

Navigating Telerehabilitation for student training: Sharing experiences

Telerehabilitation includes the use of information and communication technology (ICT) to deliver health care services remotely and offers innovative solutions to health service delivery and access. The COVID-19 pandemic has propelled the rapid adoption of telerehabilitation globally, and has the added value to reach vulnerable groups in remote areas. Over the past year, substantial research on telerehabilitation as an alternative, effective and safe method of rehabilitation services, has been published.

GOVERNANCE

In South Africa, telehealth (including telerehabilitation) was not permitted until March 2020 when the Health Professions Council of South Africa (HPCSA) guidelines were revisited to allow limited use of telehealth for existing clients for ongoing treatment¹⁻³. Amendments to the guidelines in April 2020⁴, allowed the treatment of new patients if supported by the clinician's clinical judgement and if patient consent had been established. The guidelines emphasized adherence to the POPI Act⁵ and although social media applications such as WhatsApp can be used, synchronous (real time) telerehabilitation sessions are advised. Subsequently the Occupational Therapy Association of South Africa (OTASA) published guidelines^{6,7} for billing of telerehabilitation sessions and guidance on the recording of session information for quality control. In addition, several medical insurers have also published guidelines and rates specifically for telerehabilitation sessions. Within Department of Health services, provision has also been made to document the use of telerehabilitation.

TELEREHABILITATION MODES

When we think of telerehabilitation, live interactive sessions – similar to a Zoom or Skype call - come to mind. However, the telerehabilitation umbrella is more extensive and includes synchronous as well as asynchronous engagements. Synchronous could be a telephone or audio only call, or a video call which happens in real time. Asynchronous refers to content that the service users can access in their own time. This can include email, WhatsApp, or SMS of information such as home programmes, exercise pamphlets, homework, photos of progress or concerns, health promotion, or short videos. Asynchronous sessions can also include recording of a session for supervision or expert consultation and collaboration, and using apps for patient care, patient monitoring, or caregiver training. Training of health professionals and students through webinars or prerecorded lectures also fall under the umbrella of telerehabilitation⁸. Telerehabilitation is an adjunct service to complement and strengthen usual care, and not a replacement thereof. Table 1 (p3) provides a list of resources that may be used for consultation on ethical, clinical, and technical guidelines, as well as additional profession specific resources in telerehabilitation.

STUDENT TRAINING

In response to the COVID-19 pandemic, rehabilitation service providers and educators in South Africa explored telerehabilitation with great urgency. Although in its infancy in South Africa, service providers and educators have embraced the opportunity to incorporate telerehabilitation in their practices, as a result of pandemic restrictions and have started reporting the benefits there

of for individual clients and communities alike.⁹ Global predictions suggest that it is set to become permanently integrated into service delivery models. Equipping rehabilitation staff with telerehabilitation skills has thus become essential. Many international and national rehabilitation departments have incorporated telerehabilitation as part of their students' clinical training.

The Department of Health and Rehabilitation Sciences at Stellenbosch University (SU) embarked on an initiative to integrate telerehabilitation into their clinical training and their undergraduate curricula. Supported by Faculty funding a dedicated multidisciplinary team consulted with two universities in Australia who had placed students at a telerehabilitation clinic for more than 15 years and expanded this during the COVID-19 pandemic. SU now has a facility (Telerehabilitation Hub) which consists of dedicated hardware, software, supervision personnel and training.

CONCLUSION

Telerehabilitation has untapped potential as a service delivery modality, even in a resource-constrained country like South Africa. Within student training it lends itself to supervision, expert consultation, caregiver training and individual and group therapy. Furthermore, task sharing between students from different divisions provides a unique opportunity for growth through inter-professional collaboration. Moving forward, the development of training and integration of evidence-based telerehabilitation in the undergraduate curricula of rehabilitation divisions must be positively considered. Approaching telerehabilitation training and integration in this way provides a safe and controlled roll-out of these services across all clinical platforms. This will ensure that future graduates are skilled in telerehabilitation, which is one way of addressing healthcare inequalities in South Africa.

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Table 1: Telerehabilitation Resources

Telerehabilitation Resources	
WHO	Telehealth guidelines
HPCSA	Booklet 10 Telemedicine Guidelines to telemedicine Application of telemedicine guidelines Notice to amend Telemedicine Guidelines during COVID-19: 3 April 2020
WFOT	Statement on telehealth
OTASA	OT Guidelines for Telehealth April 2020 Telehealth Update 7 April 2020
General guidelines	A Blueprint for telerehabilitation
Occupational therapy	Effects of telerehabilitation in occupational therapy practice: A systematic review
	Telerehabilitation services: a successful paradigm for occupational therapy clinical services?
	Information and Communications Technology-Based Telehealth Approach for Occupational Therapy Interventions for Cancer Survivors: A Systematic Review
Physiotherapy	Telehealth for musculoskeletal physiotherapy
	Evidence to guide telehealth Physiotherapy
	Effectiveness of telerehabilitation in physical therapy: A rapid review
	Digital Physical Therapy
Speech-language and hearing therapy	Speech Pathology Australia: Telepractice Resources
	ASHA Evidence Maps: Telepractice
	SAAA & SASLHA: Practical Guide to Teleaudiology
Hardware	Computer requirements for teletherapy
Software	Telehealth technology
Interprofessional	A Proposal for Multidisciplinary Tele-Rehabilitation in the Assessment and Rehabilitation of COVID-19 Survivors

REFERENCES

- Health Professions Council of South Africa. Guidelines for good practice in the healthcare professions general ethical guidelines for good practice in telemedicine developed by the human rights, ethics and professional practice committee Booklet No: 10 [Internet]. Pretoria; 2014. Available from: <http://www.hpcsa.co.za>
- Daphney Chuma. Guidelines on Telemedicine in South Africa [Internet]. Vol. April, Health Professions Council of South Africa. 2020. Available from: https://www.hpcsa.co.za/Uploads/Press%20Releases/2020/Guidelines_to_telemedicine_in_South_Africa.pdf
- Letlape DT, Malotana MM, Kwindu DM. Guidance of the application of telemedicine guidelines during the COVID-19 pandemic. Health Professions Council of South Africa. 2020. Available from: <https://www.hpcsa-blogs.co.za/notice-to-amend-telemedicine-guidelines-during-covid-19/>
- Kwindu DM. Notice to amend Telemedicine Guidelines during COVID-19 [Internet]. Health Professions Council of South Africa. 2020. Available from: <https://www.hpcsa-blogs.co.za/notice-to-amend-telemedicine-guidelines-during-covid-19/>
- South Africa. Protection of Personal Information Act No. 4 of 2013. Available from: <https://popia.co.za/>
- Occupational Therapy Association of South Africa. Occupational therapy guidelines for telehealth. April 2020. Available from: <https://drive.google.com/file/d/1GJZ9Mi63h4p5QtPTsZWdS7jxgnWdylgq/view>
- Occupational Therapy Association of South Africa. Occupational therapy guidelines for telehealth: Updated 7 April 2020. April 2020. Available from: https://drive.google.com/file/d/1IS7OzGKnNZDZn0KcraI5_u6OIM-ljmwrv/view
- Hung KN G, Fong KNK. Effects of telerehabilitation in occupational therapy practice: A systematic review. Hong Kong J Occup Ther. 2019;32(1):3–21. DOI: <http://dx.doi.org/10.1177/1569186119849119>
- Adepoju P. Africa turns to telemedicine to close mental health gap. Lancet Digit Health. 2020;2(11):571–2. Available from: <https://www.hpcsa-blogs.co.za/notice-to-amend-telemedicine-guidelines-during-covid-19/>



[http://dx.doi.org/10.1016/S2589-7500\(20\)30252-1](http://dx.doi.org/10.1016/S2589-7500(20)30252-1)

10. Mauco K, Scott R, Mars M. Critical analysis of e-health readiness assessment frameworks: suitability for application in developing countries. *J Telemed Telecare*. 2018;24(2):110–7. DOI: <http://dx.doi.org/10.1177/1357633X16686548>

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