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ORIGINAL ARTICLE

PATIENT SATISFACTION WITH TELEPSYCHIATRY CONSULTATIONS IN THE TIME OF COVID19: DATA FROM A TERTIARY CARE HOSPITAL IN PAKISTAN

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ABSTRACT

OBJECTIVES: To assess the patient satisfaction with telepsychiatry consultations, and whether time and money was saved by patients availing the service.

METHODS: Anonymous internet survey using Google Form method, was conducted between April 2020 and September 2020 to collect data from patients using teleconsultation in out-patients psychiatry clinic at Shifa International Hospital. The google form consisted of patient satisfaction questionnaire, demographic details of patients, and additional questions about the money and time saved by patients using the service.

RESULTS: Out of 260 participants, 152, (58.5%) were males, 148 (58.3 %) were married and majority (n=157: 60.4%) of patients were <40 years of age. About 62.7% (n=163) were highly educated. Majority (n=108; 41.5%) of the survey participants were from Khyber Pakhtunkhwa province. The average cost saving was Pakistani Rupees 3,000 for the consultation whereas the average time saved was 1.5 days. Patients were happy during communication with doctor including seeing doctor on screen (85.7%), hearing to doctor (90.4%), talking to doctor (84.6%) and discussion about the care plan (81.6%). Majority (79.2%) of the survey participants were happy with the meeting of their care needs and 86.5% were willing to avail the service in future.

CONCLUSION: The study underscores the importance of telepsychiatry as mode of service delivery during the pandemics. The findings demonstrated a high level of patient satisfaction, while considerable amount of time and money saving indicates the effectiveness of telepsychiatry consultation. There is a need to test telepsychiatry model on a representative sample of patients in Pakistan.

KEY WORDS: Telepsychiatry (Non-MeSH); Tele-consultation (Non-MeSH); Referral and Consultation (MeSH); COVID-19 (MeSH), Satisfaction survey (Non-MeSH); Personal Satisfaction (MeSH); Patient Satisfaction (MeSH); Pakistan (MeSH)

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INTRODUCTION

Telepsychiatry is an application of telemedicine in psychiatry, where the electronic communication is used to provide services at a distance. Psychiatry is one of the disciplines well suited to teleconsultation given the fact that patients assessment mostly based on history taking, appearance, behavior and speech of the patients with minimal requirement of physical examination.[1]

In developed countries the availability of resources has made telepsychiatry as one of the desirable modes of service delivery at distance. Previous data shows that there are more than 3500 telemedicine service sites in the US and the market in Europe grew from euro 4.7 billion in 2007 to Euro,11.2 billion in 2012; a sharp rise of investment in telemedicine.[2,3]

Despite widespread use of telemedicine, satisfaction of patients availing the service has been a growing source of concern. Therefore, it is imperative to maintain the quality indicators of patient satisfaction as a focus of discussion to make teleconsultations effective and user-friendly.[4]

Pakistan is a South Asian country with more than 220 million people making it fifth most populous country in the world with over 60% of the population resides in rural areas.[5] The mental health statistics are staggering with prevalence of common mental disorder (CMDs) is as high as 35% in men and 66% in women.[6] On top of that there is scarcity of mental health resources with only 500 psychiatrists mostly, based in urban areas. Moreover, lack of uniformity in distribution of resources compounded by huge burden of mental health issues, the treatment gap is as high as 90%.[7] In order to meet the mental health needs, address health disparities, and to deal with the shortage of mental health professionals, telepsychiatry has the potential to bridge this wide treatment gap.

The outbreak of corona virus disease (COVID-19) has necessitated further to alter the mode of service delivery due to social distancing and restriction of movement. Hence telepsychiatry may be an alternative to face-to-face consultations in Pakistan. Furthermore, establishing tele-psychiatric centers at this critical time will provide the opportunity to scale up the service at national level to cater for the needs of patients. Telehealth facilities are negligible in Pakistan and research looking at the

effectiveness of telepsychiatry is almost non-existing with the exception of a few published reports.[7]

To the best of our knowledge this study is first of its kind assessing the patient satisfaction using telepsychiatry consultations in the time of COVID-19, in a tertiary care private hospital in Pakistan. The findings will add to the existing body of knowledge to set a stage for future researches looking at the evolution of telepsychiatry in Pakistan.

METHODS

Anonymous survey was conducted between April 2020 and September 2020 at the Department of Psychiatry, Shifa International Hospital using Goggle Form survey design. Shifa International Hospital a university hospital affiliated with Shifa College of Medicine in the capital city of Pakistan, one of the three hospitals in country accredited by Joint Commission International.[8] Patients using teleconsultations for the first time were included in the survey. Patients under 18 years of age and those with working diagnoses of psychotic disorders and cognitive disorders were excluded.

For psychiatry tele-consultations we use doxy.me, a freely available, Health Insurance Portability and Accountability Act (HIPA), compliant telemedicine software.[9] After appointment and registration with out-patient department (OPD), the registered patients received an electronic link on their mobile phone through which they connected to the psychiatrists. The questionnaire was delivered on mobile numbers of patients, right after consultation. The questionnaire consisted of demographic details of the patients, their geographical location, University of Washington (UW) telemedicine satisfaction questionnaire and additional inquiries about whether patients have saved money and time while using the teleconsultations. We used translated version of University of Washington (UW) telemedicine survey questionnaire[10] to assess patient satisfaction. The questionnaire consists of 9 items assessing patient satisfaction in four domains of teleconsultation; audiovisual quality, understanding the advice of doctor, meeting the expectations of the patient, politeness and professionalism of doctors and overall standard of the consultation. The respondents were asked to respond on a 5-points Likert scale; options were (1) very unhappy (2), Unhappy (3), Neutral (4), Happy and (5) Very happy. In the end a close ended question asking whether the participants would like to use the service in future with likely responses of 'Yes' or 'No' was also part of the questionnaire.

The survey was conducted anonymously without knowing the personal information of the participants. The study was approved by the institutional review board (IRB) of Shifa International Hospital Islamabad, Pakistan. The responses of survey participants were transported to SPSS (Version V27) for analysis.

RESULTS

Out of 434 patients approached, 260 patients participated in the survey from April 2020 till August 2020 with a response rate of about 60%. Not all the participants responded to every question.

Out of 260 participants, 152, (58.5%) were males, 148 (58.3 %) were married and majority (n=157: 60.4%) of patients were <40 years of age. About 62.7% (n=163) were highly educated (Table I).

Majority (n=108; 41.5%) of the survey participants were from Khyber Pakhtunkhwa province. The average cost saving was Pakistani Rupees (PKR) 3,000 for the consultation whereas the average time saved was 1.5 days.

About 81.6% of the total survey participants were happy with the way doctor explained the treatment plan while 2.7% were found to be very unhappy (Table II). Of the total respondents, 79.2% showed happiness with the care they received whereas 2% were very unhappy.

Almost, 86.2% said that it was very easy for them to talk to doctor while 88.6% well-understood the advice from doctor. Furthermore, 90.4% participants were found to be either happy or very happy with audio-visual quality of the consultation. Most respondents (91.7%) were happy with the politeness of doctor during consultation while 82.8% were happy with overall quality of consultation while 7.6% of the respondents said that they were unhappy with the overall quality of the service. In addition, 80.8% patients were either happy or very happy with

TABLE I: SOCIO-DEMOGRAPHIC CHARACTERISTICS OF SURVEY PARTICIPANTS

Variable		Number (n=260)	Percentage
Age (years)	≤ 20	40	15.4
	21-30	54	20.8
	31-40	63	24.2
	41-50	49	18.8
Gender	Male	155	59.6%
	Female	105	40.4%
Education	Primary	35	13.5
	Secondary	62	23.8
	Graduate	62	23.8
	Postgraduate	101	38.9

TABLE II: RESPONSES OF THE SURVEY PARTICIPANTS TO UNIVERSITY OF WASHINGTON TELEMEDICINE SATISFACTION QUESTIONNAIRE10 (N=260)

Question	Very unhappy (%)	Unhappy (%)	Neutral (%)	Happy (%)	Very happy (%)
How well the doctor explains the care plan	2.7	5.1	10.5	40.6	41.0
How well this visit met you care needs	2.0	5.9	12.9	42.7	36.5
How easy it was to talk to doctor in this way	2.4	4.7	6.7	42.5	42.1
How well you understood the doctor advice	1.6	3.1	6.7	42.5	46.5
How well you were able to see the doctor on the screen	1.6	4.0	8.8	51.0	34.7
How well you were able to hear what the doctor was saying	1.6	3.2	4.8	45.2	45.2
How polite the doctor was during the consultation	1.6	2.0	4.7	42.5	49.2
Your overall feeling about talking with a doctor in this way	3.3	4.4	9.6	44.2	38.6
What is your view about meeting the psychiatrist online	2.4	4.6	7.8	45.8	39.4

the overall standard of the consultation. When asked whether they will use the service again, 86.5% of the participants were found to be willing to use the teleconsultation service in future.

Out of total, 198, (76.2%) patients used teleconsultation for the first time. The average cost saving was Rs, 3000 whereas average time saved was 1.5 days as per the responses of the study participants without elaboration on direct and indirect cost saving. Out of 260 patients, 157 (60.4%) expressed their views in comments section of the questionnaire. In the free text, majority patients found teleconsultation convenient, effective, safer, cost-effective and time saving as per their verbatim. Majority suggested that telepsychiatry service should continue in future while small number of respondents were unhappy with the care and preferred face to face consultation.

DISCUSSION

This study highlighted important points pertaining to the satisfaction of patients using telepsychiatry consultation in the time of COVID-19.

In Pakistan mental health statistics are staggering with huge treatment gap of about 90% people with common mental disorders, with alarming ration of one psychiatrist for half million population.[11] Keeping in view the poor mental health indicators in Pakistan, telepsychiatry may be a viable scaling-up strategy at national level to bridge the existing treatment gap.

Our findings suggested that 86.5% of the survey participants wanted to use tele-psychiatry consultations in future. Despite limitations, such as paucity of infrastructure, scarcity of internet facility and lack of trained human resource the findings aligned with the results of a meta-analyses published in both developed and developing countries showing high acceptability for telepsychiatry in treating common mental disorders.[12] The finding has an implication to enhance the service further in future.

We found that the majority of patients availing teleconsultations services were using smart phones. This finding is of particular importance, bearing in mind the availability of smart phones and the convenience of using them in Pakistan. The improved connectivity in the form of third and fourth generation (3G & 4G) has enhanced the quality of internet usage over last 5 years in Pakistan. As of January 2020, nearly 80 million people were using high-speed internet in the country while the number of mobile phone users stood at around 175 million.[13] Additionally, in the face of COVID- 19 outbreaks, the future relation of digital technologies with people is likely to deepen further in many areas including health care.[14]

Our findings demonstrated that patients had saved average amount of Pakistani Rupees 3000 (US $ 20) using teleconsultation, however, the issue of costs and cost-effectiveness has always been at the heart of discussion with contrasting findings. Various studies examining the cost effectiveness of teleconsultation demonstrated that teleconsultation mode of service delivery is more cost-effective in term of both direct and indirect cost.[15] Similarly, a systemic review published recently showed that telepsychiatry consultations were less expansive as compared to in person consultations.[16] Another review by Naskar S and colleagues showed that telepsychiatry is a cost-effective alternative treatment modality with high satisfaction among patients and also a ray of hope for developing countries with huge burden of mental illnesses.[17] In another multicenter study on a large sample, Wang et al, argued that the economic benefits of teleconsultation is the saving of travel cost of patients from remote

areas to main hospitals.[18]

Our study showed that more than 80% survey participants were either happy or very happy with overall standard of the service they received, while 81.5% were satisfied with the process of consultation. These results are in agreement with a large body of published research that tele-psychiatric services are reliable and similar to traditional interventions across a wide range clinical and demographical characteristic of diverse population.[19] Furthermore, the American Psychiatric Association supports the use of telemedicine as a legitimate component of a mental health delivery system provided that it is used for the benefit of patients and according to the ethical and legal standards of the service.[20]

Our findings demonstrated that on average 1.5 days were saved by surveyed population while availing the teleconsultation. This finding underscores the time efficiency of the service for patients in term of saving time. Similar findings have been reported by various research studies published previously that telepsychiatry is not only time efficient for patients but it saves time of the care providers as well.[21]

The fall out of coronavirus disease (COVID-19) has created new challenges but also shaped new opportunities to redesign various strategies including tele-health care and innovative mental health services in Pakistan. Telepsychiatry could be one such opportunity with scaling-up potential at national level to meet the exponential needs of under-served population.

There is little published knowledge of telepsychiatry in Pakistan, therefore this data will add to the available body of knowledge looking at acceptability of telepsychiatry.

LIMITATIONS

The results of this study should be read with caution, keeping in view certain limitations. The data is small and from a private tertiary care hospital. Therefore, the findings can't be generalized to patients from other parts of Pakistan and public sector hospitals. The survey questionnaire was not a validated instrument, though it was translated in Urdu language and pretested, still the possibility of misinterpretation of response can't be ruled out. Not all the participants answer all questions, therefore frequency and number of responses may differ for various questions, and may not add up to the total participants for each item of the questionnaire.

Lastly, the study was conducted in the time of COVID-19, with movement and social restrictions which may have influenced the nature of responses.

CONCLUSION

The study set out to assess the patient satisfaction using telepsychiatry in a tertiary care hospital in Pakistan. The findings suggest that surveyed participants were satisfied with quality of the consultation both in terms of the standards and willingness to use the service in future. The findings of the study also underscore that telepsychiatry is a cost-effective mode of service.

Given the encouraging state of patient satisfaction, telepsychiatry appears to be a viable option for providing psychiatric care in future. There is a need to validate the findings of this study by carrying out similar research, by using more robust methodology on a larger sample size.

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AUTHOR'S CONTRIBUTION

Following authors have made substantial contributions to the manuscript as under:

AWY: Conception, acquisition of data, drafting the manuscript, approval of the final version to be published

SAK: Study design, drafting the manuscript, critical review, approval of the final version to be published

SB & AT: Analysis and interpretation of data, drafting the manuscript, critical review, approval of the final version to be published

Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

CONFLICT OF INTEREST

Authors declared no conflict of interest

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The data that support the findings of this study are available from the corresponding author upon reasonable request

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