
TELEREHABILITATION: CURRENT CHALLENGES TO DEPLOYMENT IN THE UNITED STATES

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Abstract

Telerehabilitation is the use of technology to deliver rehabilitation services when the patient and practitioner are in different physical locations. This commentary presents current challenges to the deployment of telerehabilitation in the United States: profession-centric nomenclature, limited efficacy research, inter-state license portability barriers, and inadequate reimbursement.

Keywords: Telemedicine; Telepractice; Telerehabilitation; Telehealth.

Reflections on Telerehabilitation

Consumers empowered by mobile communication and computing devices increasingly expect online retailers and service providers to meet their needs with 24/7 availability. Few would dispute that such technology is integral to current healthcare. It follows that a highly mobile workforce will request the convenience and immediacy of online visits with their healthcare providers.

‘Telemedicine’ and ‘telehealth’ are the most common terms to denote the use of technology to provide remote healthcare services.¹ Telemedicine is a remote service delivery model that has expanded over the past two decades and is poised to experience rapid growth; one projection estimates that the global telemedicine market will grow to US\$27.3 billion in 2016.² The use of technology to deliver rehabilitation services (i.e., telerehabilitation) when the patient and practitioner are in different physical locations is a more recent, yet similarly promising development.

Telerehabilitation (TR) may include rehabilitation or habilitation services provided remotely by a

rehabilitation professional for the purpose of assessment, monitoring, prevention, intervention, supervision, education, consultation, and counselling.³ Use of Internet-based videoconferencing, analog telephones and videophones, virtual reality systems, and specialized remote audiology devices enable practitioners to interact with patients in real-time (synchronous TR). Store-and-forward (asynchronous TR) technologies also demonstrate promising applications.⁴ Research supports the use of telerehabilitation for delivery of rehabilitation and habilitation services,^{5,6,7} recommendations for adaptive strategies, assistive technology, and environmental modifications,^{8,9} and remote hearing screening.¹⁰

Telerehabilitation has the capacity to promote care coordination, improve access to rehabilitation services for underserved populations,⁵ improve efficiency resulting in cost savings due to decreased travel⁷ and build capacity and promote professional development of practitioners.¹¹ Despite positive outcomes and high levels of satisfaction associated with this service delivery model, challenges persist. For telerehabilitation to fully evolve in the USA there is the need to: refine tele-nomenclature; further demonstrate equivalence to in-person rehabilitation; eliminate inter-state licensure barriers; and fortify reimbursement.

Tele-Nomenclature

Multiple disciplines are independently grappling with this new service delivery model as exemplified by an unsettled and often professionally siloed nomenclature. For example, the American Occupational Therapy Association (AOTA) and the American Physical Therapy Association (APTA) employ ‘telehealth’, the American Speech-Language-Hearing Association (ASHA) prefers ‘telepractice’,

‘telespeech’ and ‘teleaudiology’, and the American Medical Association publications refer to ‘telemedicine’. ‘Telerehabilitation’ is a term embraced by the American Telemedicine Association (ATA) to refer to the use of technology to deliver services by *all* rehabilitation professionals (e.g., therapists and physician specialists in physical medicine and rehabilitation).³

Current tele-nomenclature can be awkward for inter-professional collaborators, especially when there is a mix of practitioners from the medical, education, and rehabilitation professions collaborating. Which discipline’s terminology will prevail when members of several disciplines co-author an article or prepare the minutes of a team meeting?

The World Health Organization (WHO)¹² defines health as “physical, mental, and social well-being”. Thus, the term ‘telehealth’, might be applied broadly and is a relevant term for professionals in medical, educational and other practice models.

In the US, a common concern across professions is that nomenclature can become gravely important when attached to policies that influence reimbursement, licensure, and state and federal laws.

Equivalence of Telerehabilitation to In-Person Service

Telerehabilitation has emerged as a credible service delivery model. While some rehabilitation practitioners believe that “in-person” (and possibly “hands-on”) approaches are always required, many services can be effectively delivered via telerehabilitation.

The WHO and the World Bank¹³ co-produced the landmark *World Report on Disability* that concluded: “growing evidence on the efficacy and effectiveness of telerehabilitation shows that telerehabilitation leads to similar or better clinical outcomes when compared to conventional interventions”. Evidence, including systematic reviews^{6,14} and randomized controlled trials^{8,15,16} has demonstrated positive outcomes and satisfaction with telerehabilitation among patients and rehabilitation professionals.

Research is now needed to evaluate telerehabilitation’s efficacy for even more conditions, populations, and interventions. To assure equivalency of services and adherence to HIPAA standards, there is a need to educate healthcare professionals, especially concerning patient selection, privacy and security.^{17,18}

Resources specific to telerehabilitation are searchable in the websites of the major associations of rehabilitation professionals. The oft-quoted ATA Blueprint for Telerehabilitation Guidelines³ was developed by an interdisciplinary team and outlines administrative, clinical, technical, and ethical considerations for telerehabilitation. Resources on tele-ethics are also emerging.^{19,20}

US State Licensure and Multi-State Practice

For most US rehabilitation professionals who engage in multi-state practice, there are few options beyond obtaining full licensure in two or more states. Unlike the state issued driver’s licence that allows US licensees to drive nationwide, unless associated with the US Department of Defense or Veterans Administration, practitioners using telerehabilitation to engage in interstate practice generally must hold a current state licence for the state from which they practice, as well as for the state(s) where their patients are located.²¹ If the patient or practitioner travels to a different state for work or vacation, yet another state licence may be required. In 2010, the ATA’s Telerehabilitation Special Interest Group (ATA TR SIG) convened a License Portability Sub-committee to engage stakeholders on issues concerning licence portability for rehabilitation professionals and produced two committee reports.^{22,23}

There are numerous licensure portability models; though none for the rehabilitation professions of audiology, occupational therapy, speech-language pathology, and physical therapy.^{22,23,24} The Federation of State Medical Boards (FSMB) has endorsed an expedited licensure model²⁴ and recently began exploring a mutual recognition or ‘compact’ model to promote licence portability.²⁵ The National Council of State Boards of Nursing (NCSBN) initiated a mutual recognition licensure model in 2000 whereby states participating in the Nurse Licensure Compact (NLC) will allow a nurse to practice physically or through electronic means (i.e., telehealth) with a nursing licence issued from another compact state. Participation in the NLC requires state legislative action; 24 states currently participate in the NLC.^{24,26} Most recently, the Association of State and Provincial Psychology Boards proposed creation of an ‘e-passport’ to enable inter-jurisdictional telepsychology

practice.²⁷ Essentially, the model is a compact model similar to the NLC with the main differences being that the e-passport would enable only remote service delivery (telepsychology) and the proposed compact includes states and or jurisdictions within the US and Canada.²⁷ Despite these efforts, none has yet achieved 100% state licence portability.

Healthcare policy in the United States endorses care coordination and inter-professional team models as a means to promote health and prevent unnecessary complications and re-hospitalizations.^{28,29} However, the lack of licensure portability negatively impacts the role of rehabilitation professionals as members of inter-professional teams, and threatens the prospect of inter-professional team collaborations.

Telerehabilitation: Meeting International Healthcare Needs

Technology is not limited by geographic borders; however, antiquated regulatory structures limit the ability for practitioners to utilize telerehabilitation. The United Nations Convention on the Rights of People with Disabilities (UNCRPD) affirms that countries “shall enable persons with disabilities to attain and maintain maximum independence, full physical, mental, social, and vocational ability, and full inclusion and participation in all aspects of life”.³⁰

With tremendous growth in global Internet penetration and broadband access,³¹ deployment of telerehabilitation to meet the rising needs in remote areas is possible.³² However, new licensure models that remove geographically-defined practice barriers and enable licensure portability are necessary to realize the proclamations outlined in the UNCRPD and supported by 155 signatory countries at the time of this writing.³³

The regulations for international practice vary by country and are discipline-specific. It is crucial to discern these requirements before engaging in international practice via telerehabilitation.

Reimbursement for Telerehabilitation

Reimbursement for telerehabilitation presents the biggest challenge to its widespread adoption. Medicare currently prohibits reimbursement for services provided via telehealth for patients living within counties that are federally designated as “metropolitan

areas”. Yet, patients in a non-rural setting may be similarly unable to access care as a result of inadequate transportation or travel barriers (i.e., inability to navigate snow-covered steps, sidewalks and icy roads). Medicare does not recognize non-physician rehabilitation professionals as telehealth providers.

Medicaid funds telerehabilitation in some states. Private insurance for telerehabilitation is variably available (19 states mandate private insurance to reimburse services provided remotely if the same service is reimbursed when provided in-person).³⁴ Because reimbursement policies are variable and dynamic, practitioners are advised to monitor reimbursement by contacting funders,²¹ visiting national and state professional association websites, and consulting ATA’s website for updated information (e.g., ATA State Telemedicine Legislation Tracking Matrix).

Conclusions

Two decades ago, most did not envision personal computers, mobile phones, computing tablets, and the possibility of receiving health-related services delivered remotely through these technologies. Two decades forward, it is not difficult to imagine that many rehabilitation services will be seamlessly delivered via telerehabilitation.

For telerehabilitation to fully evolve in the USA there is the need to: refine tele-nomenclature; further demonstrate equivalence to in-person rehabilitation; eliminate inter-state licensure barriers; and fortify reimbursement.

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