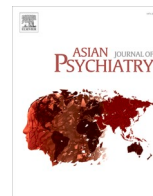




Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.



Telepsychiatry during the COVID-19 pandemic: An experience in a low resource setting

ARTICLE INFO

Keywords

Telepsychiatry
Tele mental health
COVID-19 pandemic
LMICs

Telepsychiatry is one of the most rapidly growing subcategories of telemedicine that commonly uses the synchronous form (Yellowlees and Shore, 2018). Advantages of this approach include feasibility, safety, cost-effectiveness and equity in health service access (Naslund et al., 2020; Cowan et al., 2019). This service is a suitable option in limited resources setting (Acharibasam and Wynn, 2018); and could be maintained the patients' continuity of care during the COVID-19 pandemic in which patients' access to mental health services was affected (Whaibeh et al., 2020; Di Carlo et al., 2021).

Sharing knowledge could potentially enable coordination across nations toward the pandemic (Tandon, 2021a). Accordingly, we aimed to report our experience in the development and implementation of telepsychiatry, as a new service in a low resource country during the COVID-19 pandemic. In this report, we used simple and actionable language to stay committed to the guidance provided by the Asian Journal of Psychiatry about communication of COVID-19-mental health-related data (Tandon, 2021b).

A team consisting of academic members and psychiatric residents was created and trained. After a comprehensive literature review, we developed a guide for telepsychiatric services according to the special needs and concerns in our country.

To select a user-friendly software with simple, straightforward instruction, team members had several meetings with different companies to review the various options available based on the specific needs of a psychiatric hospital.

Patients were comprehensively educated about the process after obtaining informed consent.

Telepsychiatry service was started at Roozbeh Psychiatric Hospital in April 2020. During 15 months, 114 patients utilized the service, and 270 sessions were provided to patients.

The mean age of the patients was 34.64 (17–64). Seventy-four (64.34%) patients were female, and 40 (34.78%) patients were male. About 70% of the patients (N = 82) had a high school diploma or university degree. Thirty-three patients had a lower level of education. The most frequent diagnosis was bipolar disorders and major depressive disorder coming afterwards.

Follow-up visits, psychotherapy and psychoeducation were provided for the patients.

Services were mostly provided through video calls. The mean visit duration was 9.47 min for psychiatric follow-up visits, 14.76 min for psychotherapy, and 31.96 min for psychoeducation.

For eighteen patients (15.65%) neither voice call nor videoconference was possible through the planned application. In cases of disconnections, we had to use other available social media or telephone calls.

Nearly two-thirds of patients had received only one session of tele mental health service. We compared the characteristics of patients who dropped out after the first session with those who continued to receive the service. We observed no statically significant difference between these two groups in terms of age, gender, level of education and psychiatric diagnosis.

Although telepsychiatry is noted as an alternative option for face-to-face mental health service, there are different challenges including the necessity of training clinicians and clients, complexity in medication management, insufficient infrastructure, reimbursement, and the clinician qualification in proving this modality (Whaibeh et al., 2020).

In our experience, nearly two-thirds of service consumers were patients with bipolar or psychotic disorders. Some literature supported the use of telepsychiatry for patients with SMI to ensure the continuity of care, especially after the COVID-19 pandemic (Santesteban-Echarri et al., 2020; Miu et al., 2020).

It seems that 60% of our patients did not will to have another telepsychiatry visit after the first one. Some reasons may contribute to this finding. Insufficient infrastructures, problems related to access to high-speed internet, insufficient training for clients and clinicians, and reimbursement may be considered as the main causes. (Whaibeh et al., 2020; Koblauch et al., 2018).

Due to inadequate infrastructures in Iran, we experienced some internet disconnection during the appointments. Given the multiple disconnections, the psychotherapy sessions took only about 14.76 min instead of 45 min. This situation forced us to switch to another social media software.

In about 15.65% of cases, we had to utilize another social media software when there was an abruption in the formerly planned software. These findings highlight the importance of having alternative ways to reach patients or a "Plan B".

To properly implement this service, we should consider cultural and

<https://doi.org/10.1016/j.ajp.2021.103000>

Received 22 November 2021; Received in revised form 27 December 2021; Accepted 28 December 2021

Available online 29 December 2021

1876-2018/© 2022 Elsevier B.V. All rights reserved.

religious issues. We faced some challenges with the dress code and the location of the appointments.

We had different challenges related to linking Hospital Information Services (HIS) with the software. In the early stages of our project, the electronic prescription was not well-developed. Due to the pressure to implement electronic prescriptions after the COVID-19 pandemic, we utilized this option.

Similar to another study, reimbursement was one of our challenges. Some patients may discard receiving the service due to limited financial resources (Molfenter et al., 2021).

We made some efforts to attain the support of different stakeholders. We had multiple presentations for faculty and university officials.

Telepsychiatry as an efficient modality should be integrated into other treatment modalities. Patients can equally take benefits of telepsychiatry in the presence of sufficient infrastructure. Survival of telepsychiatry needs to provide human and financial resources and qualified support. Evaluation of the service should be performed to ensure patient satisfaction with this service.

Funding

None.

Conflict of interest

The authors declare that there is no conflict of interest.

Acknowledgements

We would like to show our gratitude to all administrative members of Roozbeh Psychiatric Hospital for their cooperation and support.

References

Acharibasam, J.W., Wynn, R., 2018. Telemental health in low- and middle-income countries: a systematic review. *Int. J. Telemed. Appl.* 2018. <https://doi.org/10.1155/2018/9602821>.

- Cowan, K.E., McKean, A.J., Gentry, M.T., Hilty, D.M., 2019. Barriers to use of telepsychiatry: clinicians as gatekeepers. *Mayo Clin. Proc.* 94, 2510–2523. <https://doi.org/10.1016/j.mayocp.2019.04.018>.
- Di Carlo, F., Sociali, A., Picutti, E., Pettorruso, M., Vellante, F., Verrastro, V., Martinotti, G., di Giannantonio, M., 2021. Telepsychiatry and other cutting-edge technologies in COVID-19 pandemic: bridging the distance in mental health assistance. *Int. J. Clin. Pract.* 75. <https://doi.org/10.1111/ijcp.13716>.
- Koblauch, H., Reinhardt, S.M., Lissau, W., Jensen, P.L., 2018. The effect of telepsychiatric modalities on reduction of readmissions in psychiatric settings: a systematic review. *J. Telemed. Telecare.* 24, 31–36. <https://doi.org/10.1177/1357633x16670285>.
- Miu, A.S., Vo, H.T., Palka, J.M., Glowacki, C.R., Robinson, R.J., 2020. Teletherapy with serious mental illness populations during COVID-19: telehealth conversion and engagement. *Couns. Psychol. Q.* 00, 1–18. <https://doi.org/10.1080/09515070.2020.1791800>.
- Molfenter, T., Heitkamp, T., Murphy, A.A., Tapscott, S., Behlman, S., Cody, O.J., 2021. Use of telehealth in mental health (MH) services during and after COVID-19. *Community Ment. Health J.* 57, 1244–1251. <https://doi.org/10.1007/s10597-021-00861-2>.
- Naslund, J.A., Mitchell, L.M., Joshi, U., Nagda, D., Lu, C., 2020. Economic evaluation and costs of telepsychiatry programmes: a systematic review. *J. Telemed. Telecare.*, 1357633 <https://doi.org/10.1177/1357633x20938919>.
- Santesteban-Echarri, O., Piskulic, D., Nyman, R.K., Addington, J., 2020. Telehealth interventions for schizophrenia-spectrum disorders and clinical high-risk for psychosis individuals: a scoping review. *J. Telemed. Telecare* 26, 14–20. <https://doi.org/10.1177/1357633x18794100>.
- Tandon, R., 2021a. The bitter lessons of COVID-19: acknowledging and working through many points of tension. *Asian J. Psychiatr.* 55, 1–3. <https://doi.org/10.1016/j.ajp.2021.102545>.
- Tandon, R., 2021b. COVID-19 and suicide: just the facts. Key learnings and guidance for action. *Asian J. Psychiatr.* 60. <https://doi.org/10.1016/j.ajp.2021.102695>.
- Whaibeh, E., Mahmoud, H., Naal, H., 2020. Telemental health in the context of a pandemic: the COVID-19 experience. *Curr. Treat. Options Psychiatry* 7, 198–202. <https://doi.org/10.1007/s40501-020-00210-2>.
- Yellowlees, P., Shore, J.H., 2018. *Telepsychiatry and Health Technologies: A Guide for Mental Health Professionals*, 1st ed., American Psychiatric Pub.

Mahtab Motamed¹, Vandad Sharifi¹, SeyyedTaha Yahyavi¹, Zahra Mirsepassi^{*1}

Department of Psychiatry, Tehran University of Medical Sciences, Tehran, Iran

* Corresponding author.

E-mail address: z-mirsepassi@sina.tums.ac.ir (Z. Mirsepassi).

¹ Address: Roozbeh Hospital, South Kargar Avenue, Tehran, Postal Code: 13337-15914. Iran.