

## Commentary: Telerehabilitation during COVID-19 pandemic - A boon for visually challenged

The rapidly evolving COVID-19 pandemic has challenged human lives and emerged as a threat to the global community.<sup>[1]</sup> On the one hand, it opened doors for innovations<sup>[2]</sup> and opportunities for many and on the other hand, it impacted many lives. Patients with low vision and blindness were also affected as they faced numerous challenges in accessing hospital-based eye care and fulfilling their daily needs.<sup>[3]</sup> Thus, there was a need to “think out of the box” and make eye care accessible to these patients at their homes to minimize the delay in beginning low-vision rehabilitative services once diagnosed. This gave birth to the concept of telerehabilitation as an alternative eye care model. Telerehabilitation or e-rehabilitation delivers rehabilitative services through telecommunication platforms. It allows health service providers to communicate with patients remotely, assess patients, and provide treatment. The telerehabilitative services can include physical, visual, speech, occupational, psychological, and audio therapy. These services can be communicated at an individual or community level. In general, rehabilitation service aims to improve functioning and reduce disability in patients with health issues in accordance with their surrounding environment through targeted interventions.<sup>[4]</sup>

Visual rehabilitation cannot be neglected as it is a vital component of universal health coverage and sustainable development goal 3 (SDG). The goal is to “ensure healthy lives and promote well being for all ages.” There are approximately 300 million people with low vision globally. Low vision affects their daily survival and quality of living. As per the literature review, COVID-19 impacted rehabilitative services in approximately 70% of the countries globally.<sup>[5]</sup> Carolyn Ihrig<sup>[6]</sup> started telerehabilitation services at VA Western New York Healthcare System, Buffalo low-vision clinics and showed that patients with low vision living in rural communities and having limited access to eyecare due to transport issues and lockdown were able to procure telerehabilitation services effectively at home. Beula and Jill,<sup>[7]</sup> in their article, proposed varied initiatives and strategies to improve telerehabilitation for the visually disabled. The various proposed initiatives were counseling of patients with low vision for mental well-being and upliftment; providing them information and resources for COVID-19 preventive measures; financial supplies beyond the *ex gratia* amount of INR 1000 with the help of volunteers; and therapeutic interventions for pediatric patients with multiple disabilities for visual, cognitive, social and physical upliftment. The other measures implemented were video call-based counselling of parents for the supervision and guidance of their children; training programs for young patients through apps and social media platforms; and talent hunt of children with visual disabilities through various recreational activities such as singing, dancing, painting, and writing. A helpline number has been generated for patients with visual disabilities for any mental or physical help in these challenging times. The digital library has been a great source of information and has helped educate low-vision patients. Tinelli *et al.* described an innovative approach of telerehabilitation of hemianopia patients based on multisensory human brain inputs through audio-visual stimulation training.

In the current article,<sup>[8]</sup> the authors, as collaborative partners of the WHO, have shared valuable insights regarding the impact of virtual rehabilitation through the results of 305 patients analyzed from this model of care. The article also highlights the importance of the collaborative effort of low-vision consultants (n = 2), rehabilitation consultants, speech therapists, physiotherapists, special educators, helpline counselors, computer instructors, digital library coordinators, and central coordinators in uplifting the telerehabilitation services during these demanding times. Intricate analysis reveals that most patients in need were pediatric low-vision patients (42%), and out of the total, most had severe vision impairment or blindness (51%). Telerehabilitation is imperative as they are closely dependent on their first-degree relatives for daily activities, perfect coordination, and required therapy. Telerehabilitation has been a boon for these patients during the COVID-19 pandemic. As no telerehabilitation guidelines exist for visual rehabilitation, the authors have initially used the general guidelines for physiotherapy and then developed their eye care model. This highlights the challenges faced by the authors during telerehabilitation and their innovative mindset for improving the services for the needy.

To summarize, the telerehabilitation initiative has come as a boon for the blind and the disabled. It is a practical, repeatable, cost-effective, time-saving, and accepted service modality for the needy in this digital era. Large-scale studies will help to elucidate better the practical challenges and benefits of implementing this strategy. The future for telerehabilitation seems promising not only in these COVID-19 times but also in the long run. Implementing this innovative technology not only allows easy access to rehabilitation facilities from home but the ease of conversation, reduced carbon footprint, and helps them achieve regular motivation without dependency on others for follow-up visits. There is a need shortly to formulate telerehabilitation-specific guidelines to surpass this challenge.

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