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Patient's Perspectives of Telepsychiatry: The Past, Present and Future

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ABSTRACT

Access to mental health care has significant disparities due to treatment gap, more so particularly for the remotely residing, physically vulnerable, aging populations. Adoption of technology will enable more people to receive specialty care addressing distance, transportation and cost-related barriers to treatment engagement from the comfort of home. Telemedicine has been regarded as

"electronic personal protective equipment" by reducing the number of physical contacts and risk contamination for patients during COVID-19 crisis. This review aimed to give a broad view of patients' perception of the use of telepsychiatry in terms of clinical outcome, cost-effectiveness, and solutions to address patients' challenges with the adoption of technology. Over the years, telepsychiatry, both in synchronous and asynchronous modalities, had shown to improve patients' adherence to treatment, follow-up rates, and clinical symptoms, overcome stigma and discrimination, and save cost expenses accessing health care with better satisfaction and usability outcomes. Its utility is widespread such as in delivering care emergency evaluation, crisis intervention, conducting neuropsychological assessments, psychotherapy, promoting lifestyle modification, enhancing self-efficacy, and overcoming patients' linguistic and cultural barriers to care. However, patients' privacy and confidentiality and psychiatrists' legal liability remain as matter of major concern in digital platform. To keep up with the pace of technology and patients' expectations, a more agile approach is essential to develop, improve, and evaluate telepsychiatric interventions.

Keywords: Access to mental health care, cyberpsychiatry, patient's perspective, telemedicine, telepsychiatry, user's perspective

Psychiatric illness is the second leading cause of disease burden in the recent *Global Burden of Diseases, Injuries, and Risk Factors Study*,[1] and it is estimated to affect about one in every seven individuals. Similar to other health sectors, mental health had progressed to secondary prevention with the implementation of strategies of early evaluation, diagnosis, and intervention of mental illness with the aim for universal coverage as stated by the World Health Organization.[2]

About 83% of patients do not receive basic evaluation and treatment for any mental disorder in India. Possible reasons speculated were inadequately trained primary health care professionals are reluctant or unable to detect, diagnose, or manage common mental disorders.[3] Telepsychiatry serves to bridge the gap.[4,5]

This article intends to give a telescopic view of the long, vexatious dormant period in the evolution of telepsychiatry in the delivery of clinical services, contributed mainly by the service provider's skepticism about its potential benefits. Lack of professional standards and no investigation of specific telepsychiatry applications have also led to its retarded growth.[6] Both psychiatrists and patients doubted the ability of telepsychiatry service to provide satisfactory and cost-effective treatment. Hence many studies were conducted in the last two decades to look at the outcome of the telepsychiatric intervention. However, only a few have looked into the end-users' perspective. It was found that patients' acceptance levels, satisfaction levels, and feedback on telepsychiatric services influenced how clinicians' viewed the use of telepsychiatry.[7] Understanding the patient's perspective of telepsychiatric services will help psychiatrists and health care systems to better tailor their approaches in catering to the patient's felt needs. This article discusses aspects of patient care such as acceptability, satisfaction, cost expenditure, travel time, treatment adherence, stigma, linguistic and cultural barriers, use in special population and crisis, smartphone applications, and patient's rights while providing telepsychiatric services.

Dawn of Telepsychiatry

The techniques of telepsychiatry as a means for health care delivery for the underserved came a long way. It evolved from a simple two-way telephonic service in the late 20th century to the synchronous real-time assessment of patients through a live video feed.[8–13]

Models of contemporary telepsychiatry services are integrated care (collaborative care model) and transition consultation clinic models.

The collaborative care model includes the provision of specialist psychiatric services from urban health centers by engaging primary care physicians in the evaluation and treatment of patients in the remote locale using a digital platform. Most studies[7,8,11,14–16] showed that this model is cost-effective. The conventional integrated care models have often suffered insufficient funding, lack of continued support from psychiatrists, limited coverage of mental disorders during the training, and monitoring.[17] Some apps can be of some help in this model.[18]

In transition telepsychiatry clinics,[19] the psychiatrist provides in-person consultation during the first contact, to arrive at a diagnosis, initiate treatment, educate the patient about the illness as well as the operation of telepsychiatry application. Subsequent follow-ups are held over VC-based teleconsultation to review and optimize the treatment at regular intervals.

Dimensions of Telepsychiatric Care

Acceptability and Satisfaction

In a study by Das et al.,[19] about 96% of patients accepted telepsychiatry in a follow-up session. More than 90% of patients find telepsychiatry as either "very much" or "highly acceptable" over in-person follow-up consultation. The acceptability was mediated by many factors such as respect for privacy, acceptability of telepsychiatrists' demeanor, and easy access to mental health care.

Treatment Adherence

Adherence to medical treatment in chronic diseases is quite challenging. Reasons for nonadherence to medications are hospitalization stigma, the anxiety of long-term treatment, the mechanical complexity of treatment, cognitive challenges, forgetting medication, and intentional skipping of doses. Several studies[20–25] on the use of smartphone-based applications in chronic noncommunicable conditions such as cardiovascular disease even in pediatric age groups, diabetes, chronic pulmonary diseases, hemophilia, and psychiatric disorders had shown increased adherence to medication and better clinical outcome such as reductions in symptom severity, normal blood test parameters, emergency room visits, and hospitalizations.

Cost-Effectiveness

The cost for any intervention comprises of direct medical costs, direct nonmedi-

cal costs, and indirect nonmedical costs. Direct medical costs stem from the utilization of health care services. Direct nonmedical costs include patients' travel expenses to receive professional help, loss of leisure time, and caregivers' use of time. Indirect nonmedical costs can be estimated from productivity losses in gainful employment, such as the number of days absent from work (absenteeism) and the number of days spent at work with reduced efficiency (presenteeism). While the response to treatment provides the clinical perspective, indirect medical costs give a societal perspective in economic analysis. Trimbos and Institute of Medical Technology Assessment Questionnaire for Costs associated with psychiatric illness (TIC-P) is a standardized questionnaire[26] that incorporates all the three components of costs necessary for a comprehensive, cost-effective analysis. This questionnaire has been put to use in a study looking at the cost-effectiveness of an internet-based teleconsultation for patients with eating disorders.[27] Each patient via teleconsultation[28] saved an average of 5 hour travel time and a 325-mile round trip spent to reach the tertiary care clinic for neurological treatment. Economic evaluations performed have shown that guided online self-help[29] and therapist-delivered online cognitive-behavioral therapy[30] for depression have a high probability of being cost-effective compared to care-as-usual.

Telepsychiatry was found to be an economically sustainable model to provide mental health care in our Indian setting. A study[16] reported that the cost expenses in delivering telepsychiatry are nearly 50 and 4 times more economically beneficial in comparison with a tertiary care center and community outreach services, respectively. Both patient and care providers perceived the service to be effective in reducing consult time, better frequency of consult, better monitoring of both clinical symptoms and drug titration, and to some extent, access to psychological techniques.

Impact on Stigma and Discrimination

Smartphone-based applications have helped to reduce internalized stigma and thus enhance follow-up and adherence to antiretroviral therapy in persons living with HIV infection.[31–33] These apps provided educational information and assistance in managing symptoms, reminders for medication schedule, promoted physical activity, healthy foods, and stress management.

Linguistic and Cultural Barriers to Care

Due to a shortage of interpreter availability, the aging population belonging to culturally and linguistically diverse communities receives delayed evaluation and management of dementia. The use of interpreters via telemedicine had overcome these barriers to care and was comparably feasible and acceptable to that of in-person interpretation.[34] When the psychiatrist and patient do not speak in a common language or dialect or have cultural differences, it can hamper their interaction, causing a gap in communication of the clinical management. In such a scenario, albeit interpreters are of great help, they skip communicating the nuances of patients' intimate, sensitive details to psychiatrists. This phenomenon is termed as "lost in translation" syndrome. Also, the presence of an interpreter (third party) in the psychiatrist–patient dyad can impact their therapeutic alliance. Patients wished to use teleconsultation with their native language speaking, remotely situated psychiatrist, rather than through an interpreter.[35]

Special Population

Children and adolescents were found to regard technology-assisted psychiatric intervention as novel and intriguing. Also, they were more proactive in learning and appreciated that they had a sense of control over the situation by mastering the cues to address technical problems quickly.[36] Parents perceived that behavioral intervention strategies were concrete as it saved them from availing leave for the otherwise in-person psychiatric consultation.

There is a shortage of evidence regarding the effects of tele-intervention on cognitive, behavioral, and emotional outcomes among perinatal women. However, a meta-analysis[37] comprising 852 perinatal diabetic women from six countries shows that Internet-based self-monitoring interventions (for glycemic control, medication adherence, physical activity, and diet control) can decrease the level of glycated hemoglobin A1c and decrease cesarean deliveries. An ongoing Digital Cognitive Multi-domain Alzheimer's Risk Velocity (DC-MARVEL) trial is a remotely delivered multi-domain lifestyle intervention aimed to enhance cognitive function and mental health of older adults with subjective cognitive decline. Its pilot study had recruited, screened, and assessed entirely using teleconsultation,[38] and at the end of the 1-year intervention, patients showed improvement in cognition and depressive symptoms. Many participants also expressed that they felt engaged and satisfied with interventions. Technology-based stress management interventions[39] had shown positive effects on self-efficacy in care-giving skills in family carers of people with dementia in rural settings.

When neuropsychological tests were done using videoconference over a high-speed network connection, adults aged 65–75 years showed no difference with the in-person assessment.[40] This encouraging result calls for further exploration of neuropsychological testing of older adults by using digital platforms.

Telecrisis Intervention

Crisis intervention is the management of emotional distress that emerged in the contexts of disaster, trauma, and suicidal risk. The Internet could be used to help people going through severe emotional distress in providing intensive and legitimate support. People going through crises often do not seek help because of the fear, shame, and stigma associated with the subject. The anonymity of an online environment and accessibility at any time of day may enable them to opt internet-based support over face-to-face support, and some app could detect the imminent risk of suicide.[41] No smartphone app was found to provide comprehensive, evidence-informed crisis support,[42] and it is worth researching, given the widespread use of smartphones in this era.

Telemental Health Apps

Telemental health self-help services can be of help for subsyndromal or mildly ill psychiatric conditions as these may not require consultation with professionals.[43] With the assistance of information technology, mental health professionals have designed a computerized, internet-based "self-help" software for self-monitoring, self-evaluation, self-intervention for anxiety, depression, adjustment problems, etc. Urban, employed individuals found these digital-health apps more comfortable and reported that their health literacy and confidence improved on continued use.[44] Also, they perceived traveling down for an in-person consultation or holding a fixed appointment over VC with mental health partners as time-intensive, often incurring hindrance to their busy work schedule and multitasking leading to drop-out. For these users, self-help applications come across as a viable option for their sustained engagement in mental health care. However, they need periodical redesigning of their services customizing to users' contexts and requirements.

Rights of Patients

Teleconsultation must not only serve for equality of access to high-quality mental health care from psychiatrists but also give a sense of empowerment amongst technologically challenged users. Patients have the right to seek a second opinion, to avail authentic information on mental health illness, to have access to their virtual medical records, and to be part of a health care system where their feedback is well taken for the improvisation of existing mechanisms.[45] Patient confidentiality in the telemedicine context is a matter of concern for both patients and psychiatrists.

In the latest Indian telepsychiatry operational guidelines (TPOG-2020),[46] two kinds of informed consent, implied and explicit, are discussed and addressed.

Patients' Perception of Limitations in Telepsychiatry

Age

Digital immigrants and digital natives are born before and after the early 1990s, respectively. The former grow up having technology as part and parcel of their livelihood. Thus, age still remains as a non-modifiable challenge in the acceptance of telepsychiatry by patients.[47]

System Transference

It is analogous to transference in psychotherapy, where patients have a pattern of feelings, attitude, and past experiences towards telepsychiatry operational systems.[48] It can be either positive or negative. Patients with positive system transference welcome and advocate telepsychiatry. In the case of a patient with negative system transference, it is advised to be honest in accepting the shortcomings of the system, empathizing with their difficulties without affecting the therapeutic relationship. It is vital to address their difficulties or teleconsultation may be withheld and in-person consultation continued till the time the patient is comfortable with the operational systems.

Interference Due to Psychopathology and Personality Traits

Patients' symptoms and personality traits can interfere with the telepsychiatry process. For example, a patient with active psychotic complaints can incorporate the VC monitor into his delusional thinking and terminate further teleconsultation.[49] On the other hand, another patient with socially shy, body-image concerns reported more comfort in teleconsultation, citing that her psychiatrist cannot view her body due to limited coverage by the camera in VC.

Nonavailability of Psychotropic Medications

Although consultation with psychiatrists can be attained via telepsychiatry, psychotropic medications are rarely supplied in rural pharmacies.[50]

Strategies to Improve Teleservice: Learnings from the Patients' Perspective

Digital Flexibility and Training

In a panel discussion with lay representatives conducted in the UK,[51] the citizens opted for patient-centered design and continuous evaluation and feedback over more research. Also, the following principles were suggested for the development of teleconsultations:

- To serve based on the respect and dignity of the individual.
- End-users (patients, caregivers, and health professionals) should be involved in designing new technologies.
- To promote design in the context of the use.
- Holding an induction session prior to the actual scheduled session to train the patient in the technical system's operation and the additional communication skills required when interacting with patients via these new media. This step will reduce the apprehension and build confidence in patients and their caregivers in carrying out VC.

Virtual Physical Examination

Virtual physical examination has less regard in telepsychiatry as the diagnosis is largely interview based. Hence, telepsychiatry was believed to be more feasible, as opposed to other disciplines of medicine.[52] Physical examination is crucial to rule out organicity and examine drug-related adverse effects and comorbid medical symptoms. Some components of physical examination can be directly observed via video, like examining gait disturbances by asking the patient to walk. In contrast, some others may require proxy indicators of conventional clinical findings like blowing a balloon to examine functional lung status. Yet others like higher mental function can be assessed with the help of family members—for example, the level of orientation, smell for alcoholic or ketotic breath in altered sensorial states. However, critical and emergency conditions mandate the performance of physical examination by local physicians and psychiatrists.

Delivery of Medication

Psychiatrists and officers-in-charge of district mental health programmes[53] and district hospitals must ensure to stock all primary care centers under them with essential psychiatric medications.

Conclusion

Telepsychiatry is perceived to be acceptable, satisfactory, and economically serviceable by patients, particularly belonging to underserved communities. Synchronous mode of service must be preferred as it is of paramount importance to perpetuate the doctor–patient relational interaction that fortifies diagnosis and treatment. A "one-size-fits-all" approach will not suit the needs of all patients when culture and contexts are considered. Hence, it is crucial to take up an iterative approach incorporating patient's subjective experiences and refining the teleservices periodically catering to their specific needs. In the wake of the COVID-19 pandemic, access to mental health care was affected by many barriers, such as patients' fears of acquiring infection from hospitals. Reassuringly, telepsychiatry has swiftly become a substitute to traditional in-person psychiatry, similar to the other fields of medicine. The rapid adoption of telepsychiatry must not compromise on the quality of the care, comfort, and safety offered to patients. Telepsychiatry is not a panacea to the issues of accessibility and equity in our health care system. Everyone deserves access to psychiatrists who can physically examine and treat patients. However, it can be considered an add-on to the existing armamentarium, a credible one at that.

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