

**TITLE: COVID-19 and the Advancement of Digital Physical Therapist Practice and Telehealth**

Alan Lee, on behalf of the Digital Physical Therapy Practice Task Force of the World Confederation for Physical Therapy and the International Network of Physiotherapy Regulatory Authorities

**RUNNING HEAD: COVID-19 and Digital PT Practice and Telehealth**

**TOC CATEGORY: COVID-19**

**ARTICLE TYPE: Point of View**

© The Author(s) 2020. Published by Oxford University Press on behalf of the American Physical Therapy Association. All rights reserved. For permissions, please email: [journals.permissions@oup.com](mailto:journals.permissions@oup.com)

During the COVID-19 pandemic, each day challenges us with sobering realities in economy, health care, and politics in our society.<sup>1</sup> The global pandemic has thrust the physical therapy profession and our society into digital physical therapist practice and telehealth. In light of the uncertainty with COVID-19, physical therapists are required to socially distance themselves at least 6 feet apart in health care institutions, and patients and clients cannot access necessary physical therapy services in the community due to shelter-in-place and stay-at-home restrictions. Furthermore, this unique situation magnifies the challenges and opportunities in digital practice, as practitioners may lack the necessary telehealth competencies identified in the literature.<sup>2,3</sup> Therefore, it is especially important for physical therapy practitioners to consider key recommendations for safe and effective digital practice delivery.

The purpose of this Point of View is to identify recommendations on digital physical therapist practice and offer future directions in advancing digital practice and telehealth in the physical therapy profession in the wake of COVID-19.

### **Definitions and Purpose of Digital Physical Therapist Practice**

A joint digital physical therapy practice task force of the World Confederation for Physical Therapy (WCPT) and the International Network of Physiotherapy Regulatory Authorities (INPTRA) was convened in 2017 to develop key recommendations for global practice and regulation, resulting in a white paper approved by the WCPT and INPTRA boards on March 18, 2020.<sup>4</sup> The task force defined digital physical therapist practice as

health care services, support, and information provided remotely via digital communication and devices.

In addition, as defined by the task force, the purpose of digital physical therapist practice is to facilitate the effective delivery of physical therapy services by improving access to care and information and managing health care resources. For this reason, we contend that this definition and purpose is broader in global scope than that of telehealth, telerehabilitation, and telemedicine.<sup>5</sup> In light of COVID-19, it is clear that digital practice is a transformation in physical therapist practice, in which communication-based services (e-visits, virtual check-ins) beyond telehealth, telerehabilitation, and telemedicine are added to increase remote access to care while preserving scarce resources, including personal protective equipment.

Finally, the task force agreed on *service user* as the term for actual or potential recipient of physical therapy services and defined in-person care as a situation in which both the provider and service user are in the same location at the same time.

### **Considerations for Digital Physical Therapist Practice**

The task force described the advantages, limitations, current evidence, regulatory issues, academic implications, and recommendations for future opportunities in digital physical therapist practice prior to COVID-19.<sup>4</sup> The advantages of digital practice were differentiated for service user, provider, and society. The common benefit for all stakeholders includes improved access to telehealth physical therapy services by

building a strong relationship between service user and provider in order to deliver high-quality and safe physical therapist practice via telehealth.

COVID-19 presents digital practice opportunities for improved access, high quality, and safety in physical therapy services for both service user and provider when deemed medically necessary. In fact, both telehealth and e-visits have been approved by the Center for Medicare and Medicaid Services (CMS) in the United States during the COVID-19 crisis on a temporarily basis.<sup>6</sup> CMS noted that telehealth services provided by interactive audio and video telecommunications systems permit real-time communication between end-to-end users, whereas e-visits are non-face-to-face, patient-initiated digital communications requiring a clinical decision that otherwise typically would have been provided in the office.<sup>6</sup> However, specific federal and state payer guidelines, regulatory hurdles, and patient privacy barriers persist, requiring permanent fixes from CMS on telehealth and e-visits.<sup>7</sup> For example, health care providers on the front lines of COVID-19 have identified that some older adults prefer telephone use to digital telecommunication interactions because of a lack of technology understanding and training.<sup>7</sup> In order to address this immediate crisis and patient preferences, Keesara and colleagues<sup>8</sup> recommend expansion of telehealth broadly to include digital tools—beyond interactive audio and video—that offer 256-bit end-to-end encryption, including telephone services.

Other limitations include inadequate technology training, limited knowledge translation, and regulatory barriers that can stifle innovation and impede progress for service users and providers.<sup>6</sup> Dialogue among physical therapy practitioners, telemedicine providers, and payers can result in timely collaborative practice based on current evidence and societal needs in health care.<sup>4</sup> With shelter-in-place and stay-at-home restrictions, digital practice is supported as the way forward, with many countries worldwide formally recognizing the benefits and value of using digital modes of care delivery. The body of evidence in relation to telerehabilitation<sup>5</sup> is limited, however. Telerehabilitation tends to require more provider time for consultations, and it is unclear whether telerehabilitation improves access to beneficial services.<sup>9</sup> With paucity of definitive evidence in the wake of COVID-19, the joint task force believed it is not possible to recommend condition-specific digital practice standards. Hence, guiding principles should be reviewed by the physical therapy profession until such evidence is available.<sup>4</sup> The task force developed each principle based on current practice, research, and regulatory considerations that may evolve over time (Figure).

In summary, the guiding principles require strong provider-patient relationship, valid and reliable evidence, and the conduct of research to show whether telerehabilitation has greater benefit than potential risks for digital physical therapist practice.<sup>4</sup>

Recently, WCPT identified resources including a tool kit for digital practice implementation,<sup>10</sup> and WCPT recommendations have been translated in Spanish<sup>11</sup> for

proper guidance in various member countries. In addition, the Federation of State Boards of Physical Therapy (FSBPT) provided jurisdiction telehealth laws and guidance for physical therapy providers in the United States.<sup>12</sup> Due to COVID-19, some of the regulatory issues have been waived at federal and state levels—including licensure, copays, and deductibles and expanded digital services with remote patient monitoring in the United States.<sup>8</sup>

Because regulatory requirements are dependent upon factors in the legislative framework that exist globally, the best guidance is for providers to be informed of the legal framework that exists in each of their own jurisdictions and to be aware that, in some countries, providers have to take into account the jurisdiction of the service user's country.<sup>4</sup> The task force identified global regulations in the digital landscape for Australia, Canada, the United Kingdom, and the United States prior to COVID-19. Moving forward, potential regulatory changes must be identified for individual countries in real time.<sup>4</sup> Therefore, practitioners should develop guidelines for selecting the ideal technology for the potential service user, risk management strategies, and competency training for digital physical therapist practice in emergent and nonemergent situations.

Prior to COVID-19, the implications of digital physical therapist practice for physical therapist education were investigated. Although digital practice competency might prepare future providers for demands in primary care and might improve access to care in high-demand areas, the task force identified a lack of national digital practice

education standards in various countries and professions.<sup>4</sup> Topol<sup>13</sup> proposed equipping all health care staff and students across society, including physical therapist students, with the right skills to realize the benefits that technology can provide to the workforce. In the literature, other ethical and curricular implications for physical therapist education regarding technology in rehabilitation have been identified.<sup>14</sup> For example, ethical principles of autonomy, social justice, and the phenomenological meaning of digital practice for service users and their families must be taken into account by rehabilitation providers even during COVID-19 crisis.<sup>14</sup> Because entry into physical therapist practice and clinical rotations may be delayed, it is ideal for academic programs to review the education curricular content and learning objectives<sup>4</sup> identified by the task force based on the American Physical Therapy Association's (APTA) strategic plan, the American Telemedicine Association (ATA) blueprint, the Australian Physiotherapy Association's (APA) position paper, and the FSBPT Model Practice Act to ready the future workforce in physical therapy.

### **Future Directions in Digital Physical Therapist Practice**

The Spanish Influenza of 1918-1919 killed more than 50 million people worldwide over the course of 2 years.<sup>15</sup> Ott et al<sup>16</sup> concluded that some key lessons stand out. The cities that implemented multiple interventions early in the pandemic fared better than those cities that did not have plans for surge capacity that lacked public engagement on general health isolation approaches based on scientific data whenever possible, and that did not design orderly and ethical distribution of scarce resources. These lessons may be applied to the current COVID-19 pandemic as we advance digital physical

therapist practice and telehealth at local and international levels; however, lingering issues persist for adoption of digital physical therapist practice. For example, should the physical therapy profession be able to determine the steps necessary to implement both in-person care and digital physical therapy practice? What could occur during a surge capacity that might limit broadband connectivity locally and internationally? What is the role of the health care provider in digital practice during shelter-in-place and stay-at-home restrictions? What is the service user's role and physical therapist engagement during social isolation, and what are the care approaches for proper exercise, movement, and wellness? How could physical therapy practitioners and physical therapist students in collaboration deliver this care safely? How would they limit risk of fraud and abuse resulting from rapid adoption of digital physical therapy services? And, how does the physical therapy profession move forward ethically with equitable distributions of scarce resources in environments with limited digital technology? Answers to these questions must be addressed *now* in order to advance in digital physical therapist practice and telehealth.

Overall, the task force recognizes that the role of physical therapists must be advanced by informed practitioners in collaboration with physical therapy professional and international associations, accredited academic and research institutions, and patient advocacy groups. The time is now for the physical therapy profession to learn from the past and define its societal identity at large,<sup>17</sup> because those who cannot remember the past are condemned to repeat it—even in the digital age.<sup>16</sup>

---



A.C.W. Lee, PT, DPT, PhD, Physical Therapy Department, Mount Saint Mary's University, 10 Chester Place, Los Angeles, CA 90007 (USA). He is chair of the Digital Physical Therapy Practice Task Force of the World Confederation for Physical Therapy and the International Network of Physiotherapy Regulatory Authorities. Address all correspondence to Dr Lee at: [allee@msmu.edu](mailto:allee@msmu.edu).

The members of the Digital Physical Therapy Practice Task Force are: Karen Finnin, PT (Australia); Lesley Holdsworth, DPT, PhD, FCSP (Scotland); Dianne Millette, DSc (Canada); Chris Peterson, PT, DPT (United States).

### **Acknowledgments**

The authors thank Richard Woolf, PT, DPT, and Leslie Adrian, PT, DPT, MPA.

**KEYWORDS:** COVID-19, Telehealth, Telemedicine, Telerehabilitation, Digital Practice, Technology

**ACCEPTED:** April 20, 2020

**SUBMITTED:** April 10, 2020

### **References:**

1. Fauci AS, Lane HC, Redfield RR. Covid-19—Navigating the uncharted. *N Engl J Med.* 2020;382:1268-1269.
2. Van Houswelingen CT, Moerman AH, Ettema RG, Kort HS, Ten Cate O. Competencies required for nursing telehealth activities: a Delphi-study. *Nurse Educ Today.* 2016;39:50-62.

3. Sharma R, Nachum S, Davidson KW, Nochomovitz M. It's not just FaceTime: core competencies for the Medical Virtualist. *Internat J Emerg Med*. 2019;12(1):8.
4. World Confederation for Physical Therapy and the International Network of Physiotherapy Regulatory Authorities. *The Report of the WCPT/INPTRA Digital Physical Therapy*. Available at: [http://www.inptra.org/portals/0/pdfs/ReportOfTheWCPTINPTRA\\_DigitalPhysicalTherapyPractice\\_TaskForce.pdf](http://www.inptra.org/portals/0/pdfs/ReportOfTheWCPTINPTRA_DigitalPhysicalTherapyPractice_TaskForce.pdf). Accessed March 31, 2020.
5. Richmond T, Peterson C, Cason J, et al. American Telemedicine Association's Principles for Delivering Telerehabilitation Services. *International J Telerehab*. 2017;9(2):63-68.
6. American Physical Therapy Association. APTA COVID-19 resources. Available at: <http://www.apta.org/Coronavirus/>. Accessed March 31, 2020.
7. Center for Medicare and Medicaid Services. Lessons from the front lines—CMS Covid-19. Available at: <https://www.cms.gov/files/audio/covid19lessonsfromthefrontline04032020.mp3>. Accessed April 3, 2020.
8. Keesara S, Jonas A, Schulman K. Covid-19 and health care's digital revolution. *N Engl J Med*. April 2, 2020. doi: 10.1056/NEJMp2005835. [Epub ahead of print].
9. Shigekawa E, Fix M, Corbett G, Roby DH, Coffman J. The current state of telehealth evidence: a rapid review. *Health Aff (Millwood)*. 2018;37:1975-1982.

10. World Confederation for Physical Therapy. Telehealth Tool Kit. How to use telehealth for your patients during COVID-19. Available at:

<https://telehealthtoolbox.netlify.com>. Accessed April 3, 2020.

11. World Confederation for Physical Therapy. Spanish version of The Digital Practice Survey Report. Available at:

<https://www.wcpt.org/sites/wcpt.org/files/files/wcptnews/images/REPORTE%20PRACTICA%20DIGITAL-%20VERSI%20EN%20ESPA%20OL.pdf>. Accessed April 3, 2020.

12. Federation of State Boards of Physical Therapy. *Jurisdiction Telehealth Laws/Guidance for PTs and PTAs*. Available at:

[https://www.fsbpt.org/Portals/0/documents/news-events/Jurisdiction\\_Telehealth\\_LawsGuidance\\_for\\_PT\\_s\\_and\\_PTAs.pdf](https://www.fsbpt.org/Portals/0/documents/news-events/Jurisdiction_Telehealth_LawsGuidance_for_PT_s_and_PTAs.pdf). Accessed April 3, 2020.

13. The Topol Review. Preparing the healthcare workforce to deliver the digital future. NHS Health Education England. Available at: <https://topol.hee.nhs.uk>. Accessed April 19, 2020.

14. Greenfield B, Musolino GM. Technology in rehabilitation: ethical and curricular implications for physical therapist education. *Journal of Physical Therapy Education*. 2012;26(2):81-90.

15. Barry JM. The great influenza: the epic story of the deadliest plague in history. New York, NY: Penguin; 2004.

16. Ott M, Shaw SF, Danila RN, Lynfield R. Lessons learned from the 1918-1919 influenza pandemic in Minneapolis and St. Paul, Minnesota. *Public Health Rep.* 2007;122:804-810.

17. American Physical Therapy Association. The Vision Statement. Available at: <http://www.apta.org/Vision>. Accessed April 3, 2020.

UNCORRECTED MANUSCRIPT

**Figure.** Summary guiding principles for physical therapists engaging in digital practice from the *The Report of the WCPT/INPTRA Digital Physical Therapy*.<sup>4</sup>

It is recommended that physical therapists engaging in digital practice wherever they practice globally should ensure the following:

- The digital physical therapy practice is in the best interest of service users and their care, and wherever possible, that service delivery choices are made with service users
- They are aware of their own scope of practice and the current governing regulatory framework in which they work in relation to digital practice
- They keep up to date with current evidence and they are aware that it is rapidly evolving
- They engage with key stakeholders to agree and support the use of digital service delivery options and that the associated potential benefits and limitations are fully understood
- They are confident that the chosen digital mode will improve access to physiotherapeutic services and information and/or quality of care
- They are fully cognisant and competent in the use of the chosen digital mode
- Their service users are also competent, confident in, and supportive of the use of the chosen digital mode
- Due consideration has been given to ascertaining the appropriateness of using digital solutions with the specific service users in terms of its general suitability
- They continue to monitor and evaluate the effectiveness of digital solutions
- They are prepared to collaborate with various stakeholders to share the outcome/impact of digital physical therapy practice