Telepsychiatry in Low- and Middle-Income Countries During COVID-19

Pandemic, Barriers, and Road Model

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Abstract: To date, there is lack of specific effective treatment or vaccine for the SARS-CoV-2, and clinical and laboratory research is still ongoing to find successful drugs. Therefore, prevention to be infected through social distancing and isolation is the most effective way. However, all the other physical and mental illnesses continue to exist, if possible even more burdened by the emergency situation and social distancing. The COVID-19 pandemic, especially in many low- and middle-income countries, has caused a deeper gap in seeking psychiatric help. In this scenario, telepsychiatry could play a decisive role in implementing clinical care for frail patients and ensuring continuous mental care. Therefore, we felt the urge to write this article to express our hope that the old health care system at this time of crisis, as we know it, can offer the chance to implement pervasive care technologies that perfectly fit current psychiatric needs.

Key Words: COVID-19, SARS-CoV-2, telepsychiatry, low-income countries, middle-income countries

COVID-19 is described as a "dynamic" situation, with updates to the standard operating procedures being given based on the new information discovered through experience of health care workers. Amidst such a crisis, many of the regular health care–seeking approaches have been disrupted, and a switch to "telehealth" or "virtual health care" is now gathering pace (Teixeira et al., 2020). This is because most cities around the world have been in a lockdown, people are observing social distancing, and there is a risk of infection that accompanies a physical hospital visit. In England, statistics revealed a 25% drop in emergency department visits after the lockdown was imposed (Thornton, 2020). The move to telehealth has perhaps been a way to adjust to the COVID-19 pandemic after the health care sector actively responded to it. China was the first to adopt virtual health care on a mass level, followed by other countries across the world, although with concerns from doctors that it is diminishing the quality of health care provided because of the absolute lack of physical examinations (Webster, 2020).

The COVID-19 pandemic, especially in many low- and middle-income countries (LMICs), has caused a gap in seeking psychiatric help as well. Because of the devastating nature of the pandemic, it is expected that it will bring along a psychosocial burden due to disruption of a social lifestyle, death of friends and family members, unemployment, and a general concern over the disastrous effect on such a global scale (Kola, 2020). As described in a study on health care workers, a considerable figure showed posttraumatic stress characteristics after the SARS epidemic in 2002 (Wu et al., 2009). Special attention is drawn to the mental health of those hospitalized with COVID-19. Strict isolation procedures, supplemental therapies, and other factors are bound to cause stress, and studies have found psychosomatic disorders that require psychiatric help, which is impossible to provide physically without undertaking a huge risk. Telepsychiatry, therefore, should be explored for these patients as well (Zarghami et al., 2020).

Therefore, as described in the 2018 Lancet Commission report on global mental health, the use of technology to increase the accessibility of specialist psychiatric services (telepsychiatry) is important and can act as a useful tool (in addition to conventional methods) during the time of government-enforced and/or self-imposed quarantine, along with physical distancing made necessary by the pandemic (Patel et al., 2018). Telepsychiatry therefore can minimize the gap between the patient and the health care professional because of closure of most outpatient departments and reassert its position as the frontrunner specialty in telehealth-related innovation, as it has been for decades.

Telepsychiatry is defined as the use of information and communication technologies to provide psychiatric services from a distance. Originally, it was targeted to provide high-quality psychiatric

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services to patients in remote (mostly rural) areas, spreading psychiatric clinical care previously available only at special centers present in the urban areas. This reduced time and cost of traveling. Later, even patients residing in urban areas increasingly used this prospect because of its "flexibility." Contributing to its success is also the fact that telepsychiatry can be available to a wide variety of people at different locations (*e.g.*, prisons, schools, military quarters). There is also substantial evidence (reviews and randomized clinical trials) that the diagnostic accuracy and treatment of telepsychiatric services are as good as, or close to, face-to-face assessment (Chakrabarti, 2015). Perhaps, in the pre-COVID era, the primary driving force behind the use of telepsychiatry was convenience and efficiency, but now, the paramount concern is safety from infection and mitigating the spread of SARS-CoV-2 (O'Brien and McNicholas, 2020).

With most on-site outpatient departments closed, many facilities have rapidly gone online. An example is UC Davis Health in California, where the outpatient psychiatry clinic used to receive 98% of its patients in person, but changed quickly to a telepsychiatry facility taking virtual appointments—all within three business days (Yellowlees et al., 2020). However, it was highlighted that technological barriers (adjusting to the new platforms for both patients and providers), difficulty in contacting patients, and finding appropriate and secure contact channels were significant barriers. The quick move to virtual platforms, or virtualization, has shown that providers, patients, and institutions *can* quickly adapt to telepsychiatry, leaving behind the "system inertia" and unwillingness, although not without facing challenges and setbacks (Shore et al., 2020).

There are, however, certain clinical and ethical concerns that need to be considered. Telepsychiatry might not suit a certain group of people, for example, those who are physically or cognitively impaired. It might also raise concerns over the physician-patient relationship and privacy/confidentiality. One interesting aspect is the unavailability of tertiary or holistic health care in one-to-one video/audio connection that is usually available when a patient visits a multidisciplinary facility in person (O'Brien and McNicholas, 2020). A blend of in-person and remote contact between a health care provider and a patient is now being termed as a hybrid physician-patient relationship, nevertheless a balance between the two interactions, keeping in mind that both convenience and efficiency are the responsibility of the physician (Shore, 2020).

The burden of mental health disorders and patients who need psychiatric help are disproportionately divided between high-income countries and LMICs (Naslund et al., 2017). In LMICs, this is coupled with an underdeveloped and underfunded health care sector with a very small number of mental health specialists available. Unfortunately, the treatment gap has led to up to 90% of patients with mental disorders in LMICs receiving no psychiatric assistance (Patel et al., 2010).

In resource-constrained environments like LMICs, however, telepsychiatry still has to gain momentum, and, barring a few exceptions, evidence of a large-scale implementation in the pre-COVID era of digital mental health services is scarce (Table 1). There are barriers that have caused the widespread use of telepsychiatry in LMICs to be limited. The lack of digital literacy, not having an active and high-quality internet connection, low awareness of telepsychiatry, and problems with knowing how to access, if need be, are hindering the implementation of telepsychiatry. These are doubled with a lack of local guidelines, trainings, and legal relief to psychiatrists—an example is e-prescriptions not being valid in some countries like Iran (Ramalho et al., 2020). Thus, the issue exists on both sides—provider and patient.

Even within a country, there is an overwhelming inequity in quality and accessibility between urban and rural health care, which further calls for utilization of telepsychiatry to make these services available remotely. All of these highlight an absence of strategic integration of telepsychiatry in the LMICs' health care spectrum (Chipps et al., 2012).

Telepsychiatry has been used during natural disasters, such as to treat posttraumatic stress disorder in a rural setting in northern Pakistan (Qadir et al., 2016). In disaster response, the use of telepsychiatry was time limited and focused on a local (limited) disaster-struck area and response from a remote, stable area. The current pandemic brings about an uncertainty of the time, therefore raising questions on the sustainability of such measures, and even technology providers being called in for work on the pandemic affecting all.

Legal relaxations and temporarily lifting restrictions on certain aspects of telepsychiatry have shown to be encouraging in the United States. Legal barriers do stop psychiatrists from prescribing medicine in LMICs; therefore, a sustainable legal boundary will have to be set to accommodate the dynamic situation of the COVID-19 pandemic (O'Brien and McNicholas, 2020).

Use of mobile phones in LMICs is widespread, and with rapid digitalization of databases, it seems plausible that mobile phones may be used for basic interventions such as simply alert messages, highlighting information related to prevention, and first-hand management of psychiatric health issues. More advanced functions through applications using real-time video calls can enhance the quality of doctor-patient relationship, making it stand equal to face-to-face assessments. Another way personal mobile phones may assist is by maintaining a direct contact with the patient without proxies that counter the stigma associated with seeking psychiatric help (Chakrabarti, 2015).

While the world is still wondering what the right strategy to implement in dealing with this crisis, mental health professionals are questioning the impact that all of this will have on psychiatric patients (Ramalho et al., 2020). It is likely that the way we will look at the health system worldwide will not be the same as before, and we hope that it will not be the same, but better. Extremely rapid changes occur every week worldwide, but today, we have the technology necessary to improve, by low cost and high efficiency, what health care can offer. This transformation seems to be increasingly necessary and urgent, with the chance of deeply changing the way we work in psychiatry, especially in LMICs.

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TABLE 1. Practical Points in Applying Telepsychiatry in LMICs During the COVID-19 Pandemic (Naslund et al., 2017)

1. Choosing the appropriate technology for supporting clinical care and educating health workers;
2. Using mobile tools for facilitating diagnosis and detection of mental disorders;
3. Using technologies for promoting treatment adherence and supporting recovery;
4. Developing online self-help programs for individuals with mental disorders; and
5. Developing programs for substance misuse prevention and treatment.

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