



## The IFSHT is excited to present edition five of the quarterly newsletter, REACH.

This publication aims to collate Research, Education,  
Achievement and Clinicians in Hand and upper  
limb therapy around the world.



**Daniel Harte**

*IFSHT Publications Committee Chair (2022 – 2025), Northern Ireland*

During the closing ceremony of the joint IFSSH-IFSHT congress in June, invited speaker Tara Packham shared an image of a bell curve graph illustrating the diffusion of innovation across a typical specialism. Narrowly tucked into the left corner of the curve was the 2.5% innovators and then the 13.5% early adopters; to the extreme right were the 16% laggards. I would wager that attendees at the event could be easily plotted along the start of this curve because London 2022 was a melting pot of new knowledge and ideas. Each of these early adopters and innovators will undoubtedly pollinate this information back to their respective homelands.

This issue of REACH will further pollinate by sharing many of the Congress highlights and also celebrate its undoubted success. Many thanks to the host organisation, the British Association of Hand Therapists and the hard-working IFSHT scientific committee and the chairs, Helen Buchanan (SA) and Fiona Sandford (UK), for a comprehensive ensemble of speakers and workshops. Since the last event in 2019 the world has changed in many ways so it was remarkable that global colleagues could once again meet in person, yet also do so virtually. With this in mind, this issue feels like a new beginning that can

be time-stamped with the launch of our fantastic winning REACH logo. Well done to Michele Yuen from Australia.

During the Congress I was also honoured to be nominated as the Publications Officer for IFSHT. This is a role that reports to the IFSHT Information Officer (Susan de Klerk), who has been an invaluable mentor to me. My role is to oversee the two main publication outputs of IFSHT: REACH and the hand therapy contribution to the IFSSH ezine. Thank you to all contributors to each of these publications to date and special thanks to our Publications Committee: Toni Rippley, Mia Eriksson, Tsitsi Murove, Susan de Klerk, Cynthia Srikesavan and Corey McGee.

I hope you enjoy this special edition and that you will also find something within its pages that may spark you to innovate and adopt and that you will also share your learning. And finally, we encourage you to please send content ideas and contributions to [informationofficer@ifsht.org](mailto:informationofficer@ifsht.org)

**Daniel Harte**

*IFSHT Publications Committee Chair (2022 – 2025)*  
**Northern Ireland**



# New and Noteworthy

Written by Mia Erickson, PT, CHT, EdD. Midwestern University,  
Glendale, AZ, USA

## Focus on Tendon Injuries

Svingen J, Arner M, Turesson C. Patients' experiences of flexor tendon rehabilitation in relation to adherence: a qualitative study. *Disabil Rehabil*. 2022;21:1-9. doi: 10.1080/09638288.2022.2051081. PMID: 35311421.

The purpose of this qualitative study was to examine patients' experiences related to adherence and outcome following flexor tendon repair and an early active motion protocol. Seventeen patients participated in a one-on-one, semi-structured interview with the primary author. Content analysis was used to analyze the interview transcripts. Using the Health Belief Model as the theoretical framework, the authors were able to identify six categories that affected adherence. These six factors included perceived susceptibility to loss of hand function; perceived severity of the injury; the perceived relationship between cost, benefits and efficacy of rehabilitation; perceived self-efficacy; the relationship between patient and practitioner; and external factors. The entire study can be found at: <https://www.tandfonline.com/doi/full/10.1080/09638288.2022.2051081>.



## Other open access new and noteworthy studies published in 2022 related to rehabilitation of tendon injuries:

Bouden A, Opota O, Dan D. A refractory tenosynovitis of the wrist: a case report. *J Med Case Rep*. 2022;16(1):75. PMID: 35184751. <https://doi.org/10.1186/s13256-022-03278-x>

Mohn S, Spörri J, Mauler F, Kabelitz M, Schweizer A. Nonoperative treatment of finger flexor tenosynovitis in sport climbers: a retrospective descriptive study based on a clinical 10-year database. *Biology (Basel)*. 2022;25;11(6):815. PMID: 35741336. <https://doi.org/10.3390/biology11060815>

Noriega-Gonzalez DC, Drobic F, Caballero-Garcia A, Roche E, Perez-Valdecantos, Cordova A. Effect of vitamin C on tendinopathy recovery: a scoping review. 2022;27(14):2663. PMID: 35807843. <https://doi.org/10.3390/nu14132663>

Schmitt R, Hesse N, Grunz JP. Tendons and tendon sheaths of the hand: an update on MRI. *RöFo*. 2022 Jun 15. PMID: 35705165. <https://doi.org/10.1055/a-1826-1007>

Svingen J, Wiig M, Turesson C, Farnebo S, Arner M. Risk factors for reoperation after flexor tendon repair: a registry study. *J Hand Surg Eur Vol*. 2022 May 17;17531934221101563. Online ahead of print. PMID: 35579214. <https://doi.org/10.1177/17531934221101563>

# Research data and interpretation

Written by Dr Cynthia Srikesavan, Senior Researcher in Physiotherapy, Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences, University of Oxford, UK

This is Part Two of a tri-series on the basics of understanding research data in journal articles. We looked into different types of data and various ways of summarising those (descriptive statistics) earlier.

This section will focus on 'Inferential statistics' that help us make conclusions from a sample by comparing differences in groups or relationship between different variables.

## Inferential statistical tests

The following are the most common inferential tests that you will come across in the results section of the journal articles.

### Student t tests

Clinical studies aim to identify any differences between two groups that received different interventions or the difference in a single group before and after an intervention. Researchers make assumptions (hypothesis) that the group means are equal (null hypothesis) or different (null hypothesis rejected). Statistical tests such as student t tests are used to test these assumptions.

Student t tests tell us two things: i) how significant the differences between the group means were and ii) whether the differences happened due to chance. The main types of t tests for continuous data are 'independent' sample t test and 'paired' sample t test.

Independent sample test compares means of two unrelated groups on the same variables after receiving two different interventions (for example, standard care versus structured exercise programme). Paired sample t test compares means of the same single group on the same variables measured at two time points (before/after an intervention).

In situations like skewed data, small sample size, ordinal or nominal data, the alternative non-parametric tests are Mann-Whitney U test and

Wilcoxon signed rank test for independent and paired t tests respectively.

### How to interpret t test results?

Student t tests give a t score which is the ratio between the difference between two groups or within the same group. Larger the t score means more difference between groups; smaller the t score, means groups are more similar.

Every t score has a p-value attached to it. The p stands for the probability that determines whether the difference happened by chance. p-values range from 0 to 100% and are often presented as decimals. For example, a p-value of 5% is 0.05.

In medical research, p-values of 0.05 and 0.01 are often used as conventional cut-off points (also called level of significance or Alpha). A p-value of 0.05 means, if we run a study 100 times, we will be able to reject the null hypothesis 5% of the time, and accept it 95% of the time. When the p-value falls below the conventional cut-off point, we reject the null hypothesis and when they are above, we fail to reject the null hypothesis.

Higher p-values, for example,  $p = 0.43$  indicates that there was 43% probability that the results happened by chance with no difference between/within groups. A p-value of 0.01 means that there was only 1% probability of happening by chance and hence the differences are statistically significant.

P-values less than 0.05 are usually indicated with one star (\*), and those below 0.01 with two stars (\*\*) in journal articles.

While student t tests are limited up to two groups, one-way analysis of variance (ANOVA) test is another statistical test used to compare two or more groups that received different interventions. The non-parametric alternative of ANOVA is the Kruskal Wallis test.

It is worth noting that p-values must not be overemphasised as they don't provide useful information on the clinical significance or the magnitude of the effect of an intervention. Achieving statistical significance does not imply clinical significance of an intervention all times.

## Correlation or measure of association

Correlation indicates whether two variables tend to be systematically related to each other. There are three situations possible: i) whether they rise and fall together; ii) one variable rises and other falls; or iii) they aren't related at all. These associations are determined by statistical significance and correlation coefficients.

Correlation coefficients range from -1.0 and +1.0 and provide information about the strength and direction of relation between two variables. Negative correlation means when one variable rises, the other one falls. Positive correlation means both variables either rise or fall together. We use Pearson correlation coefficient ( $r$ ) for normally distributed data and Spearman coefficient ( $\rho$ ) for non-normal data variables.

## How to interpret correlation coefficients?

One conventional method to interpret the strength of correlation coefficients is as follows: 0 to 0.3 is negligible correlation; 0.3 to 0.5 is weak correlation; 0.5 to 0.7 is moderate correlation; 0.7 to 0.9 is a strong correlation and above 0.9 is a very strong correlation.

For example, one study reported a Pearson  $r$  of 0.825 ( $p < 0.01$ ) between the scores of two functional scales, Health Assessment Questionnaire (HAQ) and the Disabilities of the Arm, Shoulder and the Hand (DASH) questionnaire in people with rheumatoid arthritis. This means that the relationship or association between the two scores was significant, positive and strong.

## Key takeaways

- We draw inferences and conclusions from data through inferential statistical tests.
- Student t test and correlation analysis are the common inferential statistical tests.
- t tests determine whether there are significant differences between the means of two independent or related groups.
- Independent sample and paired sample t tests are the parametric tests used in normally distributed data; Mann-Whitney and Wilcoxon signed rank test are the non-parametric alternatives.
- Correlation analysis determines the direction and magnitude of relationship between two variables.
- Pearson correlation is used for normally distributed data; Spearman correlation coefficient ( $\rho$ ) is the non-parametric alternative.
- Correlation coefficients range from -1.0 and +1.0. Values closer to 1 indicate strong or very strong association between the variables.

## References

1. Thomas E. An introduction to medical statistics for health care professionals: basic statistical tests. *Musculoskeletal Care*. 2005 Dec; 3(4):201-12.
2. Krousel-Wood MA, Chambers RB, Muntner P. Clinicians' guide to statistics for medical practice and research: part I. *The Ochsner Journal*. 2006; 6(2):68.
3. Kaplan J, Jalili M, Taylor DM. Basic statistics: A research primer for low-and middle-income countries. *African Journal of Emergency Medicine*. 2020 Jan 1; 10: S145-9.
4. Rodrigues CF, Lima FJ, Barbosa FT. Importance of using basic statistics adequately in clinical research. *Revista brasileira de anestesiologia*. 2017 Nov; 67:619-25.
5. Silva GS, Lourenço MD, Assis MR. Hand strength in patients with RA correlates strongly with function but not with activity of disease. *Advances in Rheumatology*. 2019 Jul 29; 58.
6. Mukaka MM. A guide to appropriate use of correlation coefficient in medical research. *Malawi medical journal*. 2012; 24(3):69-71.



# Research in Action – Levels of Evidence

Written by Mia Erickson, PT, CHT, EdD. Northwestern University, Glendale, AZ, USA

## Level 4 Evidence

Welcome back to the Research in Action column. This issue will present an overview of Level 4 evidence. According to the Centre for Evidence Based Medicine, Level 4 evidence includes the case series study design. Kooistra et al.<sup>1</sup> defined the case series as a study that follows a group of patients with a similar diagnosis or who are undergoing the same procedure over a specific period of time. A case series is different from a case study in that a case study only reports on one patient. The group size, or number of participants in a case series is typically small. Murad et al.<sup>2</sup> reported the median number of patients in articles with “case series” in

the title was seven, but the range was one to over 6000. Similar to other designs discussed in previous issues, there are pros and cons of the case series design. The aim of this article will be to highlight some of the benefits and limitations of a case series and to provide some examples of this design used in in hand therapy research.

One benefit of a case series is its ability to capture data from “real-world” patients as it unfolds. Clinicians collect data from patients in a clinical setting rather than in a controlled research environment. This gives the case series design good



external validity. This means the results can be better applied to clinical practice in other facilities.<sup>1</sup> In addition, a study using a case-series design can be carried out in any clinical setting. Case series designs can be a good choice when research ethics prohibit the use of a control group.<sup>1</sup> Case series designs can be prospective or retrospective. A retrospective study uses existing data recorded as part of the medical record or for reasons other than research.<sup>3</sup> Retrospective studies typically aren't considered as strong as prospective studies since data collection may be incomplete or inconsistent. Also, case studies do not have to enrol consecutive patients.<sup>4</sup> Kooistra et al.<sup>1</sup> indicated that case series designs can also be very cost effective. All of these factors make this design a feasible choice for clinicians wanting to report on a novel or rare condition, intervention, or outcome. Murad et al.<sup>2</sup> reported a number of additional benefits of the case series design which included describing unknown adverse events, reminding or educating others, and for quality improvement. Data from a case series design can serve as pilot data for a researcher wanting to develop a randomized controlled trial.

Case series designs are often associated with a high risk of bias, because they don't have a control or comparative group.<sup>2</sup> Also, a study carried out using a case series design cannot make a causal inference about treatment or outcome or assess treatment efficacy.<sup>1</sup> In a case series, there are limits to the way data can be reported or the types of

analyses that can be performed. For example, a narrative description of results or a regression (depending on sample size) can be provided but since there is no comparison group, neither odds and risk ratios can be calculated.<sup>2</sup> Also, it is impossible to run and analyses of difference or a test of a treatment effect.

One consideration is distinguishing the case series design from the cohort study. For example, a case series design can be difficult to distinguish from a single-arm cohort study.<sup>2</sup> Mathes and Pieper<sup>4</sup> indicated that while both studies may describe patients that received a specific treatment, a case series would not have a comparative group.

There have been several studies published that have used the case-series design that have provided valuable knowledge for hand therapists. For example, Miller et al.<sup>5</sup> provided a retrospective case series of 15 patients with brachial plexus neuropathies following discharge from critical care due to severe COVID-19. Their study provided early information on brachial plexopathies and other nerve injuries associated with prone positioning during intensive care stays. Rabin et al.<sup>6</sup> provided results of a specific treatment approach in four patients with de Quervain's disease. Regardless of limitations, the case series can provide valuable information to researchers and clinicians. They have profoundly impacted the medical literature and advanced our knowledge<sup>2</sup> about novel conditions and treatments.

## References:

1. Kooistra B, Dijkman B, Einhorn TA, Bhandari M. How to design a good case series. *J Bone Jt Surg.* 2009;91(SUPPL. 3):21-26. doi:10.2106/JBJS.H.01573.
2. Murad MH, Sultan S, Haffar S, Bazerbachi F. Methodological quality and synthesis of case series and case reports. *Evid Based Med.* 2018;23(2):60-63. doi:10.1136/bmjebm-2017-110853.
3. Hess DR. Retrospective Studies and Chart Reviews. *Respir Care.* 2004;49(10).
4. Mathes T, Pieper D. Clarifying the distinction between case series and cohort studies in systematic reviews of comparative studies: Potential impact on body of evidence and workload. *BMC Med Res Methodol.* 2017;17(1). doi:10.1186/s12874-017-0391-8.
5. O'Sullivan J, Miller C, Jeffrey J, Power D. Brachial plexus neuropathies during the COVID-19 pandemic: A retrospective case series of 15 patients in critical care. *Physiotherapy.* 2022;114:e46-e47. doi:10.1016/J.PHYSIO.2021.12.298.
6. Alon A, Israeli T, Kozol Z. Physiotherapy Management of People Diagnosed with de Quervain's Disease: A Case Series. *Physiother Can.* 2015;67(3):263-267. doi:10.3138/PTC.2014-47.

# A celebration of the IFSHT / IFSSH London Congress content.



The education segment of this volume of REACH highlights the perspective and experience of in person and virtual attendees of the London Congress 2022. We asked colleagues to present their highlights from a particular day as a way to summarise content that they were able to attend and engage with. We thank the following individuals for taking on the challenge and for allowing us to re-live the congress through their eyes: Toni Rippey (virtual attendee), Daniel Harte (in person attendee), Caroline Stegink Jansen (in person attendee) and Kim Kraft (virtual attendee).





Tuesday  
7 June 2022

## Toni Rippey – New Zealand

Every 3 years, with enthusiasm, I look forward to the IFSHT conference. Being relatively new to the international setting, I have attended the Buenos Aires and Berlin conferences and was looking forward to reuniting with new and old friends in London. Then Covid struck...

Uncertainty within the world, made it an extremely difficult decision to not join the 2022 IFSHT conference in person but the committee made the online process seamless and 'the next best thing'.

The conference planners made 3 streams of education available to listen to (1 therapist stream and 2 surgeon streams). This allowed me access to, perhaps, more information than I would have had being there in person. The only other difficulty was the timeframe between NZ and London, making listening live terribly difficult. However, the short delay to having access to the content made this a small hurdle and the content this year... well wow!

My Tuesday highlights were as follows:

As a therapist with 15 years of experience the beauty of IFSHT/ IFSSH conferences is the access to all streams. To upskill and learn from surgeons and therapists alike is such a valuable and unique experience and one that is not replicated on this scale throughout the world.

Passion, expertise and knowledge abound within our professions.

The hand Therapy keynote speaker, Tara Packham, spoke about making sense of sensitisation. She described desensitisation as an umbrella term which envelopes pain exposure, stress loading, sensory re-education, sensory retraining and


graded exposure. When I document my interaction with patients requiring desensitisation, I felt challenged to be more specific with my terminology to describe my interactions. Being more specific with my documentation will benefit both patient and my education.

Elisabeth Haggart is always a highlight for me at conferences. Her matter of fact but highly researched knowledge base about the complexities of the wrist is jaw dropping. The history that she presented around the aetiology of proprioception was extraordinary. Fascinating facts like proprioception being first defined in 1906 and trillions of nerve receptors being available in every ligament throughout the body was mind blowing. Her discussion about sensory receptors like the pacini corpuscles, golgi-like receptors, ruffini receptors and free nerve endings made me desire to read further research and delve further into this proprioceptive research. It also gave me so much insight into how I use this proprioceptive knowledge in my day-to-day clinical practice.

Alex Lluch described wrist instabilities and the potential euphemism of wrist dysfunction rather than instability as instability may not really describe the 'issue'. This resonated with me, and I will be on the lookout for more discussion about this in further journals, research and presentations.

Being able to sit from the comfort of my own home and be inspired by surgeons, researchers and therapists world-wide, who treat patients in similar ways to us here in NZ, was simply a joy and in some ways a reassurance that we are doing hand therapy practice very well in NZ.





Wednesday  
8 June 2022

## Daniel Harte – Northern Ireland

Each day of the Congress had an early start of 8am. Each two-hour block, like a box of chocolates, offered the delightful dilemma of choosing which session to choose next. However, the introduction of the hybrid model of both virtual and in-person attendance meant I could watch select recordings of any missed sessions when I got back home.

Radial sided wrist pain and carpal fractures was my first treat on Wednesday.

Ben Cunningham shared his expertise on the rehabilitation of grade 1 and 2 scapholunate instabilities. He emphasised the importance of patience and his crawl-walk-run philosophy in the management of these injuries. Also, he advised therapists to be mindful of what muscles are being activated when performing isometrics. In particular urging therapists to ensure the extensor digitorum communis (EDC) is not being activated when performing contractions to the muscle of focus (i.e. extensor carpi radialis longus – ECRL).

Hamish Anderson brought the audience along a problem-solving journey on when the dart thrower's orthosis is best incorporated into SL rehab. Hamish discussed the delicate balance between avoiding SL gaping and promoting early movement, function and corticalization. This was provided in the context of the current body of research, laboratory studies and clinical experience.

Martin Holmes offered some new insights that have developed since the publication of his and colleagues' article from Hand Therapy in 2017. This was a report on outcomes using the Birmingham Wrist Instability Programme. These insights included special focus on technique when performing isometrics as well as dosage and position of the forearm during the "conscious" phase of the programme. In the unconscious phases, Martin further provided clinical pearls on building up tolerance to weight bearing and gyroscope training.

Sarah Mee delved into rehabilitation of the chronic issue of the SLAC wrist. Consideration was given to assessment and in particular observation of sensorimotor control in activities of daily living. Sarah also illustrated pre-operative and post-operative treatment options along with an overview of the common surgical procedures used across stage 1 to 3 SLAC wrists.

The final two speakers provided clinical results on two surgical approaches used for scapholunate injuries. Ildiko Rigone reported positive results in function and pain in 24 patients after electrothermal shrinkage of the SL and LT ligaments along with sensorimotor retraining to the SL and LT ligaments. Similarly, Karam Ahmad reported favourable outcomes of seven patients using an internal brace for SL ruptures after one year.

Mid-morning, I attended the keynote lecture on the pathophysiology of nerve entrapments. Annina Schmid discussed her research findings on how progressive mild nerve compression can result in chronic local and remote immune-mediated inflammation and how intraneural oedema reduction is a likely therapeutic benefit of splinting and gliding exercises. Reference was also made to research by Karina Lewis on the benefits of group therapy for carpal tunnel syndrome and how therapy-led care can reduce conversion to surgery by 21%.

Elisabeth Hagert detailed how to complete a comprehensive assessment of nerve entrapments. She explained how this must be a triad of assessment that considers motor, sensory function, and pain. When it comes to motor assessment, we must look for the "hidden paralysis" that accompanies early-stage nerve entrapments (the 4 out of 5 on the manual muscle test). Elisabeth demonstrated her protocol for motor testing the upper quadrant and the use of the controversially scratch collapse test.



Michel Coppieters gave an overview on practice guidelines for the management of carpal tunnel syndrome (CTS). Key points included the need for early surgical opinion in the presence of thenar atrophy or abnormal electrodiagnostic findings and individuals with CTS should be provided with a wrist orthosis for night with the wrist in a neutral position. Michael shared results from a study he co-authored and published in *Diabetes* in 2020 that showed that sensory dysfunction can be present in the peripheral nerves before symptoms manifest. Therefore, early detection is possible, which may assist in the prevention and effective management of diabetic neuropathy.

Alison Taylor has a large social media presence (Instagram: @alison.taylor1025) where she has video documented her novel approaches in treating an array of patients with issues such as pain, stiffness and tremor. At Congress it was insightful to hear

her explain her clinical reasoning and discoveries. In her experience tight skin can be a source of pain. Some key points were that Alison observes upper limb pain as mainly localised to the dorsal surface of the forearm and lateral surface of the upper arm. Therapists need to be astute to visual cues, verbal cues and skin cues. Alison also held a workshop at the Congress entitled "Treating without Pain" which offered more insights and practical demonstrations.

This was only the tip of the iceberg on offer on Wednesday. Other sessions included congenital hand, upper limb spasticity, ulnar sided wrist pain and the DRUJ, health economics, high pressure fluid injuries, tendon transfers, shared decision making and a list of surgeon sessions as well. Wednesday also held a series of workshops that included Orficast splinting, Isoforce outriggers, 3D wrist anatomy and biomechanics, casting in paediatrics, treating the stiff hand, chronic wrist pain and EMG.

## References:

1. Holmes KH, Taylor S, Miller C. Early outcomes of 'The Birmingham Wrist Instability Programme': A pragmatic intervention for stage one scapholunate instability. *Hand Ther.* 2017; 22(3):90-100. doi: [doi.org/10.1177%2F1758998316685469](https://doi.org/10.1177%2F1758998316685469)
2. Sierra-Silvestre E, Somerville M, Bisset L, et al. Altered pain processing in patients with type 1 and 2 diabetes: systematic review and meta-analysis of pain detection thresholds and pain modulation mechanisms. *BMJ Open Diabetes Research and Care* 2020;8:e001566. doi: [10.1136/bmjdr-2020-001566](https://doi.org/10.1136/bmjdr-2020-001566)





## Caroline Stegink Jansen – USA

The fourth day of the Congress, Thursday June 9 was another day filled with exciting presentations of not only of clinical treatments, but also on service delivery and career and leadership development. Presenters from around the world showed their research and expertise in invited papers, three sessions of free papers and two workshops. Invited papers covered tendinopathies, pain, shoulder problems, innovations in practice, psychology and paediatric hand trauma. The two workshops were directed to prevention and treatment for musicians and pain management. It was difficult to make a choice on which session to attend in person. The recordings were so helpful, but more recordings are needed for a next congress!

The sessions offered a nice balance between surgical and therapist provided treatments, foundational research and outcome studies and clinical pearls. For example, in the session on tendinopathies PC Ho (Hong Kong) presented foundational information on tendinopathy and surgical interventions; Maggie Persson (Sweden) showed her fine-tuned clinical skills from showing the critical use of pain medications to orthotic devices and therapeutic interventions. Caroline Jansen (USA) matched biomechanics and ergonomic interventions for patients with lateral epicondylagia in an integrated review. The session closed with a beautiful clinical randomized trial presented by Brodwen Mc Bain on isometric exercise program of patients with de Quervain's syndrome. No shearing while strengthening! Avoiding shearing may have been a prevailing theme amongst the speakers.

A shoulder session was addressed by speakers from Italy (Fabrizio De Lazzari), Canada (Shrikant J. Chinchalkar and Juliana Larocerie-Saldago), USA (Peggy Boineau) and the Netherlands (Ruud Selles). The anatomy came to life in videos of the

anatomical components moving through the basic movements. The matching of speakers was great. What stuck in my mind was the carefully designed protected mobilisation program for patients after adhesive capsulitis and rotator cuff repair laid out by Peggy Boineau that felt like flexor tendon thinking applied to the shoulder! Unfortunately, that session was not recorded.

The session on pain was recorded, and available for later viewing. Mick Thacker presented on pain behavior and management. A statement that stayed with me was "pain is a perception rather than a sensation". Allodynia was addressed by Tara Packham (Canada), and brain targeted therapies were addressed by Aidin Cashin (Australia).

The session on innovations showed works by speakers from China (Emma Zang), Sweden (Max Jair Ortiz Catalan), the UK (Rachel Box), Australia (Lisa O'Brien, and Beth Taylor and Ngairé Turnbull). The topics included robotics, prosthetic devices that provided sensory input, but also educational innovations. The session came to life because speakers shared the lived experience of patients, and showed the need for close working relationships between patients and researchers to move this field forward.

Poster presentations were available on-line continuously, but there was also a set up with about six computers close to the vendors sections, where I roamed around the posters on the Thursday afternoon.

Thursday was another example of the enormous added quality when multiple countries come together to show their expertise and progress. It was not possible to see it all, or mention the great work by all speakers in this short section. The days was completed and the congress was celebrated during the Congress Dinner.



## Kim Kraft – USA

This year I attended the 2022 IFSSH IFSHT FESSH Conference as a virtual attendee. This was my first time at the Triennial Congress. The variety and quality of sessions was a little overwhelming. Each day of programming yielded several days of listening and study from my home in Portland Oregon USA. The international speakers lit my mind on fire on topics that challenged my inexperience in pediatric hand conditions, my views about of patient outcome reporting, and my every-day treatment approach for tendinopathy and painful motion.

First, I watched a surgeon panel on pediatric conditions. These diagnoses are not frequent in my clinic so I was concerned I would be out of my depth. A syndactyly debate discussed the merits of tension-free closure with use of a graft from the iliac crest versus use of a “sting ray flap.” The friendly debate included basic information such as the differences between grooved versus flat types of syndactyly and complexity introduced with three finger syndactyly and associated anomalies in anatomy and neurovascular supply. Wound healing augmentation with a hydroxyapatite (HA) scaffold minimizing scar was demonstrated with a case study. The session moved into a similar discussion of camptodactyly and challenging case studies, surgical planning, and anatomy variations. After this session, I felt ready to have a meaningful conversation of the concepts!

Next on my agenda was the combined therapist-surgeon session titled “Outcomes in Management of Hand Disorders.” This session took me into a thorough review of the state of the art in research and outcomes studies. The fundamentals of patient-reported outcomes assessment led into a review of psychometrics and the development of the Hand-Q. The Hand-Q is a new outcomes study that challenges my allegiance to my handy Quick DASH. Aside from the development of Hand-Q, international researchers are challenging how we collect data (“data capture”) from people with upper extremity conditions borrowing from strategies found in marketing, actuarial science, Facebook, Google, and Cambridge Analytica. For

example, data scaping finds correlations and language from online information to find patient-described patterns and relevance that can inform study and decision-making. Better measures and math can yield a more accurate picture and challenges us to release our comfortable traditional measures such as the PRWE, DASH, PEM, and MHQ. As an example, my beloved Quick DASH measures 70% function, 30% sensory symptoms, and 0% satisfaction. While objectively useful, these measures collect the data for my clinical goals and leave short the human experience. Integral to the experience is cultural consideration for important aspects in life and difference in descriptive language. Having better outcomes will shape our data collection, our clinical goals, and the entire experience of providing and receiving care. The patient-clinician alliance allows shared decision making, respects patient priorities, and assists in communication.

The therapist session on Upper Limb Tendinopathies contained immediately applicable clinical pearls for treating a common diagnosis managed without surgery. Innovative ideas included adding proprioception and rebalancing wrist muscles and novel ideas about caring for hypermobile thumbs, use of eccentric exercises to manage DeQuervain’s, and connecting pathology biomechanics and ergonomics for lateral elbow tendinopathy.

Alison Taylor was the keynote speaker on the topic of treating without pain. Every time I see this presentation, I come away with so many creative ways to modify skin position to increase motion. If you do not follow Alison on LinkedIn, it is time you do because you will witness a completely original approach to restoring motion for people with digit and wrist pain.

Expectations are necessarily high for any session titled “Innovations in Practice.” Presentations were on varied topics including data-supported hand therapy and hand surgery to enhance outcomes, education, and expectations; Neural Control and Sensory Feedback in Bionic Hands; and Real-World Testing of the Self-Grasping Hand.



Friday  
10 June 2022

## Daniel Harte – Northern Ireland



First thing Friday I attended the session on Musicians: how to keep the show on the road. Mark Philips gave an overview of the types of musicians and their associated conditions he sees in his surgical practice. He informed the audience of his decision-making process on when to operate or not to operate and what surgical considerations are taken when considering the clients instrument along with their post op management. Mark Edwards gave a thorough explanation of musician's dystonia, which musicians it is mostly seen in and why it occurs.

Tina Wang gave lots of practical advice on the assessment and rehabilitation of the musician with hypermobility while Katherine Butler gave examples of her post op rehabilitation of her musician clients and how she manages dystonia with video examples.

With many profession musicians being prone to overtraining and not warming up, Bronwen Ackerman provided essential advice on injury prevention with this client group. To conclude this session ended with a live musical performance by

Mark Ashford on guitar and Jack Liebeck on violin along with a live activity analysis.

Later in the morning we sadly reached the Closing Ceremony with outgoing IFSHT President, Nicola Goldsmith, offering her thanks to all those who organised the Congress. All the speakers and the current IFSHT Executive Committee.

The IFSHT Executive Committee for 2022 to 2025 was also announced. Good luck to Peggy Boineau (new IFSHT President) and Stacey Doyon, Susan de Klerk, Marie Eason Klatt and Liz Ward.

It was also announced at the Closing Ceremony that the next joint IFSSH-IFSHT Congress will be in Washington, USA, with Aviva Wolff taking on the role as the host country Scientific Committee Co-Chair.

The Silent Auction was yet again a success raising \$8,326. Money raised will support therapists to attend the Congress in 2025.

See you in Washington 2025!





# Clinical Pearls

In this section we feature clinical pearls which should be applicable to most hand therapy settings. **We welcome your ideas.** Submit them to [informationofficer@ifsht.org](mailto:informationofficer@ifsht.org).

The clinical pearl was submitted by **Ivo Ivanov from Sofia, Bulgaria**. Ivo is a fourth-year student in the Bachelors of Physiotherapy programme of the National Sports Academy Vasil Levski, Sofia, Bulgaria. He works as a volunteer under Geogi Petrov in Hand Rehab Consult Ltd, a private hand therapy practice in Sofia, Bulgaria.

The static progressive splint is designed for increasing passive flexion of the interphalangeal joints of the index finger.





# Lifetime Achievement Awards

IFSHT celebrated the careers of a number of Hand Therapists at the 2019 IFSHT Berlin Congress. Each of them was presented with the prestigious IFSHT Lifetime Achievement Award for Contribution to Hand Therapy. In the REACH newsletter we profile those therapists who, as you will see, have trail blazed and left an enduring mark on the specialism. Upcoming volumes of REACH will feature the recipients of this award from the 2022 IFSHT London Congress.

Compiled by Toni Rippey



## Corrianne van Velze

Corrianne is a South African hand therapist with over 35 years of experience treating hand and upper limb conditions. She is an Occupational Therapist and has furthered her studies completing her master's degree. She is passionate about the use of activities or occupations in hand therapy and utilising day to day activities and function to enhance the patients journey and participation in hand therapy intervention. Corrianne served on the executive committee of the IFSHT for 15 years. She has had over 20 years' experience teaching undergraduate Occupational Therapy students. She also coordinated and presented the first Post Graduate Diploma course in Hand Therapy in which over 200 therapists have been trained throughout Southern Africa since 2001. Corrianne has also published articles and co-authored a book as well as lectured both nationally and internationally. Her passion within the field of Hand Therapy is extraordinary.



## Dominique Thomas

Dominique trained as a Physiotherapist and Orthotist. He has worked in Norway, California and Slovenia and currently resides in France running his own private clinic specialising in hand and upper extremity rehabilitation. Dominique has many professional associations including being a founding member of the IFSHT. He has contributed to more than 100 presentations and publications both nationally and internationally, in multiple languages. Dominique has also participated in educational and humanitarian missions in Vietnam, Mongolia, India, Congo Kinshasa, Cameroon, and Malaysia. His credentials and past and current contributions to Hand Therapy are significant and are certainly a reflection of this lifetime achievement award.



## Jean Claude Rouzaud

Jean Claude has a wealth of education and study behind him. He is a physiotherapist, based in Montpellier, France, who went on to study reflexotherapy and acupuncture, rehabilitation and splinting in hand surgery and orthotics. He has a commitment to teach and train hand therapists and has had the ability to achieve this both within national and international platforms. He has had invitations to lecture internationally and had presented at international meetings. Jean Claude has conducted research in anatomy, he has been published in journals and he prioritises his contribution to clinical practice. Jean Claude is a founding member of the IFSHT and served as Secretary General, President and Past President for 12 years. He has also been involved in a humanitarian mission to Tehran which involved teaching, consultations and splinting of patients. His commitment to the profession of hand Therapy is extensive.



## Margareta Persson

Margareta is an Occupational Therapist with over 30 years' experience in Hand Therapy. She is a continued inspiration for therapists in Sweden and all around the world. She has organised congresses and courses throughout Scandinavia and in more than 40 countries around the world. Margareta has served on the IFSHT for 12 years, as historian, secretary and president. Her ongoing contribution to the Swedish Society of Hand Therapy has been substantial. She has presented posters and free papers at conferences worldwide and has been an invited speaker at many of these international conferences. She has continued to hold several workshops in hand therapy and splinting inspired by her ongoing commitment to pass on her passion to others for hand therapy.



## Rosemary Prosser

Rosemary is an Australian based Physiotherapist. Her involvement with the IFSHT stems back to the first official conference in Tel Aviv in 1989 and she has attended every IFSHT conference since. Rosemary is on the editorial international corresponding editors of the Journal of Hand Therapy. She has been an invited speaker at a number of national and international conferences. Rosemary regularly participates in humanitarian outreaches to Myanmar and Vietnam and has done since 1997. Both her masters and doctorate achievements focussed on the hand and upper limb. She has published research in both journals and textbooks. Rosemary is an extremely passionate and knowledgeable therapist who has a commitment to ongoing education and has taught at a post graduate level. Her past and ongoing contributions to Hand Therapy are noteworthy and so very deserving of this award and honour.





## Christina Allegri Award Winner 2022

This award is given to an Occupational Therapist or Physical Therapist who has made an innovative contribution to the practice of hand therapy. The innovation is a creative and unique, tangible, or intangible and involve the development or use of methods, materials, systems, technologies, or services that are new and enhance the practice of hand therapy.

This year at the London Congress, the award went to Hayley Fay from the United Kingdom for her "Hand Therapy" exercise prescription app.

This digital innovation aims to improve the delivery of exercise programmes straight to smartphones. It comprises high quality exercise videos and educational content designed to aid compliance, comprehension and performance of exercises. The app is free and accessible worldwide enabling equitable information sharing and patient support, not revenue generation. Version 2 is launching later this year with new features including my functional goals and video upload to customise programmes.

Congratulations Hayley!





## SPOTLIGHT ON: Swedish Society for Hand Therapists

Submitted by: Jenny Rosengren, Chair of SFH

The Swedish Society for Hand Rehabilitation (SFH), is a non-profit organisation that unites physiotherapists and occupational therapists who work in the field of hand rehabilitation. The organisation was formally registered in 1990 and the initiative originally came from the clinic at Uppsala University Hospital. The first decade the organisation only included those working at one of the seven clinics of hand surgery that are spread out around the country. The primary purpose was to increase the cooperation and share knowledge between the therapists at these clinics. Since 1999 the bylaws of SFH were changed and now physiotherapists and occupational therapists working in primary and private care are welcome to join.

Today we have approximately 200 members. As a society SFH is both a member of EFSHT and IFSHT. In Sweden it has not been possible to arrange a formal certificate as a hand therapist, but SFH has developed an accreditation in hand therapy that enables the members who receive this accreditation to apply for ECHT, European certificate of Hand Therapy.

Every year in March the society finances a two-day conference about different aspects of hand rehabilitation. The hosts are one of the clinics specialising in Hand Surgery. This year the conference took place in Örebro and the two main themes were artificial intelligence (AI) and its evolving place in the world

of hand rehabilitation and functional anatomy of the hand and upper extremity. Added to this there was a very informative lecture about how to handle burn injuries and a thoughtful lecture about growing up as a CODA, Children of dead adults, and their language. We learned that hands are mainly a support to mirror their facial expressions and that it is possible to carry on speaking sign language even with amputated hands.

Sweden has one post graduate course in Rehabilitation in Hand Surgery at Lund's University. The participants meet for a week on four occasions during the year. The teaching is in the form of lectures, literature reviews, self-studies and literature seminars. Lectures and materials are in English since the course is open to international students. The course is at an advanced level and can be used towards a master's degree in one of the main fields of Occupational Therapy or Physiotherapy.

Health care in Sweden is mainly focused on public health care and the seven high specialised clinics are responsible for taking care of all the major hand injuries, one clinic caring for every region. As a complement to this there is also public primary care and private companies, who mainly are handling easier hand surgery and rehabilitation. The financing for private care is either through insurance companies or through agreements with the region involved.



*From left to right: Eva Karlsson Schagerström, Marie Hansson Björk, Jenny Rosengren, Christine Lundberg, Pär Linnertz (Absent Jenny Landén and Sara Larsson)*





**REACH contact:** Susan de Klerk | [informationofficer@ifsh.org](mailto:informationofficer@ifsh.org)

**IFSHT enquiries:** Marie Eason Klatt | [secretarygeneral@ifsh.org](mailto:secretarygeneral@ifsh.org)

**IFSHT DISCLAIMER:** The IFSHT Newsletter, REACH, is the official mouthpiece of the International Federation of Societies for Hand Therapy. IFSHT does not endorse the content or views of the contributors to the publication. Subscription to the IFSHT REACH is free of charge and is distributed on a quarterly basis.

Designed by

