



AOPT SIG

ACADEMY OF ORTHOPAEDIC PHYSICAL THERAPY, APTA

FOOT & ANKLE



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Foot & Ankle SIG News & Updates

- The student team welcomes Shon Kuhn! Shon is currently a 2nd year physical therapy student at Western Michigan University with an interest in foot and ankle from working with running footwear and orthotics. "Fun fact: my wife and I are parents to two poorly behaving (but cute) cats." Welcome, Shon!



- We are looking forward to engaging with all of you at this year's virtual APTA, Combined Sections Meeting in February. Keep an eye out for emails from APTA/AOPT for all the registration and meeting information.
- Thank you to everyone for the ongoing effort on the practice analysis survey. The results of this survey will help to develop the foot and ankle fellowship. Thanks, also, to the task-force for their hard work. The process for developing the fellowship is guided by the American Board of Physical Therapy Residency and Fellowship Education (ABPTRFE) and we are making steady progress towards the goal.
- Many attended our partner organization – AOFAS meeting in September. We hope everyone enjoyed the programming. You might also be interested in the webinar series starting in December. See link below.
- Webinar titled, "Non-operative Foot and Ankle Care: A Virtual Event," **December 11, 2020 10-2pm Central Time**. <https://www.aofas.org/education/meetings-courses/upcoming-courses/non-operative-foot-and-ankle-care-course>



Member Spotlight Featuring Megan Peach, DPT, OCS, CSCS

Where are you originally from?

Montana!

What type of setting do you work in?

I work in a private practice outpatient orthopaedic clinic.

What sparked your interest in the foot and ankle?

When I feel like I can make a big difference in a person's quality of life by assessing and treating foot and ankle issues. I really love reading about foot and ankle mechanics during walking and running and also enjoy the puzzle of evaluating a complicated foot presentation.

How has COVID-19 affected your practice?

From a big-picture point of view, COVID-19 has made me more mindful of other people's stressors and how valuable our profession can be at alleviating stress and improving quality of life. In an era of many uncertainties and tremendous stress, our patients have continued to rely on us to help reduce orthopaedic issues so they are able to continue or return to activity and in turn reduce their own stress to live a healthier lifestyle.

What is your current research interest?

My current interests include posterior tibial tendon dysfunction, stress fractures of the foot and ankle, and anything related to running.

How did you become involved in research/academics?

I'm an adjunct professor at Montana State University and originally pursued this role because I am passionate about education and teaching. Most recently I have taught Advanced Strength and Conditioning and have always enjoyed the discussions on this topic with students as well as the carryover of training concepts from gym to clinic.

What other activities/hobbies do you enjoy outside of physical therapy?

Running, snowboarding, and enjoying the outdoors with my family!

FA SIG Updates

Member Spotlight –
Megan Peach, DPT, OCS,
CSCS

Patient Satisfaction
with Digital
Platforms During
COVID-19

Citation Blast –
Telehealth Considerations
in the Treatment of the
Foot and Ankle

- Stephen Cabebe, SPT

Patient Satisfaction with Digital Platforms During COVID-19

In what most healthcare providers would consider unconventional times during this COVID-19 pandemic, this feature looks to uncover the impact telehealth has had on continuation of rehabilitation services during 2020 and beyond. We hope to shed light on implementation of digital services to achieve patient centered outcomes and satisfaction as well as to consider clinician perspectives regarding telehealth, in an effort to advocate and educate for interprofessional collaboration to navigate these unprecedented times.

The term “telehealth” is often utilized as an overarching descriptor of information and communication technology, which clinicians utilize to provide multiple services across the healthcare spectrum. Furthermore, the term “telehealth” can be used asynchronously or in actual-time, and thus is important for the physical therapist to recognize its versatile application. Asynchronous services include those which there is a delay between the service being provided and access of the service by the recipient. This would include video-recordings or pre-recorded platforms of virtual care. Actual-time, or real-time services are those that occur instantaneously through video or telephone mediums to reach the intended patient or individual seeking care.¹

A 2020 survey study conducted by Tenforde and colleagues aimed to determine the satisfaction of telerehabilitation services of 205 participants from surveys gathered online after telehealth visits. The online survey included 16 items which participants rated using a 5 point Likert scale. Patient centered outcome metrics for the survey included therapist responses to patient concerns, therapist communication, treatment plan development and execution, convenience, visit satisfaction, and value of a future visit. For these metrics, 93% of the responses were considered “excellent” or “very good” regarding the participants experience with the telehealth service. Of the 205 participants, 86% agreed in the value of a future telerehabilitation visit. The authors cited limitations of this study as being complications with technology in regard to data collection and completion of participant responses.²

A 2019 systematic review by Orlando and colleagues looked to determine patient satisfaction when Telehealth was utilized as the delivery platform for addressing patient’s health services. The review included 36 studies spanning multiple health care disciplines, including neurology, pediatrics, and geriatrics. Patient satisfaction was categorized into four groups: system experience, information sharing, consumer focus, and overall satisfaction. Across all four groups, patients and caregivers viewed the services provided through Telehealth as positive and satisfactory. Populations who found Telehealth as a positive means of healthcare access included individuals with chronic conditions, families with young children, and geriatric individuals. Limitations of this systematic review included small sample sizes within individual studies, as well as heterogeneity of methods which satisfaction was measured.³

In October of 2020, a retrospective review of 1,147 patient surveys by Eannucci and colleagues looked to compare patient satisfaction between Telehealth services and in-person services from January to May of 2020. The primary responses in question were differences in patient satisfaction between in-person or telehealth physical therapy evaluations, differences in telehealth or in-person physical therapy

follow-up, and satisfaction for those who began in-person therapy and converted to telehealth during the pandemic. Items were scored on a 5 point Likert scale of 1 to 5. No statistical differences in satisfaction for the primary questions were found between Telehealth services and in-person services. However, statistical significance ($p < 0.001$) was found for individuals who utilized Telehealth services to schedule their future appointments (mean score 4.8 +/- 0.6) compared to in-person services (mean score 4.6 +/- 0.8). While statistically significant, these findings may lack clinical significance. Limitations of this study included a 3 week collection period of surveys completed for Telehealth services compared to 18 weeks of in-person services. Additional limitations included variability in patient diagnosis as well as duration of post-operative phase of recovery for which patients were being treated.⁴

With large scale utilization of digital services in health care taking center stage, clinicians must consider how digital platforms can seamlessly achieve data integration. This premise of data integration includes how clinicians using digital services will access patient information from multiple electronic medical record platforms. Additionally, clinicians must reflect on how free digital services utilized in clinic uphold the necessary precautions and safeguards to keep patient information confidential and protected. As physical therapists, recognizing the patients’ capabilities of access to various real-time telehealth services, as well as patient preference, is critical to ensuring continuity of care during treatment sessions. Physical therapists must recognize differences in age, gender, and demographics and their preference between video conferencing or telephone usage for telehealth services.^{5,6}

The traditional landscape in which physical therapy services are provided has taken a dramatic change with the COVID-19 pandemic. Physical therapists have quickly risen to the occasion to embrace what some consider the future avenue of healthcare access, telehealth. As the world has adapted to digital platforms for continued sources of information and personal connection, so too has healthcare had to adapt by implementation of digital health services.

- Ethan DuClos, SPT

References:

1. Cottrell MA, Russell TG. Telehealth for musculoskeletal physiotherapy. *Musculoskeletal Science and Practice*. 2020;48.
2. Tenforde AS, Borgstrom H, Polich G, 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;99(11):977-981.
3. Orlando JF, Beard M, Kumar S. Systematic review of patient and caregivers’ satisfaction with telehealth videoconferencing as a mode of service delivery in managing patients’ health. *PLoS one*. 2019;14(8).
4. Eannucci EF, Hazel K, Grundstein MJ, Nguyen JT, Gallegro J. Patient satisfaction for telehealth physical therapy services was comparable to that of in-person services during the COVID-19 pandemic. *HSS journal: the musculoskeletal journal of hospital for special surgery*. October 2020: 1-7.
5. Dantas LO, Barreto RPG, Ferreira CHJ. Digital physical therapy in the COVID-19 pandemic. *Brazilian Journal of Physical Therapy / Revista Brasileira de Fisioterapia*. 2020;24(5):381-383.
6. Lee AC. COVID-19 and the advancement of digital physical therapist practice and telehealth. *Physical Therapy*. 2020;100(7):1054-1057

“It cannot be understated the importance of utilizing multiple bodies of evidence and clinical reasoning when treating and evaluating an individual with ankle sprain injury.”

Citation Blast – Telehealth Considerations in the Treatment of the Foot and Ankle

The current COVID-19 pandemic has greatly altered the way many medical professionals currently practice. It has also altered the way patients seek medical advice and treatment. With more patients looking to limit their time in the clinic, telehealth has become a viable option for continuing patient care during these difficult times. This citation blast aims to shed light on the benefits of telehealth for a physical therapist and how they may utilize telehealth to treat patients with various foot and ankle related impairments.

1. Golledge, Jonathan, Fernando, Malindu, Lazzarini, Peter, Najafi, Bijan, & G. Armstrong, David. (2020). The Potential Role of Sensors, Wearables and Telehealth in the Remote Management of Diabetes-Related Foot Disease. *Sensors (Basel, Switzerland)*, 20(16), 4527.

The goal of this review was to describe the various studies that have assessed the value of sensors, wearables, and telehealth in preventing diabetes related foot disease. The researchers found that telehealth, home foot temperature monitors, and continuous glucose monitors have been the most readily developed at this point. They also discuss the benefits and limitations in previous research on various devices that can be utilized when monitoring activity and movement. Those devices being plantar pressure monitors, footwear adherence monitors, gait and activity monitors, and sensation assessment tools. The authors conclude that while many devices still need to be improved, they all are an innovative way to monitor risk factors for diabetic foot patients.

2. Singh, Tejas P, Vangaveti, Venkat N, Kennedy, Richard L, & Malabu, Usman H. (2016). Role of telehealth in diabetic foot ulcer management – A systematic review. *The Australian Journal of Rural Health*, 24(4), 224-229.

The researchers who designed this systematic review aimed to evaluate the use of telehealth for patients with diabetic foot ulcers. They sought to evaluate the impact of telehealth on clinical outcomes, diagnostic accuracy, and behavioral perceptions. The study included articles published after 1980, of which, 11 studies fit all search criteria. The researchers found that treatment given via telehealth was diagnostically accurate, had good intra and inter-observer reproducibility. They also found that both patient and clinician positively perceived this form of diabetic foot care.

3. Manz, W. J., Goel, R., Fakunle, O. P., Labib, S. A., & Bariteau, J. T. (2020). Feasibility of Rapid Development and Deployment of a Telemedicine Program in a Foot and Ankle Orthopedic Practice. *Foot & ankle international*, 1071100720963059. Advance online publication.

This study analyzed patients' views on comfort and satisfaction when utilizing telemedicine for treatment, this group of researchers utilized phone surveys to question patients who had completed a telemedicine visit between 4/13/20 and 6/19/20. While this study found that patients preferred in-office visits, a majority were still open to using telehealth in the future. It was noteworthy however, that it was found that patients with trauma and greater barriers to foot and ankle care were more satisfied with their telemedicine visits.

4. Huiqiong Deng, William K. Durfee, David J. Nuckley, Brandon S. Rheude, Amy E. Severson, Katie M. Skluzacek, . . . James R. Carey. (2012). Complex Versus Simple Ankle Movement Training in Stroke Using Telerehabilitation: A Randomized Controlled Trial. *Physical Therapy*, 92(2), 197-209.

The purpose of this randomized control trial was to explore the feasibility of using telerehabilitation to improve ankle dorsiflexion during the swing phase of gait in people with stroke and to compare complex versus simple movements of the ankle in promoting behavior change and brain reorganization. The researchers found that while using telehealth, they were still able to conduct complex treatment that was successful in improving dorsiflexion in those with chronic stroke.

5. Russell, Trevor G, Blumke, Robert, Richardson, Bradley, & Truter, Piers. (2010). Telerehabilitation mediated physiotherapy assessment of ankle disorders. *Physiotherapy Research International : The Journal for Researchers and Clinicians in Physical Therapy*, 15(3), 167-175.

The researchers of this study set out to determine the validity and reliability of conducting a musculoskeletal assessment of the ankle using telerehabilitation when compared to face to face assessment. Using a repeated measures design, patients reporting ankle pain (n=15) were evaluated both face to face and via a telerehab system. Clinicians in person and remotely were found to have similar agreement in diagnosis and very strong agreement in clinical observations. The researchers concluded that telerehabilitation is both a reliable and valid way to evaluate the ankle.

- Shon Kuhn, SPT