# Example Accepted Proposals from ASHT 2024 Annual Meeting and Pediatric Specialty Day

These proposals are shared with permission of the presenters and are intended to serve as examples of key proposal elements. Thank you very much to these individuals.

Notes:

• In 2024, there was only one "Session Description" which was used by reviewers to score submissions and provided to attendees. In 2025, there are two separate descriptions: "Session Description" to provide the reviewers with information to better understand what your session will cover and how you will achieve the learning objectives; "Short Session Description" will be provided to motivate and engage participants to attend your session.

Session Type: Pre-Conference Institute (4-hour)

**Session Title:** Introduction to Casting Motion to Mobilize Stiffness (CMMS) for Treatment of the Stiff Hand

**Presenter:** Johanna Jacobson-Petrov, Kantessa Stewart, Karol Young, Katie Pisano, Ann Marie Feretti

**Session Description:** Your new patient sits before you with a heavily contracted hand. You learn that the trauma & surgery occurred over 6 months ago, and you begin to feel overwhelmed. Experience has taught you that standard hand therapy treatment and custom orthotics are not always effective in regaining function in the stiff hand. This pre-conference course will introduce the technique of Casting Motion to Mobilize Stiffness (CMMS) as an innovative treatment option for these tough cases. The CMMS technique integrates principles of neuroplasticity, therapeutic exercise and the art of plaster casting to simultaneously address poor CNS movement patterning, fibrotic edema, tissue tightness, and joint contractures. Participants will learn to analyze abnormal movement patterns of the stiff hand and will collaborate with fellow attendees to choose the most appropriate CMMS cast position. Opportunities to become familiar with Plaster of Paris material via application of simple finger or hand based casts will be offered, as will CMMS case examples and live demonstrations of CMMS cast application and removal. This course will change the way you approach the treatment of the stiff hand and will expand your clinical skills while providing your patients with improved outcomes.

**Learning Objective 1:** Analyze abnormal movement patterns of the stiff hand when evaluating which patients would benefit from the CMMS technique.

**Learning Objective 2:** Integrate cortical remapping concepts using active redirection in treatment of the stiff hand.

**Learning Objective 3:** Apply concepts of the the CMMS cast application technique to patients with a chronically stiff hand

Instructional Methods: Lecture, case study discussion, demonstration, interactive lab stations

## Audience Level: Entry

## Supporting References:

1. Hardy M. et al. (2023). How controlled motion alters the biophysical properties of musculoskeletal tissue architecture. Journal of Hand Therapy, 36, 269–279. https://doi.org/10.1016/j.jht.2022.12.003

2. Newbold DJ, et al. (2020). Plasticity and Spontaneous Activity Pulses in Disused Human Brain Circuits. Neuron, 107, 580–589.e6. <u>https://doi.org/10.1016/j.neuron.2020.05.007</u>

3. Midgley R. (2016). Case Report: The casting motion to mobilize stiffness technique for rehabilitation after a crush and degloving injury of the hand. Journal of Hand Therapy, 29, 323–333. <u>https://doi.org/10.1016/j.jht.2016.03.013</u>

**Speaker Expertise:** All speakers have 7-26 years of CHT experience, have lectured and/or written about treatment of the stiff hand, 4 speakers design content for active CMMS Discussion group

**Session Type:** Instructional Concurrent Session (60 minutes)

**Session Title:** Addressing the Knowledge Gap: Using Inclusive Communication in Hand Therapy to Improve Client Outcomes and Health Literacy

Presenter: Theresa Hallenen

**Session Description:** Do you experience concerns about the adequacy of education and training received by your clients? Many healthcare providers are troubled by this issue. In hand therapy, we provide critical information for client safety, home programming, and ultimately returning clients to preferred activities. Clients with health literacy issues struggle with autonomy, self-advocacy, and maintaining good health. Addressing the knowledge gap will enable the therapist to strengthen the therapeutic alliance and enhance health outcomes. Using inclusive communication practices and increasing our understanding of the complexity of the health literacy barrier, we can make positive change for our hand therapy clients.

Learning Objective 1: Define health literacy and how that impacts client access to healthcare.

Learning Objective 2: Identify populations at higher risk to have lower health literacy.

**Learning Objective 3:** Create ideas for client-centered interactions through use of accessible & inclusive forms of communication.

Instructional Methods: Lecture and small group discussion

## Audience Level: Entry

## **Supporting References:**

1. Bryant AM, et al. (2022). Health literacy and occupational therapy: A discussion on assessing and addressing limited health literacy. Open Journal of Occupational Therapy, 10. <u>https://doi.org/10.15453/2168-6408.1996</u>.

2. Stone M, et al. (2023). A Novel Simulation Program for Interprofessional Health Literacy Training. Health literacy research and practice, 7, e139–e143. https://doi.org/10.3928/24748307-20230713-01. **Speaker Expertise:** The presenter has been an OT for 14 years and a CHT for 8 years. They are passionate about improving client outcomes and is eager to share about their inclusive communication practices.

Session Type: Instructional Concurrent Session (60 minutes)

**Session Title:** Applying Evidence Based Practice to Solve Every Day Clinical Problems: What to do when there is no protocol?

Presenter: Ann Marie Feretti, Danielle Kagan, Steven Koehler, Nathan Khabyeh-Hasbani

**Session Description:** This will be an interactive instructional session where participants will explore how to approach and design a post-operative plan in a case-based format. We will explore several cases, such as a new surgical procedure which was performed where there was no post-operative protocol ever used before, or a referral that was vague and the therapist had to create their own plan. This session is an intermediate level course, designed to be interactive with newer and experienced practicing hand therapists who are willing to challenge themselves and engage in clinical reasoning to push their skills. Evidence-based practice is often discussed, but it can be challenging to incorporate that concept into everyday practice in a busy clinic environment. How do you bridge that gap from evidence to practice? Together in this instructional workshop, we will explore ways to collaborate with the surgeon, gather existing evidence, brainstorm ideas with colleagues, and use clinical reasoning to develop a plan that will work for unique patient cases and situations to achieve the best possible functional outcomes.

Learning Objective 1: Evaluate current use and barriers for use of evidence in daily practice.

**Learning Objective 2:** Explore the relationship between postoperative stages of healing with time and milestone based protocols.

**Learning Objective 3:** Utilize available evidence-based resources to support evaluation and intervention choices.

Instructional Methods: Lecture, case studies, panel discussion, interactive polling

#### Audience Level: Intermediate

## Supporting References:

1. Bar-Nizan T, et al. (2024). Implementation of Evidence-Based Practice and Burnout Among Occupational Therapists: The Role of Self-Efficacy. American Journal of Occupational Therapy, 78, 7801205190. <u>https://doi.org/10.5014/ajot.2024.050426</u>

2. Buchanan T, et al. (2021). Fabrication of the external rotation abduction thermoplastic shoulder orthosis for infants and children with birth-related brachial plexus injuries. Journal of Hand Therapy, 34, 504–508. <u>https://doi.org/10.1016/j.jht.2020.05.004</u>.

**Speaker Expertise:** The primary speaker has 32 years of experience as an OT, CHT and clinical leader in private practice. The supporting OT, CHT presenter has 25 years experience. We have a collaborating hand surgeon on our team.

## Session Type: Clinical Practice Poster

**Session Title:** Unique Considerations When Treating Upper Extremity Trauma in the Pediatric Population

## Presenter: Michelle Hagenbaugh

**Session Description:** This poster will highlight two complex pediatric cases, both under the age of six years old, involving upper extremity trauma. One was due to farm machinery and the other was the result of a lawn mower accident. Combined injuries sustained in both cases include fractures, partial digit amputation, nerve trauma requiring surgical intervention, extensive skin grafting, and psychological trauma associated with the incident. Highlighted treatment interventions using a "pediatric friendly" approach will include edema/scar management, desensitization, splinting, range of motion, and integration of the affected upper extremity. The poster will include how treatment was prioritized using guidance from the literature and adapted as clinically appropriate to meet the individual needs of each patient using a pediatric lens. Innovative therapeutic interventions and pediatric considerations will be provided to show how they were used to maximize patient engagement, provide client-centered care, and address the unique needs of the pediatric population.

**Learning Objective 1:** Identify at least 3 innovative strategies to implement standard treatment interventions and formal assessment (i.e. wound care, scar massage, ROM, splinting, etc.) to achieve goals while meeting the unique needs of the pediatric patient.

**Learning Objective 2:** Identify at least 3 pediatric considerations when treating upper extremity trauma.

**Learning Objective 3:** Identify at least 2 challenges and potential solutions with implementing formal assessment and standard protocols of care designed primarily for adolescents/adults in the pediatric population.

## Supporting References:

1. Pettengill KM. (2021). Therapy Management of Complex Injuries of the Hand. In T Skirven et al. (Eds). Rehabilitation of the Hand and Upper Extremity (7th ed, 75, pp. 1057-1069). Elsevier.

2. Franzen A, Katolik LI. (2021). Fingertip Injuries: Surgery and Therapy. In T Skirven et al. (Eds). Rehabilitation of the Hand and Upper Extremity (7th ed, Ch 76, pp. 1070-1081). Elsevier.

**Speaker Expertise:** The speaker is a Certified Hand Therapist and Occupational Therapist who has over a decade of experience working with upper extremity conditions primarily in the outpatient, pediatric hospital setting.

## Session Type: Clinical Practice Poster

Session Title: Effectiveness of Dry Needling to Treat Lateral Epicondylosis: A Case Report

#### Presenter: Nate Short

**Session Description:** This case report presents the use of dry needling (DN) as a safe and effective intervention for an adult diagnosed with lateral epicondylosis.

**Learning Objective 1:** Describe the use of dry needling as a supportive intervention to address lateral epicondylosis as part of a broader plan of care with a focus on restoration of function.

**Learning Objective 2:** Discuss the theorized physiological effects of dry needling and their impact on the cycle of pain and tissue degeneration.

**Learning Objective 3:** Evaluate the evidence for the use of dry needling to address lateral epicondylosis and similar chronic tendinopathies.

### Supporting References:

1. Uygur E, et al. (2017). Dry needling in lateral epicondylitis: a prospective controlled study. International Orthopaedics, 41, 2321–2325. <u>https://doi.org/10.1007/s00264-017-3604-1</u>

2. Kietrys DM, et al. (2013). Effectiveness of dry needling for upper-quarter myofascial pain: a systematic review and meta-analysis. Journal of Orthopaedic & Sports Physical Therapy. 43, 620–634. <u>https://doi.org/10.2519/jospt.2013.4668</u>

3. Bynum R, et al. (2021). Effects of dry needling on spasticity and range of motion: A systematic review. American Journal of Occupational Therapy, 75, 1–13. <u>https://doi.org/10.5014/ajot.2021.041798</u>

**Speaker Expertise:** I am an OT/CHT with 15 years of clinical experience who is also a professor of occupational therapy who teaches related content.

Session Type: Clinical Practice Poster

**Session Title:** Building Confidence, Identifying Needs, and Translating Knowledge about Chronic Pain: The Empowering Dynamics of Collaboration

#### Presenter: Karen Mainzer

**Session Description:** Hand therapy is one of the specialties within the rehabilitation continuum at a large health system, and, therefore, may lack interaction with other disciplines. There are various work groups surrounding these specialties, often homogeneous in nature, that focus on performance improvement. However, the Chronic Pain Work Group consists of a diverse group of caregivers with various backgrounds and was created to share knowledge, develop treatment protocols, and improve patient experience and quality of care. Chronic pain is a specific problem that requires additional knowledge and skills specific to its management and is one of the most challenging things to treat in outpatient therapy. The hand therapist's participation in the Chronic Pain Work Group over the last two years fostered confidence in concepts largely discussed in the context of low back pain and identified a need to extend these concepts to the hand therapy population in which at least 25% have chronic pain presentations. This collaboration in a multidisciplinary working group has inspired new treatment approaches and continuing

education to improve quality of care within outpatient hand therapy. Continued collaboration is essential in the transition to value-based care.

**Learning Objective 1:** Explain 3 ways in which a clinical hand therapist's involvement in an interdisciplinary work group was a mutually beneficial collaboration.

**Learning Objective 2:** Describe how exposure to new perspectives through collaboration identified a need to consider chronic pain presentations within a hand therapy population.

**Learning Objective 3:** Identify how collaboration inspired knowledge translation and performance improvement within hand therapy via continuing education, ASHT contributions, and case studies and why this process is relevant in the transition to value based care.

#### Supporting References:

1. Stern BZ, Howe TH. (2021). Hand therapists' knowledge and practice-related beliefs about pain science: A survey study. Journal of Hand Therapy, 34, 577–584. <u>https://doi.org/10.1016/j.jht.2020.07.007</u>

2. Teisberg E, et al. (2020). Defining and implementing value-based health care: A strategic framework. Academic Medicine, 95, 682-865. <u>https://doi.org/10.1097/ACM.000000000003122</u>

**Speaker Expertise:** I have been a practicing OT/CHT for 25 years with an interest in how the nervous system affects the pain experience, presenting to our team of 25 therapists, at the Utah Hand Therapy Association, and ASHT.

Session Type: Pediatric Specialty Day - Instructional Session

Session Title: Flipping Into the World of Gymnast's Wrist

Presenter: Savannah

**Session Description:** The rise in popularity of the sport of gymnastics calls for further examination of the injuries often associated with the sport. Gymnast's wrist, or distal radial epiphysitis, is one of the most common overuse injuries that affect young gymnasts and can ultimately lead to discontinuation of the sport. For the young athlete, gymnast's wrist can be a lengthy and daunting treatment process and for the treating therapist it can be a confusing diagnosis to navigate, especially when considering return to sport. This presentation will dive into the complex world of gymnastics and provide an overview of gymnast's wrist, as well as treatment interventions to consider when working with your next patient with gymnast's wrist.

**Learning Objective 1:** Review gymnast's wrist and outline the basic components of this intriguing diagnosis.

**Learning Objective 2:** Discuss various considerations during evaluation such as assessing wrist proprioception through the Active Wrist Joint Position Sense test.

**Learning Objective 3:** Discuss treatment interventions integral to the patient's success, and how to create a specialized treatment plan including exercises that can simulate return to sport.

### Audience Level: Intermediate

#### Supporting References:

1. Benjamin, Holly J. MD, FAAP, FACSM; Engel, Sean C. MD; Chudzik, Debra DNP, APRN, BS. (2017) Wrist Pain in Gymnasts: A Review of Common Overuse Wrist Pathology in the Gymnastics Athlete. Current Sports Medicine Reports 16(5):p 322-329. DOI: 10.1249/JSR.00000000000398.

2. Karagiannopoulos, C., Michlovitz, S. (2015). Rehabilitation Strategies for Wrist and Sensorimotor Control Impairment: From Theory to Practice. Journal of Hand Therapy. <u>https://doi.org/10.1016/j.jht.2015.12.003</u>.

3. Sweeney, Emily A. MD; Howell, David R. PhD, ATC; James, David A. DPT, OCS, SCS; Potter, Morgan N. BA; Provance, Aaron J. MD. (2018). Returning to Sport After Gymnastics Injuries. Current Sports Medicine Reports 17(11):p 376-390. DOI: 10.1249/JSR.00000000000533.

**Speaker Expertise:** This speaker has a master's in occupational therapy and has worked with the pediatric orthopedic population for over 3 years. This speaker has extensive knowledge of gymnastics and has worked with both male and female gymnasts at all levels, as well as competed as an elite gymnast herself.

Session Type: Pediatric Specialty Day - Breakout Session

**Session Title:** Utilizing Soft Cast and Plaster to Increase Passive Range of Motion in Pediatric Hand Therapy

#### Presenter: Sarah Schmeda

**Session Description:** Have you ever gotten that deer-in-headlights look from a patient and their family after going over a home stretching program? Or have a family struggling with the wear schedule or correctly donning an orthosis to gain passive range of motion? Joint stiffness and soft tissue contractures can be very difficult and sometimes frustrating to treat, especially in pediatric patients. During this presentation, participants will learn the benefits of using plaster and soft cast as a valid and efficient treatment technique to add to their toolbox for treating passive ROM limitations. Benefits such as low maintenance care, the heat properties of the material on the joint, and the time spent at end range will be discussed. Patient populations that are appropriate for this technique will be reviewed through case studies, including radial longitudinal deficiency, camptodactyly, Volkman's contracture and arthrogryposis. The session will end with a live demonstration of the application and removal of soft cast and plaster. Participants will receive a step-by-step guide on how to complete soft cast and plaster in their treatment settings.

Learning Objective 1: Describe the general concept behind use of soft cast and plaster.

**Learning Objective 2:** Identify at least 3 benefits of using soft cast and plaster with appropriate patient populations.

**Learning Objective 3:** Identify the procedural steps for application and removal of soft cast and plaster effectively on a patient.

#### Audience Level: Intermediate

#### Supporting References:

1. Moulton, S. et al. (2018) A Soft Casting Technique for Managing Pediatric Hand and Foot Burns Journal of Burn Care & Research, Volume 39, Issue 5, September/October, 760–765, <u>https://doi.org/10.1093/jbcr/irx039</u>

2. Purushothaman, P, et al. (2020) 74 The Effectiveness of Serial Casting in Obtaining Maximum Range in Burn Scar Contracted Joints, Journal of Burn Care & Research, 41:1, March, S48, <u>https://doi.org/10.1093/jbcr/iraa024.078</u>

3. Schultz, K, et al. (2021) Chapter 109: Tissue Remodeling and Contracture Correction Using Serial Casting in Rehabilitation of the Hand and Upper Extremity, 7th Ed. P. 1522-1538.

**Speaker Expertise:** The speaker is an occupational therapist and certified hand therapist who has been working in hand therapy for over 5 years. She is the fellowship director of a pediatric hand therapy fellowship.