









Satisfaction with Telepsychiatry during the COVID-19 pandemic: Patients' and psychiatrists' report from a University Hospital

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Abstract

Background: The COVID-19 pandemic has led to important changes in the approach to patients worldwide. Different agencies have proposed and implemented telemedicine-based care services in order to ensure access to health care for all people.

Aim: The aim of this study was to determine the satisfaction of patients using the Telepsychiatry service offered by the Department of Psychiatry of the *Hospital de Clínicas* (National University of Asunción, Paraguay).

Methods: A cross sectional and descriptive study has been conducted. Participants were recruited through a phone-based survey. Satisfaction with Telepsychiatry has been measured with an adapted version of a satisfaction survey in Teleneurology. As a complement, psychiatrists from the *Hospital de Clínicas* were also interviewed about their rate of satisfaction with Telepsychiatry.

Results: A total of 530 patients were included, 51.3% of whom were women. The consultation satisfaction scale ranged between 2.15 and 4.30 with a mean score of 3.02 ± 0.32 . Cronbach's alpha for the scale was .897, indicating a good internal consistency. Patients' satisfaction was higher for the perception of Telepsychiatry and lower for the doctor-patient relationship. Of the physicians, 87.5% were satisfied with the Telepsychiatry service.

Conclusion: The satisfaction overall score indicates patients' general satisfaction with the quality of care in Telepsychiatry, mainly regarding the perception of health care. and lower satisfaction with the doctor-patient relationship. Nine out of 10 psychiatrists felt satisfied with the Telepsychiatry service and considered that the degree of patient's satisfaction was acceptable during the Telepsychiatry consultation.

Keywords

COVID-19, Telepsychiatry, telemedicine

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Introduction

The COVID-19 pandemic has led to important changes in the approach to patients' care worldwide (Naumova, 2020). Different agencies have proposed and implemented telemedicine-based services in order to ensure access to health care for all people (Chen et al., 2020). Telepsychiatry has been also promoted during the first stages of pandemic and can be sustainable over time, beyond the current health-care emergency (Kaufman et al., 2020).

The Department of Psychiatry of the School of Medical Sciences at National University of Asunción, has rapidly promoted a Telepsychiatry service to guarantee telematic consultations for patients and general population (Torales et al., 2020).

Users' satisfaction with telemedicine services, even before the pandemic, has been generally acceptable (Johnson, 2019; Polinski et al., 2016). However, there is criticism that teleconsultations may be proposed as substitutes for face-to-face consultations at some point (Shaw et al., 2020). In this regard, evaluations on the efficacy of telemedicine services have been performed to measure whether they may meet patients' health-care needs (Andrews et al., 2020; Futterman et al., 2021; Ramaswamy et al., 2020).

The assessment of users' satisfaction with Telepsychiatry has provided relevant data when considering patients' perspective in order to improve services oriented to their own health-care needs. Satisfaction studies have improved telemedicine in terms of responsiveness to users' demand (Andrews et al., 2020; Polinski et al., 2016).

We have conducted this research to determine the satisfaction of patients using the Telepsychiatry service offered by the Department of Psychiatry of the *Hospital de Clínicas* (Universidad Nacional de Asunción, Paraguay), and improve standards on the base of users' needs.

Methods

This is a descriptive, cross-sectional, simple-random sampling study that included patients who employed the Telepsychiatry service provided by the *Hospital de Clínicas*. Adult patients (≥ 18 years old) who consulted the Telepsychiatry service between February and September 2021 and whose telephone number was available were included. Patients were invited to answer a survey that included sociodemographic data and ratings on the quality of care in Telepsychiatry. Patients were excluded if were unable to respond to the survey because of their underlying morbidity. All participants received complete information about the aim of the study, privacy and data-processing. No payment has been foreseen for completing the survey.

The sample size was calculated using the *Epidat* epidemiological package. The targeted population included 1,040 patients ≥ 18 years who used Telepsychiatry; we used a margin of error of 3%, a confidence level of 95%, a

response distribution of 50%, giving a minimum sample size of 527 (Muñoz Navarro, 2014). In this research, all measures, conditions, data exclusions, and procedures for the determination of sample size, have been reported.

Sociodemographic variables included age, sex, diagnosis, origin, and sociocultural stratum. Satisfaction with Telepsychiatry was measured with an adapted version of a satisfaction survey in Teleneurology conducted in Spanish language in Chile (Constanzo et al., 2019). The adapted Likert-type survey reports 20 questions broken down into the following item areas: (i) Perception of Telepsychiatry Care; (ii) Quality of care in Telepsychiatry; (iii) Doctor-patient relationship in Telepsychiatry; and (iv) Confidence about Telepsychiatry service.

As a complement, psychiatrists from the *Hospital de Clínicas* were also surveyed about their own satisfaction with the Telepsychiatry service. The five questions included satisfaction with the consultation, with the service and with the diagnostic process of patients through Telepsychiatry. These questions were adapted from similar research in telemedicine (García-Huidobro et al., 2020, p. 19).

Data were processed with the statistical package SPSS, version 26. Descriptive analysis has been performed: categorical variables were presented as frequencies and percentages, and the numerical variables with measures of central tendency and dispersion.

Ethical considerations

The study was approved by the Department of Psychiatry of the National University of Asunción, School of Medical Sciences (Paraguay). Data were treated with confidentiality, equality, and justice, respecting the Helsinki principles. Verbal consent was used before starting the phone-survey. This study received financial support from the Rector's Office of the Universidad Nacional de Asunción, granted during the year 2021.

Results

A total of 530 patients were included, 51.3% of whom were women. Ages ranged from 18 to 75 years with an average of 46.3 ± 16.8 years. Of the participants, 36.8% were from the Central Department, 34.7% had completed secondary school as the highest level of education, 36.8% had a low level of economic income. These characteristics are shown in detail in Table 1.

Of the Telepsychiatry-using patients, 11.9% reported a diagnosis of depression, 11.7% anxiety, 11.1% borderline personality disorder, and 9.8% another personality disorder. This can be seen in detail in Table 2.

The sum of the scores on the consultation satisfaction scale ranged from 43 to 86 with a mean of 60.42 ± 6.2 . The average scores reported a mean of 3.02 ± 0.32 , with a range between 2.15 and 4.30. Cronbach's alpha for the scale was .897, indicating a good internal consistency of

Table 1. Sociodemographic data of participants (N=530).

Characteristics	n	%
Gender		
Male	258	48.7
Female	272	51.3
Area of residence		
Asunción City	152	28.7
Central Department	195	36.8
Rest of the country	183	34.5
Educational level		
Primary	183	34.5
Secondary	184	34.7
University	163	30.8
Income		
Low	195	36.8
Medium	179	33.8
High	156	29.4

Table 2. Diagnosis of Telepsychiatry users (N=530).

Diagnosis	n	%
Major depressive disorder	63	11.9
Generalized anxiety disorder	62	11.7
Borderline personality disorder	59	11.1
Other personality disorder	52	9.8
Bipolar disorder	52	9.8
Substance abuse	51	9.6
Dissociative disorders	51	9.6
Schizophrenia and other psychotic disorders	48	9.1
Sleep disorders	46	8.7
Others	46	8.7

the instrument. Patients reported to be more satisfied with the perception of Telepsychiatry and less satisfied about the doctor-patient relationship (Table 3).

Additionally, the quality of care has been described from the point of view of those physicians ($n=8$) who provided Telepsychiatry services at the Hospital de Clínicas.

Of the physicians, 75% were men, 62.5% were psychiatrists and the rest were Psychiatry residency students. 62.5% agreed that Telepsychiatry consultation might change patients' prognosis. About 75% of them agreed that the clinical decision-making process has been satisfactorily achieved during the Telepsychiatry consultation. Thus, 87.5% were satisfied with the Telepsychiatry consultation; 75% felt satisfied with the online platform used to conduct the Telepsychiatry consultation; 87.5% felt that the degree of patients' satisfaction was acceptable during the Telepsychiatry consultation.

Discussion

The effectiveness of Telepsychiatry is well documented in the medical literature (Chakrabarti, 2015; Cowan et al.,

Table 3. Dimensions of patients' satisfaction with Telepsychiatry (N=530).

Dimension	Mean score	Standard deviation
Perception of Telepsychiatry Care	3.04	0.57
Quality of care in Telepsychiatry	3.03	0.60
Doctor-patient relationship in Telepsychiatry	2.98	0.57
Confidence about Telepsychiatry service.	3.03	1.01

2019; O'Brien & McNicholas, 2020). According to similar studies, patients' satisfaction seems to be based on domains such as access, timeliness, and safety. It should be noted that Telepsychiatry is a useful way to decentralize mental health services, so patients may receive timely care with better access (Serhal et al., 2017).

According to previous research (Dham et al., 2018; Hantke et al., 2020), patients' responses suggested high levels of satisfaction with Telepsychiatry services. In our study, patients' satisfaction was high considering that the scale scores from one to five and acceptable means were found in the satisfaction domains; likewise, internal validity was good and similar to that reported by the original scale (Constanzo et al., 2019). The highest score was reported in the perception of service and patients were also satisfied with the technologies used, although improvements are encouraged in order to reach appropriate care in Telepsychiatry (Ayala-Servín, 2021; Torales et al., 2021).

Doctor-patient relationship in Telepsychiatry reported the lowest score. This could be explained by the feeling of not having human contact in an online consultation, since according to several investigations, the therapeutic encounter is often already the first step in the care process (Beidas et al., 2013). Other research has already focused on studying the virtual doctor-patient relationship, and there is evidence empathy and patients' non-verbal language are relevant in order to understand whether they are feeling comfortable in medical relationship (Luz, 2019).

Empathy is a construct that has already been investigated in our setting, and it has been reported that psychiatrists and family physicians show high level of empathy toward their patients (Villalba-Arias et al., 2020); however empathy may not be reflected satisfactorily through the teleconsultation. Psychiatric physicians might run training courses on the online quality of care in order to overcome these drawbacks.

Psychiatrists agreed on the good quality of Telepsychiatry provided. According to their opinion, the diagnostic process could be carried out correctly in the context of online consultation. Similar research (Malouff et al., 2021) has already reported that 68% of physicians are open to using telemedicine in the future for consultations and 88% of physicians are open to employ telemedicine routinely in the future for follow-up visits or appointments. In addition, 42% of physicians prefer to use

telemedicine instead of face-to-face visits (Malouff et al., 2021).

The COVID-19 pandemic has prompted the use of Telepsychiatry in the Psychiatry Department of the Hospital de Clínicas. Its implementation was a challenge and a process of adaptation for both physicians and patients (Torales et al., 2021). The greatest advantage coming from Telepsychiatry seemed to be the decentralization of mental health; in addition, there is a substantial time-saving for both physicians and patients since it may offer greater flexibility.

For physicians, the perceived improvement in flexibility is likely to be multifaceted, and is due to time saving and flexibility with scheduling. First, telemedicine consultations can be performed anywhere. Second, online consultations may be easier to reschedule compared to in-person consultations, where patients travel frequently and have limited flexibility to reschedule. Third, online consultations and returns may limit some of clinic's time-consuming logistics (Malouff et al., 2021).








Limitations of this research include that it was not possible to measure satisfaction before or after the pandemic, since telepsychiatry has been implemented in the context of the COVID-19 pandemic. Another limitation may be that the research was based on a quantitative approach: future research on a qualitative or mixed approach is encouraged, since this would help in exploring perspectives and opinions on Telepsychiatry and discussing points for improvement strategies.

In conclusion, it can be stated that a general patients' satisfaction with the quality of care in Telepsychiatry has been detected, mainly regarding the perception of health care in Telepsychiatry. Some concerns are related to the low perception of doctor-patient relationship. As for psychiatrists, almost 9 out of 10 physicians felt satisfied with Telepsychiatry and considered that the patients' satisfaction was acceptable during the online consultation.

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