HAND REHAB

















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PRESIDENT'S MESSAGE

NSHRR is working in awareness and education program in hand rehabilitation. We believe in participation for all and have dedicated members that continue to use talent and skills to change lives of people by having a "Can Do" approach in rehabilitation program. Over the years we have successfully participated and conducted national as well as International programs. And hope this magazine will help to build a bridge in sharing knowledge in hand rehabilitation across the globe.

NSHRR members across the Kathmandu valley are the life of NSHRR and I wish to expand all over the Nepal as well as across the globe. I love to see hand rehabilitation works going on different centre all over Nepal and commend you on your spirit of goodwill and amazing effort as therapist, participants, volunteers, and supporters. NSHRR recognises all your efforts in providing opportunities to the people in their hand rehabilitation program.

NSHRR recognises and appreciates our volunteer speakers in striving to achieve our vision. This has been a year of change for the hand rehabilitation sector and we embrace this. We are not funded but still have needs and we will endeavour to provide opportunities that make a significant difference to the lives of the therapist and general people in the field of hand rehabilitation and research.

Thank you all!

Warm Regards,

Tarannum Siddig

Tarannum Siddiqui President, NSHRR Nepal Delegate for IFSHT

SECRETARY MESSAGE

Warm greetings and wishes with pleasure on the release of "Hand Rehab Magazine". I believe that this special issue will highlight the mile-stones in the field of hand and upper extremity injuries and its rehabilitation in Nepal.

I started my career as a Physiotherapist focusing on rehabilitation of the spinal cord injury patients. Sooner, I came to realize the importance of hand. The palm of the hand comprises of 1% of the total body surface area, but the injury to hand can lead to a serious, short or long term disability. The injury seems more disabling in lower limb but huge difference was noted between those who had lost their hand function than those who had lost their lower limb function in performing their activities of daily living.

Analyzing the importance and need of education and awareness program on hand rehabilitation, Physiotherapists of different centers of Kathmandu valley came together and agreed to establish a hand rehabilitation society in Nepal. A group of therapist working in hand sector conducted workshop on Hand therapy in 2016, which attracted as well as benefitted large number of participants. A team of therapist was formed and planned to work together to get the society registered in Nepal as well as internationally. Later on, the team got its international recognition as an associate member of International Federation of Societies for Hand Therapy (IFSHT) in same year 2016 and is continued till now. With the continuous dedicated team effort society got registered in 2018 as "Nepalese Society for Hand Rehabilitation and Research", abbreviated as NSHRR and organized an "International Symposium on Hand rehabilitation", the same year.

NSHRR is going to organize one-day workshop on splinting which is planned to be hands on. Talking about recent updates, we are working to promote hand education by designing a Hand course and it is in the process of implementing module for the course. We hope to accomplish it soon and achieve one more milestone in education on hand rehabilitation program all over Nepal. We hope to receive your continuous support and feedbacks. Wish you all happy and safe festive season.

Best Regards!

3 dosemi gire

Bibek Ghimire Secretary, NSHRR

ABOUT US

NSHRR is a nonprofit organization established in 2018 in Nepal. It is a group of physical and occupational therapist who are interested in advancing the education in hand and upper extremity rehabilitation and research.

Aim

- To advance and promote hand rehabilitation education.
- To aware general people about hand and upper extremity injuries.
- To provide hand and upper extremity rehabilitation to people.
- To publicize and promote understanding and information in order to encourage high standards of care and research in this field.

Objective

- EDUCATION (courses, virtual, certification, event calendar)
- PRACTICE (practice, management country rules and regulations, International Publications, clinical assessment and recommendations)
- RESEARCH (creating funding resources, research Journal club and research updates)
- ADVOCACY
- PATIENTS (why see a hand therapist, patient education, resources safety and prevention find a therapist and clinic)

Associated with (2015 to till now)





Nepalese Society for Hand Rehabilitation and Research

Is a Certified Associate Member of

The International Federation of Societies for Hand Therapy

(IFSHT)

Anne Wajon Australia IFSHT President 2016-2019 Maureen Hardy USA Secretary General 2016-2019

Term: 01 January 2018 - 31 December 2019

International Forum

IFSSH- IFSHT Triennial Congress 2013

Participation







Apsara Ghimire, Anandaban Hospital



Mohan Dangol, Kirtipur Hospital

IFSSH- IFSHT Triennial Congress 2016

Participation









Tarannum Siddiqui, Nepal Delegate of IFSHT

Philadelphia Hand Meeting 2017

Participation





Presentation by Mohan Dangol, Advisor of NSHRR

IFSSH- IFSHT Triennial Congress 2019

Participation









National Forum

Hand Surgery CME 2016

Participation



Tarannum Siddiqui, Corresponding member of IFSHT Presented on Hand therapy



Therapist interested in Hand education program

Workshop On Hand Therapy 2016

Organized

In leadership of Tarannum Siddiqui, Nepal Delegate of IFSHT





Organizer team



Participants of Workshop on Hand Therapy

Hand Rehabilitation Teaching

Participation

2016



Tarannum Siddiqui with Ellen and Iliona (CHT)
Hand across borders
@ B & B Hospital

2017



Tarannum Siddiqui & Ganga shakya with Rajani Sharma (CHT) @ Patan Hospital

Hand Surgery Symposium 2017

Participation



Tarannum Siddiqui, Nepal Delegate of IFSHT



Ganga Shakya, HRDC, Banepa



International Symposium

On

Hand Rehabilitation

3rd & 4th March 2018

Organized By



Nepalese Society For Hand Rehabilitation & Research Lalitpur, Nepal



Welcome Speech Nhashala Manandhar, Executive Member of NSHRR





Tarannum Siddiqui, Founder & President NSHRR Welcome Speech, International Hand symposium 2018



Dr. Shilu Shrestha, Nepalese Hand Surgeon



Nischal Ratna Shakya, President Nepal Physical therapy Association

Token of Love From President to International Speaker & Guest





Rajani Sharma-Abott, C.H.T, ASHT

Bonnie Jean Aiello, C.H.T, ASHT







Lydia Hohman, C.H.T, ASHT



Wim Brandsma, Phd, OT, Netherland



Janine Hareau Bonomi, Phd, OT; Virtual Speaker



Dr Shilu Shrestha, Hand Surgeon , Nepal



Nischal Ratna Shakya, Nepal Physical therapy Association



Amit Ratna Bajracharya Prosthesis and Orthosis Society



Manoj Kumar Ranabhat ANOT Nepal

International Speaker for the Day





Participants for the Day









Executive members work behind the symposium











Workshop on Splinting, Monofilaments and Dynamometer













Prize Allocation & Certificate Distribution Program













Thanks Note to the Speaker, Guest& National and International participants



















Closing Ceremony

Burn Management – Interplast 2018

Participated & Presented







Bibek Ghimirey (Secretary NSHRR) Presented



Nhashala & Pravin Yadav (Ex. Mem NSHRR)

Paralytic Hand course 2019

Participated





Tarannum Siddiqui, President NSHRR With Dr. Donald sammut & Wim Brandsma

Hand Trauma Management Workshop 2019

Participated







Bibek Ghimire, Secretary NSHRR



Pravin Yadav, Ex. Member NSHRR



Nhashala Manandhar, Ex. Member NSHRR



Mohan Dangol, Advisor NSHRR

Hand Meeting

Organization Meet 2019



Dr. Indra B. Napit, Medical Director Anandaban Hospital



Mrs. Karuna Pokharel, Member Muscular Dystrophy Foundation Nepal



Hari Adhikari, Admin Director Spinal Injury Rehabilitation Centre



Poonam Pandey, Deputy General Secretary Nepal Burn Society

MEETING







2016









2016



2018 2019





2018 2019





2019 2019

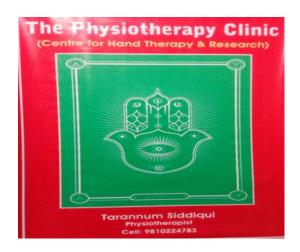




2019 2019

HAND CLINIC

The Physiotherapy Clinic













Young Surgeon Perspective Awareness about Hand Surgery and Rehabilitation in Nepal

Dr. Lok raj chaurasia is working as a senior registrar at kirtipur Hospital, Kathmandu. He is specializing in hand surgery. He shared his personal story why he choose medical field and what were the circumstances that turn his life to hand specialty. His views, experiences and opinions about hand surgery and rehabilitation in Nepal. A life story to be admired for his struggle...



Dr. Lok Raj Chaurasia Senior Registrar Kirtipur Hospital

1. When did you hear about hand surgery or rehabilitation?

- I heard about hand surgery as a specialty during my residency in orthopaedics (2013-2017).
- 2. Your current view on awareness of hand injury or rehabilitation among general people in your working area and in context to Nepal?
 - More and more people are becoming aware of hand conditions and their possible treatment within the country leading to rise in number of cases, are being reported.
- 3. Your current view on awareness of hand injury or rehabilitation among surgeon or medical practitioner in your working area and in context to Nepal?
- Being a developing sub-speciality in a developing country more and more people getting access to health education, surgeons and medical practitioners are becoming aware of the rehabilitation protocol in hand surgery.
- 4. Do you think there is need of higher education in hand surgery or rehabilitation in Nepal?
 - There are still very few people working to develop this sub speciality and we have not been able to address all the areas of hand surgery, hence further higher education is required.
- 5. How can we make a change in awareness program in hand surgery or rehabilitation in general people and health practitioner?
- By teaching the patients that come to us and making them realize that they can help their community people by letting them know how and where they can be treated. Social media and hand surgery organization can help to educate people.
- 6. Your perspective or approach needed for hand surgery and rehabilitation development in Nepal
 - Working on a new area like brachial plexus and peripheral nerve surgery can help in development of hand sector in Nepal in future.

7. Kindly tell me your experience in hand surgery. How and why you choose hand as your specialty?

As a child growing up in the 90's, belonging to a poor family of an underdeveloped country, I never thought of becoming a doctor. I took life the way it came to me, studying in a small school of a small town and thinking of my career as a small businessman or a farmer. I was interested in science subject but studying science was not easy as it required not only hard work but also good finance. Toggling between science and my fate as my father, I kept studying. I always had curiosity to learn how things work. In late 90's, I injured my Index finger with a glass bottle while playing. I was rushed to a nearby government hospital (the second largest hospital outside the capital), where wound was sutured and dressing applied. The wound healed but never moved. I wrote with my 3 fingers and thumb while my index finger always poked out doing any activities. Treatment was sought but no doctor or people would suggest or refer to a place where my finger could be made to work for me. After few years many of my friends started bullying me for my abnormal hand posture. I started searching for people with different hand conditions and met many of them helpless trying to find out alternate ways of doing things differently and so was I. These incidents were really pushing me hard to learn surgery of hand as my career and serve these people. My soul said me, "I Must". Meanwhile, the country's health sector was developing with new private medical colleges and institutions with the start of new century. But still, hand surgery was far beyond the reach of general people either due to lack of awareness or finance. Few surgeons were trying to learn hand surgery within the valley. By then, I had completed my high school and joined a medical school within the country. Anatomy was always my favorite subject and brachial plexus was the topic taught within the first few months of medical school. I never heard of such patients or met brachial plexus injury throughout my medical school training. Surgeons were trying to help people with hand ailments and I was trying to find out ways to learn the subject. Hand surgery had taken birth in the late first decade with very few surgeons serving hand ailments but still hand surgery wasn't established as a sub-specialty. I joined my residency in orthopedics in a medical college an industrial town exposing and helping me learn more about hand. I also got to know about a leprosy centre in the southern part of Nepal, where patients waited for 6 months to a year to be treated. Hand surgery was gradually trying to establish within the capital but was far away outside the capital. I got an opportunity to meet a hand surgeon during my residency that made an impact how surgery of hand can change the life of a person. This incident really made me think and now my soul said, "I must and I will". I got into fellowship training in Hand surgery in second decade within the country when I met many hand surgeons, therapists, foreign doctors, visitors who had been working in this subspecialty to get it established within the country. Every surgeon, therapists, paramedics trying to develop a specific area of hand surgery. Varieties of hand problems started being reported and treated reflecting the awareness among people. Also the referral for hand surgeon and therapists were on rise. With every year passing by, the country is getting new skilled person, each one working on specialized field. We are getting more organized with time and establishing a new sub-specialty "HAND SURGERY". Now I say, "We are developing and we will continue....."

Young Therapist Perspective

Student column: Awareness about hand surgery and rehabilitation in Nepal

Rosila Luitel is a student of bachelor of physiotherapy in Kathmandu university of medical sciences and it's her internship period. Few months left for her graduation. She won a dynamometer in lucky draw in International hand rehabilitation symposium held in March 4th, 2018.

Her opinion as a young generation on "Need and development of hand rehabilitation sector in Nepal" is beneficial to develop hand sector in Nepal.



Rosila Luitel
Winner of Prize
"Dynamometer"

1. When did you hear about hand surgery or rehabilitation?

 I am student of bachelor of physiotherapy in Kathmandu University of medical sciences during my clinical placement in orthopaedics ward, I heard about the hand surgery and got opportunity to see the cases of claw hand, finger amputee, degloving injury of hand and learned its rehabilitation.

2. Did you heard about hand rehabilitation as a specialty in your academics?

• No, during my academics I had no clear picture about specialty in hand rehabilitation.

3. In your view do you think that hand rehabilitation is different from physical therapist approach?

In my perspective, hand rehabilitation requires more complex interdisciplinary approach
than alone physical therapy approach since, it begin with critical decision making right from
planning, operative procedure and managing of many disciplinarians with common
objective of preserving and promoting optimum function of hand.

4. Your current view on awareness of hand injury or rehabilitation among general people in your working area and in context to Nepal?

In current situation, mean age of hand injury in my country Nepal is among the working age
group so being youth they are concern about the hand function and importance of
rehabilitation. However, there might be some circumstance that might act as barrier to get
appropriate rehabilitation.

5. Your current view on awareness of hand injury or rehabilitation among surgeon or medical practitioner in your working area and in context to Nepal?

In my institute multidisciplinary team works together for rehabilitation of orthopaedics
cases so, in my view they are more concern about hand rehabilitation and importance of
function protection during initial phase of decision making for operation, safe operative
procedure and post operative function maintenance and progression.

6. Do you think there is need of higher education in hand surgery or rehabilitation in Nepal?

• In context of Nepal, if we go through literature, mean age of hand injuries is about 28 years in male and 30 years in female and most of those are caused due to machinery injuries. So majority of our country working age group are in high risk this straight away indicate need of higher education in hand surgery or rehabilitation.

7. How can we make a change in awareness program in hand surgery or rehabilitation in general people and health practitioner?

Health promotion is best way for the change to be made on awareness about hand surgery
or rehabilitation among general people. Health education and heath camp could act as a
best method for it. As far as for health practitioner, such future health symposium and
workshop could help to broaden awareness.

8. Your perspective or approach needed for hand surgery and rehabilitation development in Nepal

In my perspective National hand rehabilitation Hospital and some regional and zonal centre
are needed to be established which shall be financed by government and managed by local
bodies. The interdisciplinary approach of rehabilitation should be used for better functional
hand of patients.

9. When did you heard about Nepalese society for hand rehabilitation and research and where?

• I came to knew about Nepalese society of hand rehabilitation and research in the hand rehabilitation symposium held in 2018 at National trauma center, Kathmandu, Nepal, working in the area of hand rehabilitation.

10. You have won a dynamometer as a prize in hand symposium in 2018. How do you utilize it?

 I was lucky enough to win the dynamometer as the prize during the hand rehabilitation symposium. I utilize it to measure my class grip strength during my fitness test class in fourth year and helped my senior to use it during their research to measure grip strength among healthy adults at Dhulikhel, Nepal. I am looking forward for the opportunity to use it in my research in future.

11. Do you believe volunteering in a hand rehabilitation camp will be good to uplift hand rehabilitation education in general people and practitioner?

• I believe active participation in expanding knowledge and skill is better relative to volunteering in a hand rehabilitation camp to uplift hand rehabilitation education in general people.

12. If you got a chance to do research in hand rehabilitation, what topic will you choose?

• If I got chance to do research in hand rehabilitation then the topic I would choose would be "change in Grip Strength after the hand rehabilitation among the people with machinery injuries in tertiary Hospital of Nepal".

13. Will you suggest your friend to be a member of Nepalese society for hand rehabilitation and research?

• I encourage my friends to be a member of Nepalese society for hand rehabilitation and research and take active participation to update knowledge and skills on hand rehabilitation for health promotion.

Therapist Column

Advances in Flexor Tendon Injury Management

Therapeutic Approach



Amrita Shrestha Physiotherapist

Introduction

- Tendons connect muscle to bone and form a musculo- tendinous unit
- Function-Transmit tensile loads generated by muscles to move
 -Stabilize joints
- Common injury of hand
- Result mainly from lacerations by Knives or glass ,road accidents ,severe crushing injuries etc

Clinical Anatomy

The flexor tendons of the hand, which arise from the flexor muscles in the forearm, enable the movement and bending of the fingers. Flexors tendons are smooth, thick flexible strings of fibrous tissue running through lubricated tunnels or compartments (flexor tendon sheaths)

Tendon repair protocol by Cifaldi Collins and associates

0 to 3-4 weeks	3-4 weeks	4-6 weeks	6-8 weeks
o Cast or dorsal protective splint in wrist and MCP joint flexion and IP joint full extension	 Dorsal protective splint replaces cast Splint modified to bring wrist to neutral Hourly: 10 repetitions of passive digital flexion and extension with wrist at 10° extension Hourly: 10 repetitions 	Dorsal blocking splint discontinued Gentle blocking exercises initiated 10 repetitions, 4–6 times daily added to passive flexion and tendon gliding	Gentle resistive exercise begins and progresses gradua

Recent Advances

Robotic Therapy- Patoglu V et al. in 2010 to find the scope and effect of a tendon rehab robot for management of hand tendon injuries.

Matrix Rhythm Therapy- Sari Z et.al in 2014 for scar mobilization in flexor tendon injury associated with thermal burn.

Laser Therapy- Gaida et. Al, 2010 400mW 670nm soft laser has a positive effect on scar management

Cryo-ultrasound Therapy- Velon HK on postoperative inflammation and tendon healing.

Tendon Blocking Exercise



Caution- Dangerous for a newly healed tendon if not performed correctly

Tendon Gliding Exercises



Evidences

Title and study design

Methodology

Result/Conclusion

Cetin A et al. Oct.2001

Rehabilitation of Flexor tendon injuries by Use of a Combined regimen of Modified Kleinert and Modified Duran Techniques 37 patients with repaired flexor tendon injuries.

Patient- assisted passive exercises (modified Kleinert) are very safe and more cost effective than therapist-assisted passive exercises.

Hung L K et. Al., 2005

Active mobilization after flexor tendon repair: comparison of results following injuries in zone II and other zones

modified The standard kessler's technique was used to repair 46 digits in 32 patients with flexor tendon injuries. Early active mobilization of the repaired digit was commenced on the third postoperative day. Range of movement was monitored and recovery from injury in zone 2 was compared with injury in other zones.

Preliminary results of this study showed that active mobilization following flexor tendon repair provides comparable clinical results and is as safe as conventional mobilization programs although recovery in patients with zone II injury was delayed.

Fruch FS et.al, 2014

Primary Flexor Tendon Repair in zones I and II: Early Passive Mobilization versus controlled active motion

Retrospective analysis of collected data of all patients receiving primary flexor tendon repair in zone I and II from 2006 to 2011, during which time 228 patients were treated, and 191 patients with 231 injured digits were eligible study. The primary endpoint as the comparison of total active motion (TAM) value 4 and 12 weeks after surgery between the EPM and the CAM protocols.

There statistically was а significant difference between the TAM values of the EPM and the CAM protocols 4 weeks after surgery. This study showed a favorable effect of controlled active motion protocol on total active motion 4 weeks after surgery.

Saini N et. al, 2018

Outcome of early active mobilization after flexor tendons repair in zones II-V in hand

34 patients with cut flexor tendons in zones II-V. Post operative immobilization was done with a splint in 10-15 degree palmar flexion of the wrist and 70 degree flexion of MCP joints and IP joints in mild rehabilitation flexion. The program adopted was modification of kleinert's regime and silfverskiold regime.

The early active mobilization of cut flexor tendons in zones II-V using the modified mobilization protocol has given good results, with minimal complications.

Neiduski RL et.al, 2019

Flexor tendon rehabilitation in the 21st century: A systematic review

The preferred reporting items for systematic review and meta-analysis (PRISMA-P 2015) checklist was utilized to format the review. Both reviewers collaborated on all aspects of the research, including identifying inclusion/exclusion factors, search terms, reading and scoring articles, and authoring the paper. Articles were independently scored by each reviewer using the Structured Effectiveness Quality Evaluation Scale (SEQES).

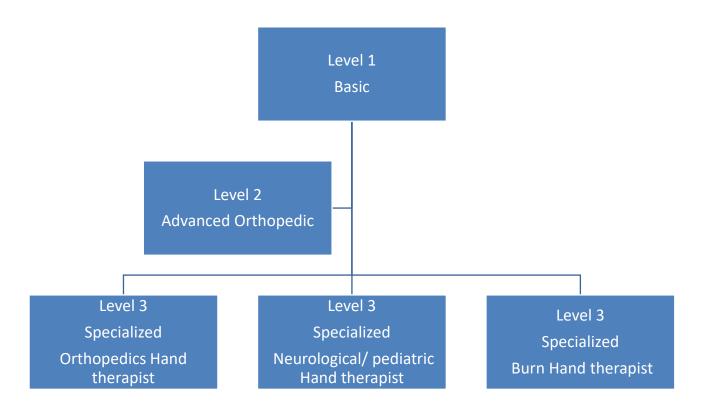
This review provides moderate to strong evidence that place and hold exercises provide better outcomes than passive flexion protocols for patients with two to six-strand repairs. The studies included in this suffered review from methodological limitations including short timeframes for follow-up, unequal group distribution, and limited attention to repair site strength.

Based on a lack of superior benefits following true active motion regimens, there is not sufficient evidence to support true active motion as an effective or preferable choice for flexor tendon rehabilitation at this time.

CALL FOR VOLUNTEER SPEAKER

Visit Nepal 2020

Nepal Hand Rehabilitation Modular Course



CALL FOR VOLUNTEER SPEAKER Visit Nepal 2020

Surgeon • National • International Therapist • National • International Organization • National • International

Nepalese Society for Hand Rehabilitation and Research (NSHRR)

Established in 2018

Work for hand and upper extremity rehabilitation

Aim to promote education, research and clinical standards in Nepal



Founder &
President
TARANNUM SIDDIQUI
MPT



Vice President GANGA SHAKYA BPT



Secretary

BIBEK GHIMIRE

MPT



Treasurer BINAY KANDEL MPT



Ex Member
PRAVIN YADAV
MPT



Ex Member NHASHALA MPT



Ex Member SHAILJA SHARMA MOT



Ex Member NIRJA SHRESTHA BPT



Ex Member AMRITA SHRESTHA BPT

Slogan: Time and effort invested for upgrading knowledge and skills in the hand and upper extremity rehabilitation in Nepal is precious and worthy