation ( $F=0.40$ ,  $df=02$ ,  $P=0.68$ ), or type of family setup ( $t=0.30$ ,  $df=98$ ,  $P=0.76$ ). The other socio-demographic variables where the level of satisfaction significantly differed were place of residence and income level. Patients from urban areas were more satisfied than those in rural areas ( $t=2.32$ ,  $df=98$ ,  $P=0.02$ ), and, similarly, patients in the low- and higher-income groups were more satisfied than those in the middle-income group ( $F=4.04$ ,  $df=02$ ,  $P=0.02$ ). The sociodemographic characteristics of the sample are displayed in Table 1.

The mean total CSQ-8 score of the sample was  $21.01 \pm 5.80$  (range: 8–32; 95% CI: 19.85 to 22.17), which

meant a moderate level of satisfaction with the online delivery of psychiatric services/telepsychiatry. The majority of patients (45%) reported low satisfaction with online psychiatric services ( $16.16 \pm 4.11$ ; 95% CI: 14.92 to 17.39), while 37% reported moderate satisfaction ( $22.73 \pm 1.3$ ; 95% CI: 22.29 to 23.16). Only 18% reported a higher level of satisfaction ( $29.61 \pm 2.03$ ; 95% CI: 28.60 to 30.62). One-way ANOVA was utilized to analyze the differences between these three levels- lower, moderate, and higher levels of client satisfaction. The analysis revealed a statistically significant difference between the three groups' means ( $F=138.58$ ,  $P=0$ ,  $DF=2$ ) Table 2.

Each portion of the CSQ-8 scale was ranked from highest to lowest to illustrate in which area the patients were most satisfied and in which they were least. The highest satisfaction rates were observed when the patient was asked "If you were to seek help again, would you come back to our service?" (72%) and "If a friend needed similar help, would you recommend our service to him or her?" (67%), followed by the question "to what extent has our service met your needs?", for which 52% of patients recorded satisfaction. In addition, 52% of patients answered positively when asked "Did you get the kind of service you wanted?", but only 42% said they were satisfied with the amount of help received when asked "How satisfied are you with the amount of help you received?".

The lowest satisfaction level came with the question "Have the services you received helped you to deal more effectively with your problems?" in the last two weeks, to which 61% of patients responded in the negative, followed by 55% of patients responding in the negative to the question "How would you rate the quality of service you received?". Some 53% of patients said that they were not satisfied or somewhat satisfied when asked "In an overall, general sense, how satisfied are you with the service you received?". (Table 3)

## DISCUSSION

To the best of this author's knowledge, this is one of the few studies on the level of patient satisfaction with online psychiatric services in India. The study indicates that the majority of patients have a moderate-to-low level of satisfaction with online psychiatric services/telepsychiatry. This finding is in line with another study from India which revealed that although clinicians' satisfaction is higher as regards online psychiatric services, patients' level of comfort and satisfaction with such services remain low [12]. Similarly, a recent study comparing telepsychiatry with in-person consultation of patients with substance-use

**Table 1. Sociodemographic Details of Patients and its relation to CSQ-8 (n=100)**

Characteristic	Statistic	Mean CSQ±SD	Statistics
Mean Age±SD (Range) in years	31.0±11.56; 95% CI: 28.71 to 33.29; R: 14-68	21.01±5.80; 95% CI: 19.85 to 22.17; R: 8-32	* r=0.16. df=98 P=0.12
<b>Gender</b>			
Male	53	20.75±5.73	** t=0.4623 df=98 P=0.65 95% CI: -2.87 to 1.79
Female	47	21.30±6.01	
<b>Religion</b>			
Hindu	68	21.43±5.86	** t=1.04 df=98 P=0.31 95% CI: 1.18 to 3.79
Muslim	32	20.13±5.79	
<b>Marital Status</b>			
Married	62	21.63±5.82	** t=1.36 df=98 p=0.18 95% CI: -0.75 to 4.01
Unmarried	38	20.0±5.81	
<b>Place of residence</b>			
Urban	62	22.05±5.24	** t=2.32 df=98 <b>P=0.02</b> 95% CI: 0.40 to 5.07
Rural	38	19.32±6.42	
<b>Education</b>			
Up to 08 Years	35	2.4571±1.1464	*** F=2.18 P=0.12 df: 02
Up to 12 Years	35	2.6286±0.7702	
Graduation & above	30	2.9333±0.7849	
<b>Occupation</b>			
Homemakers & Unemployed	33	20.58±7.0	*** F=0.40 P=0.68 df=02
Employed	40	21.65±5.34	
Students	27	20.60±5.07	
<b>Type of family</b>			
Joint	32	20.75±7.62	** t=0.30 df=98 P=0.76 95% CI: -2.88 to 2.11
Nuclear	68	21.13±4.85	
<b>Total monthly family income (Indian rupee)</b>			
≤ 10,000/-	50	22.18±5.99	*** F=4.04 <b>P=0.02</b> DF: 2
10,001-20,000/-	31	18.61±5.82	
> 20,000/-	19	21.84±4.34	

Note: \* Pearson Correlation; \*\* Unpaired t-test; \*\*\* One-way ANOVA.

**Table 2. Distribution of cases and CSQ-8 scores based on the level of Client Satisfaction (CSQ-8)**

S. no	Score Range	Level of satisfaction	Number of cases	Mean±SD	Statistics (One way ANOVA)
1.	<20	Low satisfaction	45	16.16±4.11 (95% CI: 14.92 to 17.39)	F-value: 138.58 P-value: 0 DF: 2
2.	21–26	Medium satisfaction	37	22.73±1.3 (95% CI: 22.29 to 23.16)	
3.	27–32	High Satisfaction	18	29.61±2.03 (95% CI: 28.60 to 30.62)	
4	8–32	Total Score (Overall Satisfaction)	100	21.01±5.84 (95% CI: 19.85 to 22.17)	

**Table 3. Domain scores for the Client Satisfaction Questionnaire (CSQ-8) Scale**

S. no	Domains	Score (number of patients)				Mean±SD (95% CI)
		1	2	3	4	
1.	How would you rate the quality of service you received?	10	35	34	21	2.66±0.92 (2.48 to 2.84)
2.	Did you get the kind of service you wanted?	19	29	37	15	2.48±0.97 (2.29 to 2.67)
3.	To what extent has our service met your needs?	15	37	31	17	2.5±0.95 (2.31 to 2.69)
4.	If a friend needed similar help, would you recommend our service to him or her?	17	16	36	31	2.81±1.06 (2.60 to 3.02)
5.	How satisfied are you with the amount of help you received?	20	38	26	16	2.38±0.98 (2.19 to 2.57)
6.	Have the services you received helped you to deal more effectively with your problems?	11	28	46	15	2.65±0.87 (2.48 to 2.82)
7.	In an overall, general sense, how satisfied are you with the service you received?	13	34	36	17	2.57±0.92 (2.39 to 2.75)
8.	If you were to seek help again, would you come back to our service?	9	19	39	33	2.96±0.94 (2.77 to 3.15)
Mean Total Score±SD (Range)		21.01±5.84 (8-32) 95% CI: 95%CI: 19.85 to 22.17				

Note: Each domain is rated on 4 points scale where the level of satisfaction increases from Likert rating of 4 to 1 in domains 1, 3, 6, 7; and in the rest of the domains (2, 4, 5, 8), the level of satisfaction increases from Likert rating 1 to 4.

disorders in India revealed a lower level of therapeutic relation, empathy, and satisfaction with teleconsultation than with in-person consultation [11].

On the contrary, another Indian study that assessed the satisfaction level of psychiatric patients with telepsychiatry pre-COVID-19 revealed a higher level of patient satisfaction [16]. Similarly, studies in developed nations assessing patient satisfaction with telepsychiatry have also revealed higher levels of patient satisfaction [9, 10, 17, 18]. The ability of people from developed nations to effectively use digital technology may be the reason for this.

However, the findings of the studies conducted to assess the level of patient satisfaction in face-to-face psychiatric consultation are in contrast with the present study, which has revealed an above-average level of satisfaction (50–65%) [7, 8]. The level of satisfaction also varies with the diagnostic

category, as it was highest for patients with depression, followed by those with anxiety and bipolar disorder. It was lowest for patients with schizophrenia [7]. In the present study, the level of client satisfaction was assessed for people with neurotic disorders only, and due to the smaller number of patients in each diagnostic subgroups, intra-diagnostic differences in the level of client satisfaction were not analyzed.

Moreover, the satisfaction level of patients with telepsychiatry also turned out to depend on the psychiatrist's satisfaction with telepsychiatry [19]. Studies that have assessed the level of satisfaction have revealed that clinicians are more satisfied with the online delivery of psychiatric services than patients are [9, 12].

A recent review revealed that telepsychiatry was adopted as the platform of choice to provide mental health services

to patients with pre-existing mental health disorders during the COVID-19 pandemic, but that there is a limited amount of information comparing the benefit and feasibility of telepsychiatry over face-to-face consultation [2].

In the present study, sociodemographic factors did not show correlation with the level of satisfaction, except for the fact that the patients from an urban background were more satisfied than those from a rural background, while patients in the lower and higher income groups were more satisfied than those in the middle income group. The reason may be that patients from an urban background are more aware of and may have had prior exposure to online psychiatric services or telemedicine in general. Why patients in the lower income group reported high levels of satisfaction is unclear, but it may be that during the COVID-19 pandemic, these were the patients who could least afford convenience and, hence, a free online consultation may have been a valuable option for them. This finding is in contrast with a recent study conducted in a developed country which revealed that younger age, female gender, and first-time-visitor patients are associated with a lower level of patient satisfaction [18]. The present study did not include naive patients.

In the present study, various unexplored factors could have been responsible for the moderate-to-low satisfaction levels with online psychiatric services/telepsychiatry we uncovered, as this is an emerging practice in developing nations like India. Likewise, there is a lack of awareness among the general population as to how to contact and seek consultations from clinicians through online platforms.

In the present study, despite the moderate-to-low satisfaction level with online delivery of psychiatric services, more than half of the patients agreed that they received the kind of service they wanted, and that online psychiatric services provided the approximate extent of help they needed. Fortunately, about two-thirds of patients agreed to recommend our online services to friends/acquaintances and were also ready to again seek help for themselves. It is a hardship for many patients to travel miles for a consultation that lasts a few minutes, especially for a follow-up, when the patient is stable on prescribed medication. In that scenario, telepsychiatry could be a lifeline [19]. Hence, referred satisfaction to friends or another patient may be understood to be the highest.

Overall, 53% of the patients in our study reported being either not or less satisfied. This may be due to the fact that about 61% of them reported that the consultations received

from online psychiatric services providers were either marginally or ineffective in dealing with their problems. Further, 55% of effective patients had a negative view of the quality of online psychiatric services.

The other reasons for the low levels of satisfaction with online delivery of psychiatric services may be the culture. Generally, patients in South Asian countries do prefer to see clinicians in person for a physical examination of their ailments, at least through touching or looking at them; e.g., palpation of radial arterial beats, chest auscultation, etc. This may be due to the ancient cultural belief in the general population that clinicians are second-to-God, as they possess the healing touch/eyes, beside the medications they prescribe. Although there is a lack of research on the subject, the presumed consensus in the general population regarding the satisfaction that comes from being consulted in person is that the patient should be seen and listened to by the naked eye/ear and in person, and so, he must be physically examined. These cultural beliefs regarding medical consultation seem to have positive psychological effects on patients and their families and may also be responsible for the higher levels of patient satisfaction regardless of the afferent medical benefits during in-person face-to-face consultations.

The important characteristic of this study is that it was conducted using a mobile-based application, which not only provided audio consultation (telephonic) between patients and Psychiatrists, but also audio-video consultation, where patient and psychiatrist could interact as during a face-to-face physical consultation. Theoretically, the videoconferencing practiced in the present study is thought to be more satisfying for both the patients and psychiatrists. What is more, in the present study, consultations were conducted by psychiatrists for the need of patients, along with simultaneous assessment of patients' satisfaction. This was not simply a survey where patients were invited, after undergoing a procedure, to rate their satisfaction with the said procedure. We also assessed patient satisfaction upon the second consultation, not upon the first one. This might have given patients time to assess in details the different aspects of teleconsultation before being able to appropriately rate the procedure in the different portions of the CSQ-8 scale.

### **Strengths and limitations of the study**

Although this is an important area of investigation, since teleconsultation is becoming a more common means



of providing psychiatric services, the sample size was arbitrarily chosen and most subjects had diagnoses of anxiety disorder, depression, OCD, etc; hence, the findings could not be generalized, as the nature of these disorders may themselves influence the responses to the satisfaction questionnaires. Furthermore, this case may not reflect the regular psychiatric population covering a variety of diagnoses. In addition, the sample consisted of people with follow-up cases only, which may have been biased towards online psychiatric services based on their previous experience of in-person consultation. Also, there is a real possibility of falsely interpreting the emotional response and facial expression of the patient being consulted through videoconferencing by the interviewing psychiatrist, as compared to in-person consultation. This possible erroneous perception by psychiatrists may also stand in the way of an appropriate reciprocation of satisfaction and emotional response from patients. Unfortunately, CSQ-8 was used for research purposes only in this study and had not previously been used at the Center to study a similar sample, making it impossible to compare data on patients' levels of satisfaction with traditional and online consultation. There was also no data that could allow us to compare physician and patient levels of satisfaction (although there was an oral positive response from the consulting physician after completion of the study, and it was not scored on the standardized satisfaction scale). Hence, these results are clearly not sufficient for a discussion and comparison with data from other studies.

## CONCLUSION

Despite psychiatrists' ability to provide an adequate psychiatric assessment, professional advice, and psychoeducation in this study, the patient level of satisfaction remained stuck at moderate-to-low. Although online consultation appeared to partially meet patient expectations in this study, there appears to be a need to develop guidelines around telepsychiatry that could help improve the level of client satisfaction before the procedure can be introduced in routine practice, given that awareness about online consultation has now been raised in the Indian population.

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