

Perception towards Telepsychiatry; A Cross Sectional Survey of Psychiatry Doctors in Lahore

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Abstract

Background: The use of telepsychiatry involves utilizing technology to deliver a variety of services, such as psychotherapy, patient education, and medication management. Limiting access to recognized psychiatric services caused a rise in the demand for mental health care.

Objectives: The objective of this study was to determine the convenience, feasibility, clinical effectiveness, safety, and willingness of psychiatrists in Lahore to use telemedicine and to adopt it.

Material and Methodology: In this cross-sectional survey, an online self-developed questionnaire was sent to 100 psychiatrists working on different posts in Lahore from October 2021 to December 2021, from which 62 clinicians responded, leading to a response rate of 62%. The data was entered and analyzed by using SPSS version 24. Chi-square and t-test were used to see the relationship and significant difference for categorical and numeric variables respectively.

Results: The majority of participants belong to a younger age group (25–40), and female psychiatrists comprise a greater number (56.7%). There were 38.7% of the participants found using tele psychiatry in routine patient care convenient, 56.5% found it technically friendly, 41.9% had concerns regarding safety, and 58.1% showed willingness. Both private and hospital settings found tele psychiatry convenient (38.7%), technically friendly (56.5%), clinically effective (54.8%), and showed willingness to use it in the future (58.1%). Most of them found virtual consultation more convenient than a remote clinic requiring the presence of coordinator.

Conclusion: Our study on psychiatrists for tele psychiatry found virtual consultation more convenient, effective, and feasible to use in routine patient care. There are still some challenges and barriers to overcome for its effectiveness in the future.

• **Key Words:** Telehealth; eHealth, Telecare; Psychiatrist

Introduction

Telepsychiatry is the application of telemedicine to the field of psychiatry. It involves providing various services including psychiatric evaluations, psychotherapy, patient education, and medication management via technology. There is a consensus on the cost-effectiveness and convenient access to mental health care that telepsychiatry offers. Telepsychiatry also termed as tele mental health or E-mental health, is broadly defined as the use of Information and Communication Technology to provide or support psychiatric services across distances. (1) Telemedicine is the use of electronic information and communications technologies to provide and support health care when distance separates the participants. (2)

Tele-mental health refers to the provision of mental health services, such as diagnosis, assessment, symptom tracking, and therapy, remotely through the use of computer programs, Internet programs, teleconferencing, and smartphone applications. (3)

The advent of the COVID-19 pandemic and its psychological, social, and economic consequences such as lockdowns led to a surge in mental health care needs, while simultaneously limiting the availability of formal psychiatric services. Telemedicine, particularly video consultations across various medical specialties, was scaled up to reduce the risk of spread of COVID-19, especially in the United Kingdom and the United States of America. For instance, general telemedicine visits increased by 683% between March 2nd and April 4th, 2020 at a healthcare system in New York, America, in response to COVID-19. (4)

In Pakistan, few projects like Agha Khan Developmental network eHealth program,(5) and independent practitioners have adopted telepsychiatry over the last few years. However, such telepsychiatry programs are informal, and no national policy or legal framework exists to regulate their implementation or limitations. (6) The current Pakistan Medical and Dental Council (PMDC) code of ethics dates back to the pre-digital era, offering little guidance on the practice of telemedicine. (7) Furthermore, data on the transition towards telemedicine in Pakistan is scarce. Numerous barriers exist in the effective healthcare delivery for service users such as limited access to the required technology and lack of digital literacy to name a few. (8) The experience of service providers, their concerns, and their willingness to adopt telepsychiatry needs to be explored to determine its feasibility in the years to come. (9)

Limited access to recognized psychiatric services caused a rise in the demand for mental health care. There was a need to conduct a study that would determine the convenience, feasibility, clinical effectiveness, safety, and willingness of psychiatrists in Lahore to use telemedicine and to adopt it. This helped us in the use of telepsychiatry, which involves utilizing technology to deliver a variety of services, such as psychotherapy, patient education, and medication management.

The objective of this study was to determine the convenience, clinical effectiveness, and safety as perceived by psychiatrists in Lahore and their willingness to adopt it.

Regarding operational definitions, clinical effectiveness was considered as the application of the best knowledge, derived from research, clinical experience and. patient preferences to achieve optimum processes and outcomes of care for patients. (10)

Patient safety was defined as the absence of preventable harm to a patient and the reduction of risk of unnecessary harm associated with health care to an acceptable minimum. (11)

Methods

A cross-sectional research design was used for this study. Through consecutive; non-probability sampling, 100 participants were selected based on their relevance to the study's objectives. Ethical permission was taken from the ethical review board and informed consent was obtained from the participants. Data was collected after approval from the ethical committee of the hospital. A self-designed questionnaire covering the 4 areas of convenience, clinical effectiveness, safety as perceived, and their willingness to adopt it was designed and sent to medical officers, postgraduate trainees, specialists in purely clinical posts, and specialists in teaching hospitals working in psychiatry across Lahore. Data was collected through an online survey designed keeping in view the objectives of the study.

The study included medical professionals working as consultant Psychiatrists and junior doctors. The study questionnaire was designed and modified based on previously published research articles and pre-tested by experts having experience in the field of telemedicine. The question's ratings were measured by a three-point Likert scale, 1= Disagree; 2= neutral and 3= Agree. For the comparison of categorical data, the chi-square test was used, and statistically significant differences were considered at $p < 0.05$. The data was entered and analyzed using (SPSS) version 24. Quantitative variables such as age (in years) were presented as mean \pm standard deviation (S.D).

Results

Demographic characteristics of participating physicians. ($n = 62$)

Demographic characteristics provide insights into the participating physicians' experiences with telepsychiatry. The majority of participants (75.8%) belong to the age group of 25-40 representing a younger sample of psychiatrists. The gender distribution comprises a greater number of female psychiatrists (56.7%) in contrast to males (43.5%). The study survey included a variety of psychiatrists in different ranks, with specialists in non-teaching posts (53.2%) being the largest group as compared to specialists in teaching posts (16.1%), which was the smallest group in the sample. The majority of the participants (66.1%) in the conducted survey opted for telepsychiatry at the onset of COVID-19, suggesting the pandemic played an important role in the adaptation of telemedicine. A substantial portion of psychiatrists used telemedicine in private practice (41.9%), and considerable numbers of participants used telepsychiatry in both private and hospital settings. It is worth noting that a large majority of psychiatrists (79.9%) engaged in completely virtual consultations. The data reveals that only 25.8% of respondents obtained structured feedback from patients after every online consultation.

Convenience, effectiveness, and safety of utilizing telepsychiatry as perceived by the participants, and their willingness towards it

The study showed that 38.7% of the participants agreed that telepsychiatry being a convenient approach. More than half of the professionals (56.5%) found telepsychiatry technically friendly, largely those who were specialists in non-teaching, clinical posts (81.8%).

Factors related to the setting in which telepsychiatry was utilized and perceived convenience, effectiveness, safety and willingness toward telepsychiatry in percentages, $p(0.01)$ values to indicate significant difference.

The study shows that a significant proportion of professionals in both private and hospital settings found telepsychiatry technically friendly (56.5%) and clinically effective (54.8%). However, most of them (41.9%) expressed concerns about patient safety and ethical practice in all settings, but more so in the private setting (53.8%).

Factors related to the mode of telepsychiatry practice and perceived convenience, effectiveness, safety and willingness in percentages, $p (0.01)$ values to indicate significance difference.

The study outlines the different modes adapted in telepsychiatry practice, namely complete virtual consultation (CVC) and remote clinic. Interestingly CVC was considered more convenient (40.8%) than remote clinic requiring presence of a designated coordinator at the site of the patient. However, most of them (41.9%) showed concerns about its safe ethical practice in both modes especially in CVC (42.9%).

Discussion

This research aimed to evaluate the perceived convenience, effectiveness, safety, and willingness towards telepsychiatry by psychiatrists during COVID-

19. We conducted semi-structured interviews with 62 psychiatrists from different posts about their convenience, effectiveness, and willingness to utilize telepsychiatry.

The research involved a survey group: one with use of telepsychiatry at different settings and another with different modes of telepsychiatry with a psychiatrist. The results showed that most professionals found telepsychiatry convenient, friendly, effective, and willing in both settings and most psychiatrists adapted to virtual consultation (CVC) and found it convenient. The main benefits of telepsychiatry were increased access to mental health care, reduced travel costs and time, and improved continuity of care.

This survey examined the use and perception of telepsychiatry among psychiatrists in Lahore. The outcome of this study provides insights into the use of telepsychiatry in a remote clinic setting that requires the presence of a designated coordinator or assistant to be more technical friendly, and healthcare providers showed a greater willingness to use telepsychiatry. Clinical effectiveness showed significant importance in private settings.

A Lebanese survey of 140 physicians during the COVID-19 pandemic revealed that physicians engaged and showed greater willingness to adopt telemedicine.⁵ This was accompanied by a shift in perceptions about the use of IT in medicine during COVID-19 and an increase in telemedicine activities. According to research conducted in Lahore among psychiatrists, healthcare providers are concerned about the use of technology as a safe ethical practice. Previous studies showed that some healthcare providers worry that telemedicine could undermine their professional autonomy and add to their workload.^(12,13) A study showed that technical friendliness and convenience are major factors in remote clinics requiring the presence of a designated coordinator as compared to CVC with no assistance. The success of telepsychiatry hinges significantly on a robust and efficient technological framework. Advancements in technology are diminishing technical hurdles in telepsychiatry, suggesting that with better technologies, interventions in telepsychiatry could significantly enhance current practices.⁽¹⁴⁾

A study, encompassing 819 mental health care providers in the US, revealed a predominantly positive view of telepsychiatry amid the pandemic. Participants praised its flexibility and reduced no-shows but flagged challenges like device usability and connectivity issues. Encouragingly, 64% expressed interest in continuing telepsychiatry post-pandemic. ⁽¹⁵⁾ However, concerns about limited technology access and inadequate training surfaced, signaling a need for support. ⁽¹⁵⁾

Telepsychiatry's primary growth area is expected to focus on refining professional guidelines, competencies, and quality standards. Practitioners are urged to collaborate, share effective approaches, establish standardized safety measures, and engage with professional bodies to redefine contemporary benchmarks for clinical excellence.^(16,17)

The study's limitations include a small sample size, potentially limiting the generalizability of the findings. Additionally, the survey didn't differentiate between the use of telemedicine due to pandemic restrictions or personal choice, impacting the context of adoption. Relying on self-reported data in the questionnaire might introduce recall bias, influencing the accuracy of responses. ⁽¹⁷⁾

Conclusion

This study highlights the affirmative impact of telepsychiatry on convenience, effectiveness, and willingness among psychiatrists, indicating its feasibility and acceptance, particularly with complete virtual consultations. However, challenges such as technical issues and privacy concerns have emerged, prompting the need for improved training, support, and evaluation strategies. This study resonates with the global shift towards telemedicine during the pandemic but draws attention to the necessity of addressing concerns for the responsible and effective implementation of telepsychiatry.

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Figures:

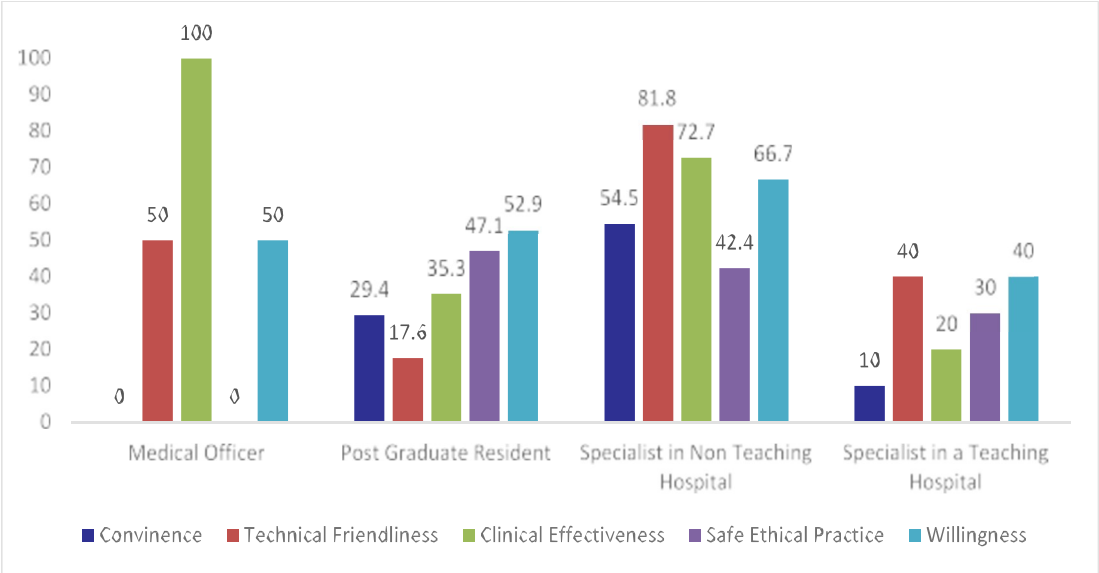


Fig 1: Factors Related to Perceived Convenience, Effectiveness, Safety and Willingness toward Telepsychiatry by Professionals in Percentages.

Tables:

Table 1: Factors related to the setting in which Telepsychiatry was utilized

	Level	n=62	Hospital setting	Private setting
Convenience	Disagree	32.3%	50.0%	42.3%
	Neutral	29.0%	37.5%	19.2%
	Agree	38.7%	12.5%	38.5%
	Total	100.0%	100.0%	100.0%
Technical friendliness	Disagree	38.7%	50.0%	46.2%
	Neutral	4.8%	12.5%	00
	Agree	56.5%	37.5%	53.8%
	Total	100.0%	100.0%	100.0%
Clinical effectiveness	Disagree	41.9%	68.8%	38.5%
	Neutral	3.2%	00	00
	Agree	54.8%	31.3%	61.5%
	Total	100.0%	100.0%	100.0%
Safe ethical practice	Disagree	41.9%	50.0%	34.6%
	Neutral	17.7%	31.3%	11.5%
	Agree	40.3%	18.8%	53.8%
	Total	100.0%	100.0%	100.0%

Table 2: Factors related to mode of Telepsychiatry practice

Mode of Practice Involve in Telepsychiatry

		Level			Total	
Convenience	Disagree	30.8%	32.7%	32.3%	0.67	
		Neutral	38.5%	26.5%	29.0%	
		Agree		30.8%	40.8%	38.7%
		Total	100.0%	100.0%	100.0%	
Technical friendliness	Disagree		15.4%	44.9%	38.7%	0.03 ¹
		Neutral	15.4%	2.0%	4.8%	
		Agree	69.2%	53.1%	56.5%	
		Total	100.0%	100.0%	100.0%	
Clinical effectiveness	Disagree		15.4%	49.0%	41.9%	0.07
		Neutral	7.7%	2.0%	3.2%	
		Agree	76.9%	49.0%	54.8%	
		Total	100.0%	100.0%	100.0%	
Safe ethical practice	Disagree		46.2%	40.8%	41.9%	0.70
		Neutral	23.1%	16.3%	17.7%	
		Agree	30.8%	42.9%	40.3%	
		Total	100.0%	100.0%	100.0%	
Willingness	Disagree	15.4%	42.9%	37.1%		0.04*
		Neutral	15.4%	2.0%	4.8%	
		Agree		69.2%	55.1%	58.1%
		Total		100.0%	100.0%	100.0%

* p value less than 0.05 is statistically significant