



The IFSHT is excited to present edition three of the triannual newsletter, REACH.

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





## Welcome to the final issue of REACH for 2024.

We continue with our themed issues as this issue of REACH focusses on Hand Therapy in low to middle income contexts (LMICs). Upon reflecting on health care service delivery in LMICs, Goal 3 of the United Nations' Sustainable Development Goals comes to mind.<sup>1</sup> Health and Wellbeing for all – Ensure healthy lives and promote well-being for all at all ages.

It reads as a simple statement, full of promise and hope, but is hampered by continued challenges. Inroads have been made towards reaching this goal in recent years; inequality in health care however persist, especially in LMICs where some of the key challenges include:

- **Infectious Diseases** such as malaria, tuberculosis, and HIV/AIDS highlight the impact of poor healthcare infrastructure and limited access to vaccines and treatments.
- **Non-Communicable Diseases (NCDs)** such as diabetes and cardiovascular diseases continue to prevail due to lifestyle changes and continued urbanisation. There is continued lack of resources for prevention, early detection, and management.
- **Maternal and Child Health** remains problematic with high maternal and infant mortality rates. There is a need for better access to prenatal and postnatal care, family planning services, and education.
- **Mental Health** remains stigmatised compounded by a lack of mental health services. There is a need for awareness and integration of mental health into primary healthcare.
- **Access to Clean Water and Sanitation** toward disease prevention. Many communities continue to face challenges in accessing these essential services.
- **Healthcare Financing** and Infrastructure is limited and overburdened, through limitations in healthcare budgets, infrastructure, and workforce in LMICs. This leads to poor health outcomes and inequities in service delivery.
- **Trauma and Violence** including warfare, interpersonal violence, work related injury and motor vehicle accidents places a burden on the health care context in many LMICs, compounded by the limitations in healthcare financing and infrastructure, leading to poor outcomes.

Providing Hand Therapy within LMICs is challenging because of all the above and additional aspects beyond the scope of this editorial. Scholars from LMICs have routinely reported on and questioned the contextual relevance of proposed interventions (including approaches and resources) and outcome measures, presented in Hand Therapy literature from high income contexts (some referenced here).<sup>2-7</sup>

This issue of REACH therefore focusses on and aim to highlight innovation in practice and research to address the burden of hand injuries or conditions in LMICs. We aim to show novice case approaches, creativity and resourcefulness in the face of the challenges experienced.

This issue of REACH is also my last in my role as Information Officer for IFSHT, I hope that the reader will grant me this opportunity to express my gratitude to my fellow EXCO members over the years (Anne Wajon, Maureen Hardy, Nicola Goldsmith, Peggy Boineau, Stacey Doyon, Liz Ward and Marie Eason Klatt). I am thankful for what I have learned from each of you. To the regular contributors of REACH (Cynthia Srikesavan, Mia Erickson and Toni Rippey) on board since we had this idea at the face-to-face EXCO meeting in London in January of 2020, thank you!

Finally, to Daniel Harte, Chair of the IFSHT Publications Committee (who actually did most of the work), I am forever grateful for your commitment to the tasks at hand, the humour with which you approached it and your academic rigour.

Thank you also to the readership of REACH, the IFSHT community across the world, please continue to contribute and read IFSHT publications.

*Totsiens* (goodbye)  
*Hamba kakuhle* (go well)  
*Sala kakuhle* (stay well)

### **Susan de Klerk**

IFSHT Information Officer  
(2019 – 2025)  
Cape Town, South Africa



REACH is Susan's vision come to life. Your wealth of knowledge, humour and pragmatic approach to collating and creating content for REACH has helped the process always feel seamless considering the challenges involved. On behalf of IFSHT, thank you for all your dedication and hard work on REACH and ezine since 2020! Personally, thank you for being a great role model!

### **Daniel Harte**

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



## References

1. United Nations | Peace, dignity and equality on a healthy planet. <https://www.un.org/en/>.
2. ys, M. E., Buchanan, H. & van Niekerk, L. Return to Work for People with Hand Injuries in South Africa: Occupational Therapy Strategies. *South African Journal of Occupational Therapy* 50, (2020).
3. Naidoo, J., Govender, P. & Naidoo, D. Taking hold of hand trauma in KwaZulu-Natal, South Africa. *Afr Health Sci* 21, 1784–1793 (2021).
4. Alotaibi, N. M. The cross-cultural adaptation of the disability of arm, shoulder and hand (DASH): a systematic review. *Occup Ther Int* 15, 178–190 (2008).
5. Naudé, A. B. & de Klerk, S. Introducing early active mobilisation following flexor tendon repair in the context of care in a developing country: A randomised feasibility study. *South African Journal of Occupational Therapy* 49, 48–56 (2019).
6. Marume, M., De Klerk, S. & Khuabi, L. A. J. N. Rehabilitation following flexor tendon injury to the hand in African countries: A study protocol for a scoping review. *BMJ Open* vol. 11 Preprint at <https://doi.org/10.1136/bmjopen-2020-045260> (2021).
7. de Klerk, S., Badenhorst, E., Buttle, A., Mohammed, F. & Oberem, J. Occupation-based hand therapy in South Africa: challenges and opportunities. *South African Journal of Occupational Therapy* 46, 10–15 (2016).



**REACH publications team:** Susan de Klerk, IFSHT Information Officer (South Africa)

**IFSHT Publications Committee members:** Daniel Harte (Northern Island), Cynthia Srikesavan (United Kingdom), Mia Erickson (USA) and Toni Rippey (New Zealand), Corey McGee (USA)





## Sampling and validation in qualitative research

Submitted by: Dr Cynthia Srikesavan, Senior Researcher in Physiotherapy, Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences, University of Oxford, United Kingdom

**Welcome to the final part (Part 3) of our series on qualitative research! Previously, we explored the basics of qualitative data collection and analysis. In this edition, we will briefly focus on sampling and strategies to enhance the credibility and reliability of qualitative findings.**

In quantitative research, the study sample is often larger to ensure representativeness of the population and generalisation of findings. It is calculated using statistical methods, selected randomly, and remains unchanged during the study. However, in qualitative studies, sample sizes are generally smaller. Sampling is purposive, meaning the researcher selects participants who can meaningfully contribute to answering the research problem. 'Maximum variation' is one of the sampling strategies that gathers perspectives from people with diverse backgrounds. On the other hand, 'homogeneous sampling' focuses on gaining an in-depth understanding of the experiences of a specific group of people with similar characteristics or attributes.

Qualitative research offers flexibility regarding the number of participants, interviews, or study sites needed, as these decisions are guided by conceptualisation rather than generalisability. Sample size and sampling strategies vary across the five qualitative approaches to inquiry.

The number of participants or interviews needed is guided by the concept of 'data (or thematic) saturation'. Broadly, this refers to the point at which no new information emerges from the participants or interviews. In grounded theory, this concept is referred to as 'theoretical saturation', where no further insights contribute to theory development.

A recent systematic review suggested that data saturation is often reached after an average of 12-13 individual interviews or 4-8 focus group discussions. However, these numbers should only serve as reference points, as the required sample size depends on the scope, objectives, and qualitative approach of the specific study. For instance, literature suggests tentative estimates of 25-50 interviews for ethnography, approximately 10 interviews for phenomenology, and 20-30 interviews for grounded theory.

Researchers use various strategies to validate the accuracy of qualitative findings. A common approach is 'member checking', where findings are summarised and reviewed by study participants to ensure credibility and address potential gaps in reporting. Other strategies include reflecting on personal biases, external reviews by colleagues (peer debriefing), providing rich descriptions of findings, and triangulating information from multiple sources to build evidence and enhance credibility. Reliability in qualitative research can be ensured through practices such as taking detailed field notes, creating high-quality recordings and accurate

transcriptions, and employing multiple coders to agree on coding decisions.

The IFHST thanks you for your time and attention throughout this series in 2024. We hope that the content has been insightful and that you will find opportunities to apply what you've learned.

## References

1. Cresswell J. Qualitative inquiry & research design: Choosing among five approaches.
2. Gill SL. Qualitative sampling methods. *Journal of Human Lactation*. 2020 Nov;36(4):579-81.
3. Moser A, Korstjens I. Series: Practical guidance to qualitative research. Part 3: Sampling, data collection and analysis. *European journal of general practice*. 2018 Jan 1;24(1):9-18.
4. Hennink M, Kaiser BN. Sample sizes for saturation in qualitative research: A systematic review of empirical tests. *Social science & medicine*. 2022 Jan 1; 292:114523.
5. Noble H, Smith J. Issues of validity and reliability in qualitative research. *Evidence-based nursing*. 2015 Apr 1;18(2):34-5.

## IFSHT GOLD SPONSORSHIP

For nearly 25 years, Oval-8® Finger Splints have been providing relief and support to individuals with finger and thumb conditions. Developed by 3-Point Products, a trusted name in hand therapy solutions, Oval-8 splints have become synonymous with comfort, functionality, and excellence.



Founded by Occupational Therapist and Orthotist Julie Belkin, 3-Point Products has been at the forefront of developing innovative orthotic solutions since its inception. Julie's vision was to create splints and braces that were not only effective in reducing pain and deformity but also comfortable and easy to wear during daily activities. Inspired by her patients' needs, Oval-8 Finger Splints were introduced in 1999 and made available worldwide in 2002.

Since their introduction, Oval-8s have gained tremendous popularity, with over 5 million units sold worldwide. The classic 3 point pressure design has proven effective in the management of multiple finger conditions. The wide bands and smooth rounded edges distribute pressure evenly, ensuring optimal comfort for the wearer. With 14 different sizes and an adjustable fit, the splints are available in single size and multi-size packages to meet the needs of clinics and individuals.

In 2022, 3-Point Products introduced the Oval-8 CLEAR splints, expanding their product offerings and meeting the evolving needs of hand therapy patients. Made from a transparent material, the Oval-8 Clear splints provide the same support and performance as the Classic Beige splints. Proudly Made in the U.S.A. and in compliance with all EU regulations.



# Hand therapy in the Global South evidence for practice and professional development: A Rapid Review

Submitted by Dr Denise Franzsen, Sessional Senior Lecturer, Department of Occupational Therapy, School of Therapeutic Sciences, Faculty of Health Sciences, University of Witwatersrand, Johannesburg, South Africa.

## Abstract

Providing hand therapy in the Global South, where a high incident of traumatic hand injuries is reported, is challenged by poor resources, limited workforce and lack of recognition of the importance of rehabilitation by health systems. Twenty-three full text articles and congress proceedings from a limited number of countries in the Global South provided evidence and opinions for professional practice of hand therapy. Participants were both occupational therapists and patients with evidence for hand therapy and professional development of hand therapists provided. Studies providing high evidence for specific conditions did not reflect the context specific challenges identified in research with lower levels of evidence.

## Introduction

Providing rehabilitation and hand therapy in Global South countries Global has been restricted by the lack of policy prioritizing of these services and poor integration of rehabilitation into health services in many countries.<sup>1</sup>

Contextual barriers such as poverty, high population growth, inadequate housing and educational opportunities, and deficient health systems with an emphasis on curative services, also play a role. A lack of rehabilitation professional educational programmes has resulted in a limited workforce, more than 50% of people not receiving the rehabilitation services they require.<sup>2</sup>

Hand injuries in countries in the Global South cannot easily be quantified due to lack of data on these injuries but the burden of these injuries is considered substantial and are mostly caused by trauma due to traffic accidents, work injuries, burns and violence.<sup>3</sup> Lack of rehabilitation after hand injury results in decreased function, chronic pain and contractures. Since the majority of hand injuries occur in the dominant hand, this has cost and return to work implications.<sup>4</sup> Rehabilitation of hand injuries by occupational therapists and physiotherapists require specialized skills<sup>5</sup> but the availability of therapists with these skills are limited resulting in novice and generalist therapists providing these services with little supervision and limited resources.<sup>6</sup>



Outcomes in these contexts are affected not only by these disparities but a lack of hand injury research from countries in the Global South.<sup>3</sup>

This rapid review summarised the evidence and practice challenges in the Global South in providing hand therapy services and support professional development of therapists providing these services.

## Methods

A rapid review, which is a streamlined approach to synthesising evidence, was conducted on the research in the last 5 years 2020–2024 in counties in the Global South including peer reviewed articles and scoping or systematic reviews. Table 1 provides details of the literature search.

**Table 1: Methodology search and selection criteria**

<b>Search terms</b>	Keyword search using terms related to “hand therapy” AND “upper limb therapy or rehabilitation”: AND ““hand rehabilitation AND “Global South” AND “low income countries”” AND ““middle-low income countries AND ““under resourced
<b>Databases</b>	PubMed, CINAHL, EBSCO, WHILEY and SCOPUS
<b>Inclusion criteria</b>	English language full text reviewed articles and congress presentations published between 2020 and July 2024
<b>Exclusion criteria</b>	Neurological conditions such as stroke and cerebral palsy
<b>Data extraction</b>	Data extraction against a standardised form by one author

## Results

The initial search identified 297 articles for screening. Non-English and duplicate articles were excluded and 23 full text articles and congress proceedings were included in the rapid review.

**Table 2: Data extracted from included studies**

<b>Location</b>	South Africa (11), Brazil (3), India (3), Turkey (4) and Philippines (1), about Bangladesh (1)
<b>Level of evidence</b>	Level 2 (5) <sup>8,7,9,10,11</sup> , Level 3 (5) <sup>12,13,14,15,16</sup> , Level 4 (13) <sup>6,17,18,19,20,21,22,23,24,25,26, 27,28</sup> ,
<b>Methodology</b>	Randomised control trial (RCT) (5) <sup>8,7,9,10,11</sup> , Cross sectional assessment (1) <sup>12</sup> Cross sectional survey (3) <sup>15,25,26</sup> , Cross cultural adaptation of outcome measures (2) <sup>17,18</sup> , mixed methods (2) <sup>14,16</sup> qualitative including case studies (5) <sup>23,24,28</sup> , case reports (3) <sup>19,20,22</sup> , text and opinion (1) <sup>27</sup>
<b>Participants (some studies had patients and therapists as participants)</b>	150 to 1 with an average of 35 participants. Occupational therapists and (11) <sup>6,14,15,21,23,16,25,26,286,24</sup> , physiotherapists (1) <sup>17</sup> Patients (11) <sup>7,8, 9, 10,11,12,17,18,19,20,22</sup> , Women with typical development (1) <sup>13</sup> , No participants (1) <sup>27</sup>

<b>Diagnoses</b>	Rheumatoid arthritis (4) <sup>7,9,12,18</sup> and 1 each for osteoarthritis <sup>8</sup> , trigger finger <sup>15</sup> , Duchenne muscular dystrophy <sup>17</sup> , peripheral nerve injury <sup>11</sup> , carpal tunnel syndrome <sup>10</sup> with case reports on reimplantation <sup>22</sup> , Volkmann ischemic contracture <sup>20</sup> and nerve entrapment associated with hematoma <sup>19</sup>
<b>Assessments</b>	Australian/Canadian Osteoarthritis Hand Index, grip and pinch strength <sup>8</sup> , tactile sensitivity <sup>12</sup> , range of motion <sup>15</sup> , Moberg Pick Up Test <sup>8,12</sup> , Jamar hand dynamometer <sup>7</sup> , Nine Hole Peg Test (NHPT) <sup>7,10</sup> , Health Assessment Questionnaire (HAQ) <sup>7</sup> Visual Analog Scale (VAS) <sup>7,11,10</sup> , Duruöz Hand Index ((DHI)(Cochin Hand Functional Scale) <sup>7,8,11,9</sup> , Quick Disabilities of the Arm, Shoulder, Hand, Jebsen Taylor hand function test <sup>11,20</sup> , and Semmes-Weinstein monofilament test <sup>11</sup> , HAQ score <sup>9</sup> Boston Carpal Tunnel Syndrome Questionnaire (BCTQ) <sup>10</sup> , a Disk-Criminator. Test and Michigan Hand Questionnaire <sup>12</sup> , WeeFIM, PMAL-R <sup>20</sup> Performance of Upper Limb scale for children and adolescents with Duchenne muscular dystrophy <sup>17</sup> and Strengthening and Stretching for Rheumatoid Arthritis of the Hand (SARAH) <sup>18</sup> .
<b>Interventions</b>	Mirror therapy (2) <sup>11,10</sup> and 1 each for intensive exercise programme <sup>9</sup> , nighttime orthosis <sup>8</sup> , orthosis for trigger finger <sup>15</sup> , return to work (function activities of daily living and issuing home programmes) <sup>26,28</sup> , task-oriented training <sup>7</sup> , wound care <sup>16</sup> , range of motion, gross and fine motor and sensory re-education exercises, included passive range of motion (PROM), isometric grip strength exercises <sup>19</sup> , and mobilization of metacarpophalangeal, proximal interphalangeal, and distal interphalangeal joints <sup>9</sup> , task specific therapeutic intervention <sup>20</sup> and occupational engagement. <sup>22</sup>
<b>Practice related</b>	Both occupational therapists (15) and physiotherapists (8) contributed to the research with other rehabilitation professionals. The opinion of occupational therapists in providing hand therapy in low resourced contexts with little support or adequate training <sup>6</sup> , return to work after hand injury <sup>26,28</sup> and compliance to therapy of patients with few resources <sup>24</sup> . Incidence of injuries requiring rehabilitation, challenges in providing hand therapy <sup>14</sup> and opinion and use of occupation based hand therapy. <sup>25</sup>
<b>Professional development</b>	The effect of a community of practice on supporting novice occupational therapists working alone with poor resources <sup>23</sup> and volunteering in another country with poor resources to facilitate sustainable local solutions <sup>21</sup> Interprofessional practice and need for postgraduate training <sup>27</sup>
<b>Evidence for practice</b>	<ul style="list-style-type: none"> <li>statistically significant improvement in pain (<math>p &lt; 0.001</math>) and hand function for osteoarthritis in the IP joints of the second and third fingers of the dominant hand with use of a night orthosis<sup>8</sup></li> <li>task-oriented training (washing faces, using forks, drinking water from a glass, sitting up, and putting on a shirt) showed a significant improvement (<math>p &lt; 0.05</math>) in hand function of patients with rheumatoid arthritis<sup>7</sup></li> <li>significant improvement using mirror therapy for six weeks in hand functions, such as page-turning (<math>p = 0.004</math>), backgammon packing (<math>p = 0.023</math>), and heavy object lifting (<math>p = 0.029</math>) in patient with peripheral nerve injury<sup>11</sup></li> <li>significant improvement in VAS scores favoring the intensive exercise group of patients with rheumatoid arthritis<sup>9</sup></li> <li>statistically lower pain at rest (<math>p = 0.004</math>) and night-time pain (<math>p = 0.037</math>) in the 3rd week post carpal tunnel surgery using mirror therapy<sup>10</sup></li> </ul>



## Discussion

Research and evidence relevant to hand therapy in the Global South appear to be limited to South Africa<sup>29</sup>, Brazil<sup>30</sup>, India<sup>31</sup>, Turkey<sup>32</sup> and Philippines<sup>33</sup> which have rehabilitation professional educational programmes for over 70 years and where expertise in hand therapy has developed. However, some other countries such as China<sup>33</sup> where occupational therapy training started in 2002 and Malaysia<sup>34</sup> where training started in 1984, have also more recently contributed studies supporting hand therapy practice in low resourced contexts. However, these articles were either scoping reviews of research in the Global North, published in languages other than English or used alternative medicine practices.

While South Africa produced the highest number of studies in the review period, all but two had occupational therapists as participants. While this provided confirmation of the type of hand injuries treated and challenges of providing hand therapy in a low resourced country due to an inexperienced workforce with limited support, patient compliance and a medically oriented health system, all studies provided a low level of evidence. South Africa, Brazil, India, Turkey and Philippines all offer postgraduate training in hand therapy which is seen as important and undergraduate programmes cannot provide therapists with adequate professional skills in this field of practice<sup>27</sup>. Therefore studies on professional development using a community of practice<sup>23</sup> and experiences of therapists volunteering in Bangladesh<sup>21</sup> are important in providing contextually based interventions and suggestions specific to low resourced settings to support novice and inexperienced therapists who are expected to provide hand therapy. The case reports, while low evidence, also reported on conditions such as an amputation due to African ritual of spiritual origin<sup>22</sup>, Volkmann ischemic contracture after a humeral fracture<sup>20</sup>, nerve entrapment associated hematoma in Dengue Haemorrhagic Fever<sup>19</sup> and complex conditions associated with Global South contextual and cultural factors.

High evidence was provided in five studies using RCTs in Turkey and Brazil<sup>8,7,9,10,11</sup> but these studies address chronic conditions for the most part with only one

study considering traumatic peripheral nerve injuries<sup>11</sup>. However, the interventions offered were on a daily or weekly basis for six to 12 weeks<sup>9,11</sup> which is unrealistic in many countries in the Global South. Suggested alternatives using telerehabilitation and home programmes were rarely mentioned<sup>26</sup>.

Assessments and outcome measures reported were for the most part those standardised and developed in the Global North. While client factor assessments such as range of motion, muscle strength and pain are universal, many of the outcome measures, particularly self-report measures have not been validated in Global South countries<sup>35</sup>. Studies on adapting two outcome measures for use with the Brazilian population<sup>17,18</sup> supports the importance of this type of research. The development of a survey to determine the role of hand therapists in wound care also supports the extended provision of care in low resourced contexts<sup>16</sup>.

While a number of different interventions were offered it is of concern that assessment of activities and participation were limited and only three studies, reported on the use of occupations<sup>22</sup>, activities<sup>15</sup>, and tasks (washing their faces, using forks, drinking water from a glass, sitting up, and putting on a shirt)<sup>7</sup> in the intervention provided. One study provided low level evidence that the activity of dough kneading (common in the Indian context) was suited to hand strengthen in women with typical development, which could have implications for hand therapy practice<sup>13</sup>. The lack of an occupation based approach was confirmed with the curative medical view in the health system in South Africa<sup>25</sup> and possibly many Global South countries proving a challenge to change to a broader view of hand therapy. With the exception of one task based programme<sup>7</sup>, high level evidence was based on the used of adjunctive techniques such as mirror therapy<sup>11</sup> and orthoses<sup>8,10</sup>, with one physiotherapy exercise programme<sup>9</sup>.

A more varied approach to research with Global South countries and possibly international collaboration to provide both studies on hand therapy and professional development of hand therapists is required. The study should provide evidence and innovation which is contextually and culturally appropriate.

## Limitations

The search terms used do not appear as MESH terms and studies may have been missed as hand therapy and hand rehabilitation are not commonly used as key words. This review only included published articles and congress proceedings therefore may represent a limited number of relevant articles published on the topic in the Global South.



## References

1. World Health Organization. Rehabilitation: key for health in the 21st century. *Rehabilitation 2030 – A Call to Action*. 2017:1–6.
2. World Health Organization. *Rehabilitation 2030: A Call for Action*. WHO, Geneva. 2017:1–3.  
[https://www.who.int/docs/default-source/documents/health-topics/rehabilitation/call-for-action/need-to-scale-up-rehab-july2018.pdf?sfvrsn=f627c34c\\_5](https://www.who.int/docs/default-source/documents/health-topics/rehabilitation/call-for-action/need-to-scale-up-rehab-july2018.pdf?sfvrsn=f627c34c_5)
3. Siotos C, Ibrahim Z, Bai J, Payne RM, Seal SM, Lifchez SD, Hyder AA. Hand injuries in low- and middle-income countries: systematic review of existing literature and call for greater attention. *Public Health*. 2018;162:135–146. <https://doi.org/10.1016/j.puhe.2018.05.016>. doi:10.1016/j.puhe.2018.05.016
4. Elzinga K, Chung K. Treating Hand Trauma in Low-Resource Setting A Challenge for Low- and Middle-Income Countries. *Hand Clinics*. 2019;35(4):479–486. doi:10.1016/j.hcl.2019.07.012
5. American Society of Surgery of the Hand (ASSH). *Hand Therapy*. 2018.  
<https://www.assh.org/handcare/about-hand-therapy>
6. van Stormbroek K, van der Merwe T, Brien LO, Myezwa H. “ Surthriving ” Hand Rehabilitation : Proposing Interventions to Support Novice Occupational Therapists Working in Underserved Contexts. *Occupational Therapy International*. 2023;2023(1):5562025. doi:10.1155/2023/5562025
7. Özcelep ÖF, Üstün I, Algun ZC. Effect of task-oriented training on pain, functionality, and quality of life in rheumatoid arthritis. *Turkish Journal of Physical Medicine and Rehabilitation*. 2022;68(1):76–83. doi:10.5606/tftrd.2022.6666
8. Silva PG, De Carvalho Silva F, Da Rocha Corrêa Fernandes A, Natour J. Effectiveness of nighttime orthoses in controlling pain for women with hand osteoarthritis: A randomized controlled trial. *American Journal of Occupational Therapy*. 2020;74(3):1–10. doi:10.5014/ajot.2020.033621
9. Arslan H, Erdem İH. The Effect of an Intensive Hand Exercise Program on Muscle Strength and Hand Functions in Patients with Rheumatoid Arthritis. *Medical Records*. 2023;5(3):620–6. doi:10.37990/medr.1269997
10. Karaaslan TC, Berköz O, Tarakci E. The effect of mirror therapy after carpal tunnel syndrome surgery: A randomised controlled study. *Hand Surgery and Rehabilitation*. 2020;39(5):406–412.
11. Kablanoğlu S, Sade I, Çekmece Ç, Özdin G, Buluç L, Dursun N. The efficiency of mirror therapy in peripheral nerve injuries. *Turkish Journal of Physical Medicine and Rehabilitation*. 2024;70(1):81–89. doi:10.5606/tftrd.2024.12648
12. Nadgaonkar S, Koutarapu S, Kini S. Influence of Tactile Sensitivity and Hand Dexterity Affections on Hand Functions in Rheumatoid Arthritis: A Cross Sectional Study. *Indian Journal of Occupational Therapy*. 2023;54(2):68.
13. Khan L, Shetty M, Kherada S, Kava R, Kazi M, Walankar P, Mullerpatan R. Dough kneading exposure at the kitchen workstation: Influence on handgrip strength and implications for therapy in hand rehabilitation. *Work*. 2023;74(1):153–158. doi:10.3233/WOR-210963
14. Naidoo J, Govender P, Naidoo D. Taking hold of hand trauma in KwaZulu-Natal, South Africa. *African Health Sciences*. 2021;21(4):1784–1793. doi:10.4314/ahs.v21i4.35
15. Mathenjwa K, Mpanza D, Christopher C. Orthotic management of trigger finger by occupational therapists in KwaZulu-Natal,. *South African Journal of Occupational Therapy*. 2024;54(3).

16. Esterhuizen L, Govender P, Naidoo D. Development and evaluation of face and content validity of a survey to examine wound management by occupational therapists in hand therapy practice within the South African context. *South African Journal of Occupational Therapy*. 2023;53(1):19–30. doi:10.17159/2310-3833/2023/vol53n1a4
17. Cardoso J, Silva GC, Davoli GB de Q, de Almeida VA, Martinez EZ, Mattiello-Sverzut AC. Development of the Brazilian version of the Performance of Upper Limb scale for children and adolescents with Duchenne muscular dystrophy. *Brazilian Journal of Physical Therapy*. 2024;28(5). doi:10.1016/j.bjpt.2024.101118
18. Castro RQ, Barros LV, de Carvalho PHB, Fonseca DS, Miyamoto ST, Coelho CM, Machado GLR, Forechi L. Brazilian Portuguese version and content validity of the Strengthening and Stretching for Rheumatoid Arthritis of the Hand (SARAH). *Advances in Rheumatology*. 2023;63(1). <https://doi.org/10.1186/s42358-022-00284-x>. doi:10.1186/s42358-022-00284-x
19. Arboleda JS, Abiera JEH, Anarna KS. Rehabilitation Management of a Patient with Median Nerve Entrapment from Venipuncture-associated Hematoma in Dengue Hemorrhagic Fever : A Case Report. 2024;58(20).
20. Shreyasi P, Sunita K. Effect of Occupational Therapy Intervention in Volkmann Ischemic Contracture: A Case Report. *Indian Journal of Occupational Therapy*. 2022;54(2):68.
21. O'Brien L, Hardman A. Developing hand therapy skills in Bangladesh: Experiences of Australian volunteers. *Journal of Hand Therapy*. 2014;27(1):30–37. <http://dx.doi.org/10.1016/j.jht.2013.09.006>. doi:10.1016/j.jht.2013.09.006
22. Young W, Govender P, Naidoo D. "It was like a bad dream": Making sense of violent hand amputation and replantation in South Africa. *Journal of Hand Therapy*. 2023;36(1):158–165. <https://doi.org/10.1016/j.jht.2021.10.006>. doi:10.1016/j.jht.2021.10.006
23. van Stormbroek K, O'Brien L, van der Merwe TR, Myezwa H. Virtual communities of practice for novice occupational therapists: a vehicle for learning, support and professional identity strengthening?. *Rural & Remote Health*. 2024;24(2):1–6.
24. van Stormbroek K. "The hand belongs to someone": a therapist perspective on patient compliance. *South African Journal of Occupational Therapy*. 2021;50(3):30–39. doi:10.17159/2310-3833/2020/vol50no3a4
25. Vorster I, Buchanan H. Occupation-based practice in hand therapy – perspectives from a South African occupational therapy survey. 2024;29(3):102–111. doi:10.1177/17589983241239272
26. Uys ME, Buchanan H, van Niekerk L. Return to Work for People with Hand Injuries in South Africa : Occupational Therapy Strategies. *South African Journal of Occupational Therapy*. 2020;50(2):52–61. doi:10.17159/2310-3833/2020/vol50no2a7
27. Keller MM. Hand therapy: Inclusive care by South African physiotherapists. *South African Journal of Physiotherapy*. 2023;79(1):1–6. doi:10.4102/sajp.v79i1.1942
28. Buchanan H, van Niekerk L. Work transitions after serious hand injury: Current occupational therapy practice in a middle-income country. *Australian Occupational Therapy Journal*. 2022;69(2):151–164. doi:10.1111/1440-1630.12777
29. Joubert R. Exploring the history of occupational therapy's development in South Africa to reveal the flaws in our knowledge base. *South African Journal of Occupational Therapy*. 2010;40(3):21–26.
30. Cezar da Cruz D. Cezar da Cruz, D.M., 2019. Historical milestones of occupational therapy research in Brazil. *British Journal of Occupational Therapy*. 2019;82(9), p.(9):529–531.
31. All India Occupational Therapists Association. *Occupational Therapy : An Indian Historical Perspective*. 2022. <https://web.archive.org/web/20110724230649/http://www.aiota.org/OTinIndia.asp>
32. Alemnishokran. *Study Occupational THERapy*. <https://alemnishokran.com/en/study-occupational-therapy-major-in-turkey/>
33. Scribd. *OT in Philippines*. <https://www.scribd.com/doc/54426352/OT-in-Philippines>
34. AZZAHARAH OT. *History of Occupational Therapy In Malaysia*. 2013. <https://azzaharahot2013.weebly.com/history.html>
35. de Klerk S, Buchanan H, Pretorius B. Occupational therapy hand assessment practices: Cause for concern? *South African Journal of Occupational Therapy*. 2015;45(2):43–50. doi:10.17159/2310-3833/2015/v45n2a7







## Ideas & gadgets to use in low resource hand therapy setting

Submitted by Prof. Dr. Janine Hareau, PhD, OT, PT, Clinica de Rehabilitacion de la Mano, Montevideo, Uruguay, Email: janine121958@gmail.com

The IFSHT is growing and within its members there are several countries such as Uruguay that are unable to purchase items that are easily bought from those beautiful catalogues that we so often see on the internet. If bought through an international courier any such items will triple in cost, and this is a cost that you cannot be justified to the patient; therefore, you have to develop the ability to find local items that does the trick but are still affordable.

Over the years I have found many products that I would like to share with you. They work in my practice and I hope that they can be easily found on your country.

### Mini pan splints for babies

“Plastazote” is an excellent material to make this splint. But this material is not available in many countries so you can use:

- Rubber eva (you can find it in places that sell products for bricolage / DIY), or you can also use rubber sole 2 or 3 mm thick. Rubber sole is usually white, and you can find it in stores that sell goods for shoe fabrication.
- To mould the splint, you use a heat gun or a small electric oven. You can purchase the heat gun (a paint stripper) at any hardware store.



You mould the splint on your hand and with your hands. It takes some time to learn but feel free to ask for advice.

C-Bar using rubber sole



## Working on scars

Scaring is a challenge. We have to manage them and do our best so they do not disfigure for life. Silicone sheets in many countries is too expensive to purchase. Some ideas that work:

You might be able to purchase toe protectors from a pharmacy, you can use them for the tip of an amputated finger, or you can open them up and use them as inlay of a splint.



Toe protector



Large toe protector

These are bigger, they are also sold as toe protectors, and you can easily cut them and use them wherever you need them. You can purchase in pharmacies or even in large supermarkets in the beauty product aisle.

What I like best when working with a large scar, is to use dental silicone or dental putty. These can be bought from stores that sell dental goods, you may be able to find several brands and types. Since that are fit to put on the mouth they are also fit to use for a scar!



Dental silicone

Using a turnbuckle for a splint.



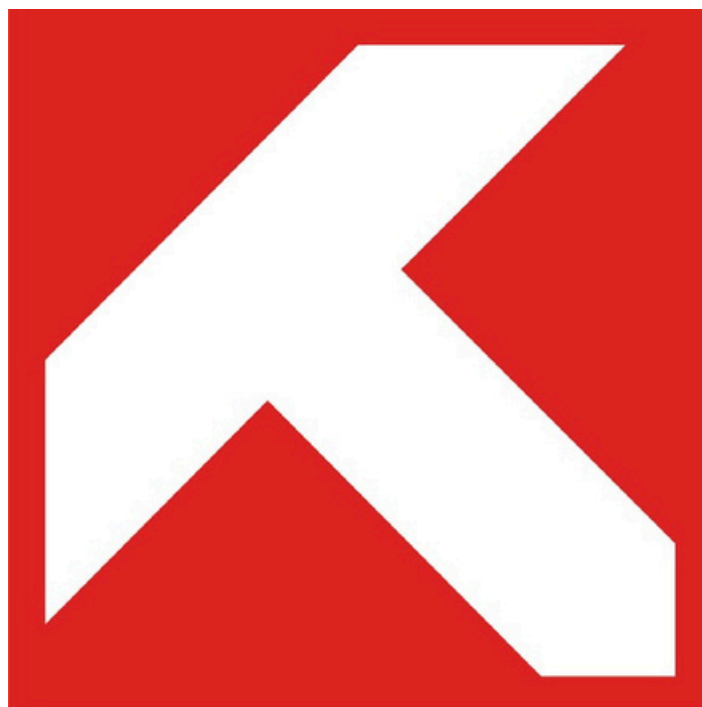
These are examples of different turnbuckle designs, they are used to adjust tension and reduce slack in ropes, cables, and other tensioning systems (such as splints) and can be purchased in hardware stores.



## Neuromuscular electrical stimulation (NMES) Pointer

Doing NMES on the small muscles of the hand is a challenge. I designed a NMES pointer that can be made with store bought items to reach those tiny muscles with ease. Please contact me for more information on this design.





# T-Tape Company

## Truly European quality and innovation

T Tape Company, BV is a developer and manufacturer of a full range of low-temperature thermoplastics for medical and veterinary applications. On the worldwide healthcare market for nearly 40 years, we supply our products to over 70 countries. As one of the European pioneers in the chemical development and product design of low-temperature thermoplastics, we continue to be an international leader in innovative solutions for patient immobilization in radiation therapy, nuclear medicine, orthopaedics, and post-traumatic rehabilitation.

Located in South-Eastern Holland (Putte, the Netherlands), our company has developed an extensive network of distributors, clinical collaborators, and patient advocacy groups. By interacting closely with diverse stakeholders including health care practitioners, hospital managers, purchasing officials and patients, we maintain a competitive edge over the competition to assure that our products meet the needs of the changing healthcare industry in terms of treatment outcomes, cost and patient satisfaction. As a holder of a variety of international patents for our product design and chemical composition, we assure our clients of the highest level of price-quality in a highly competitive marketplace. Our products are being used worldwide in nuclear medicine centres, in orthopaedic and rehabilitation practices, by occupational and physical therapists, in sports medicine, and in veterinary medicine.

A unique distinguishing feature of our business is the joint research and development we perform with prospective clients and practitioners. We pride ourselves not only in our own innovative line of products, but also in the partnerships we have developed with numerous clients to enable cooperative design and manufacturing. We welcome ideas and are happy to maximize the value for our current and prospective partners.





Figure 1

# Hand Therapy Around the World: Impact of Sensory Processing Disorders on Preschool Aged Children in Kingston, Jamaica

Submitted by Lauren de Tullio, Clinical Director of Therapy at Philadelphia Hand to Shoulder Center Philadelphia Hand to Shoulder Center, Thomas Jefferson University Hospitals, King of Prussia, Pennsylvania, United States

## Introduction

I had the pleasure to join MediLuxe Escapes in Kingston, Jamaica to provide education to parents and teachers at McCam Child Development Centre. MediLuxe is a travel organisation dedicated to serving underserved populations and communities in all aspects of healthcare while simultaneously sustaining occupational well-being and promoting adequate work life balance.

The McCam Child Development Centre was developed in 1986 in Kingston, Jamaica to address

the need for educational programming for children with special needs. McCam provides a nursery and preschool program to serve the needs of all children including those with special needs between the ages of six months to six years in an integrated environment.<sup>1</sup>

Services include educational assessments, therapeutic interventions, group training and parent counselling. (Figure 1)



MediLuxe Members at McCam Developmental Centre

## Sensory processing in the classroom

Sensory processing allows us to organise information from the body, the environment and influences the way we interact with our physical surroundings. Sensory processing disorders (SPDs) is described as difficulty modulating, interpreting, and responding to sensory experiences.<sup>2</sup> Children with neurological deficits such as autism, attention deficit hyperactivity disorder (ADHD), developmental coordination disorder (DCD), developmental delay have difficulties in sensory integration and praxis deficits limiting handwriting skills.<sup>3</sup> Handwriting is an important functional task for school aged children. Writing is a complex process requiring synthesis of different sensory symptoms and coordination of multiple joints such as tactile (feeling the paper surface), proprioception (joint position sense, force needed to hold pencil), vestibular (coordinating both sides of the body) and visual-motor and perceptual skills for initiating legible handwriting.<sup>3</sup> Play, education, social participation and sleep are daily children's occupations that can be impacted when dexterity, coordination, and hand strength are reduced.<sup>2,4</sup>

## What are some examples in the classroom that may impact a child with sensory processing deficits?

Educators expressed concern with students in the classroom sustaining attention. Hypo - reactive students were unable to remain seated and were often seeking sensory input by bouncing, jumping and using their hands to increase tactile stimulation. Hyper - reactive students were overwhelmed by loud noises in the classroom and recess. Tactile aversion was noted with clothing, textures, and paint. Consequently, limiting their ability to engage in classroom activities when completing handwriting, eating, colouring, finger painting and playing musical instruments.

## What are some examples in the home that may impact a child with sensory processing deficits?

One parent voiced concerns with her child Adam who is five years of age and diagnosed with autism spectrum disorder (ASD). He often drops eating utensils and is unable to discern how much pressure to apply when holding utensils and writing tools.

Due to decreased proprioception and difficulty with grasping a pencil, Adam holds his crayons lightly and illustrations are faint and illegible which leads to increased frustration.

## What are your current strategies used to address these challenges?

The following are current strategies parents and teachers reported using:

- Patience and meeting the child at their level was a strategy one parent voiced to reduce an episode of frustration when the child is unable to hold their utensils.
- Speaking in a slow low volume and providing manual cues.
- Sensory Breaks
- Squeezing putty



Figure 2: Parents and Teachers discussing strategies utilized in both the classroom and home setting.

## Modifications and Strategies for sensory deficits when engaged in play, handwriting and classroom activities

- Sensory Diet
- Sensory Breaks
- Movement breaks for the whole class
- Weighted vests
- Carrying heavy objects
- Body position and ergonomics
- Joint compressions (Figure 3)
- Willbarger Protocol (Brushing) for Sensory Integration (Figure 4)
- Putty exercises to improve hand strength
- Strengthening wrist muscles
- Pencil adaptations (HB versus Soft Lead 2B)



## Conclusion

McCam Centre currently does not have an occupational or hand therapist staffed at their facility at this time. Through contributions Mediluxe gifted McCam with sensory vests, noise cancelling headsets, fine motor activities, inflatable discs, sensory brushes, theraband, handwriting tools and more! These tools have enabled teachers and parents to modulate sensory symptoms in both the home and classroom setting.



Figure 3



Figure 4

## References

1. Welcome to the McCam Child Development Centre. [www.mccamcentre.org](http://www.mccamcentre.org). Published 2023. Accessed December 26, 2023. <https://www.mccamcentre.org>
2. Passarello N, Tarantino V, Chirico A, et al. Sensory Processing Disorders in Children and Adolescents: Taking Stock of Assessment and Novel Therapeutic Tools. *Brain Sciences*. 2022;12(11):1478.
3. Srivastava A. Sensory Integration Strategies for Handwriting among Autistic Children. *Academic Journal of Pediatrics & Neonatology*. 2016;2(1):09-11.
4. Grist N, Brown T, Yu ML, Clark E. An Exploration of the Association between Sensory Processing and Interoceptive Awareness in Neurotypical School-Aged Children. *Journal of Occupational Therapy, Schools, & Early Intervention*. 2023:1-20.







## Achievements

Since the inception of the International Federation of Societies for Hand Therapy (IFSHT) in 1987, the hand therapy community has been privileged to have had a strong lineage of Past Presidents who have helped nourish and grow the specialism globally.

Unfortunately, some Past Presidents are no longer with us though their achievements remain a source of inspiration. Past Presidents, we are proud of your contributions, and we hope to see as many of you as possible at the upcoming congress.

Thank you!



**Nicola Goldsmith**

2019–2022 (United Kingdom)



**Judy Colditz**

2007–2010 (USA)



**Victoria Frampton**

1995–1998 (United Kingdom)



**Anne Wajon**

2016–2019 (Australia)



**Maggi Persson**

2004–2007 (Sweden)



**Jean-Claude Rouzaud**

1992–1995 (France)



**Sarah Ewald**

2013–2016 (Switzerland)



**Annette Leveridge**

2001–2004 (United Kingdom)



**Evelyn Mackin**

1987–1992 (USA)



**Lynne Feehan**

2010–2013 (Canada)



**Corianne van Velze**

1998–2001 (South Africa)



**2025 IFSSH and IFSHT Triennial Congress**

**WASHINGTON, DC**

**Marriott Marquis | March 24-28, 2025**





## SPOTLIGHT ON:

# The Society for Hand Therapy, India

Submitted by: Shovan Saha, MOT, PhD, President (term 2020–2024), SHT, India

The Society for Hand Therapy, India (SHTI) is the apex body in the Indian subcontinent that coordinates between occupational and physical therapists with an interest in hand rehabilitation. It also liaisons with the Indian Society for Surgery of the Hand (ISSH), especially during the national annual meetings.

The whole idea of having a cohesive group of therapists with interest in the hand was toyed with by a group of enthusiastic therapists led by Hemant Nandgaonkar in 2005–2006. This initiative was concentrated in the area of Mumbai and Maharashtra, which is in the western part of India. On 14th January 2007, in a meeting by a group of therapists at Thane, Mumbai, India, the SHTI was formed, led by Hemant Nandgaonkar, and he became the founding President of the Society (term 2009–2014).

Mr. Nandgaonkar as President was instrumental in initiating the process of engaging with the International Federation of Societies for Hand Therapy (IFSHT), and India went on to acquire full membership of the IFSHT in January 2008.

Though the first name for the society that was proposed was 'Indian Society for Hand Therapy', it was not accepted by government authorities that registered professional organisations, as the hand therapy society was not directly affiliated with the Government. Therefore, the name that was finally accepted on the Government record was the 'Society for Hand Therapy', and thereafter to give an Indian identity it was named Society for Hand Therapy, India. Then on 15th Sept 2009, based on the satisfactory submission of legal documents as per the requirements, and SHTI acquired its official and legal approval, it came under the ambit of the Society Registration Act of India 1860 Reg No: 2135/2009, Mumbai, Maharashtra State, GBBSD.

After which, a beautiful logo to represent the Society in the most appropriate way was created by Amol Sangekar, who was the second President of SHTI (term 2015–2019).

India is blessed to be the land of Dr. Paul Brand (1946–1966 in India), who championed the philosophy of hand therapy, though the seed of hand therapy was sown years ago, but for multiple reasons, the growth of hand therapy could not possibly match the opportunity created. The Society is now 16 years old, it has gone through its ups and downs, and the hand therapists held on to their ground to sail through, and making steady progress. The Society had the good fortune of being mentored since its inception by one of the pioneers Shrikant Chinchalkar.

The SHTI did face moments of uncertainty during its early days, a parallel organisation was initiated under the auspices of ISSH, and the therapists were provided with Associate Membership of ISSH. A country having two parallel hand therapy organisations (one mediated by the therapist and another by the surgeons) became a sticking point for IFSHT, especially when India was going to host the Triennial Congress. At the time, members of the IFSHT executive and Shovan Saha, (who was the Vice-President of SHTI then and also a member of Hand Therapy Society by ISSH, the only therapists who was a member of both groups) were instrumental in mediation between the two organisations. After negotiations with both groups, a consensus emerged, and at the 35th Annual Meeting of ISSH at Manipal, Karnataka (Nov, 2011), it was announced that the Hand Therapy Society which has been part of the ISSH will have no further registration, announced by Dr. S. Raja Sabapathy, the then President of ISSH.

Thus finally, SHTI lived up to its slogan of “by the therapist, for the therapist”. The ISSH pledged its support by providing with all needful assistance for the growth of SHTI.

The surgeon’s society has an increasing footprint pan India and even in the neighbouring countries, and we as a younger and smaller team are following them, in an endeavour to create our own footprint. But challenges are many, that of recognition, identity challenges, resource constraints, unmet acknowledgments, less membership and inadequate financial compensations. To overcome these challenges, individuals and with the concerted efforts of SHTI, there has been advocacy, campaigning, creating awareness, negotiating with stakeholders, and upskilling to create enhanced outcomes for patients. Hemant Nandgaonkar’s visit as President SHTI at the 8th Triennial Congress of IFSHT at Orlando, Florida, USA in June, 2010 was significant, it brought a global perspective of hand therapy to India.

Till now the SHTI has completed three terms (2019–2014, 2015–2019, 2020–2024). The Society is managed by a team of executive members, the President, Vice-President, Secretary, Treasurer, and four executive members who handle various logistics. The members are all elected through a national election once in five years, the election is conducted by the Election Chairperson, elected by the general body of SHTI. The executive committee meets two to three times a year, physically or virtually and once a year there is a general body meeting. It has its constitution and bylaws that are reviewed periodically, its accounts are audited annually and regularly pays the affiliation fees to IFSHT.

The society maintains a national registry of active members. The membership remains active for five years, after that members have to renew their membership. They all receive a membership certificate. Currently, there are 61 active members (21 males/40 females; 46 OTs/ 17 PTs). It is interesting to note that almost 90% of the hand therapists are from the western and southern parts of the country.

The SHTI in its endeavour to enhance the scope of practice conducts the national annual joint meetings along with ISSH, and time to time conducts interim events. It plays a proactive role in encouraging therapists (occupational and physical therapists) to participate in various events of SHTI.

The first National Hand Therapy Meeting, independently by the hand therapists, was organised by Mr. Nandgaonkar at Mumbai, India in Dec 2010. However, the 2nd SHTI Meeting (Nov 2011) was the first that was successfully conducted along with the 35th Conference of ISSH. This was a first-of-its-kind experiment in India, and the therapist’s team was led by Shovan Saha at Manipal, Karnataka and the joint meeting took place from the 6th to 11th (Oct 2024). These meetings have its share of challenges, but therapists have done well utilising the opportunity to network with the surgeons and enhance their professional prospects.





Hand therapists in India work in various practice settings- acute care hospital facilities, neuro rehab facilities, independent enterprises, and hand centres. However, the entire sector is still not very structured and often not seamless. Indian work ecosystem is still labour-intensive, and automation is still not the same as high income countries. There is a very high prevalence of road traffic accidents, industrial injuries, and neurologically compromised upper extremities. The incidence of injured upper extremity occurs more in males, who are mostly in the prime of their work life and are often the breadwinners of the family. In India, patients predominantly pay for medical services out of pocket, so they are very selective and often take independent decisions. Therapists must therefore work very outcome-driven, making the Indian market of hand therapy very competitive. And to make things more challenging, the patient-to-hand therapist ratio is concerning as there are so few therapists.

The gradual silver lining is encouraging for the ecosystem, many Indian companies are acquiring dealerships to sell many international brands of

therapy tools, splinting materials, and evaluation kits in India. Thus, making resources available within the country and often affordable, and also giving the indigenous methods an opportunity to compete. Also in many universities in India, they are gradually introducing two years post-professional master's programs (MOT/ MPT) with a specialisation in hand rehabilitation.

The SHTI will have the pleasure of hosting the 10th Asia Pacific Federation of Societies for Hand Therapy (APFSHT) Congress from 11th -13th Sept, 2025 in Mumbai, India. This being the biggest project that SHTI have undertaken to date.

### Acknowledgments

I thank Punita V. Solanki for archiving SHTI records and Hemant Nandgaonkar for drafting the 'Activity Report' for SHTICON 2010, which has been referred to for this manuscript.

### The Executive Team of SHTI (2020-2024)



(from left to right): Tejashree A. Dabholkar (EC Member), Yogita P. Shendge (Treasurer), Shovan Saha (President), Punita V. Solanki (Secretary), Shubhangi Mandar Lad (EC Member), Surendra Kumar Meena (EC Member)]

# Hand Therapy in the Warm Heart of Africa

Submitted by Meave McConnell, Hand Therapist (OT) In Plastic Surgery, NHS, Belfast Metropolitan Area, Northern Ireland

Delivering a quality hand therapy service can be tough at the best of times. But in Malawi, one of the world's poorest countries, I discovered a new level of challenge. I arrived during the annual 'hungry season', which was then hit by one of the worst cyclones in history. Electricity was intermittent and even running water in the hospital stopped at one stage. The challenges felt magnified.

The things I had thought would be the hardest often proved not to be, while I also discovered problems I never thought of. Yeah, there was limited splinting material or fancy remedial activities to work with, but I wasn't expecting there to be no bandages or soap. Cleaning of the hospital was a rarity – except for incessant floor mopping! Patients would ask me for money even during their treatment sessions, and the extreme poverty of some patients was unthinkable. I felt guilty and helpless and I didn't like that. I'm used to being an effective cog in the large wheel of the NHS.

I knew that the five-year project in Malawi was in its infancy so a lot of specifics were yet to be ironed out. It was common for all the patients to turn up at 8 am and simply wait to be seen – for hours. Any sense of urgency from the local team was rare, leaving me waiting and frustrated for the day to get started. But in time I found my feet, made my own routine and tried to lead the local team by example.

I feel a sense of responsibility towards my patients. If they don't turn up, I send for them again. Where we live in the 'West' there's an understanding that patients must attend their appointments or there will be a consequence of sorts, like having a poor outcome or being discharged. But in Malawi there were no DNA letters. I found the lack of control dispiriting.

For patients in Malawi, who typically have little expendable income for transport, getting to hospital can be arduous, even taking days in some cases. Their attendance for therapy could be sporadic, sometimes non-existent. Often patients would initially consult a 'local healer' before resorting to conventional medicine, after which time infections had worsened, and breaks had healed incorrectly. This meant that sometimes surgery had to be more radical than it might have been.





What's worse, long-term disability from a hand injury can have wider impacts. It can lead to an inability to earn money, which in turn puts pressure on an already stretched family. There are often limited government schemes in low-income countries to support people who are unable to work. The language barrier impacted on my ability to build a relationship with each patient – something that I usually enjoy in my work. I had the basic language to instruct patients to bend or straighten their fingers for example, but it was difficult to gauge their understanding of their home programme without the use of a local therapist to translate (which was sometimes beneficial for local therapists' learning). It also prevented me from learning more about the occupational demands on each patient and it may have led to a lack of understanding on my part in relation to cultural nuances.

The types of injuries I saw were nothing like my previous experience. Often starving people were punished for the theft of small amounts of food or firewood. Frequently, the injury would have been the result of a panga knife (similar to a machete) and the result of mob justice. There were many severe infections, having been treated initially by a traditional healer perhaps, but eventually leading to radical amputations. Many injuries were the result of traffic accidents, where the patient may have been walking, cycling or biking but with no lighting or reflective clothing – along with a lack of money to buy these items or education about their importance. Considering that I come from a country with no snakes, it was interesting to treat a patient who had been bitten by a stiletto snake, leading to extensive tissue loss and eventual grafting. Having worked in hand therapy for 20 years, I was still coming across new types of injuries!

Local therapist skills were varied. As is often the case in low and middle income countries, there are qualified therapists, however some lack the specific expertise needed for hand therapy. It was difficult to gauge their level of understanding and knowledge because, as in many countries, admitting that you don't know something is embarrassing. Tendon repairs were unusual before the beginning of this project (there had been no specific pathway for

hand injuries and most of these injuries would not be managed surgically or with therapy) so I knew that managing these injuries was new to them. I tried to mentor the therapists and lead by example, hoping they would slowly pick up some of the treatment goals without pushing too hard on their learning protocols straight off. An additional issue that may be increasing now is a 'brain drain' effect, whereby trained therapists migrate to high income countries in search of better job opportunities. This could further burden the remaining therapists and lead to burnout.

The weekly learning sessions we had as an MDT were poorly attended, which was disappointing. Within the NHS, and as a member of the HCPC, we are obliged to maintain our CPD logs and most of us are motivated to learn. The local therapists were unfamiliar with CPD logs as they are not regulated by a governing body to adhere to continuous professional development.

Motivation is something we can all struggle with. But it's strained by added complications in Malawi, and many low- and middle-income countries, such as poor nutrition and sleep quality. The main meal in Malawi was nsima, a corn-based meal with very limited nutritional value. This no doubt had an impact on patients' healing, but it also impacted the productivity levels of the workforce as a whole. Most people were sleepy after their midday meal. This impacted planned learning sessions, meetings and patient appointments.





But despite all these issues, the team were willing to take on new challenges, like treating injuries they had never had the opportunity to work on before. This should, in time, develop a firm pathway for individuals with hand injuries and improve outcomes through appropriate and timely care, leading to less long-term disability.

It was interesting to note that some things that we treat routinely here in the NHS don't even feature in a low-income country like Malawi. Mallet finger injuries take up a large amount of therapy and treatment time in our NHS unit, but I rarely treated these in my 11 weeks there.

When the project finishes, I hope to see a fully-fledged hand therapy department, coping independently with all the same major traumas found in any big hospital. And maybe some of the simpler things too, like mallet finger injuries, which could serve as a positive measure of socioeconomic change. Having the honour of contributing to this work while the project was still getting started is something that will stay with me forever. In a place with a tragic lack of resources that we take for granted at home, I found "the Warm Heart of Africa" infused with a spirit of resilience, acceptance and community that we could all learn from.



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

**IFSHT enquiries:** Marie Eason Klatt | [secretarygeneral@ifsht.org](mailto:secretarygeneral@ifsht.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  
**BLANKPAGE**  
CONSULTING  
FOR CREATIVE COMMUNICATIONS