

12th World Congress on

PHYSIOTHERAPY, PHYSICAL REHABILITATION & SPORTS MEDICINE

July 14-15, 2025 | San Francisco, CA, USA



Venue: Hyatt Regency San Francisco Airport
1333 Old Bayshore Hwy, Burlingame, CA 94010, United States

Day 1

Scientific Program

08:30–08:45: Registrations

08:45–09:00: Opening Ceremony

July 14, 2025 | San Francisco, CA, USA

Meeting Hall: Cypress C

Workshop Presentation



09:30–10:30

Title: Fascia to Function

Gary L. Lang MS, OMT, AT

CEO Dynamic Release Therapy, USA

Keynote Presentations



10:30–11:00

Title: Reverse Hearing Loss—A New Frontier Beyond Hearing Aids

Milly Ng

BRS BioTherapeutics Inc. CA, USA

Group Photo | Coffee Break 11:00-11:20 @ Cypress B



11:20–11:50

Title: Injury Prevention Strategies for Lower Limb Injuries

Hussain Ghulam

Physical Therapy Department, Najran University, Saudi Arabia

Session Introduction

Session Chair: Gary Lang , Dynamic Release Therapy, USA

Session Co-Chair: Hussain Ghulam, Najran University, Saudi Arabia

Tracks

**Physiotherapy in Treatment & Care | Sports & Physiotherapy | Rehabilitation Methods
| Advancement in Physiotherapy | Manual & Manipulative Therapy | Experimental
techniques in Physiotherapies | Physical Therapy Science**

Oral Presentations

11:50–12:10

Title: Offloading Techniques for the Plantar Diabetic Foot Wound: Optimizing Treatment Outcomes

Kristin Bojrab

University of Indianapolis, Indianapolis, USA

12:10–12:30

Title: Impact of Clinical Training on Reported Low Back Pain Among Hospital Nursing Students: A Comparative Cross-Sectional Study

Amira Daher

Department of physical therapy, Safed Academic College, Safed, Israel

12:30–12:50

Title: Scientific Perspective for Policy Advocacy on Health and Disability thru Social Impact Physical Therapy Programs

Mary Judith Campos-Josef

Jucone's Contemporary Physical Therapy Services, Philippines

Lunch Break 12:50-14:00

14:00–14:20

Title: The Leadership Role of PT in Transformational Business thru Community-Based Rehabilitation for Children and Elderly with Disabilities in Quezon City, Philippines

Marie Consuelo Campos-Josef

Jucone's Contemporary Physical Therapy Services, Philippines

14:20–14:40

Title: Implementing a Specialized Injury Prevention Program for Youth Baseball Players

Nai-Jen CHANG

Kaohsiung Medical University, Kaohsiung, Taiwan

14:40–15:00

Title: Balance in Multiple Sclerosis Patients

Rania Abdelmoniem Badawy

Cairo University, Egypt

15:00–15:20

Title: Physical Rehabilitation Interventions for Improving Functional Outcomes in People Living with Long COVID: A Systematic Review

Ritika Sharma

University of Alberta, Canada

15:20–15:40

Title: Cervicogenic Headache

Mohamed Yossef Taha Abu Zahra

Cairo University, Egypt

Coffee Break 15:40-15:50 @ Cypress B

15:50–16:10

Title: Efficacy of Therapeutic Aquatic Exercise vs. Physical Therapy Modalities for Patients with Chronic Low Back Pain
Adham Mohamed Abdelghany ARAFA
Badr University In Cairo School of Physical Therapy , Egypt

16:10–16:30

Title: Scoliosis
Youssef Mohamed Abuzahra
Badr University In Cairo School of Physical Therapy , Egypt

Panel Discussion & Certificate Falcitation
Day –1 Ends

Day 2

Scientific Program

**Virtual Mode Zoom Meeting
(UTC-7) Time in San Francisco, CA, USA**

July 15, 2025 | San Francisco, CA, USA

Keynote Presentations



08:00–08:30

Title: The KIT System™ – A New Diagnostic & Therapeutic Framework for Musculoskeletal Dysfunction

Bill Collins

Medical Director, Dr. Bill American Chiropractic, Williamsburg, VA, USA / Ho Chi Minh City, Vietnam



08:30–09:00

Title: Neurons that Error Together, Terror Together: Unlocking the mysteries in and rehabilitation for the Yips and other movement disorders in sport

Mike Studer

University of Nevada, Las Vegas, USA

Oral Presentations

09:00–09:20

Title: Predictive Analytics in Sports Rehab: AI Models for Female Injury Risk Management

Deeksha Singh

OBGYN PT | Founder, Hormonal Wings, India

09:20–09:40

Title: Changes in joint and coordination regularity following running distinguished runners who sustained an injury within six-months

Mariana R C Aquino

Universidade Federal de Minas Gerais, Brazil

09:40–10:00

Title: Theory of Floating Skeleton for Sanomechanics™ Criterion of Correctness of Exercising

Mark Pitkin

Tufts University School of Medicine, Boston, USA

10:00–10:20

Title: Implementing a telemedicine physical therapy program for cardiac patients in rural Nepal

Adam Armour

University of Washington School of Medicine / Dhulikhel Hospital

10:20–10:40	Title: Cutting Edge Treatment in Post-Concussion Management Anthony Pribila Andrews University, Berrien Springs, United States
10:40–11:00	Title: Assessing the Impact of the PSSE-Schroth Method versus General Exercises on Cobb Angle Reduction in Adolescent Idiopathic Scoliosis Luljeta Stanaj University of Medicine ,Toscana Clinic, Physiotherapy Service, Faculty of Technical Medical Sciences, Albania
11:00–11:20	Title: Neurodynamic Techniques Versus Sham Therapy in the Treatment of Cubital Tunnel Syndrome: A Randomized Placebo-Controlled Trial Tomasz Wolny Institute of Physiotherapy and Health Sciences, The Jerzy Kukuczka Academy of Physical Education, Poland
11:20–11:40	Title: Therapeutic Exercises (Stretching And Strengthening) And Psychological Interventions In Patients With Chronic Pain Syndrome- A Clinical Study Sethi Priyanka School of Allied Health Sciences, Manav Rachna International Institute of Research and Studies, Faridabad-Haryana, India
11:40–12:00	Title: Physiotherapeutic and Dental approach to a mandibular condition caused by trauma: Case Report Kelly Cristina Borges Tacon Evangelical University of Goiás, Brazil
12:00–12:20	Title: Telehealth intervention involving the HEARTS Technical Package and the additional use of an activity monitor to increase physical activity level post-stroke: preliminary results of a feasibility randomized controlled trial Paula da Cruz Peniche Department of Physiotherapy, Universidade Federal de Minas Gerais, Belo Horizonte, Minas Gerais, Brazil
12:20–12:40	Title: Sustainability of a Community Placed Program to Decrease Cardiovascular Risk Factors in the Black Population Marie Vazquez Morgan Louisiana State University Health Shreveport
Keynote Presentation 12:40–13:10	Title: Clinical Posturometry for Diagnosis, Treatment Planning, and Follow-Up in Health Sciences Silverio Di Rocca M.P.R. International School Director, Switzerland
13:10–13:30	Title: Multidisciplinary approach to stomatognathic system disorders: Case Report Kelly Cristina Borges Tacon Evangelical University of Goiás, Brazil

13:30–13:50

Title: Benefits of exercise and Holistic Therapies in the prevention and treatment of Degenerative and Demyelinating diseases

Gustavo Pereira Correa Samy

Web Study, Barcelos Portugal / CETI Cancer Exercise Training Institute,
Portland USA

13:50–14:10

Title: A Call to Action: Supporting the Evolving Needs of Physical Therapists Beyond Clinical Care

Caitlyn Anderson

University of Utah Washington, UT

Panel Discussion





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HYBRID EVENT

WORKSHOP PRESENTATION

DAY 1



Gary L. Lang MS, OMT, AT
CEO Dynamic Release Therapy, USA

Fascia to Function

Soft Tissue restrictions, "scar tissue", have plagued patients, athletes and therapists alike for thousands of years. History has documented ancient practitioners using bone, ox horn, stone and wooden tools, tearing healthy tissue embedded with collagenous restrictions, impeding movement, strength and functional activities.

Manual Therapy including: Rolfing, Active Release Therapy, Cyriax's Cross Fiber Massage, Myofascial Release, and Deep Tissue Massage take their toll on the hands of practitioners. Manual techniques create overuse conditions limiting or shortening a practitioner's career.

Unlike traditional Soft Tissue courses, "Fascia to Function" provides a current evaluation of soft tissue, re-educating practitioners of the characteristic structure and functions of soft tissue. Collagen, is our necessary healing component creating restrictions and limitations to function. Fascia, our biological fabric, provides structure to our musculoskeletal anatomy, participants will understand how tensegrity allows our body to move.

Participants will learn to educate and amplify their touch to navigate through soft tissue adhesions, restrictions versus the healthy tissues we must preserve.

"Fascia to Function" also offers participants the opportunity to compare various instruments and tools being used in today's therapy clinics. We will review how techniques of manufacturing as well as the materials of construction may benefit the patient and practitioner.

We will instruct the most current techniques of safe manual soft tissue manipulation as well as the industry's best instrument techniques to alter restrictive adhesions and scar tissue. Successful outcomes include: chronic ankle pain & fibrosis, supraspinatus tendonosis, achilles tendinosis, plantar fasciosis, posterior tibialis strain, trigger thumb, hamstring tendinopathy, posterior interosseus neuropathy, subacute lumbar compartment syndrome, costochondritis, knee arthrofibrosis & quadriceps insufficiency following patellar tendon repair, chronic bursitis and other soft tissue conditions. Participants will compare the differences of manual treatments and learn how to augment their human touch to extend the life of a career.

Biography:

Gary Lang first became acquainted with soft tissue tools in the 1980's while working for Crowl Physical Therapy and Sacramento City College in Northern California. Gary was introduced to the foundations of manual therapy under the direction of Bob Moore ATC PT, Don Torrey ATC PT, Michael Moore PT and Loren "Bear" Rex D.O. all pioneering "hands on" practitioners. Throughout his work over the decades with the United States Olympic Committee, the U.S. Track and Field Association, FIFA and IAAF, Gary was introduced to a wide range of soft tissue implements made from wood, ceramic, plastic polymers, rubber, jade, metals and stainless steel, all designed to manipulate soft tissue. While expanding his experiences, Gary realized that instruments designed with multiple asymmetrical curves—both concave and convex—would better fit the variety of anatomical structures of the human body.

Well-defined double beveled treatment edges, circumnavigating the perimeter each instrument, would not only make treatment applications easier for the practitioner, but prevent unnecessary bruising associated with traditional IASTM. Gary's updated Dynamic Release instruments are neither forged nor casted, but instead cut from dense non-porous solid stainless steel. While more expensive to manufacture, solid stainless steel creates a unique vibration during treatment. The non-porous instruments are quickly and easily cleaned, preventing the transfer of pathogens between patients. Dynamic Release is associated with various professional athletic teams, clinics, colleges, universities. Gary was named as an Adjunct Professor at MAHSA University in Kuala Lumpur, Malaysia

Gary has been an Athletic Trainer / Orthopedic Manual Therapist for more than 30 years. Learning Soft Tissue Skills at Crowl Physical Therapy in Sacramento. Gary was introduced to techniques by International Physical Therapists (Switzerland, Norway, Australia) creating his 3 – Dimensional Soft Tissue Manipulation Applications. Gary was the professor of Sports Medicine at Foothill College 1988 – 2019 serving as the Head Athletic Trainer during his first 15 years , managing a patient schedule at M.O.R.E. Physical Therapy for 8 years

For two decades, Gary also worked for the United States Olympic Committee, FIFA, IAAF, U.S. Track and Field Association, U.S. Gymnastics Associations and local athletic organizations covering a variety of National & World Championships, Pan-American Games, World University Games and two Olympic Games.

Gary was Medical Coordinator for World Cup 94 at Stanford University; East-West Shrine Bowl for 12 years; Visa Gymnastics National Championships and for the Pacific Rim Gymnastics Open. Gary balanced his athletic medical coverage with patient care at Balance Physical Therapy until retiring from Faculty Academics in Sports Medicine at Foothill College receiving the Award of Excellence from the President and Board of Trustees.

Today, Gary's professional focus is with his private patients and his "hands on" course / workshops in Manual Therapy. He instructs for Graduate Programs in Athletic Training, Sports Medicine and Physical & Occupational Therapy. His Private courses are offered throughout the USA, Europe, Asia and the Middle East.



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KEYNOTE PRESENTATIONS
DAY 1



Milly Ng

BRS BioTherapeutics Inc. CA, USA

Reverse Hearing Loss—A New Frontier Beyond Hearing Aids

Hearing loss, a condition affecting over 37 million Americans, has traditionally been managed with devices like hearing aids and cochlear implants. However, recent advancements in regenerative medicine paves the way for treatments that aim to restore natural hearing.

This presentation will explore groundbreaking developments in reversing hearing loss, focusing on:

- **Regenerative Approaches:** Discussing the work of BRS MMH05, which utilizes BRS Biofeedback technology to stimulate Hair cells in the inner ear, leading to the regeneration of the defective hair cells essential for hearing. Clinical studies have shown improvements in speech perception, with long lasting effects.
- Once identified the defective hair cells, it would set up a Cellular Reprogramming, offering a potential pathway for recovering hearing loss in humans. It has been demonstrated with satisfactory results in both adults and small kids.

These advancements signify a paradigm shift in audiological care, moving from compensatory devices to curative therapies. The implications for physiotherapy and rehabilitation are profound, offering new hope for patients and expanding the scope of treatment strategies.

Attendees will gain insights into the latest research, understand the potential of these emerging therapies, and explore the future landscape of hearing restoration.

Key words: Hearing loss, cochlear implant, hearing aids, BRS MMH05, BRS BioTherapeutics

Biography:

Milly Ng is a globally recognize physiotherapist and regenerative medicine pioneer with over 30 years of clinical experience in cellular rejuvenation. She is the founder and CEO of BRS BioTherapeutics Inc. California. Milly has developed and patented the BRS (Body Rejuvenation System) Biofeedback technology, a non-invasive, FDA-registered Class II medical device designed to restore function at the cellular level. Her innovative approach has demonstrated success in reversing hearing loss including total hearing loss alleviating tinnitus, and improving balance in patients with M ni re s disease. Her work offers a holistic path to recovery for patients worldwide.



Hussain Ghulam

Physical Therapy Department, Najran University, Saudi Arabia

Injury Prevention Strategies for Lower Limb Injuries

Injuries to the lower limbs, especially the ankle and knee joints, are seen the most common cause of loss of participation in many different sports among athletes. In the knee joint, the most noticed injuries are ligaments tears in the anterior cruciate ligament (ACL) and medial collateral ligament (MCL), which are reported as severe injuries and may result in long term sequelae. These injuries account a percentage of about 10-13% of all injuries in different sports. Due to different actions such as jumping, change of direction, and accelerations/ decelerations movements, ACL tears are seen the most in ball sports. Knee injuries are also common in other sports such as alpine, judo, skiing, and field hockey. Therefore, with a high level of interest in demand for professionalism in such sports, this might lead to an increased incidence of lower limb injuries with several risks and negative consequences such as an increase in the cost of treatment, loss of playing time, or not return to play at all.

In the last decades, many strategies for injury prevention programs of lower limbs have been developed and applied, this including prevention programs such as FIFA 11, FIFA 11+, Oslo Sports Trauma Research Center (OSTRC), Nordic hamstring exercise, and Copenhagen Adduction Exercise. These programs have been used to limit lower limb injuries. However, these programs are vary and had different methodology and techniques, and therefore, this study looks at all injury prevention programs related lower limb injury and summarize the best method to avoid such injury from occurrence.

Keywords: Injury Prevention, Knee Injuries, Lower Limb Injuries, Ankle Injuries.

Biography:

- Dr. Hussain Ghulam is an associate professor and consultant physical therapist in the Medical Rehabilitation Sciences Department - Physical Therapy program at Najran University, Najran, Saudi Arabia.
- The head of the medical rehabilitation department at Medical Rehabilitation Hospital from 2005 to 2011 in Madinah, Saudi Arabia.
- In 2013, earned a master's in exercise and sports physiotherapy from Cardiff University, Cardiff, United Kingdom.
- In 2016, completed a doctorate (PhD) in health, sports and rehabilitation sciences from Salford University, Manchester, United Kingdom.
- From 2016 to 2018, the head of the training and academic affairs department at Medical Rehabilitation Hospital, Madinah, Saudi Arabia.



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HYBRID EVENT

SPEAKER PRESENTATIONS

DAY 1

Kristin Bojrab

University of Indianapolis, Indianapolis, USA

Offloading Techniques for the Plantar Diabetic Foot Wound: Optimizing Treatment Outcomes

There is a significant gap between clinical practice and the evidence for offloading a diabetic foot ulcer; with a study recently reporting only 2.2% of providers documented offloading techniques. The total contact cast is the gold standard for offloading, but not always feasible or appropriate. Physical therapists practicing in PT-driven wound clinics, without physician oversight, are limited within the PT practice act; requiring additional communication and coordination of care to arrange for physician referrals, imaging, arterial studies and labs to confirm diabetic etiology and rule out osteomyelitis and arterial disease. Early clinical recognition of arterial disease and osteomyelitis in the diabetic foot ulcer is essential to optimize treatment for limb preservation and prevent surgical measures. A comprehensive evaluation is necessary to optimize treatment outcomes for diabetic foot ulcers; including debridement, controlling diabetes, smoking cessation, and appropriate offloading. Other offloading options are available that redistribute plantar pressures if the total contact cast is not feasible or appropriate. Further research is indicated on accessible and cost effective removable offloading devices and their effectiveness on healing plantar diabetic foot wounds, especially those that are more easily implemented into clinical practice.

Learning Objectives:

1. Recall skilled physical therapy services that can be provided to optimize treatment outcomes.
2. Identify appropriate imaging and/or referrals necessary to optimize clinical outcomes and improve healing potential.
3. Describe the importance of complete offloading and/or management with a total contact cast as well as identify offloading techniques available when the TCC is not appropriate.

Key Words: Osteomyelitis, total contact cast, offloading, wounds

Biography:

Associate Professor at the University of Indianapolis, Indianapolis, IN

Speaker at the Wild on Wounds Conference in September 2023. Speaker at the Advanced Wound Care Congress in February 2024, the Wild on Wounds Conference in August 2024 and the Indiana American Physical Therapy Association's Fall Conference in November 2024. Poster presentation at SAWC in October 2024.

Kristin graduated in 2013 with her doctorate in physical therapy from the University of Indianapolis. She currently practices in an outpatient PT driven wound clinic without physician oversight, while also working in a diabetic foot

clinic with an infectious disease physician and amputee clinic with a PM&R physician. She has previously taught all of the wound care content at 5 different DPT programs in her specialty area. She holds several wound care certifications including; wound care certified, certified foot care specialist, a nutrition certification, and diabetic wound certification. She is also a fellow of the American College of Clinical Wound Specialists and serves on their clinical education committee. She has recently transitioned into academia where she is an associate professor at the University of Indianapolis Krannert School of Physical Therapy.



Amira Daher

Department of physical therapy, Safed Academic College, Safed, Israel

Impact of Clinical Training on Reported Low Back Pain Among Hospital Nursing Students: A Comparative Cross-Sectional Study

Background: Low back pain (LBP) is widespread in the nursing profession due to the physical and psychological demands of the role. Nursing students, often lacking proper ergonomic and preventive training, are particularly susceptible to LBP. While extensive research has been conducted among registered nurses, data on the onset and progression of LBP during nursing education, particularly in hospital-based training, is limited.

Aims: This study aimed to assess the prevalence of LBP at key stages of nursing education, evaluate pain intensity during daily activities before and during clinical training, and identify demographic and clinical predictors of LBP to inform targeted preventive interventions.

Method: A comparative cross-sectional study was conducted using an online questionnaire among 194 third- and fourth-year nursing students engaged in hospital-based clinical training. Logistic regression analyses were conducted for each independent variable, considering the Oswestry Disability Index as the dependent variable (<12 vs. ≥ 12 , where ≥ 12 indicates moderate to severe disability), to identify predictors of low back pain.

Results: The prevalence of LBP increased significantly, from 40.7% before entering nursing school to 75.3% in the past month during clinical training. Pain intensity was notably higher during physically demanding activities such as lifting (26.8% reporting severe pain during training vs. 3.1% pre-training, $p < 0.001$) and standing for extended periods. Predictors of moderate-to-severe LBP included clinical training-related stress ($OR = 1.76$, $p = 0.003$), pre-existing neck/shoulder pain ($OR = 3.05$, $p = 0.014$), and marital status (married/widowed/divorced; $OR = 7.24$, $p = 0.018$).

Conclusion: Clinical training significantly exacerbates LBP among nursing students, especially during physically demanding activities. These findings underscore the need for integrating ergonomic training and stress management into nursing curricula to reduce the risk of LBP, enhance students' well-being, and prepare them for clinical practice. Monitoring LBP progression and assessing the long-term impact of these interventions are essential for improving outcomes for nursing students and professionals.

Keywords: Low back pain, nursing students, clinical training, educational stress, musculoskeletal disorders, ergonomics.



Mary Judith Campos-Josef

Jucone's Contemporary Physical Therapy Services, Philippines

Scientific Perspective for Policy Advocacy on Health and Disability thru Social Impact Physical Therapy Programs

Scientific Perspective for Policy Advocacy on Health and Disability thru Social Impact Physical Therapy Programs. This is to promote evidence based decision – making and Philanthropic initiatives to implement the United nation 's Sustainable Development Goals from PT private sector. Leadership is advocating for positive change thru Sustainable Business, Community Empowerment and Innovative Solutions. This communication and advocacy for Physical Therapy and Rehabilitation Services for Elderly Programs in and with the community. Community-based and Family centered approach are the parameters for collaborative partnerships in addressing contemporary issues. Need-Analysis was conducted together with the family of the elderly, community leaders, and local Government units. To date, Philippine DOH focuses on addressing the mental health of Aging population. Physical Therapy 's best practices in nanogenarian by applying the ICF Model to enhance clinical reasoning. Translating Physical Therapy practice to Public Policy utilizing PT-related treatment approach of the wellness and rehabilitation in addressing health behavior change in reaction to disability. Physical Therapist as enablers that will shape the future of the Therapy delivery.

Biography:

Ms. Josef is a contributor to the transformational business book, a joint project of United Nation Development Program (UNDP) the Philippines and Philippine Businesses for the Environment (PBE) which was nationally launched in 2017. She is the founder of Jucone's Contemporay Physical Therapy Services to act as a catalyst in the development of programs and understanding of the rules of physical therapy in the forthcoming years and to be ever present for the need for expertise within the spheres of health and wellness, health promotion, education, habitation and rehabilitation within the context of the belief, values, and practices of the community. Having engaged in the community, Ms Josef was the 2019 PT Proponent, HB 5132 / Approved Substituted Bill 9216



Marie Consuelo Campos-Josef

Jucone's Contemporary Physical Therapy Services, Philippines

The Leadership Role of PT in Transformational Business thru Community-Based Rehabilitation for Children and Elderly with Disabilities in Quezon City, Philippines

The Leadership Role of Physical Therapist in Transformational Business thru Community-Based Rehabilitation (CBR) for Children and Elderly with Disabilities in Quezon City, Philippines. CBR has been extended to reach out the minority and underserved population. The Community Health Resilience, is the ability of the community to use its assets with effective partnering with servant leaders who can strengthen the public health, and healthcare systems to improve the social determinants of health such as physical, behavioral, and social health to withstand, adapt to and recover from social adversity. Healthcare Leadership utilizes five treasures of model of yoga to prevent barriers to resilience such as policy and legislation, changing organizational practices, fostering coalitions and networks, educating service providers, promoting community-based health education and build stronger teams and provide Physical Therapy in gero-geria practice in and with the community to bridge the gap in healthcare disparities in addressing contemporary issues. Recognizing that resilience can be cultivated on community, ecosystem, and planetary levels, presents enormous societal opportunities. Practitioners, in all areas of rehabilitation may experience enhanced work engagement when the value of reintegrating patients into society is viewed from the perspective of mindfulness within social interactions appears to promote pro social behaviors. Social witnessing is introduced to recognize and mitigate suffering within diverse yet interrelated local and global societies. Effectively partnering with multilevel, multisectoral and multistakeholder promotes Societal resilience to transform changes.

Biography:

Ms. Wells is a foreign trained Physical Therapist, with highest earned units in Transitional Doctor of Physical Therapy Geriatric Client Management (TDPT) thru Nova Southeastern University, Florida, USA in 2010. She is a gero-geriatric therapist, yoga therapist, and co-founder of Jucone's Contemporary Physical Therapy Services. Marie Consuelo received her BS in Physical Therapy in 1998, Yoga Instructor education in 2020. She has FCCT credentialed conferred masteral degree equivalency qualification framework in USA, and completed Associate in Arts Degree, Kinesiology, Health and Nutrition, Associate in Arts Degree, Gerontology from MiraCosta College, Oceanside, CA in 2025. She has Certificate of Proficiency in Optimal Aging and Older Adulthood in 2021, Certificate of Achievement in Massage Therapy 500 Hours HONOR in 2017. She also maintains a private geriatric care management practice as consultant and planning a home-based care program. A mother and Mentor, to son, US Army Recruit in ROTC CSU, Fullerton commissioned to graduate as 2nd Lt. in 2026 and daughter, US Army Recruit pursuing pre nursing program intending to join ROTC at SDSU.



Nai-Jen CHANG^{1,2}, Yuan-Yu CHIANG¹

¹Department of Sports Medicine, Kaohsiung Medical University, Kaohsiung, Taiwan

²Precision Sports Medicine and Health Promotion Center, Kaohsiung Medical University, Kaohsiung, Taiwan

Implementing a Specialized Injury Prevention Program for Youth Baseball Players

Pitchers face a high incidence of shoulder and elbow injuries, often due to increased external rotation, leading to internal rotation deficits. While advancements in sports science help mitigate injuries, the effectiveness of weighted baseballs remains unclear. This study aimed the impact of weighted versus regular baseball warm-ups on shoulder range of motion (ROM), stability, explosiveness, and pitching performance, along with long-term health, fatigue, and injury risks. A cluster-randomized controlled trial included 66 youth baseball players, assigned to either the weighted baseball warm-up group (WBG) or the regular baseball group (CON). Assessments were conducted at three points: pre-test, post-test, and 12-week follow-up. Evaluations included shoulder ROM, maximum isometric strength, Y Balance Test Upper Quarter, Closed Kinetic Chain Upper Extremity Stability Test, Seated Single-Arm Medicine Ball Toss, and fastball speed via radar gun. Athletic trainers recorded injury data, and players completed the Oslo Sports Trauma Research Center Health (OSTRC-H) and Fatigue (OSTRC-O) questionnaires. Results showed that WBG demonstrated superior improvements in shoulder external rotation, total ROM, internal rotation strength, dynamic stability, and upper limb explosiveness immediately and at 12 weeks. This study suggests that integrating weighted baseball warm-ups with periodized training enhances performance and reduces injury risk in youth baseball player.

Keywords: Sports injury, warm-up, injury prevention, exercise performance

Biography:

Prof Chang completed his Ph.D. from National Cheng Kung University. He is currently a Professor and Chair of the Department of Sports Medicine at the College of Medicine, KMU, and also serves as the CEO of the Precision Sports Medicine and Health Promotion Center and a joint researcher at the Taiwan Institute of Sports Science. He has published over 40 papers in renowned journals and has been a member of various editorial boards.

Abdelmoniem Badawy

Cairo University, Egypt

Balance in Multiple Sclerosis Patients

The objectives of this study were to assess postural balance in individuals with multiple sclerosis (MS) using both clinical and instrumental techniques and to identify the predominant direction of balance instability in MS patients.

Fifty patients diagnosed with multiple sclerosis, including both relapsing-remitting MS (RRMS) and secondary progressive MS (SPMS), were recruited, along with twenty healthy volunteers for the assessment of postural balance.

The assessment utilized the Timed Up and Go (TUG) test and the Berg Balance Scale (BBS) as clinical tools for measuring postural balance, along with the Biodex Stability System (BSS) for instrumental evaluation. The aim was to determine the correlations between these methods.

Significant differences were observed between the patient and control groups in detecting balance instability when using the BBS and BSS, while no significant difference was noted between the groups when using the TUG test.

The BSS was effective in determining the direction of tilt in patients. It was found that the mediolateral direction exhibited more balance instability compared to the anteroposterior direction.

Biography:

Rania Abdelmoniem earned her BSc in 2001 from Cairo University and obtained her masters in neurology in 2014. She also has a diploma in Clinical Nutrition and another in Dry Needling. The Biodex Stability System serves as an effective screening tool for differentiating fallers from non-fallers among MS patients. It helps identify the predominant direction of tilt in individuals with multiple sclerosis.



Mohamed Yossef Taha Abu Zahra
Cairo University, Egypt

Cervicogenic Headache

Headaches can be a symptom of different underlying disorders in the body, providing insight into potential health issues.

One of the main types of headache is known as "Cervicogenic Headache," which is caused by tension in the neck muscles that compresses the neck vessels and suboccipital nerves.

Those who suffer from cervicogenic headaches may also experience symptoms such as dizziness, vertigo, loss of balance, and facial pain.

These symptoms were significantly relieved when patients underwent appropriate manual therapy along with the management of neck muscle disorders and upper back tightness. This was complemented by postural correction exercises and shoulder mobility exercises.

We found that a combination of manual therapy for the neck and upper back, a home exercise program, and lifestyle modifications leads to a significant increase in blood flow to the brain.

This approach has been shown to decrease the severity and frequency of cervicogenic headaches and migraines in most cases, ultimately improving the quality of life for patients.

Biography:

Mohamed Yousef earned his Bachelor of Science degree at the age of 24 from Cairo University. He obtained a postgraduate diploma in neurology at 27 and completed his Doctor of Physical Therapy (DPT) from Cairo University at 37. Additionally, Mohamed has received certificates in manual therapy from Sheffield, UK, and a manual therapy diploma from Winston-Salem, US. He is a certified Mulligan practitioner from the Mulligan Institute in New Zealand, a Maitland practitioner certified by the IMTA Institute in Switzerland, and a Schroth practitioner recognized by SBP in Germany. Mohamed is the owner of "Abu Zahra Physical Therapy Centers," which has three branches in Cairo, Egypt.

Ritika Sharma, Oluwatosin Oladimeji, Doug Gross, Liz Dennett, Victor Ezeugwu

Department of Physical Therapy, University of Alberta, Canada

Physical Rehabilitation Interventions for Improving Functional Outcomes in People Living with Long COVID: A Systematic Review

Long COVID (LC), a condition affecting approximately 10–20% of COVID-19 survivors, presents with persistent symptoms beyond 12 weeks post-infection, significantly impairing functional capacity. Many individuals experience deficits in mobility, endurance, strength, and balance, limiting their ability to engage in daily activities. Rehabilitation programs have traditionally been adapted from models used in chronic illness and post-viral recovery, yet the effectiveness of physical rehabilitation interventions in people living with Long COVID (PLwLC) remains unclear, particularly for those experiencing

post-exertional malaise (PEM). While some rehabilitation programs employ structured physical activity and exercise-based interventions—including aerobic training, resistance exercises, and functional mobility-based therapy—concerns persist regarding their appropriateness for individuals with exertion intolerance.

This systematic review aims to evaluate the state of the evidence on physical rehabilitation interventions for PLwLC, with a specific focus on how intervention characteristics (type, duration, frequency, intensity, and setting) differ between individuals with and without PEM. Given the widespread impact of LC, rehabilitation must be both effective and tolerable, necessitating a better understanding of whether traditional progressive exercise models are beneficial or detrimental for PEM-positive individuals.

Following PRISMA guidelines, we will systematically review randomized controlled trials,

quasi-experimental studies, and observational studies assessing the impact of physical rehabilitation on functional outcomes, including walking endurance, mobility, strength, and independence. The review will also assess the inclusion of PEM screening and its influence on intervention efficacy. By comparing studies that stratify for PEM with those that do not, this review will provide the first comprehensive framework for tailoring rehabilitation strategies to patient-specific needs.

Key Words: Long COVID, Physical Rehabilitation, Post-Exertional Malaise (PEM), Functional Outcomes, Exercise Therapy

Biography:

Ritika Sharma is an MSc (Thesis) candidate in Rehabilitation Science at the University of Alberta. She received a Bachelor of Physiotherapy from the Indian Spinal Injuries Centre and Institute of Rehabilitation Sciences in Delhi, India. She has a background in using wearable sensors for behavioural and physiologic monitoring, and her thesis revolves around quantifying physiological and behavioural markers in people living with Long COVID and Myalgic Encephalomyelitis.

Adham Mohamed Abdelghany ARAFA

Badr University In Cairo School of Physical Therapy, Egypt

Efficacy of Therapeutic Aquatic Exercise vs. Physical Therapy Modalities for Patients with Chronic Low Back Pain

Chronic low back pain (CLBP) is a prevalent musculoskeletal condition that significantly affects quality of life and functional mobility. This brief examines the comparative efficacy of therapeutic aquatic exercise (TAE) and conventional physical therapy modalities (PTM) in managing CLBP.

TAE utilizes water's buoyancy, resistance, and hydrostatic pressure to reduce spinal load, enhance muscular endurance, and improve joint mobility. Studies indicate that aquatic therapy leads to significant pain reduction, improved core stability, and greater flexibility due to the reduced gravitational forces, making it particularly beneficial for individuals with movement restrictions or pain exacerbated by weight-bearing activities.

Conversely, PTM, including manual therapy, dry-land exercises, electrotherapy, and core stabilization programs, has been widely used to address CLBP. These interventions focus on strength, flexibility, and neuromuscular control. Research suggests that PTM effectively alleviates pain and enhances function, yet some patients struggle with adherence due to pain during exercises.

Emerging evidence supports TAE as an effective alternative or adjunct to PTM, with findings demonstrating superior pain relief, improved range of motion, and higher patient satisfaction in some cases. However, individual patient characteristics, accessibility to aquatic facilities, and adherence levels must be considered when selecting the most appropriate intervention.

Further research is warranted to establish long-term efficacy, cost-effectiveness, and optimal exercise protocols for TAE in comparison to PTM. Personalized treatment plans integrating both approaches may offer the most comprehensive benefits for patients with CLBP.

Biography:

Adham Arafa – Physical Therapy Student s Sports Rehabilitation Enthusiast

Adham Arafa is a dedicated fourth-year Physical Therapy student at Badr University in Cairo (BUC) with a strong passion for sports injury rehabilitation. In 2022, he was a presenter at the World Conference at BUC, where he delivered an insightful talk on the role of plyometrics in sports injury rehabilitation. Adham has trained in four esteemed sports injury and orthopedic centers, including Mersal, a charity organization. Additionally, he actively participates in on- field medical support, ensuring athlete safety in stadiums. His commitment to evidence-based practice and hands-on experience positions him as a promising future professional in the field, and I'm certified as manual therapist from WSSU [Winston Salem State University]



Title: Scoliosis

Name: Youssef Mohame Abuzahra

Badr University in Cairo, School of Physical Therapy

Scoliosis is a medical condition characterized by an abnormal curvature of the spine, typically forming an "S" or "C" shape. It can affect people of all ages but is most commonly diagnosed in children and adolescents during growth spurts. While the exact cause is often unknown, scoliosis can be classified into two main types: idiopathic and congenital. Idiopathic scoliosis, the most common type, has no clear cause, whereas congenital scoliosis is caused by malformations in the spine that occur during fetal development. Symptoms of scoliosis include uneven shoulders, a noticeable curve in the back, or a one-sided rib hump. Some individuals may experience back pain, while others may have no pain at all. In severe cases, scoliosis can affect lung function due to pressure on the chest cavity. Treatment for scoliosis varies based on the severity of the curve and the patient's age. Mild cases may only require monitoring, while moderate cases may involve physical therapy or the use of a back brace to prevent further curvature. In severe cases, surgery may be necessary to correct the spinal deformity. Early detection is key to managing scoliosis and preventing complications. Regular check-ups and maintaining a healthy posture can help manage or prevent the progression of scoliosis.

Biography:

I am a 19 year old student in second year of Physical Therapy school at Badr University in Cairo.



12th World Congress on

Physiotherapy, Physical Rehabilitation & Sports Medicine

July 14-15, 2025 | San Francisco, CA, USA

HYBRID EVENT

Zoom Meeting (UTC-7) Time San Francisco, CA, USA

VIRTUAL KEYNOTE PRESENTATIONS

DAY 2



Bill Collins, D.C., B.S

(Exercise Physiology) Medical Director, Dr. Bill American Chiropractic
Williamsburg, VA, USA / Ho Chi Minh City, Vietnam

The KIT System™ – A New Diagnostic & Therapeutic Framework for Musculoskeletal Dysfunction

Musculoskeletal pain and dysfunction remain among the most misdiagnosed and mismanaged conditions globally—not due to lack of technology or talent, but due to faulty assumptions, outdated evaluation models, and oversimplified treatment protocols. The KIT System™ (Kinetic Integration Technique) introduces a radically different approach: one that emphasizes functional neuro-musculoskeletal and fascial assessment, dynamic tissue patterns and mapping, with precise, tissue-specific therapeutic targeting.

Developed over four decades and refined through the treatment of more than 20,000 patients—including elite athletes and complex pre and post-surgical cases—KIT bridges the gap between structural diagnosis and functional recovery. At its core is a proprietary flow: ASK, LISTEN, OBSERVE, ASSESS, WORKING DIAGNOSIS, TREATMENT PLANNING, TIME EFFICIENCY—a stepwise process designed to extract clinically relevant data while maximizing patient engagement and outcomes.

What makes KIT revolutionary is not just what it treats, but how it sees. Most clinicians chase pain. KIT traces dysfunction. By focusing on kinetic chain reaction patterns, muscle fiber spasm mapping, and the subtle—but critical—neurological feedback loops of proprioception, mechanoreception, and compensation behavior, the system allows therapists and doctors to peel back the “onion” of dysfunction to reach the root cause.

This presentation will provide attendees with a real-time breakdown of the system, including live case walkthroughs, demonstration of KIT-based gait correction techniques, and insights into integrating KIT within a sports medicine or rehabilitation clinic. Whether you’re treating elite Ironman athletes or chronic pain patients, the KIT System offers a replicable, scalable framework that elevates care, improves outcomes, and enhances professional credibility.

Keywords: Kinetic Integration, Functional Assessment, Gait Correction, Muscle Therapy, Clinical Diagnosis

Biography:

Dr. Bill Collins is a U.S.-trained Doctor of Chiropractic, Exercise Physiologist, and member of the International Chiropractic Honor Society. With over 40 years of clinical experience and 27 years of formal education, he has treated more than 20,000 patients worldwide. Dr. Bill has trained hospital departments, consulted with medical teams, and spoken at international conferences on advanced rehabilitation. He is the creator of the KIT System™ and has been featured on national television as an expert in spinal and musculoskeletal care. He leads clinics in the U.S. and Vietnam, redefining standards in performance, pain recovery, and clinical outcomes.



Mike Studer

Adjunct Faculty: Touro University Department of Physical Therapy, Henderson
Nevada Physical Therapy Instructor (PTI): University of Nevada Las Vegas

Neurons that Error Together, Terror Together. Unlocking the mysteries in and rehabilitation for the Yips and other movement disorders in sport

In his 1949 book, "The Organization of Behavior", Donald Hebb coined the now famous phrase, "neurons that fire together, wire together". As our understanding of Functional Neurologic Disorders (FNDs) has evolved, we have come to understand the similarities

between the Yips, Twisties, Flikkikammo, Motare and the very changes described in Hebb's Theory. Advances in pain neuroscience, coupled with an improved understanding of FNDs brings us to an elevated time in rehabilitation of athletic FNDs (FND-A). This program will

define the phenotypes and most importantly guide attendees in an evidence based yet applications-filled session including video case studies, references, and a framework for precision rehabilitation, including phenotype-specific, sport-specific and personalized clinical decision making.

Assessment of Learning: Audience Polling and Practical Application

Session Outline: 00:00 - 00:05 Introduction, disclosures, timeline

00:05 - 00:10 FND-A: A Common Basis in Dysfunctional Neuroplasticity and Error Signals

00:10 - 00:20 The Phenotypes of FND-A

00:20 - 0:30 Ruling-in and Communicating the Diagnosis of FND-A: Demystifying and Destigmatizing

00:30 - 0:40 A Framework for Multidisciplinary Care and Personalized Clinical Decision Making

0:40 - 0:50 Case Studies in Sport

00:50 - 01:00 Question and Answer Session Objectives:

- Explain the common and unique attributes of each phenotype of FND-A
- Describe the rule-in testing for and approach to destigmatize athletes with FND-A
- Design a plan of care for persons with each of the main forms of FND-A



Silverio Di Rocca

M.P.R. International School Director, Switzerland

Clinical Posturometry for Diagnosis, Treatment Planning, and Follow-Up in Health Sciences

Posturometry, the quantitative assessment of body posture through clinical instrumentation, is emerging as a critical tool in the diagnostic and therapeutic strategies of interdisciplinary healthcare. This presentation explores the role of Clinical Posturometry as a scientifically grounded method for identifying dysfunctions related to posture and their systemic consequences.

Integrating principles from medicine, dentistry, physiotherapy, and osteopathy, clinical posturometry enables practitioners to move beyond symptom-based approaches and toward a functional, patient-centered model. By objectively measuring craniofacial asymmetries, mandibular deviations, ocular imbalances, podal discrepancies, and neuromuscular adaptations, clinicians can formulate precise diagnoses and personalized treatment plans.

This presentation will include clinical case studies where posturometric data significantly altered the treatment pathway—particularly in craniofacial rehabilitation, temporomandibular dysfunction, sports performance optimization, and chronic pain management. Additionally, we will discuss the value of posturometry in monitoring treatment progress, promoting interprofessional collaboration, and improving long-term outcomes.

Clinical posturometry stands as a bridge between evidence-based practice and functional health, providing reproducible data that enhances the accuracy, predictability, and efficacy of modern interdisciplinary treatments.

Keywords: Posturometry, Interdisciplinary Diagnosis, Functional Health, Temporomandibular Disorders, Craniofacial Rehabilitation, Evidence-Based Practice



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HYBRID EVENT

Zoom Meeting (GMT+2) Time in France

VIRTUAL ORAL PRESENTATIONS

DAY 2

Deeksha Singh

OBGYN PT, Founder, Hormonal Wings, India

Predictive Analytics in Sports Rehab: AI Models for Female Injury Risk Management

Background: Female athletes face unique injury patterns, often influenced by hormonal cycles, biomechanics, and training load. Traditional injury prevention models often fall short in forecasting risks specific to female physiology. Artificial Intelligence (AI), particularly predictive analytics, offers promising avenues to personalize injury management through dynamic data modeling.

Objective: To explore the application of AI-driven predictive analytics in identifying and mitigating musculoskeletal injury risks in female athletes, with a focus on early intervention and precision rehab planning.

Methods: This pilot framework integrates data from menstrual tracking apps, wearable fitness trackers, strength assessments, and neuromuscular control metrics to create AI models that predict injury risk. A cohort of 36 female athletes (ages 18–32) was monitored over 16 weeks. Real-time data were processed using supervised machine learning algorithms, flagging injury risk scores. Physiotherapy plans were adjusted based on algorithmic insights regarding fatigue, biomechanics, and hormonal status.

Results: The AI model demonstrated 85% accuracy in predicting overuse injuries such as ACL strain, patellofemoral pain syndrome, and hamstring pulls. Physiotherapists reported enhanced ability to personalize prehabilitation routines. Notably, injury incidence was reduced by 38% in the AI-guided group compared to the control group.

Conclusion: AI-enabled predictive analytics can revolutionize sports physiotherapy for women by proactively identifying risks and guiding intervention. When integrated with wearable tech and hormonal data, these systems support a shift from reactive to preventive care. Further studies across larger and diverse populations are encouraged to optimize model generalizability.

Keywords: Predictive analytics, female athlete, sports rehabilitation, AI in physiotherapy, injury prevention, wearables, hormonal monitoring

Biography:

Dr. Deeksha Singh is an experienced OBGYN Physiotherapist and Founder of Hormonal Wings, with over a decade of clinical and academic practice in women's health. She specializes in pelvic floor therapy, hormonal rehabilitation, and AI-integrated physiotherapy care. A certified expert in AI for Business Innovation from IIT Bombay, she bridges healthcare and technology to deliver evidence-based, personalized care. She is also the published author of two books on women's health.

Gaurav Agarwal

Suresh Gyan Vihar University, Jaipur, India

Neurorehabilitation

Neurorehabilitation is a critical field focused on restoring functional independence to individuals affected by neurological disorders such as stroke, spinal cord injuries, traumatic brain injuries, cerebral palsy, and multiple sclerosis. While traditional rehabilitation methods have long emphasized compensatory strategies and assistive devices, recent technological advancements have transformed the landscape of neurorehabilitation. This presentation explores the integration of modern technologies—including robotics, virtual reality (VR), body weight-supported treadmill training (BWSTT), functional electrical stimulation (FES), neurostimulation techniques, and wearable technologies—into rehabilitation practices.

Robotic-assisted therapies provide highly customizable, intensive, and repetitive training, which enhances motor recovery and offers objective feedback. VR immerses patients in interactive environments that boost motivation and neural plasticity through real-time biofeedback. BWSTT facilitates gait training by partially offloading body weight, allowing prolonged and task-specific locomotor practice. FES supports functional movement in paralyzed muscles by delivering targeted electrical stimulation, while neurostimulation methods such as transcranial magnetic stimulation (TMS) and transcranial direct current stimulation (tDCS) modulate neural activity to promote recovery.

Wearable technologies, including motion sensors, EMG sensors, smart garments, and biofeedback devices, enable home-based, personalized rehabilitation with real-time monitoring and support. These innovations extend the benefits of rehabilitation beyond clinical settings, allowing for continuous and engaging therapy. Furthermore, tools designed to enhance hand function and balance—such as gesture-controlled games and interactive balance boards—offer novel ways to improve coordination and stability.

Despite challenges such as high costs, technological complexity, and the need for clinician training, these advancements offer promising outcomes. Integrating technology with traditional approaches supports patient-centered care, enhances functional outcomes, and fosters recovery through targeted, engaging, and data-driven interventions. The future of neurorehabilitation lies in strategic, collaborative application of these tools tailored to individual needs and rehabilitation goals.



Mariana R C Aquino^{1*}, PhD; Richard E A van Emmerik², PhD; Priscila Albuquerque de Araújo¹, PhD; Thales R Souza¹, PhD; Michael A. Busa^{2,3}, PhD; Juliana M Ocarino¹, PhD; Sérgio T Fonseca¹, PhD.

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Changes in joint and coordination regularity following running distinguished runners who sustained an injury within six-months

Background: Running-related injuries are multifactorial processes often resulting from the inability to overcome and recover from a repeated demand imposed during exercises. Applying concepts from dynamical systems could improve understanding of the exercise-induced movement changes and help forecast injuries.

Objective: Investigated whether acute and prolonged changes in joint and coordination regularity during a single-leg squat task following exercise distinguished runners who sustained or not an injury within six months.

Methods: Thirty healthy recreational runners were evaluated pre, post, 24h, and 48h during a 60-second single-leg squat task after running at high intensity (4x15min, 85%VO₂max) or rest (i.e., control). After six months of the assessments, runners were divided into two groups based on whether they did or did not report injuries within this period. The percent change of joint (ankle, knee angles) and coordination (ankle-knee relative phase) regularity (multiscale entropy) were compared between groups (injured, non-injured), times (%Post, %Post24h, %Post48h), and protocols (high-intensity, control).

Results: Increased coordination regularity (reduced entropy) was observed in the injured (25.8%) and non-injured (14.5%) groups after running, but the increase was greater and persisted after 48h (14.5%) only in the injured group. Additionally, only the non-injured group decreased ankle (-12.6%) and knee (-13.5%) regularity after running, which were inversely and highly correlated with changes in coordination entropy ($p < .001$, $r = -0.85$).

Conclusion: Runners who sustained an injury within six-months increased joint and coordination regularity and required more time to recover than non-injured runners, suggesting a reduced capacity to adapt and recover from exercises before the injury occurs. In contrast, the non-injured runners adopt more adaptable behavior (higher entropy) in the joints to compensate for the more running-induced constraint coordination. Monitoring changes within individuals during a functional task may provide early warnings about a reduced adaptive and recovery capacity to deal with exercises.

Keywords: Fatigue; dynamical system; injury prediction; entropy.

Biography:

Mariana has a PhD in Rehabilitation Science from Universidade Federal de Minas Gerais (Brazil) and University of Massachusetts Amherst (USA). She has almost 10 years of clinical, research and academic experience in the field of Physiotherapy and an emphasis on human functional performance. Her motivation comes from working with patients and athletes from different sports, ages and genders. Mariana has several papers, book chapters and patents with the focus on rehabilitation and injury prevention, biomechanics, three-dimensional analysis of movement, and biomechanical orthosis.

Mark Pitkin

Tufts University School of Medicine, Boston, MA 02111

Theory of Floating Skeleton for Sanomechanics™ Criterion of Correctness of Exercising

Issue: Chronic overloading of cartilages may lead to their irreversible destruction. There is a multitude of techniques and approaches to exercising trying to mitigate negative consequences of such overloading.

Problem: A problem, physiotherapy professionals are trying to address every day, is how to mitigate negative consequences of cartilages' overloading in their patients.

Solution: A hypothesis that excess intra-articular pressures are hydrostatically transmitted under the periosteal sheath between the joint capsules, has been proven in our animal and hydromechanical experiments. Thus, the solution for mitigating negative consequences of cartilages' overloading is to focus on a physiological cause of overloading by restoring normal transmission of in-joint pressures.

Implementation: A new rehabilitative method called Sanomechanics™ is demonstrated in <http://sanomechanics.com>. The exercises belonging to this method are calibrated by a "criterion of correctness" according to the signals of encouragements the body generates.

Key words: overloading of cartilages; subperiosteal transmission of pressures; positive feedback.

Biography:

Mark Pitkin graduated *Summa Cum Laude* from St. Petersburg University (Russia) in Mechanics. He obtained his PhD degree in the Central Institute for Prosthetic Research, Moscow, and his Doctor of Technical Sciences (D.Sc.) degree in LETI University, St. Petersburg. He is Professor of Physical Medicine and Rehabilitation at the Department of Orthopaedics and Rehabilitation Medicine, Tufts University School of Medicine, Boston, MA, USA. He has published more than 100 papers obtained 7 Patents.

Roshani S, Subarna C

Adam A Kathmandu University School of Medical Sciences, Dhulikhel, Nepal;
University of Washington School of Medicine, Seattle, WA

Implementing a telemedicine physical therapy program for cardiac patients in rural Nepal

Purpose: Cardiac disease is the leading cause of mortality in Nepal, accounting for 26% of all deaths in 2016, and is the leading cause of medical ICU admissions in Dhulikhel, Nepal. Following a cardiac event, patients admitted to Dhulikhel Hospital, a community hospital focused on quality healthcare for the poor, are prescribed in-patient physiotherapy rehabilitation services. Enrollment of in-patient rehabilitation services is low, and adherence to prescribed sessions is lower due to the geographical isolation faced by patients, and the cost of in-patient services. Research shows that cardiac rehabilitation services are associated with lower all-cause mortality, cardiac mortality, and better quality of life, and those outcomes are preserved over telemedicine. Multiple systematic reviews show that cardiac rehabilitation programs are most successful with an involved nursing staff and robust physiotherapy program. A telemedicine physiotherapy rehabilitation program will be implemented to address the burden of cardiac disease and improve patient outcomes.

Results: Expected results are greater than 50% enrollment, greater than 50% physiotherapy session attendance, and patient outcomes are expected to increase compared to the current standard of care at Dhulikhel Hospital. This study will be limited by the number of cardiac patients admitted to the hospital per month, and the ability of those patients to interact via telemedicine. If enrollment goals are not met, data collection, scheduling, and IT practices will be changed to supplement higher enrollment. Increasing access to care and lowering patient costs are the foundation and two main strengths of this program. The project is currently pending ethical approval and will begin after approval is granted.

Conclusions: This project represents a necessary step to address the financial and geographical barriers to long-term care programs in rural Nepal. Execution of the study will show feasibility and effective practices of long-term telemedicine programs.

Biography:

Adam Armour is a second-year medical student at the University of Washington School of Medicine. He is passionate about pursuing cardiology and global health for his medical career.

Subarna Chhetri is a senior physiotherapist at Dhulikhel Hospital and lecturer at Kathmandu University of Medical Sciences. She received her MPT in 2020 and has managed the physiotherapy rehabilitation program for cardiac patients at Dhulikhel hospital since its inception in 2017.

Roshani Shresta is a senior nurse at Dhulikhel hospital and manages the nursing staff in the medical ICU for cardiac patients.

Anthony Pribila

Andrews University, Berrien Springs, United States

Cutting Edge Treatment in Post-Concussion Management

This class discusses components of an advanced post-concussion syndrome (PCS) program based on the latest research and proven technology to optimize recovery. In this discussion, we will explore the latest evidence-based and emerging technologies in post-concussion management including neuroplasticity-focused therapies, vestibular and ocular rehabilitation, sleep management, diagnostic blood testing, nutritional interventions, dry needling, manual therapy, vagus nerve stimulation, and HRV training. Attendees will gain knowledge in creating individualized care plans based on the patient's variability in recovery trajectories. Focus will be on introducing interventions that can be cash or insurance-based treatments, diagnostics and interventions available to the post-concussive client to enhance recovery, promote clearer awareness of their condition, and improve well-being..

Keywords: Concussion management, Post Concussive Syndrome, neck pain, TBI, Chronic Traumatic Encephalopathy

Biography:

Dr. Pribila received his Doctorate of Science (DSc) degree in physical therapy from Andrews University in Berrien Springs, Michigan. Dr. Pribila's first manual therapy certification (CMP) is from the Mulligan Institute. His second manual therapy certification (CMPT) was through (NAIOMT). Dr. Pribila is certified in ergonomics, FCE's, SFMA and double certified in post-concussion management through AIB and AAMT. He is double double-certified in intramuscular dry needling since 2013. Dr. Pribila has also completed substantial research on cervicogenic headaches and received a patent on his neck-strengthening device the Total Neck Trainer in 2018

Seema Saini

Dr. D.Y. Patil College of Physiotherapy, Dr. D.Y. Patil Vidyapeeth, Pune, India

A Clinical Research on Patients Suffering From Adhesive Capsulitis through Rhythmic Stabilization

Patients having adhesive capsulitis suffered with unbearable pain and stiffness in the affected shoulder. Treatments are generally focused on easing pain, reducing disability, and enhancing the range of motion. Despite there are many options to treat adhesive capsulitis, identifying the most effective approach remains challenging. Purpose of this research is to assess the effect of rhythmic stabilization on the pain, mobility and function of these patients. A total of 44 patients were divided randomly into two groups: Group A (experimental, n=22) was given rhythmic stabilization along with conventional exercises and Group B (control, n=22) underwent standard treatment. The treatment spanned 12 sessions, with four sessions per week over three weeks. Participants were evaluated before and after the 12th session. Outcome measures included the visual analog scale (VAS), shoulder pain, disability index (SPADI), range of motion (ROM), and grip strength. T-test was used and statistically significant improvement ($P < 0.001$) in all outcome measures within each group. However, experimental group demonstrated a notably greater improvement ($P < 0.001$) in the range of motion and disability index compared to conventional group. So, the study concludes that combining rhythmic stabilization with conventional therapy has shown increased range of motion and reduced disability in patients with adhesive capsulitis.

Biography:

Seema Saini completed Ph.D. in Physiotherapy in the year 2024, where she focused on the development and validation of the Cognitive Behavior Questionnaire in Nonspecific Chronic Low Back Pain (CBQ-NSCLBP). Her commitment to scholarly pursuits is evident through more than 50 paper publications and contributions to the academic community.

Luljeta Stanaj^{1*}, Enkeleda Sinaj², Nikos Karavidas³, Selda Veizaj⁴

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³ Schroth Scoliosis and Spine Clinic, Athens, Greece.

⁴ University of Aleksandër Moisiu, Department of Physiotherapy, Durres, Albania.

Assessing the Impact of the PSSE-Schroth Method versus General Exercises on Cobb Angle Reduction in Adolescent Idiopathic Scoliosis

Background: Adolescent idiopathic scoliosis (AIS) is a prevalent spinal condition that typically requires intervention to avoid further curve progression. The PSSE-Schroth method has been suggested as a conservative treatment, but more research is needed to confirm its effectiveness.

Objective: To assess the effectiveness of the PSSE-Schroth method compared to general exercises in slowing the progression of adolescent idiopathic scoliosis.

Study design: Randomised Control trial

Methods: In total of 30 participants with adolescent idiopathic scoliosis were divided into two groups: 15 in the PSSE-Schroth group (13 girls, 2 boys, mean age 12.1 years) and 15 in the control group (12 girls, 3 boys, mean age 11.9 years). There was no statistically significant difference between groups in terms of age, p -value = 0.609. The PSSE-Schroth group received treatment five times per week, both at home and in Trauma University Hospital. The control group participated in general exercises. Inclusion criteria included a Cobb angle of 10-25 degrees, a Risser sign between 0-3, and an angle of trunk rotation (ATR) greater than 5 degrees. The Cobb angle was assessed using a Rx by measuring changes in before and after the intervention. Progression or improvement was determined by changes of more or less than 5 degrees. The follow-up period lasted 6 months.

Results: In a Randomized clinical trial assessing the effectiveness of the PSSE-Schroth method versus general exercises for adolescent idiopathic scoliosis, 30 patients were divided into two groups (15 patients per group). In the PSSE-Schroth group, 60% of patients remained stable, 26.67 % showed improvement, and 13.33% worsened. In the control group, 26.67 % remained stable, 6.67 % improved, and 73.3 % worsened. A chi-squared test revealed a statistically significant difference between the two groups ($P = 0.024$), demonstrating that the PSSE-Schroth method prevented scoliosis progression more effectively than the control group.

This result highlights the superior efficacy of the PSSE-Schroth method in managing adolescent idiopathic scoliosis.

Conclusion: This study suggests that the PSSE-Schroth method effectively reduces adolescent idiopathic scoliosis's progression. These findings align with previous research, showing the PSSE-Schroth method's superior effectiveness compared to general exercises.

Keywords: Adolescent idiopathic scoliosis, PSSE-Schroth method, General exercises, Physiotherapeutic Scoliosis-Specific Exercises.

Tomasz Wolny

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Neurodynamic Techniques Versus “Sham” Therapy in the Treatment of Cubital Tunnel Syndrome: A Randomized Placebo-Controlled Trial

Objective: To assess the effectiveness of therapy based on sliding and tensioning neurodynamic techniques in the conservative treatment of mild and moderate forms of cubital tunnel syndrome (CuTS) in comparison with sham therapy.

Design: Single-blinded, randomized placebo-controlled trial.

Setting: Several medical clinics.

Participants: People diagnosed with CuTS (initially 136 people), of whom 91 completed the full protocol.

Intervention: In the experimental group (MT), sliding and tensioning neurodynamic techniques were used, while in the control group (ST) a sham therapy was used, in which neurodynamic techniques were performed in an intermediate position (without the neurodynamic sequence appropriate for the ulnar nerve). The therapy was performed five times a week for 10 sessions.

Main outcome measures: All participants were assessed nerve conduction study, ultrasound imaging (cross-sectional area and shear modulus), pain, two-point discrimination sensation, cutaneous sensory perception threshold, symptoms and ability to perform certain activities, change of improvement after treatment.

Results: A baseline assessment revealed no intergroup differences in all examined parameters ($P > 0.05$). After therapy, there was statistically significant intra group improvement in all tested parameters ($p < 0.01$). Intra group differences after the applied therapy in the MT group were significant in all tested parameters ($p < 0.01$). In the ST group (sham therapy) only in shear modulus the differences were statistically significant, and in the remaining tested parameters they did not change.

Conclusions: The use of neurodynamic techniques has a better therapeutic effect than sham therapy in the treatment of mild and moderate forms of CuTS.



Kelly Cristina Borges Tacon, Theodore Zoll; Jalsi Tacon Arruda; Elisangela Da Silva Ishilda; Renata Cristina Basso; Silvio Santana De Oliveira

Evangelical University Of Goias - Unievangelica, Goias, Brazil

Physiotherapeutic and Dental approach to a mandibular condition caused by trauma: Case Report

Condylar hypoplasia is characterized by a defective formation of the mandibular condyle and may have a congenital or acquired origin (trauma). We present the case of a patient C.F.L.B., a 10-year-old female student, referred to the TMD and Pain Clinic of the Dentistry Service of UniEvangelica, complaining of throbbing pain (increased when yawning and decreased when closing the mouth and performing local massage), difficulty chewing and decreased ROM. She also reported not using medication and experiencing episodic otalgia. During the physical examination and palpation of the intra and extraoral muscles, no pain was found. She presented limited ROM in all movements of the jaw. During examination of the cervical spine, the patient did not report pain and did not present restriction in the movements of flexion, rotation and inclination of the cervical. The radiographic examination of Magnetic Resonance Imaging (MRI) revealed bicondylar hypoplasia. Given the clinical and radiographic evidence, the conclusive diagnosis was bicondylar hypoplasia due to trauma suffered in a car accident to the chin region, resulting in a fracture in the region of the condylar process. The patient was referred to the Physiotherapy service at UniEvangelica, where the treatment aimed to gain ROM, improve the functional capacity of masticatory activity and reduce pain in the TMJ. The therapeutic option in this case is surgery, which will be performed in the phase after craniofacial growth (adulthood), but physiotherapy intervention is essential for immediate improvement in masticatory function and remission of the pain. It was concluded that the design of a multidisciplinary therapy with immediate physiotherapy was essential to improve the patient's functional masticatory capacity, until adulthood, when surgical intervention will be performed.

Biography:

Kelly Tacon holds a PhD in Health Sciences from the College of Medicine at Universidade Federal de Goiás (UFG), Postgraduate in Dermatofunctional, Cardiovascular and Respiratory Physiotherapy and also Orthopedics & Sports with an emphasis on injectables. She was also a Physiotherapist and Physical Educator at UniEvangelica, where she taught multidisciplinary internship classes in Oral Rehabilitation in the Physiotherapy and Dentistry courses, as well as in postgraduate studies at the Inspirar College (Temporomandibular Disorder (TMJ) module) She was also a Peer Reviewer of the RESU Magazine of the College of Medicine at UniEvangelica. She worked on several research projects with an emphasis on TMJ, Neuropathic and Orthopedic diseases, where she has published extensive scientific articles in various areas of Physiotherapy. She worked as a Physiotherapist Officer and Chief of the Physiotherapy Service of the Brazilian Air Force.

Sethi Priyanka¹, Elina Dewan ji Sen², Varsha Chorsiya²

¹Priyanka Sethi, Department of Physiotherapy, School of Allied Health Sciences, Manav Rachna International Institute of Research and Studies, Faridabad-Haryana-121008

²Elina Dewan ji Sen, Professor, School of Allied Health, Sushant University, Gurugram, Haryana-India

²Varsha Chorsiya, Senior Neuro physiotherapist, New Delhi, India

THERAPEUTIC EXERCISES (STRETCHING AND STRENGTHENING) AND PSYCHOLOGICAL INTERVENTIONS IN PATIENTS WITH CHRONIC PAIN SYNDROME- A CLINICAL STUDY

Background: Chronic pain syndrome is recognized as a psychologic-physiologic disability, significantly impacting individuals' participation in daily activities and work capacity due to persistent pain. This condition incurs substantial direct and indirect costs. High prevalence rates of depression and anxiety among chronic pain sufferers further complicate the condition, establishing a reciprocal relationship between pain and psychological distress that exacerbates disability. Addressing both physical and psychological aspects of chronic pain is critical in preventing the transition from acute to chronic pain syndrome. Stretching and strengthening exercises aim to enhance muscle endurance, elasticity, and tone, improving muscle control, flexibility, and range of motion. Psychological therapies target the reduction of depression, anxiety, stress, and other quality-of-life detractors.

Purpose: The purpose of this study was to evaluate the effectiveness of different treatment modalities in managing chronic pain syndrome. Specifically, the study aimed to compare the outcomes of strengthening and stretching exercises alone, versus a combination of these exercises with psychological interventions, against a control group with no specific intervention. The goal was to determine which approach yields the most significant improvements in pain reduction and psychological well-being.

Methods: A total of 111 subjects, aged 22-50, were divided into three groups of 37 each. Group A received a regimen of strengthening and stretching exercises. Group B underwent the same physical exercises combined with psychological interventions. Group C, serving as the control group, did not receive any specific intervention. Evaluations were conducted pre- and post-treatment using the Visual Analog Scale (VAS) for pain assessment and the Depression Anxiety Stress Scales (DASS-21).

Results: The results were analyzed by comparing the mean and standard deviation (SD) of the measured values among the three groups.

- Group A (Exercises Only): The mean pain value decreased from 7.4 ± 0.1 to 3.89 ± 0.15 . Depression, anxiety, and stress scores significantly improved from 16.05 ± 0.20 to 3.13 ± 0.28 , 9.70 ± 0.605 to 0.70 ± 0.208 , and 13.27 ± 0.47 to 3.59 ± 0.22 , respectively.
- Group B (Exercises + Psychological Interventions): Pain values reduced from 6.8 ± 0.1 to 5.72 ± 0.10 . Depression, anxiety, and stress scores improved from 15.78 ± 0.20 to 10.56 ± 0.43 , 10.94 ± 0.56 to 2.08 ± 0.34 , and 14.45 ± 0.52 to 6.16 ± 0.21 , respectively.
- Group C (Control): Minimal changes were observed, with pain values moving from 6.6 ± 0.1 to 6.21 ± 0.06 . Depression, anxiety, and stress scores slightly shifted from 13.43 ± 0.40 to 10.56 ± 0.53 , 10.56 ± 0.53 to 9.67 ± 0.50 , and 12.59 ± 0.63 to 11.72 ± 0.59 , respectively.

Conclusion: The study concluded that strengthening and stretching exercises significantly reduce pain and improve the quality of life in chronic pain sufferers compared to psychological interventions alone. This underscores the importance of incorporating physical therapy into treatment plans for chronic pain patients to achieve more substantial improvements in pain management and overall well-being.

Implications: The findings suggest that a comprehensive treatment approach for chronic pain should prioritize physical therapy interventions, specifically strengthening and stretching exercises. These exercises not only alleviate pain but also address psychological distress, leading to better overall outcomes. Integrating such therapeutic exercises into standard care practices can enhance the quality of life for chronic pain patients and potentially reduce the societal and economic burdens associated with this condition.

Keywords: Chronic pain; Therapeutic Exercises; Psychological interventions

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Telehealth intervention involving the HEARTS Technical Package and the additional use of an activity monitor to increase physical activity level post-stroke: preliminary results of a feasibility randomized controlled trial

Insufficient physical activity level is a common risk factor for recurrent stroke in individuals post-stroke. The HEARTS Technical Package, developed by organizations as World Stroke Organization (WSO), outlines a telehealth intervention, aligned with the Theoretical Domains Framework (TDF) of behavior change, to improve cardiovascular health. Physical activity monitors, aligned with the TDF of behavior change, may enhance physical activity participation, though most post-stroke evidence involves in-person interventions. This study presents preliminary results on the feasibility of implementing the HEARTS Technical Package-based intervention with the additional use of an activity monitor to increase physical activity level post-stroke. In this feasibility study (blinded assessment), 24 individuals post-stroke (diagnosed ≥ 6 months, aged ≥ 18 , inactive, able to walk independently, and medically cleared for physical activity) were randomly assigned to control group (CG) ($n=12$) or experimental group (EG) ($n=12$). Both groups received the HEARTS Technical Package-based intervention (12-weeks), with the EG using an activity monitor. Feasibility of recruitment and intervention, and physical activity level (measured by Human Activity Profile), were analyzed with descriptive statistics. A 38% recruitment rate was identified. For intervention feasibility: retention rate was $9/12=75\%$ in the CG, and $10/12=83\%$ in the EG; attendance rate was 97% in the CG and 99% in the EG; with no adverse effects. For physical activity level outcome, pre- and post-intervention means and standard deviation (SD) were 37 ± 12 and 49 ± 16 for the CG and 42 ± 10 and 57 ± 18 for the EG. These preliminary findings suggest the intervention is feasible to be implemented and may positively impact physical activity levels post-stroke.

Keywords: Stroke, Physical activity, Telehealth, Feasibility study

Biography:

Physiotherapist and MSc in Rehabilitation Sciences by the Universidade Federal Minas Gerais (UFMG). PhD student (Fundação de Amparo à Pesquisa do Estado de Minas Gerais-FAPEMIG and FORMEX-PG) in the Rehabilitation Sciences Graduate Program at UFMG. Conducting a nine-month research exchange at University College Dublin (UCD, Ireland) (funding: Programa Print/CAPES and Worldwide Universities Network (WUN)). Member of the *Grupo de Pesquisa em Estudos em Reabilitação Neurológica no Adulto* (NeuroGroup). She has training in Patient and Public Involvement (PPI) in research and published scientific articles in high-impact journals. Speaker at events on Adult Neurological Rehabilitation and reviewer for scientific journals.

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Sustainability of a Community Placed Program to Decrease Cardiovascular Risk Factors in the Black Population

Purpose/Hypothesis: Many American communities lack environments that support healthy dietary behavior and regular physical activity. Louisiana ranks 4th in the nation for obesity at 40.1%, with higher obesity rates among the Black population (46.5%). Further, the percentage of adults reporting sedentary behavior is higher in Louisiana than in the US population. Louisiana has higher national death rates with obesity related diseases such as cardiovascular disease, and diabetes according to the CDC. Community placed programs targeting at risk populations have proven effective in reducing cardiovascular risk factors, however sustainability of these programs have been a challenge. The purpose of this study is to evaluate if community health organizer (CHO) training, performed in a community setting can provide sustainability of an existing community-based health program.

Number of Participants: 4 adult participants with history of participation in the Eat Right and Move Phase 1 program were enrolled in the study.

Materials and Methods: Core competency training included education on communication skills, and conducting individual and community assessments. Outcome measures included: LACHON evaluations, nutrition and exercise self efficacy surveys, attendance sheets, and retrospective surveys for program participants.

Results: Results from this study display positive effects on CHO competencies and self-efficacy, and sustainability of the program, shown through increased growth in participants, throughout 6-month program. Program effectiveness was displayed by 97% of the program participants stating they felt better after participating in the program including having increased endurance, decreased stress, and weight loss. The majority of participants also reported a daily increase in eating fruits and vegetables and a decrease in consuming sugary drinks.

Clinical Relevance: Results from this study display that community-placed programming done in conjunction with trained CHO's, can be effective in sustainability and effectiveness of a program targeting cardiovascular risk factors in the Black population residing in a food/physical activity desert.

Keywords: Obesity, Community programs, Community health organizers

Biography:

Dr. Morgan serves as the Director of Institutional Wellness at LSU Health Shreveport. She holds a Bachelor's Degree in Physical Therapy, a Masters in Health Sciences, and an Academic Doctorate in Health Studies. She has 30 years of rehabilitation experience and has presented research nationally and internationally, on wellness, and rehabilitation. She was honored by Maybelline as Outstanding Female Educator of the year, and featured in People Magazine in December 2006. Dr. Morgan was the 2014 recipient of the Allen A Copping Teaching Award, and is the inaugural holder of the 2020 Cole Endowed Professor in Community Initiatives.



Kelly Cristina Borges Tacon, Theodore Zoll; Jalsi Tacon Arruda; Elisangela Da Silva Ishilda; Renata Cristina Basso; Silvio Santana De Oliveira

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Multidisciplinary approach to stomatognathic system disorders: Case Report

Eagle syndrome (ES) is the calcification of the styloid ligament accompanied by pain in the cervical spine when performing rotation and tilt movements of the cervical spine. We present the case of a patient L.C.S., male, 50 years old, bricklayer, referred to the TMD and Pain Clinic of the UniEvangelica Dentistry Service, with complaints of pain and clicking in the TMJ region. During the physical examination, he reported bilateral pain in the masseter, SCM and paracervical muscles. The pain represents VAS 5, pulsatile, daily, increases with facial movements and does not decrease. He also reported not using medication and feeling frequent otalgia and headache. He presented limitation of ROM in all mandibular movements. During intraoral palpation, he presented pain in the left medial pterygoid muscle and bilateral pain in the masseter muscle. In the cervical examination, the patient reported pain during flexion, rotation and tilt movements, but without restrictions on movement. On radiographic examination, bilateral prolongation of the calcified styloid processes was observed. Given the clinical and radiographic evidence, the conclusive diagnosis was Eagle Syndrome. The patient was referred to the Physiotherapy Service of UniEvangélica, where the treatment aimed to alleviate the pain, gain ROM and improve functional capacity, as well as a surgical evaluation by the Oral and Maxillofacial Surgery Clinic of the Dentistry Service of UniEvangelica. Therapeutic options for ES include surgical excision of the styloid processes and physiotherapy has a conservative action, which can reduce associated symptoms and improve mandibular function when treatment is limited to a wait-and-see approach due to the patient's age or condition. It was observed that the patient had improvement in pain and mandibular movements after physiotherapy treatment, which is an excellent immediate therapeutic option after surgery.

Biography:

Kelly Tacon holds a PhD in Health Sciences from the College of Medicine at Universidade Federal de Goiás (UFG) , Postgraduate in Dermatofunctional, Cardiovascular and Respiratory Physiotherapy and also Orthopedics & Sports with an emphasis on injectables. She was also a Physiotherapist and Physical Educator at UniEvangelica, where she taught multidisciplinary internship classes in Oral Rehabilitation in the Physiotherapy and Dentistry courses, as well as in postgraduate studies at the Inspirar College (Temporomandibular Disorder (TMJ) module) She was also a Peer Reviewer of the RESU Magazine of the College of Medicine at UniEvangelica. She worked on several research projects with an emphasis on TMJ, Neuropathic and Orthopedic diseases, where she has published extensive scientific articles in various areas of Physiotherapy. She worked as a Physiotherapist Officer and Chief of the Physiotherapy Service of the Brazilian Air Force.



Gustavo Pereira Correa Samy

Web Study, Barcelos Portugal / CETI Cancer Exercise Training Institute,
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Benefits of exercise and Holistic Therapies in the prevention and treatment of Degenerative and Demyelinating diseases

Degenerative and demyelinating diseases do not appear overnight. There are several important factors to be analyzed such as: genetics, age, family history, living conditions and this does not only include the economic factor, among others. There has been reference to the study of such diseases since 1901, considering as a reference the study by German psychiatrists Alois Alzheimer and Emil Kraepelin. When we analyze the fact that the reference date for the supposed beginning of such studies is only approximately 122 years old, it leads us to the conclusion that the knowledge we have about Degenerative and Demyelinating Diseases is small and very recent. It is necessary to develop studies and carry out research, so that we can know which road we are walking through and where it is taking us. There are many measures that can be taken to avoid or treat such diseases, and they should also be studied and analyzed throughout its practice. A great and good hypothesis that can be named to achieve this objective would be the practice of physical activity and holistic therapies such as Yoga, Tai Chi Chuan, among others. It is known as a fact that these diseases choose no age. Believing that Degenerative and demyelinating diseases only affect old people is a myth which is no longer accepted. Preventing and treating them should start at the earliest possible, and it is proven that there is no better way to do that than moving your body and exercising your brain.

Key words: diseases, exercise, therapies, prevention, treatment

Biography:

Gustavo Pereira Correa Samy has completed his Advanced Specialization in Degenerative and Demyelinating diseases from Webstudy in Portugal in December 2023. He also holds the title of Cancer Exercise Specialist from CETI (Cancer Exercise Training Institute) in Portland, USA. The practice of exercises and Holistic Therapies has always been a constant in his life since his early teenage years due to a diagnosis of ADHD. He has since then dedicated his life to studies of chronicle diseases and ways to improve people's quality of life.

Caitlyn Anderson

University of Utah Washington, UT Alison Coyle, PT, DPT Hospital for Special Surgery New York City, NY

A Call to Action: Supporting the Evolving Needs of Physical Therapists Beyond Clinical Care

In the United States (US), increasing patient complexity, a booming geriatric population, unrealistic productivity, dwindling reimbursement, and insufficient wages are realities physical therapists (PT) encounter. Per US News and World Report, PT ranks in the top 10 best healthcare jobs for flexibility, work in varied settings, and lower overall stress. However, literature states attrition is higher than ever with a 2024 survey noting burnout, lack of professional growth, insufficient salary, excessive workload, low managerial support, and poor work/life balance as leading factors. Additionally, the American Physical Therapy Association (APTA) reports the COVID-19 pandemic negatively impacted employment trends; in 2022-2023, PT job vacancy was at a high of 17%, with relocation and insufficient pay being primary factors. Qualified applicant admissions to US PT programs have also declined by over 300% from 2017-2023. The US Bureau of Labor Statistics reports that many PT graduates leave school with higher debt than their annual salary. As such, US-based PTs and prospective students are seeking alternative careers outside traditional patient care. Awareness of these systemic issues requires innovative collaboration from national and international stakeholders to attract and support future PTs in evolving global healthcare markets. Exploring international models of physiotherapy education while incorporating business management, leadership, healthcare administration, and technology may provide pathways to enhance career options, improve professional longevity, leverage individual skills, and prevent burnout. Structured identification of gaps in current curricula based on data and employment trends may assist in accreditation bodies' future recommendations for degree and licensure. Training for advancement of the PT profession beyond conventional beliefs is necessary to respond to today's modern healthcare challenges and begins with improving educational programs and continuing education offerings to decrease barriers to enter the global healthcare workforce.

Caitlyn Anderson, PT, DPT, NCS, GCS is a board certified Neurologic and Geriatric Physical Therapist and Assistant Professor at the University of Utah's DPT program. She is an active member of the American Physical Therapy Association (APTA) and has been treating medically complex patients in the intensive care unit, emergency room, and inpatient rehabilitation for over 10 years. Caitlyn was a content developer for the Acute Care Residency Program at NYU Langone Health, has served on the APTA House of Delegates, and has given numerous poster, oral, and programming presentations on local, state, and national levels. Caitlyn's research focuses on interdisciplinary teamwork and education, simulation-based learning, and exercise dosage in medically complex populations.

Alison Coyle PT, DPT, GCS is a board-certified Geriatric Clinical Specialist with 10 years of clinical experience in inpatient and outpatient settings. She now works as the Hospital for Special Surgery Spine Care Navigator, where she serves as a clinical liaison on the spine service administrative team. Prior to transitioning out of clinical care, Alison held a Senior II Physical Therapy position at Rusk Rehabilitation at NYU Langone Health, treating adults with a variety of medically complex, musculoskeletal and neurological diagnoses

with a passion for geriatrics. As an APTA Credentialed Clinical Instructor, Alison served as an educator to prospective and current PT students. While at NYU, Alison provided departmental in-services and initiated an outpatient wide documentation optimization project in conjunction with hospital leadership. In 2017 and 2018, Alison presented professional posters at APTA's Combined Sections Meetings.



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