

Telerehabilitation! Is it time to rethink Neurorehabilitation services in Pakistan?

Ayesha Ahmad

Student, University institute of Physical therapy, University of Lahore, Lahore, Pakistan.

Address of Correspondence:

Ayesha Ahmad

ahmadayesha460@gmail.com

ORCID: 0009-0000-2854-485X

Cite This Article as: Ahmad A. Telerehabilitation! Is it time to rethink Neurorehabilitation services in Pakistan?. JRCRS. 2024; 12(1): 66-67.

DOI: <https://dx.doi.org/10.53389/JRCRS.2024120113>

Telemedicine or Telehealth is a healthcare support utilizing communication technology when the participants are distant.¹ After COVID-19 pandemic, there was an expansion in telehealth which changed the healthcare system.² Telerehabilitation, defined as the therapy provided by physical therapist, occupational therapist, speech and language pathologist has however been used as an adjunct to the in-person care instead of completely replacing it.² Telerehabilitation can be delivered using synchronous or real time telecommunication technologies or asynchronous 2-way interactive mediums can be used including audio/video calls for virtual visits, recorded educational materials and applications.³ It helps people living in areas with shortage of medical facilities have an access to healthcare.⁴ Although arguments have been raised regarding in-person limitation, patient satisfaction and reduced quality of healthcare, there are various studies that have proved to be contrary.⁴

Telerehabilitation has been efficient in dealing with various neurological disorders including Parkinson's disease (PD).¹ The characteristics of neurological diseases like progression, mobility concerns and unequal distribution of qualified and trained healthcare professionals makes an in-person session difficult.¹

Saporta et al (2020) proposed a tele-approach model for patients having neuromuscular conditions.⁵ For assessment of strength, the MRC score was used through performance of specific tasks and sensory evaluation was done using cotton swabs or pin after guiding the caregivers.⁵ Adequate caregiver training can also be utilized for examination of other signs including balance, gait and cerebellar tasks.⁵ Repetitive virtual activities to evaluate fatigue can be performed to assess specific diseases like Myasthenia Gravis.⁵ Scales like

inflammatory Rasch-built Overall Disability Scale (i-RODS) and ONLS can be used to measure upper and lower limb disability through daily life tasks that have been limited by the neurological conditions, they help in quantifying the disease.⁵

Rehabilitation centre in Canada uses video conferencing for rehabilitation consultancy for patients with orthotic and prosthetic concerns.⁶ According to a study conducted by Alessandro et al (2019), telerehabilitation along with other techniques caused functional and psychological improvements in a patient of facial palsy.⁷ According to a systematic review by Asma Alonazi (2021) children having restricted access to physical therapy specially during Covid-19 and having conditions like autism, cerebral palsy, neuromuscular diseases, neurodevelopmental disorders etc benefitted from telerehabilitation.⁸

Telerehabilitation requires creative physical therapy approaches that have been used manually until now. It is a hope for better healthcare facilities in the areas of Pakistan where physical therapy is hard to reach through professionals. Although there is more to explore in telerehabilitation, it is worth applying, it will help in keeping rehabilitative services from saturating in certain areas of the country and help us keep a good pace with the rapidly evolving healthcare system.

References

1. Demartini B, Bombieri F, Goeta D, Gambini O, Ricciardi L, Tinazzi M. A physical therapy programme for functional motor symptoms: a telemedicine pilot study. *Parkinsonism & Related Disorders*. 2020;76:108-11.
2. Tenforde AS, Borgstrom H, Polich G, Steere H, Davis IS, Cotton K, et al. Outpatient physical, occupational, and speech therapy

- synchronous telemedicine: a survey study of patient satisfaction with virtual visits during the COVID-19 pandemic. *American journal of physical medicine & rehabilitation*. 2020.
3. Werneke MW, Deutscher D, Grigsby D, Tucker CA, Mioduski JE, Hayes D. Telerehabilitation During the COVID-19 Pandemic in Outpatient Rehabilitation Settings: A Descriptive Study. *Physical Therapy*. 2021;101(7).
 4. Piche J, Butt BB, Ahmady A, Patel R, Aleem I. Physical examination of the spine using telemedicine: a systematic review. *Global Spine Journal*. 2021;11(7):1142-7.
 5. Spina E, Trojsi F, Tozza S, Iovino A, Iodice R, Passaniti C, et al. How to manage with telemedicine people with neuromuscular diseases? *Neurological Sciences*. 2021;42(9):3553-9.
 6. Aloyuni S, Alharbi R, Kashoo F, Alqahtani M, Alanazi A, Alzhrani M, et al., editors. Knowledge, attitude, and barriers to telerehabilitation-based physical therapy practice in Saudi Arabia. *Healthcare*; 2020: MDPI.
 7. de Sire A, Marotta N, Agostini F, Drago Ferrante V, Demeco A, Ferrillo M, et al. A telerehabilitation approach to chronic facial paralysis in the COVID-19 pandemic scenario: what role for electromyography assessment? *Journal of Personalized Medicine*. 2022;12(3):497.
 8. Alonazi A. Effectiveness and acceptability of telerehabilitation in physical therapy during COVID-19 in children: findings of a systematic review. *Children*. 2021;8(12):1101.

Copyright Policy

All Articles are made available under a Creative Commons "**Attribution-NonCommercial 4.0 International**" license. (<https://creativecommons.org/licenses/by-nc/4.0/>). Copyrights on any open access article published by *Journal Riphah college of Rehabilitation Science (JRCRS)* are retained by the author(s). Authors retain the rights of free downloading/unlimited e-print of full text and sharing/disseminating the article without any restriction, by any means; provided the article is correctly cited. JRCRS does not allow commercial use of the articles published. All articles published represent the view of the authors and do not reflect the official policy of JRCRS.